

SECTION **DAS**

DRIVER ASSISTANCE SYSTEM

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PRECAUTION

PRECAUTIONS

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

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The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

WARNING:

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, it is recommended that all maintenance and repair be performed by an authorized NISSAN/INFINITI dealer.
- Improper repair, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see "SRS AIR BAG".
- Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery or batteries, and wait at least 3 minutes before performing any service.

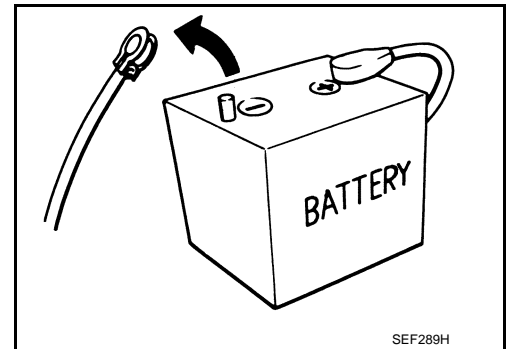
Precautions for Removing Battery Terminal

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When disconnecting the battery terminal, pay attention to the following.

- Always use a 12V battery as power source.
- Never disconnect battery terminal while engine is running.
- When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.
- For vehicles with the engine listed below, remove the battery terminal after a lapse of the specified time:

BR08DE	: 4 minutes	V9X engine	: 4 minutes
D4D engine	: 20 minutes	YD25DDTi	: 2 minutes
HR09DET	: 12 minutes	YS23DDT	: 4 minutes
HRA2DDT	: 12 minutes	YS23DDTT	: 4 minutes
K9K engine	: 4 minutes	ZD30DDTi	: 60 seconds
M9R engine	: 4 minutes	ZD30DDTT	: 60 seconds
R9M engine	: 4 minutes		



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NOTE:

ECU may be active for several tens of seconds after the ignition switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption may occur.

- After high-load driving, if the vehicle is equipped with the V9X engine, turn the ignition switch OFF and wait for at least 15 minutes to remove the battery terminal.

NOTE:

PRECAUTIONS

[ADAS CONTROL UNIT]

< PRECAUTION >

- Turbocharger cooling pump may operate in a few minutes after the ignition switch is turned OFF.
- Example of high-load driving
 - Driving for 30 minutes or more at 140 km/h (86 MPH) or more.
 - Driving for 30 minutes or more on a steep slope.
- For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch.

NOTE:

If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.

- After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC.

NOTE:

The removal of 12V battery may cause a DTC detection error.

Precautions For Harness Repair

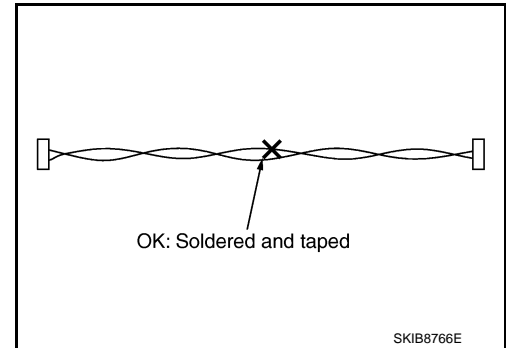
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ITS communication uses a twisted pair line. Be careful when repairing it.

- Solder the repaired area and wrap tape around the soldered area.

NOTE:

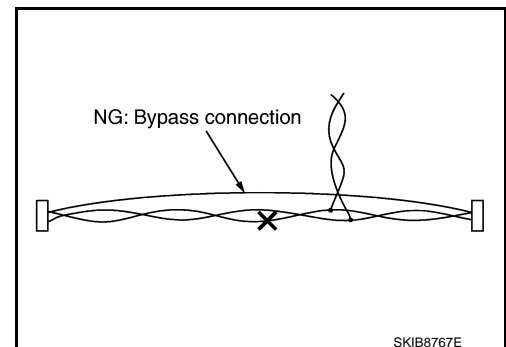
A fray of twisted lines must be within 110 mm (4.33 in).



- Bypass connection is never allowed at the repaired area.

NOTE:

Bypass connection may cause ITS communication error. The spliced wire becomes separated and the characteristics of twisted line are lost.



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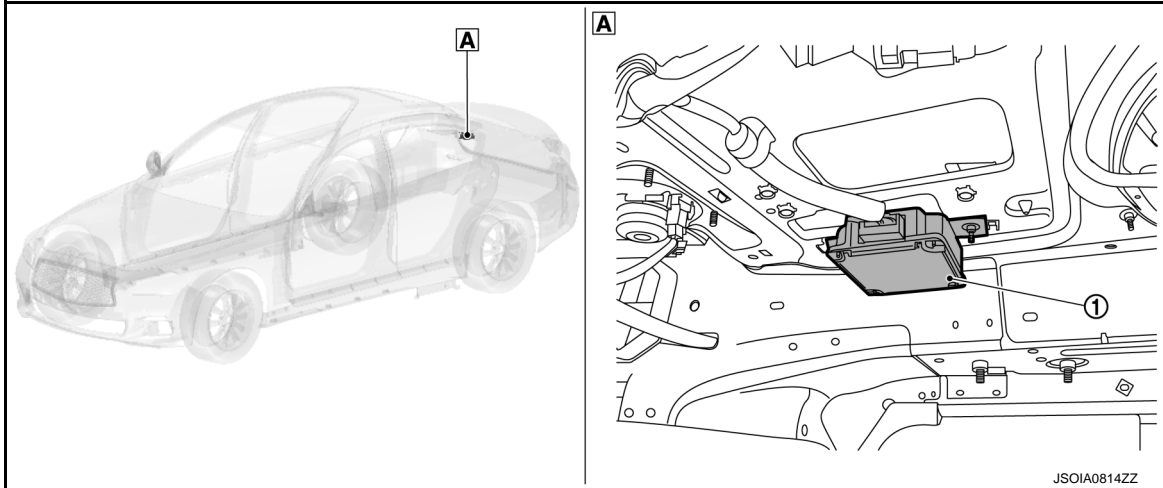
< SYSTEM DESCRIPTION >

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

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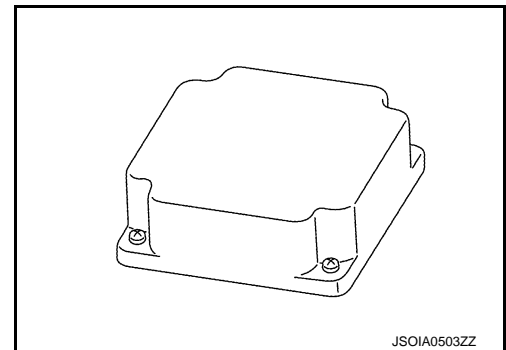
A Trunk side of rear parcel shelf

No.	Component	Description
①	ADAS control unit	<ul style="list-style-type: none"> Controls each system, based on CAN communication, ITS communication, and chassis communication signals received from each control unit Transmits signals necessary for control between CAN communication, ITS communication, and Chassis communication

ADAS Control Unit

INFOID:000000012796053

- ADAS control unit is installed at trunk side of the parcel shelf.
- Communicates with each control unit via CAN communication/ITS communication/Chassis communication.
- ADAS control unit included gateway function, and necessary for system control signals are transmitted to each control unit between CAN communication and ITS communication by the ADAS control unit.
- ADAS control unit controls the each system, based on ITS communication signal, CAN communication signal, and chassis communication signal from each control unit.



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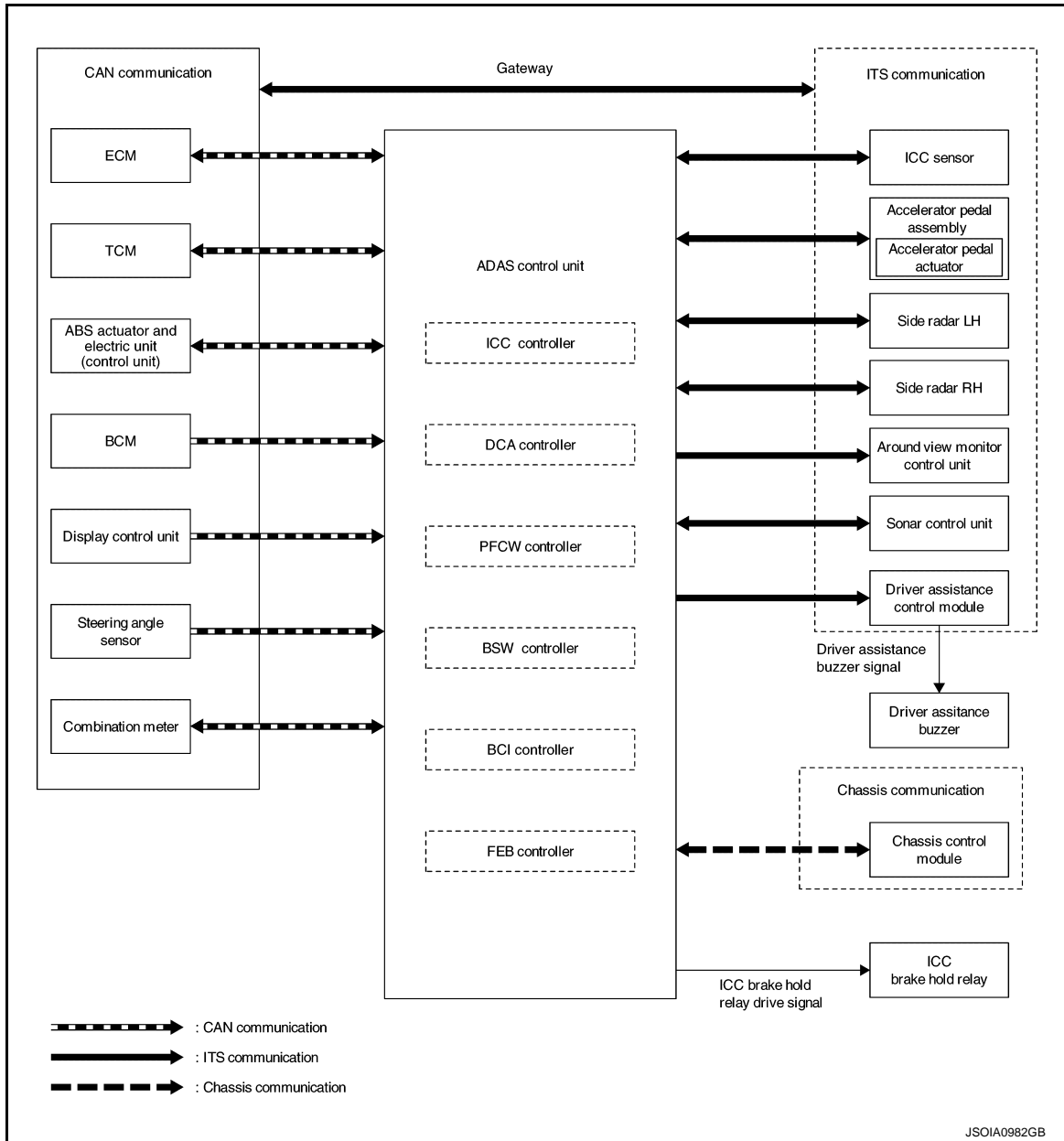
SYSTEM

System Description

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SYSTEM DIAGRAM

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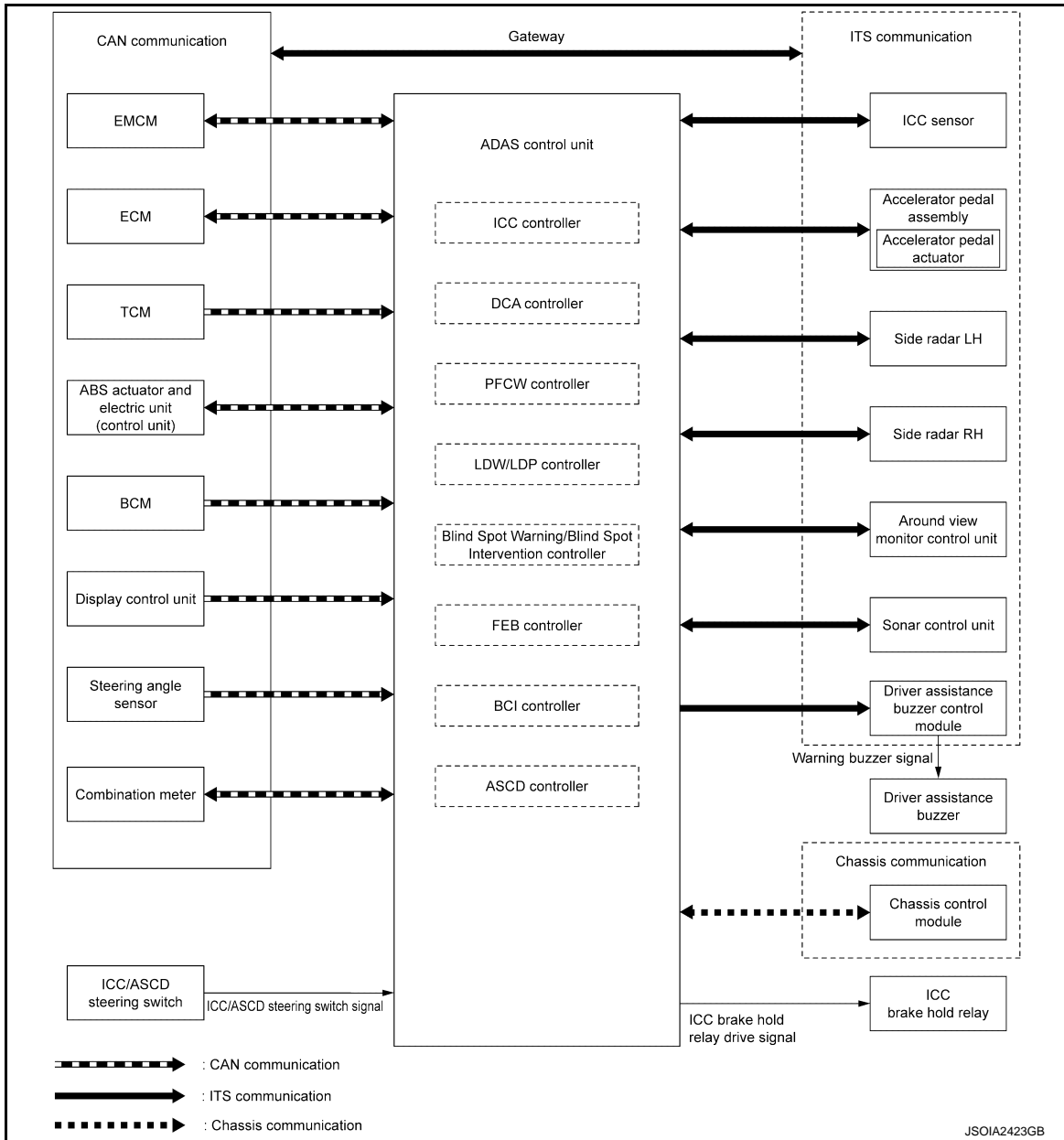
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SYSTEM

< SYSTEM DESCRIPTION >

[ADAS CONTROL UNIT]

2.0 TURBO GASOLINE ENGINE



NOTE:

TCM is connected to drivetrain CAN communication and transmits a CAN communication signal to ADAS control unit via ECM.

ADAS CONTROL UNIT INPUT/OUTPUT SIGNAL ITEM

Input Signal Item

SYSTEM

< SYSTEM DESCRIPTION >

[ADAS CONTROL UNIT]

Transmit unit	Signal name		Description		
ECM	CAN communication	Idle switch signal	Receives idle position state (ON/OFF)	A	
		Closed throttle position signal	Receives idle position state (ON/OFF)	B	
		Accelerator pedal position signal	Receives accelerator pedal position (angle)	C	
		ICC prohibition signal	Receives an operable/inoperable state of the ICC system	D	
		Engine speed signal	Receives engine speed	E	
		ICC steering switch signal	MAIN switch signal	Receives the operational state of the ICC steering switch	F
			SET/COAST switch signal		G
			CANCEL switch signal		H
			RESUME/ACCELERATE switch signal		I
			DISTANCE switch signal		J
		Dynamic driver assistance switch signal	K		
		Stop lamp switch signal	L		
		Brake pedal position switch signal*1	M		
EMCM*2	CAN communication	Brake pedal position switch signal	Receives an operational state of the brake pedal	N	
TCM (via ECM)*2	CAN communication	Input speed signal	Receives the number of revolutions of input shaft	O	
		Current gear position signal	Receives a current gear position	P	
		Shift position signal	Receives a select lever position	Q	
		Output shaft revolution signal	Receives the number of revolutions of output shaft	R	
ABS actuator and electric unit (control unit)	CAN communication	ABS malfunction signal	Receives a malfunction state of ABS	S	
		ABS operation signal	Receives an operational state of ABS	T	
		ABS warning lamp signal	Receives an ON/OFF state of ABS warning lamp	U	
		TCS malfunction signal	Receives a malfunction state of TCS	V	
		TCS operation signal	Receives an operational state of TCS	W	
		VDC OFF switch signal	Receives an ON/OFF state of VDC	X	
		VDC malfunction signal	Receives a malfunction state of VDC	Y	
		VDC operation signal	Receives an operational state of VDC	Z	
		Vehicle speed signal (ABS)	Receives wheel speeds of four wheels	AA	
		Yaw rate signal	Receives yaw rate acting on the vehicle	AB	
		Side G sensor signal	Receives lateral G acting on the vehicle	AC	
		Stop lamp switch signal	AD		
Combination meter	CAN communication	Parking brake switch signal	Receives an operational state of the parking brake	AE	

DAS

SYSTEM

< SYSTEM DESCRIPTION >

[ADAS CONTROL UNIT]

Transmit unit	Signal name		Description
BCM	CAN communication	Front wiper request signal	Receives an operational state of front wiper(s)
		Turn indicator signal	Receives an operational state of the turn signal lamp and the hazard lamp
		Dimmer signal	Receives ON/OFF state of dimmer signal
		Position light request signal	Receives an operational state of tail lamp
		Stop lamp switch signal	Receives an operational state of the brake pedal
Steering angle sensor	CAN communication	Steering angle sensor malfunction signal	Receives a malfunction state of steering angle sensor
		Steering angle sensor signal	Receives the number of revolutions, turning direction of the steering wheel
		Steering angle speed signal	Receives the turning angle speed of the steering wheel
Display control unit	CAN communication	System selection signal	<ul style="list-style-type: none"> Receives a selection state of each item in "Driving Aids" selected with the integral switch Receives a selection state of BCI in "Camera" selected with the integral switch
ICC sensor	ITS communication	ICC sensor signal	Receives detection results, such as the presence or absence of a leading vehicle and distance from the vehicle
Lane camera unit	ITS communication	Detected lane condition signal	Receives detection results of lane marker
Accelerator pedal actuator	ITS communication	Accelerator pedal actuator operation status signal	Receives an operational state of accelerator pedal actuator
Side radar LH, RH	ITS communication	Vehicle detection signal	Receives vehicle detection condition of detection zone
Sonar control unit	ITS communication	Rear object detection signal	Receives objects detection result of rear area behind vehicle
Chassis control module	Chassis communication	Drive mode signal	Receives on operational state of the drive mode select switch

*1: VR30DDTT ENGINE

*2: 2.0 TURBO GASOLINE ENGINE

Output Signal Item

Reception unit	Signal name		Description
ECM	CAN communication	ICC operation signal	Transmits an ICC operation signal necessary for intelligent cruise control
ABS actuator and electric unit (via chassis control module)	CAN communication	Brake fluid pressure control signal	Transmits a brake fluid pressure control signal to activates the brake
		Target yaw moment signal	Transmits a target yaw moment signal to generate yaw moment to the vehicle

SYSTEM

< SYSTEM DESCRIPTION >

[ADAS CONTROL UNIT]

Reception unit	Signal name		Description
Combination meter	CAN communication	Vehicle ahead detection indicator signal	Transmits a signal to display a state of the system on the information display
		Set vehicle speed indicator signal	
		Set distance indicator signal	
		SET switch indicator signal	
		MAIN switch indicator signal	
		DCA system display signal	
		FEB system display signal	
		PFCW system display signal	
		LDW system display signal	
		LDP system display signal	
		BSW system display signal	
Blind Spot Intervention system display signal			
BCI system display signal			
		FEB warning lamp signal	<ul style="list-style-type: none"> • Transmits a signal to turn ON the lamp • Transmits an ON/OFF state of the Forward Emergency Brake
ICC sensor	ITS communication	Vehicle speed signal	Transmits a vehicle speed calculated by the ADAS control unit
		Steering angle sensor signal	Transmits a steering angle sensor signal received from the steering angle sensor
Accelerator pedal actuator	ITS communication	Accelerator pedal position signal	Transmits an accelerator pedal angle calculated by the ADAS control unit
		Accelerator pedal feedback force control signal	Transmits a target actuation force value calculated by the ADAS control unit
Side radar LH, RH	ITS communication	Vehicle speed signal	Transmits a vehicle speed calculated by the ADAS control unit
		Blind Spot Warning/Blind Spot Intervention indicator signal	Transmits a Blind Spot Warning/Blind Spot Intervention indicator signal to turn ON the Blind Spot Warning/Blind Spot Intervention indicator
		Blind Spot Warning/Blind Spot Intervention indicator dimmer signal	Transmits a Blind Spot Warning/Blind Spot Intervention indicator dimmer signal to dimmer Blind Spot Warning/Blind Spot Intervention indicator
Sonar control unit	ITS communication	Buzzer drive signal	Transmits a buzzer drive signal to activate buzzer
Around view monitor control unit	ITS communication	BCI warning signal	Transmits a BCI warning signal to indicate a yellow/red frame on the upper display

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SYSTEM

< SYSTEM DESCRIPTION >

[ADAS CONTROL UNIT]

Reception unit	Signal name		Description
Driver assistance buzzer control module	ITS communication	Driver assistance buzzer signal	Transmits a driver assistance buzzer signal to activates the buzzer
ICC brake hold relay	ICC brake hold relay drive signal		Activates the brake hold relay and turns ON the stop lamp

DESCRIPTION

- ADAS* control unit controls the following systems, based on ITS communication signal, CAN communication signal, and chassis communication signal from each control unit.

NOTE:

*: Advanced Driver Assistance Systems

- Intelligent Cruise Control (ICC)
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Brake Assist (with preview function)
- Predictive Forward Collision Warning (PFCW)
- Lane Departure Warning (LDW) (Without DAST)
- Lane Departure Prevention (LDP) (Without DAST)
- Blind Spot Warning (BSW)
- Blind Spot Intervention (Without DAST)
- Back-up Collision Intervention (BCI)
- Automatic Speed Control Device (ASCD) (Without ICC)

System	Reference
Intelligent Cruise Control (ICC)	CCS-14, "System Description"
Distance Control Assist (DCA)	DAS-225, "DCA : System Description"
Forward Emergency Braking (FEB)	BRC-205, "System Description"
Predictive Forward Collision Warning (PFCW)	DAS-230, "PFCW : System Description"
Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)	<ul style="list-style-type: none"> • Lane Departure Warning: DAS-234, "LDW (WITHOUT DIRECT ADAPTIVE STEERING SYSTEM) : System Description" • Lane Departure Prevention: DAS-240, "LDP (WITHOUT DIRECT ADAPTIVE STEERING SYSTEM) : System Description"
Blind Spot Warning (BSW)	DAS-243, "BSW : System Description"
Back-up Collision Intervention (BCI)	DAS-254, "BCI : System Description"
Automatic Speed Control Device (ASCD)	CCS-174, "AUTOMATIC SPEED CONTROL DEVICE (ASCD) : System Description"

SYSTEM

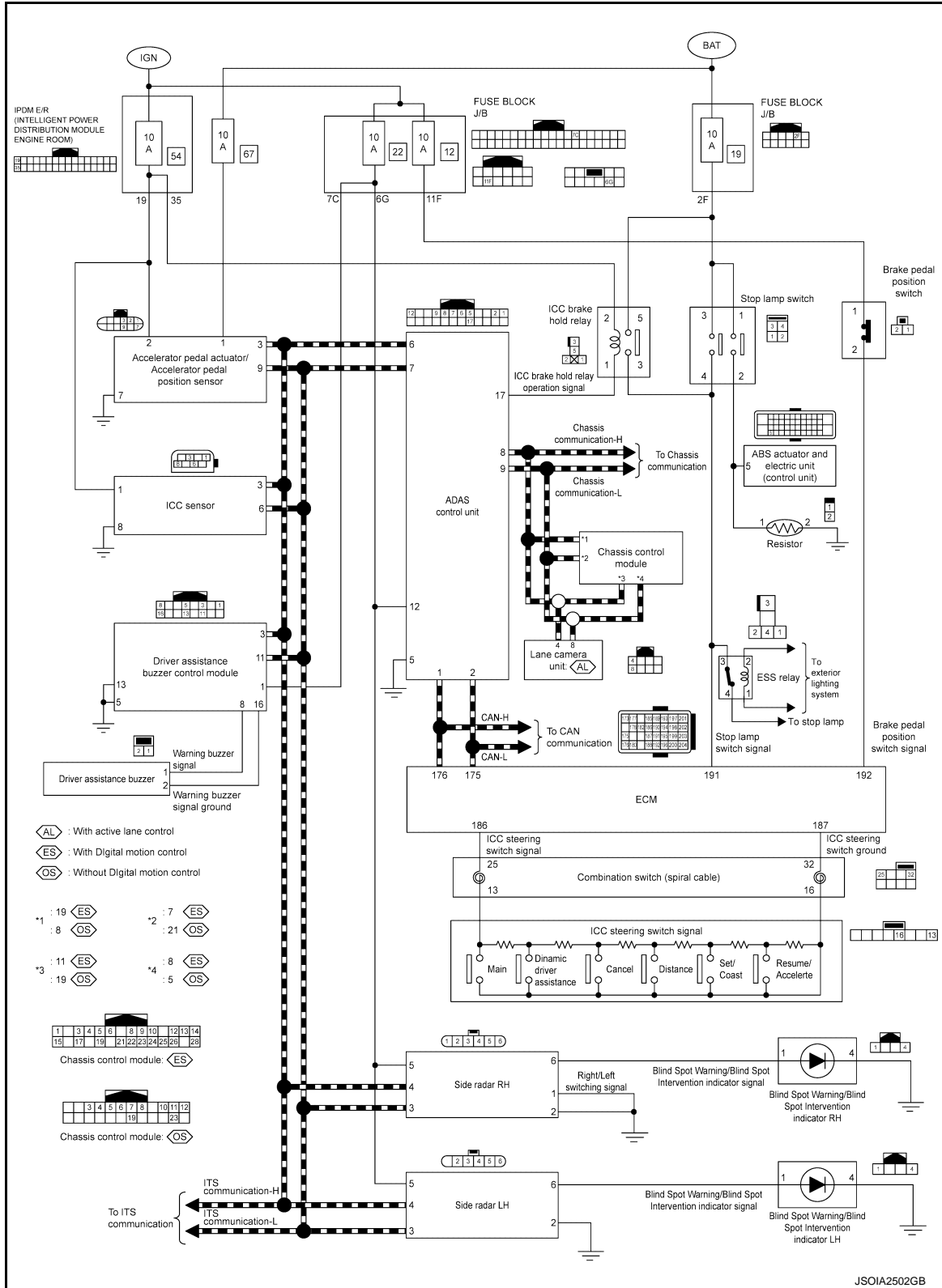
< SYSTEM DESCRIPTION >

[ADAS CONTROL UNIT]

Circuit Diagram

INFOID:000000012796055

VR30DDTT

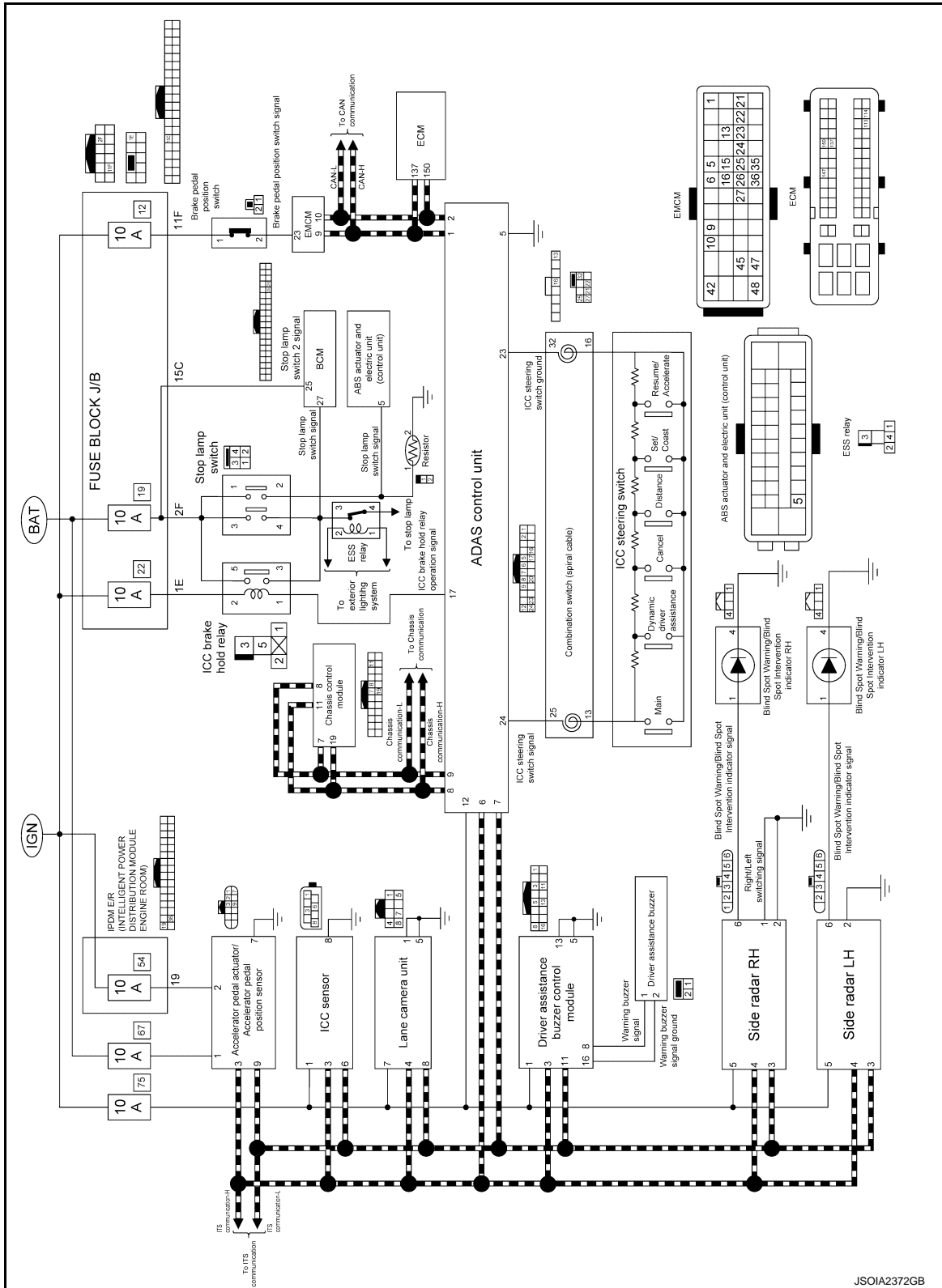


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2.0L TURBO GASOLINE ENGINE



Fail-safe (ADAS Control Unit)

INFOID:000000011339250

If a malfunction occurs in each system, ADAS control unit cancels each control, sounds a beep, and turns ON the warning or indicator lamp.

SYSTEM

< SYSTEM DESCRIPTION >

[ADAS CONTROL UNIT]

System	Buzzer	Warning lamp/Warning display	Description
Vehicle-to-vehicle distance control mode	High-pitched tone	ICC system warning	Cancel
Conventional (fixed speed) cruise control mode	High-pitched tone	ICC system warning	Cancel
Forward Emergency Braking (FEB)	High-pitched tone	<ul style="list-style-type: none"> • FEB warning lamp • Warning systems indicator (Forward position: Yellow) 	Cancel
Predictive Forward Collision Warning (PFCW)	High-pitched tone	Warning systems indicator (Forward position: Yellow)	Cancel
Distance Control Assist (DCA)	High-pitched tone	Warning systems indicator (Forward position: Yellow)	Cancel
Lane Departure Warning (LDW)	—	Warning systems indicator (Lane position: Yellow)	Cancel
Lane Departure Prevention (LDP)	Low-pitched tone	Warning systems indicator (Lane position: Yellow)	Cancel
Blind Spot Warning (BSW)	—	Warning systems indicator (Blind spot position: Yellow)	Cancel
Blind Spot Intervention	Low-pitched tone	Warning systems indicator (Blind spot position: Yellow)	Cancel
Back-up Collision Intervention (BCI)	High-pitched tone	BCI system warning	Cancel

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DIAGNOSIS SYSTEM (ADAS CONTROL UNIT)

< SYSTEM DESCRIPTION >

[ADAS CONTROL UNIT]

DIAGNOSIS SYSTEM (ADAS CONTROL UNIT)

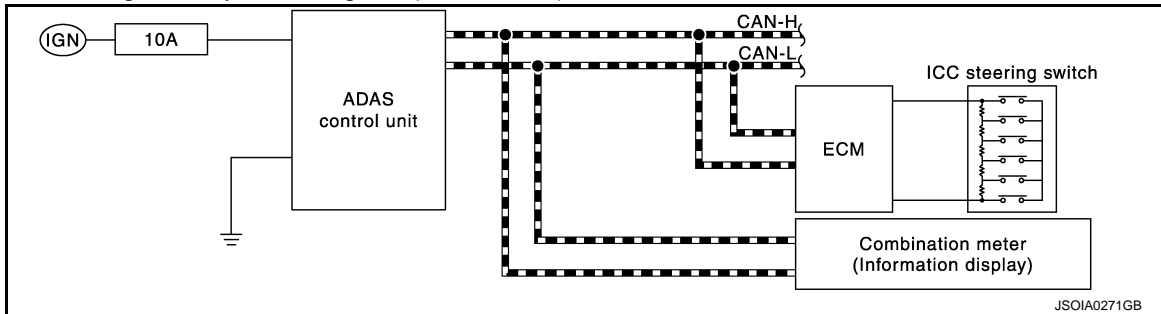
On Board Diagnosis Function (With ICC)

INFOID:000000012796057

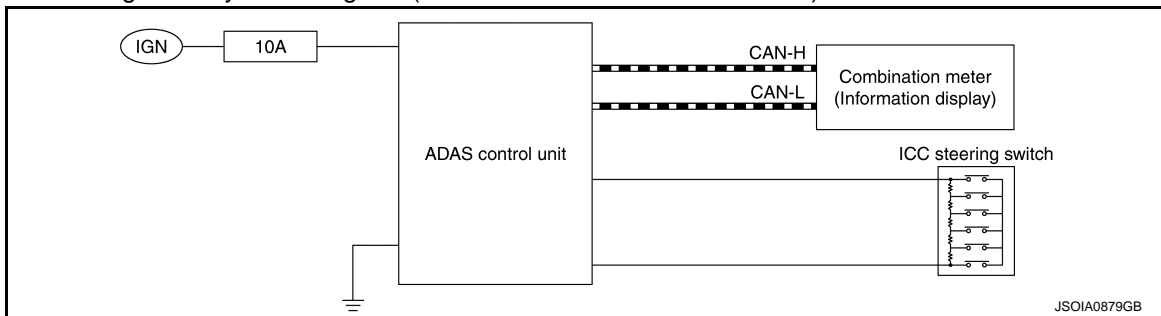
DESCRIPTION

The DTC is displayed on the information display by operating the ICC steering switch.

On Board Self-diagnosis System Diagram (VR30DDTT)



On Board Self-diagnosis System Diagram (2.0 TURBO GASOLINE ENGINE)



METHOD OF STARTING

CAUTION:

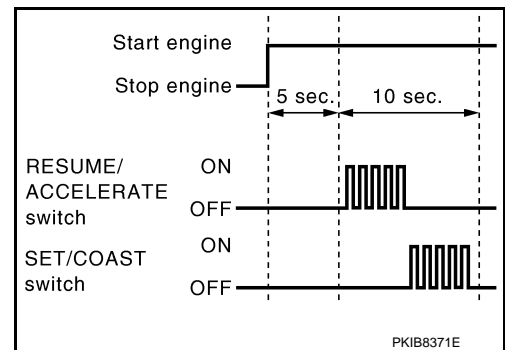
Start condition of on board self-diagnosis

- ICC system OFF
- DCA system OFF
- Vehicle speed 0 km/h (0 MPH)

1. Turn the ignition switch OFF.
2. Start the engine.
3. Wait for 5 seconds after starting the engine. Push up the RESUME/ACCELERATE switch 5 times and push down the SET/COAST switch 5 times within 10 seconds.

NOTE:

If the above operation cannot be performed within 10 seconds after waiting for 5 seconds after starting the engine, repeat the procedure from step 1.

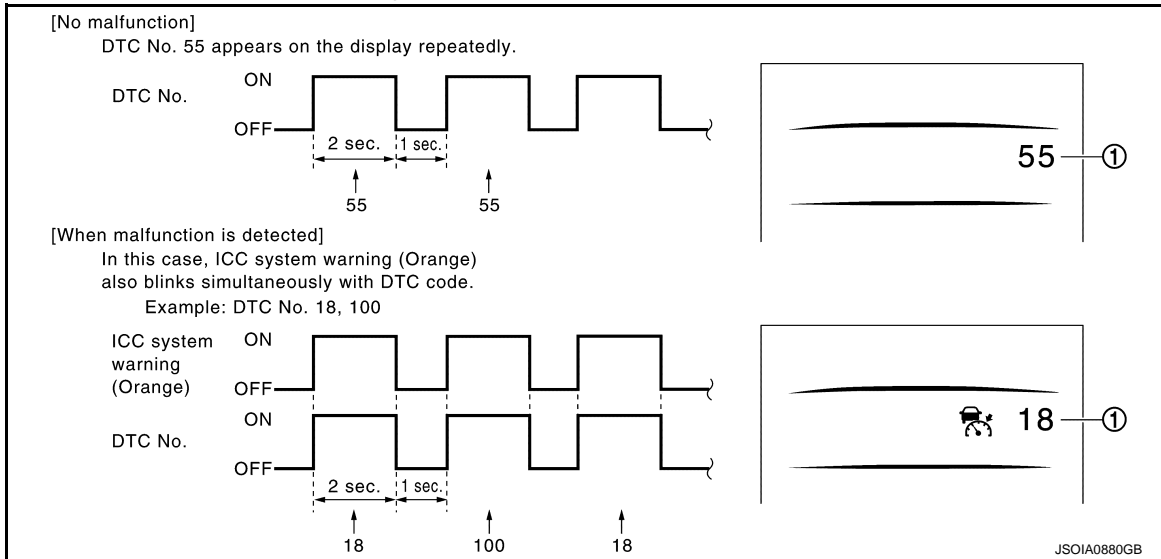


DIAGNOSIS SYSTEM (ADAS CONTROL UNIT)

< SYSTEM DESCRIPTION >

[ADAS CONTROL UNIT]

4. The DTC is displayed on the set vehicle speed indicator (1) on the ICC system display on the information display when the on board self-diagnosis starts. Refer to [DAS-53, "DTC Index"](#).



NOTE:

- It displays for up to 5 minutes and then stops.
- If multiple malfunctions exist, up to 6 DTCs can be stored in memory at the most, and the most recent one is displayed first.

WHEN THE ON BOARD SELF-DIAGNOSIS DOES NOT START

If the on board self-diagnosis does not start, check the following items.

Assumed abnormal part		Inspection item
Information display	Combination meter malfunction	Check that the self-diagnosis function of the combination meter operates. Refer to MWI-68, "On Board Diagnosis Function" .
ICC/ASCD steering switch malfunction		Perform the inspection for DTC "C1A06". Refer to DAS-117, "DTC Logic" .
Harness malfunction between ICC steering switch and ECM		
Harness malfunction between ASCD steering switch and ADAS control unit		
ECM malfunction		
ADAS control unit malfunction		<ul style="list-style-type: none"> • Check power supply and ground circuit of ADAS control unit. Refer to DAS-213, "Diagnosis Procedure". • Perform SELF-DIAGNOSIS for "ICC/ADAS" with CONSULT, and then check the malfunctioning parts. Refer to DAS-53, "DTC Index".

HOW TO ERASE ON BOARD SELF-DIAGNOSIS

1. Turn the ignition switch OFF.
2. Start the engine, and then start the on board self-diagnosis.
3. Press the CANCEL switch 5 times, and then press the DISTANCE switch 5 times under the condition that the on board self-diagnosis starts.

NOTE:

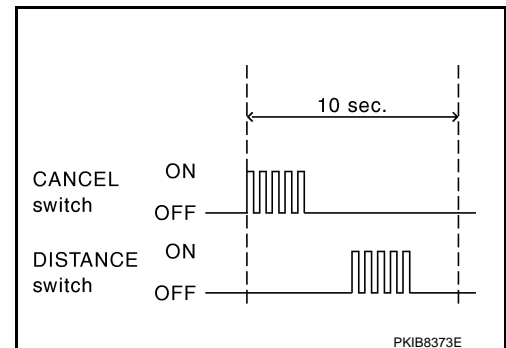
- Complete the operation within 10 seconds after pressing the CANCEL switch first.
- If the operation is not completed within 10 seconds, repeat the procedure from step 1.

4. DTC 55 is displayed after erasing.

NOTE:

DTCs for existing malfunction can not be erased.

5. Turn ignition switch OFF, and finish the diagnosis.



DIAGNOSIS SYSTEM (ADAS CONTROL UNIT)

< SYSTEM DESCRIPTION >

[ADAS CONTROL UNIT]

CONSULT Function (ICC/ADAS)

INFOID:000000012796058

APPLICATION ITEMS

CONSULT performs the following functions via CAN communication using ADAS control unit.

Diagnosis mode	Description
Configuration*	<ul style="list-style-type: none">The vehicle specification that is written in ADAS control unit can be displayed or storedThe vehicle specification can be written when ADAS control unit is replaced
Work Support	Displays causes of automatic system cancellation occurred during system control
Self Diagnostic Result	Displays the name of a malfunctioning system stored in the ADAS control unit
Data Monitor	Displays ADAS control unit input/output data in real time
Active Test	Enables an operational check of a load by transmitting a driving signal from the ADAS control unit to the load
ECU Identification	Displays ADAS control unit part number
CAN Diag Support Monitor	Displays a reception/transmission state of CAN communication and ITS communication

*: Models with FEB system only.

CONFIGURATION

Configuration includes functions as follows.

NOTE:

Models with FEB system only.

Function	Description
Read/Write Configuration	Before Replace ECU Allows the reading of vehicle specification written in ADAS control unit to store the specification in CONSULT.
	After Replace ECU Allows the writing of the vehicle information stored in CONSULT into the ADAS control unit.
Manual Configuration	Allows the writing of the vehicle specification into the ADAS control unit by hand.

WORK SUPPORT

Work support items	Description
CAUSE OF AUTO-CANCEL 1	Displays causes of automatic system cancellation occurred during control of the following systems <ul style="list-style-type: none">Vehicle-to-vehicle control modeConventional (fixed speed) control modeDistance Control Assist (DCA)Forward Emergency Braking (FEB)
CAUSE OF AUTO-CANCEL 2	Displays causes of automatic system cancellation occurred during control of the following systems <ul style="list-style-type: none">Lane Departure Prevention (LDP) (Without DAST)Blind Spot Intervention (Without DAST)
CAUSE OF AUTO-CANCEL 3	Displays causes of automatic system cancellation occurred during control of the Back-up Collision Intervention (BCI)

NOTE:

- Causes of the maximum five cancellations (system cancel) are displayed.
- The displayed cancellation causes display the number of the ignition switch ON/OFF up to 254. It is fixed to 254 if it is over 254. It returns to 0 when the same cancellation cause is detected again.

Display Items for The Cause of Automatic Cancellation 1

DIAGNOSIS SYSTEM (ADAS CONTROL UNIT)

< SYSTEM DESCRIPTION >

[ADAS CONTROL UNIT]

Cause of cancellation	Vehicle-to-vehicle distance control mode	•Conventional (fixed speed) cruise control mode •Automatic Speed Control Device (ASCD)	Distance Control Assist	Forward Emergency Braking	Description
OPERATING ABS	×		×	×	ABS function was operated
OPERATING TCS	×	×	×		TCS function was operated
OPERATING VDC	×	×	×	×	VDC function was operated
ECM CIRCUIT	×	×			ECM did not permit ICC operation
OPE SW VOLT CIRC	×	×	×		The ICC steering switch input voltage is not within standard range
SNOW MODE SW	×		×		Shifting of the drive mode selector to SNOW position
OP SW DOUBLE TOUCH	×	×			ICC steering switches were pressed at the same time
VHCL SPD DOWN	×	×	×		Vehicle speed lower than the speed as follows <ul style="list-style-type: none"> • Vehicle-to-vehicle distance control mode is 24 km/h (15 MPH) • Conventional (fixed speed) cruise control mode is 32 km/h (20 MPH)
WHL SPD ELEC NOISE	×	×	×		Wheel speed sensor signal caught electromagnetic noise
VDC/TCS OFF SW	×		×	×	VDC OFF switch was pressed
VHCL SPD UNMATCH	×	×	×		Wheel speed became different from A/T vehicle speed
TIRE SLIP	×	×			Wheel slipped
IGN LOW VOLT	×	×	×	×	Decrease in ADAS control unit ignition voltage
PARKING BRAKE ON	×	×			The parking brake is operating
WHEEL SPD UNMATCH	×	×	×		The wheel speeds of 4 wheels are out of the specified values
INCHING LOST	×				A vehicle ahead is not detected during the following driving when the vehicle speed is approximately 24 km/h (15 MPH) or less
CAN COMM ERROR	×	×	×	×	ADAS control unit received an abnormal signal with CAN communication
ABS/TCS/VDC CIRC	×	×	×	×	An abnormal condition occurs in VDC/TCS/ABS system
ECD CIRCUIT	×	×	×	×	An abnormal condition occurs in ECD system
ENG SPEED DOWN	×	×			Engine speed became extremely low while controlling ICC system
ASCD VHCL SPD DTAC		×			Vehicle speed is detached from set vehicle speed
ASCD DOUBLE COMD		×			Cancel switch and operation switch are detected simultaneously
APA HI TEMP			×		The accelerator pedal actuator integrated motor temperature is high
ICC SENSOR CAN COMM ERR	×		×	×	Communication error between ADAS control unit and the ICC sensor
ABS WARNING LAMP	×		×		ABS warning lamp ON
FR RADAR BLOCKED	×		×	×	Inclusion of dirt or stains on the ICC sensor area of the front bumper

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< SYSTEM DESCRIPTION >

[ADAS CONTROL UNIT]

FEB) CURVATURE				×	Road curve was more than the specified value
FEB) YAW RATE				×	Detected yawing speed was more than the specified value
FEB) LTRL ACCELERATION				×	Detected lateral speed is the specified value or more
RADAR INTERFERENCE	×		×	×	ICC sensor receives electromagnetic interference
NO RECORD	×	×	×		—

Display Items for The Cause of Automatic Cancellation 2

Cause of cancellation	Lane departure prevention	Blind spot intervention	Description
OPE VDC/TCS/ABS 1	×		The activation of VDC, TCS, or ABS during LDP system control
Vehicle dynamics	×		Vehicle behavior exceeds specified value
Steering speed	×		Steering speed was more than the specified value in evasive direction
End by yaw angle	×		Yaw angle was the end of LDP control
Departure yaw large	×		Detected more than the specified value of yaw angle in departure direction
ICC WARNING	×		Target approach warning of ICC system, FEB system, or PFCW system was activated
CURVATURE	×		Road curve was more than the specified value
Steering angle large	×		Steering angle was more than the specified value
Brake is operated	×		Brake pedal was operated
IGN LOW VOLT	×		Decrease in ADAS control unit IGN voltage
Lateral offset	×		Distance of vehicle and lane was detached in lateral direction more than the specified value
Lane marker lost	×		Lane camera unit lost the trace of lane marker
Lane marker unclear	×		Detected lane marker was unclear
Yaw acceleration	×		Detected yawing speed was more than the specified value
Deceleration large	×		Deceleration in a longitudinal direction was more than the specified value
Accel is operated	×		Accelerator pedal was depressed
Departure steering	×		Steering wheel was steered more than the specified value in departure direction
Evasive steering	×		Steering wheel was steered more than the specified value in the evasive direction
R range	×		Selector lever was operated to R range
Parking brake drift	×		Rear wheels lock was detected
Not operating condition	×		Did not meet the operating condition (vehicle speed, turn signal operation, etc.)
SNOW MODE SW	×		Shifting of the drive mode selector to SNOW position
VDC OFF SW	×		VDC OFF switch was pressed
OPE VDC/ABS 2	×		The activation of VDC or ABS during a standby time of LDP system control
BSI WARNING	×		Blind Spot Intervention system was activated
BSI) OPE VDC/TCS/ABS 1		×	The activation of VDC, TCS, or ABS during Blind Spot Intervention system control
BSI) Vehicle dynamics		×	Vehicle behavior exceeds specified value
BSI) Steering speed		×	Steering speed was more than the specified value in evasive direction

DIAGNOSIS SYSTEM (ADAS CONTROL UNIT)

< SYSTEM DESCRIPTION >

[ADAS CONTROL UNIT]

Cause of cancellation	Lane departure prevention	Blind spot intervention	Description
BSI) End by yaw angle		×	Yaw angle was the end of Blind Spot Intervention control
BSI) Departure yaw large		×	Detected more than the specified value of yaw angle in departure direction
BSI) ICC WARNING		×	Target approach warning of ICC system, FEB system or PFCW system was activated
BSI) CURVATURE		×	Road curve was more than the specified value
BSI) Steering angle large		×	Steering angle was more than the specified value
BSI) Brake is operated		×	Brake pedal was operated
BSI) IGN LOW VOLT		×	Decrease in ADAS control unit IGN voltage
BSI) Lateral offset		×	Distance of vehicle and lane was detached in lateral direction more than the specified
BSI) Lane marker lost		×	Lane camera unit lost the trace of lane marker
BSI) Lane marker unclear		×	Detected lane marker was unclear
BSI) Yaw acceleration		×	Detected yawing speed was more than the specified value
BSI) Deceleration large		×	Deceleration in a longitudinal direction was more than the specified value
BSI) Accel is operated		×	Accelerator pedal was depressed
BSI) Departure steering		×	Steering wheel was steered more than the specified value in departure direction
BSI) Evasive steering		×	Steering wheel was steered more than the specified value in the evasive direction
BSI) R range		×	Selector lever was operated to R range
BSI) Parking brake drift		×	Rear wheels lock was detected
BSI) SNOW MODE SW		×	Shifting of the drive mode selector to SNOW position
BSI) VDC OFF SW		×	VDC OFF switch was pressed
BSI) OPE VDC/ABS 2		×	The activation of VDC or ABS during a standby time of Blind Spot Intervention system control
BSI) Not operating condition		×	Did not meet the operating condition (vehicle speed, turn signal operation, etc.)
Side Radar Lost		×	Unrecognized side radar LH or RH by the ADAS control unit
NO RECORD	×	×	—

Display Items for The Cause of Automatic Cancellation 3

Cause of cancellation	Back-up Collision Intervention	Description
CAN COMM ERROR (CAN)	×	ADAS control unit received an abnormal signal with CAN communication
CAN COMM ERROR (ECD)	×	ADAS control unit received an abnormal signal with CAN communication

DIAGNOSIS SYSTEM (ADAS CONTROL UNIT)

< SYSTEM DESCRIPTION >

[ADAS CONTROL UNIT]

Cause of cancellation	Back-up Collision Intervention	Description
IGN LOW VOLT	×	Decrease in ADAS control unit ignition voltage
VEHICLE SPEED UP	×	Vehicle speed higher than 8 km/h (5 MPH)
ACCEL IS OPERATED	×	Accelerator pedal was depressed
BRAKE IS OPERATED	×	Brake pedal was operated
APA HI TEMP	×	The accelerator pedal actuator integrated motor temperature is high
APA POWER	×	Decrease in accelerator pedal actuator ignition or battery voltage
NO RECORD	×	—

SELF DIAGNOSTIC RESULT

Refer to [DAS-53. "DTC Index"](#).

NOTE:

- The details of time display are as per the following.
 - CRNT: A malfunction is detected now
 - PAST: A malfunction was detected in the past
- IGN counter is displayed on FFD (Freeze Frame Data).
 - 0: The malfunctions that are detected now
CAN communication system (U1000, U1010)
 - 1 - 39: It increases like 0 → 1 → 2 ... 38 → 39 after returning to the normal condition whenever the ignition switch OFF → ON. It returns to 0 when a malfunction is detected again in the process.
 - If it is over 39, it is fixed to 39 until the self-diagnosis results are erased.
Other than CAN communication system (Other than U1000, U1010)
 - 1 - 49: It increases like 0 → 1 → 2 ... 38 → 49 after returning to the normal condition whenever the ignition switch OFF → ON. It returns to 0 when a malfunction is detected again in the process.
 - If it is over 49, it is fixed to 49 until the self-diagnosis results are erased.

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitored item [Unit]	ALL SIG (ICC)	MAIN SIG (ICC)	MAIN SIG (LDW/LDP)	MAIN SIG (BSW/BSI)	MAIN SIG (BCI)	Description
MAIN SW [On/Off]	×	×	×	×		Indicates [On/Off] status as judged from ICC steering switch
SET/COAST SW [On/Off]	×	×				Indicates [On/Off] status as judged from ICC steering switch
CANCEL SW [On/Off]	×	×				Indicates [On/Off] status as judged from ICC steering switch
RESUME/ACC SW [On/Off]	×	×				Indicates [On/Off] status as judged from ICC steering switch
DISTANCE SW [On/Off]	×					Indicates [On/Off] status as judged from ICC steering switch
CRUISE OPE [On/Off]	×	×				Indicates whether controlling or not (ON means "controlling")

DIAGNOSIS SYSTEM (ADAS CONTROL UNIT)

< SYSTEM DESCRIPTION >

[ADAS CONTROL UNIT]

Monitored item [Unit]	ALL SIG (ICC)	MAIN SIG (ICC)	MAIN SIG (LDW/LDP)	MAIN SIG (BSW/BSI)	MAIN SIG (BCI)	Description
BRAKE SW [On/Off]	×	×	×	×	×	Indicates [On/Off] status as judged from ICC brake switch signal (ECM transmits ICC brake switch signal through CAN communication)
STOP LAMP SW [On/Off]	×	×	×	×	×	Indicates [On/Off] status as judged from stop lamp switch signal (ECM transmits stop lamp switch signal through CAN communication)
IDLE SW [On/Off]	×				×	Indicates [On/Off] status of idle switch read from ADAS control unit through CAN communication (ECM transmits On/Off status through CAN communication)
SET DISTANCE [Short/Mid/Long]	×	×				Indicates set distance memorized in ADAS control unit
CRUISE LAMP [On/Off]	×	×				Indicates [On/Off] status of MAIN switch indicator output
OWN VHCL [On/Off]	×					NOTE: The item is displayed, but it is not monitored
VHCL AHEAD [On/Off]	×					Indicates [On/Off] status of vehicle ahead detection indicator output
ICC WARNING [On/Off]	×					Indicates [On/Off] status of ICC system warning lamp output
VHCL SPEED SE [km/h] or [mph]	×	×	×	×	×	Indicates vehicle speed calculated from ADAS control unit through CAN communication [ABS actuator and electric unit (control unit) transmits vehicle speed signal (wheel speed) through CAN communication]
SET VHCL SPD [km/h] or [mph]	×	×				Indicates set vehicle speed memorized in ADAS control unit
BUZZER O/P [On/Off]	×				×	Indicates [On/Off] status of ICC warning chime output
THRTL SENSOR [deg]	×	×				NOTE: The item is displayed, but it is not monitored
ENGINE RPM [rpm]	×					Indicates engine speed read from ADAS control unit through CAN communication (ECM transmits engine speed signal through CAN communication)
WIPER SW [OFF/LOW/HIGH]	×					Indicates wiper [OFF/LOW/HIGH] status (BCM transmits front wiper request signal through CAN communication)
YAW RATE [deg/s]	×					NOTE: The item is displayed, but it is not monitored
BA WARNING [On/Off]	×					Indicates [On/Off] status of FEB indicator lamp output
STP LMP DRIVE [On/Off]	×	×			×	Indicates [On/Off] status of ICC brake hold relay drive output
D RANGE SW [On/Off]	×					Indicates [On/Off] status of "D" or "M" positions read from ADAS control unit through CAN communication; ON when position "D" or "M" (TCM transmits shift position signal through CAN communication).
NP RANGE SW [On/Off]	×					Indicates shift position signal read from ADAS control unit through CAN communication (TCM transmits shift position signal through CAN communication)
PKB SW [On/Off]	×					Parking brake switch status [On/Off] judged from the parking brake switch signal that ADAS control unit readout via CAN communication is displayed (combination meter transmits the parking brake switch signal via CAN communication)
PWR SUP MONI [V]	×	×				Indicates IGN voltage input by ADAS control unit
VHCL SPD AT [km/h] or [mph]	×					Indicates vehicle speed calculated from A/T vehicle speed sensor read from ADAS control unit through CAN communication (TCM transmits A/T vehicle speed sensor signal through CAN communication)

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DIAGNOSIS SYSTEM (ADAS CONTROL UNIT)

< SYSTEM DESCRIPTION >

[ADAS CONTROL UNIT]

Monitored item [Unit]	ALL SIG (ICC)	MAIN SIG (ICC)	MAIN SIG (LDW/LDP)	MAIN SIG (BSW/BSI)	MAIN SIG (BCI)	Description
THRTL OPENING [%]	×	×			×	Indicates throttle position read from ADAS control unit through CAN communication (ECM transmits accelerator pedal position signal through CAN communication).
GEAR [1, 2, 3, 4, 5, 6, 7]	×					Indicates A/T gear position read from ADAS control unit through CAN communication (TCM transmits current gear position signal through CAN communication)
CLUTCH SW SIG [On/Off]	×	×	×	×		NOTE: The item is displayed, but it is not monitored
NP SW SIG [On/Off]	×					Indicates [On/Off] status as judged from park/neutral position switch signal (ECM transmits park/neutral position switch signal through CAN communication).
MODE SIG [OFF, ICC, ASCD]	×					Indicates the active mode from ICC or ASCD [conventional (fixed speed) cruise control mode]
SET DISP IND [On/Off]	×					Indicates [On/Off] status of SET switch indicator output
DISTANCE [m]	×					Indicates the distance from the vehicle ahead
RELATIVE SPD [m/s]	×					Indicates the relative speed of the vehicle ahead
ON ROOT GUID-ANCE [On/Off]	×					NOTE: The item is displayed, but it is not monitored
DYNA ASIST SW [On/Off]	×	×		×		Indicates [On/Off] status as judged from ICC steering switch signal (ECM transmits ICC steering switch signal through CAN communication)
DCA ON IND [On/Off]	×					The status [ON/OFF] of DCA system switch indicator output is displayed
DCA VHL AHED [On/Off]	×					The status [ON/OFF] of vehicle ahead detection indicator output in DCA system is displayed
IBA SW [On/Off]	×	×				NOTE: The item is displayed, but it is not monitored
FCW SYSTEM ON [On/Off]	×	×				Indicates [On/Off] status of PFCW system
APA TEMP [°C]	×				×	Accelerator pedal actuator integrated motor temperature that the ADAS control unit readout via ITS communication is displayed (Accelerator pedal actuator transmits the integrated motor temperature via ITS communication)
APA PWR [V]	×				×	Accelerator pedal actuator power supply voltage that the ADAS control unit readout via ITS communication is displayed (Accelerator pedal actuator transmits the power supply voltage via ITS communication)
NAVI ICC DISP [On/Off]						NOTE: The item is displayed, but it is not monitored
LDW SYSTEM ON [On/Off]			×			Indicates [On/Off] status of LDW system
LDW ON LAMP [On/Off]			×			Indicates [On/Off] status of LDW system display output
LDP ON IND [On/Off]			×			Indicates [On/Off] status of LDP system display output
LANE DPRT W/L [On/Off]			×			Indicates [On/Off] status of LDW/LDP warning display (Yellow) output
LDW BUZER OUT-PUT [On/Off]			×			Indicates [On/Off] status of warning buzzer output

DIAGNOSIS SYSTEM (ADAS CONTROL UNIT)

< SYSTEM DESCRIPTION >

[ADAS CONTROL UNIT]

Monitored item [Unit]	ALL SIG (ICC)	MAIN SIG (ICC)	MAIN SIG (LDW/LDP)	MAIN SIG (BSW/BSI)	MAIN SIG (BCI)	Description
LDP SYSTEM ON [On/Off]			×			Indicates [On/Off] status of LDP system
WARN REQ [On/Off]			×			Indicates an ADAS control unit judged warning state (ON/OFF) of LDP system
READY signal [On/Off]			×			Indicates LDP system settings
Camera lost [Detect/Deviate/Both]			×	×		Indicates a lane marker detection state judged from a lane marker detection signal read by the ADAS control unit via ITS communication (Lane camera unit transmits a lane marker signal via ITS communication)
Lane unclear [On/Off]			×	×		Indicates an ON/OFF state of the lane marker. The ON/OFF state is judged from a detected lane condition signal read by the ADAS control unit via ITS communication (The lane camera unit transmits a detected lane condition signal via ITS communication)
STATUS signal [Stnby/Warn/Cancel/ Off]			×			Indicates a control state of LDP system
Shift position [Off, P, R, N, D, M/T1 - 7]			×	×	×	Indicates shift position read from ADAS control unit through CAN communication (TCM transmits shift position signal through CAN communication)
Turn signal [OFF/LH/RH/LH&RH]			×	×		Indicates turn signal operation status read from ADAS control unit through CAN communication (BCM transmits turn indicator signal through CAN communication)
SIDE G [G]			×	×		Indicates lateral G acting on the vehicle. This lateral G is judged from a side G sensor signal read by ADAS control unit via CAN communication (The ABS actuator and electric unit (control unit) transmits a side G sensor signal via CAN communication)
STATUS signal [Stnby/Warn/Cancel/ Off]			×			Indicates a control state of LDP system
Lane unclear [On/Off]			×	×		Indicates an ON/OFF state of the lane marker. The ON/OFF state is judged from a detected lane condition signal read by the ADAS control unit via ITS communication (The lane camera unit transmits a detected lane condition signal via ITS communication)
FUNC ITEM (FCW) [On/Off]	×	×	×	×		Indicates systems which can be set to ON/OFF by selecting "Driver Aids" ⇒ "Emergency Assist" of the integral switch Forward Emergency Braking
FUNC ITEM (LDW) [On/Off]	×	×	×	×		Indicates systems which can be set to ON/OFF by selecting "Driver Aids" ⇒ "Lane" of the integral switch Lane Departure Warning
FUNC ITEM (BSW) [On/Off]	×	×	×	×		Indicates systems which can be set to ON/OFF by selecting "Driver Aids" ⇒ "Blind spot" of the integral switch Blind Spot Warning
FUNC ITEM (NV-ICC) [Off]	×	×	×	×		NOTE: The item is displayed, but it is not monitored
FUNC ITEM (NV-DCA) [Off]	×	×	×	×		NOTE: The item is displayed, but it is not monitored
DCA SELECT [On/Off]	×	×	×	×		Indicates an ON/OFF state of the DCA system. The DCA system can be set to ON/OFF by selecting "Driving Aids" ⇒ "Front assist" of the integral switch
LDP SELECT [On/Off]	×	×	×	×		Indicates an ON/OFF state of LDP system. LDP system can be set to ON/OFF by selecting "Driving Aids" ⇒ "Lane" of the integral switch

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DIAGNOSIS SYSTEM (ADAS CONTROL UNIT)

< SYSTEM DESCRIPTION >

[ADAS CONTROL UNIT]

Monitored item [Unit]	ALL SIG (ICC)	MAIN SIG (ICC)	MAIN SIG (LDW/LDP)	MAIN SIG (BSW/BSI)	MAIN SIG (BCI)	Description
BSI SELECT [On/Off]	×	×	×	×		Indicates an ON/OFF state of Blind Spot Intervention system. Blind Spot Intervention system can be set to ON/OFF by selecting “Driving Aids” ⇒ “Blind Spot” of the integral switch
FCW SELECT [On/Off]	×	×	×	×		Indicates an ON/OFF state of the PFCW system. The PFCW system can be set to ON/OFF by selecting “Driving Aids” ⇒ “Emergency Assist” of the integral switch
LDW SELECT [On/Off]	×	×	×	×		Indicates an ON/OFF state of the LDW system. The LDW system can be set to ON/OFF by selecting “Driving Aids” ⇒ “Lane” of the integral switch
BSW SELECT [On/Off]	×	×	×	×		Indicates an ON/OFF state of the BSW system. The BSW system can be set to ON/OFF by selecting “Driving Aids” ⇒ “Blind spot” of the integral switch
NAVI ICC SELECT [Off]	×	×	×	×		NOTE: The item is displayed, but it is not monitored
NAVI DCA SELECT [Off]	×	×	×	×		NOTE: The item is displayed, but it is not monitored
SYS SELECTABILITY [On/Off]	×	×	×	×		Indicates the availability of ON/OFF switching for “Driving Aids” items received from the integral switch via CAN communication
DRIVE MODE STATS [STD/SPORT/ECO/ SNOW/MID/ERROR]	×	×	×	×		Indicates a drive mode selector select position judged from a drive mode select switch position signal read by the ADAS control unit via CAN communication (The chassis control module transmits a switch position signal of the drive mode select switch signal via CAN communication)
WARN SYS SW [On/Off]	×	×	×	×		NOTE: The item is displayed, but it is not monitored
BSW/BSI WARN LMP [On/Off]				×		Indicates [On/Off] status of Blind Spot warning malfunction
BSI ON IND [On/Off]				×		Indicates [On/Off] status of Blind Spot Intervention system display
BSW SYSTEM ON [On/Off]				×		Indicates [On/Off] status of BSW system
BSI SYSTEM ON [On/Off]				×		Indicates [On/Off] status of Blind Spot Intervention system
FCW SYSTEM ON [On/Off]	×	×				Indicates [On/Off] status of PFCW system
BCI SYSTEM ON [On/Off]					×	Indicates [On/Off] status of BCI system
BCI SWITCH [On/Off]					×	NOTE: The item is displayed, but it is not monitored
BATTERY CIRCUIT OFF [On/Off]	×					NOTE: The item is displayed, but it is not used
LDP WARNING INDI- CATOR [On/Off]			×			Indicates [On/Off] status of LDP warning display (Yellow) output
LDW ON INDICATOR [On/Off]			×			Indicates [On/Off] status of LDW system ON display output
LDW WARNING INDI- CATOR [On/Off]			×			Indicates [On/Off] status of LDW system warning display output

DIAGNOSIS SYSTEM (ADAS CONTROL UNIT)

< SYSTEM DESCRIPTION >

[ADAS CONTROL UNIT]

Monitored item [Unit]	ALL SIG (ICC)	MAIN SIG (ICC)	MAIN SIG (LDW/LDP)	MAIN SIG (BSW/BSI)	MAIN SIG (BCI)	Description
SYSTEM CANCEL MESSAGE [NOREQ/SLIP/ SNOW/VDC OFF]	×	×	×	×		Indicates status of system cancel display output
CAMERA HI TEMP MSG [On/Off]			×	×		Indicates [On/Off] status of lane camera unit high temperature warning display output
ITS SETTING ITEM(DCA) [On/Off]	×	×	×	×		Indicates the presence or absence of DCA system.
ITS SETTING ITEM(LDP) [On/Off]	×	×	×	×		Indicates the presence or absence of LDP system.
ITS SETTING ITEM(BSI) [On/Off]	×	×	×	×		Indicates the presence or absence of Blind Spot Intervention system.
BSI WARNING INDICATOR [On/Off]				×		Indicates [On/Off] status of Blind Spot Intervention warning display output
BSW ON INDICATOR [On/Off]				×		Indicates [On/Off] status of BSW system ON display output
SIDE RADAR BLOCK COND [On/Off]				×		Indicates [On/Off] status of side radar with dirt or foreign materials
LDW WARNING ALERT TIMING [Nothing/Early/Late]			×			NOTE: The item is displayed, but it is not monitored
BSW IND BRIGHTNESS [Nothing/Bright/Nor- mal/Dark]				×		Indicates status of brightness of Blind Spot Warning/Blind Spot Intervention indicator
SL MAIN SW [On/Off]		×				Indicates [On/Off] status as judged from steering switch
FUNC ITEM(FEB) [On/Off]	×					Indicates systems which can be set to ON/OFF by selecting "Driver Aids" ⇒ "Emergency Assist" of the integral switch Forward Emergency Braking
FEB SELECT [On/Off]	×					Indicates an ON/OFF state of the FEB system. The FEB system can be set to ON/OFF by selecting "Driving Aids" ⇒ "Emergency Assist" of the integral switch
FEB SW [On/Off]	×					Indicates [On/Off] status of FEB system
SL TARGET VEHICLE SPEED [km/h]	×					Indicates set vehicle speed memorized in ADAS control unit
SL SET LAMP [On/Off]	×					Indicates [On/Off] status of speed limiter SET display output
SL LIMIT LAMP [On/Off]	×					Indicates [On/Off] status of speed limiter MAIN switch display output
ASCD CANCEL (LOW SPEED) [NON/CUT]	×					Indicates the vehicle cruise condition. <ul style="list-style-type: none"> • NON: Vehicle speed is maintained at the ASCD set speed. • CUT: Vehicle speed decreased to excessively low, and ASCD operation is cut off.

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DIAGNOSIS SYSTEM (ADAS CONTROL UNIT)

< SYSTEM DESCRIPTION >

[ADAS CONTROL UNIT]

Monitored item [Unit]	ALL SIG (ICC)	MAIN SIG (ICC)	MAIN SIG (LDW/LDP)	MAIN SIG (BSW/BSI)	MAIN SIG (BCI)	Description
ASCD CANCEL (SPEED DIFF) [NON/CUT]	×					Indicates the vehicle cruise condition. <ul style="list-style-type: none"> • NON: Vehicle speed is maintained at the ASCD set speed. • CUT: Vehicle speed decreased to excessively low compared with the ASCD set speed, and ASCD operation is cut off.
KICK DOWN [On/Off]	×					Display Kick Down decision state. <ul style="list-style-type: none"> • On: Accelerator pedal is depressed • Off: Accelerator pedal is fully released

ACTIVE TEST

CAUTION:

- Never perform “Active Test” while driving the vehicle.
- The “Active Test” cannot be performed when the following systems malfunction is displayed.
 - ICC system
 - DCA
 - LDW
 - LDP
 - Blind Spot Warning
 - Blind Spot Intervention
 - BCI
- The “Active Test” cannot be performed when the FEB warning lamp is illuminated.
- Shift the selector lever to “P” position, and then perform the test.

Test item	Description
METER LAMP	The MAIN switch indicator and FEB warning lamp can be illuminated by ON/OFF operations as necessary
STOP LAMP	The ICC brake hold relay can be operated by ON/OFF operations as necessary, and the stop lamp can be illuminated
ICC BUZZER	Sounds a buzzer used for following systems by arbitrarily operating ON/OFF <ul style="list-style-type: none"> • Intelligent Cruise Control (ICC) • Distance Control Assist (DCA) • Predictive Forward Collision Warning (PFCW) • Forward Emergency Brake (FEB)
BRAKE ACTUATOR	Activates the brake by an arbitrary operation
ACTIVE PEDAL	The accelerator pedal actuator can be operated as necessary
DCA INDICATOR	The DCA system display can be illuminated by ON/OFF operations as necessary
LDP BUZZER	Sounds a buzzer used for following systems by arbitrarily operating ON/OFF <ul style="list-style-type: none"> • Lane Departure Warning (LDW) • Lane Departure Prevention (LDP) • Blind Spot Warning (BSW) • Blind Spot Intervention
LDP ON IND	The LDP system display can be illuminated by ON/OFF operations as necessary
LANE DEPARTURE W/L	The LDW/LDP warning can be illuminated by ON/OFF operations as necessary
BSW ON INDICATOR	The Blind Spot Warning system display can be illuminated by ON/OFF operations as necessary
BSI ON INDICATOR	The Blind Spot Intervention system display can be illuminated by ON/OFF operations as necessary
LDW ON INDICATOR	The LDW system display can be illuminated by ON/OFF operations as necessary
LDP WARNING INDICATOR	The LDP malfunction can be illuminated by ON/OFF operations as necessary
LDW WARNING INDICATOR	The LDW malfunction can be illuminated by ON/OFF operations as necessary
BSW WARNING INDICATOR	The BSW malfunction can be illuminated by ON/OFF operations as necessary
BSI WARNING INDICATOR	The Blind Spot Intervention malfunction can be illuminated by ON/OFF operations as necessary

METER LAMP

NOTE:

DIAGNOSIS SYSTEM (ADAS CONTROL UNIT)

< SYSTEM DESCRIPTION >

[ADAS CONTROL UNIT]

The test can be performed only when the engine is running.

Test item	Operation	Description	<ul style="list-style-type: none"> • MAIN switch indicator • ICC system warning • FEB warning lamp
METER LAMP	Off	Stops sending the following signals to exit from the test <ul style="list-style-type: none"> • Meter display signal • FEB warning lamp signal 	OFF
	On	Transmits the following signals to the combination meter via CAN communication <ul style="list-style-type: none"> • Meter display signal • FEB warning lamp signal 	ON

STOP LAMP

Test item	Operation	Description	Stop lamp
STOP LAMP	Off	Stops transmitting the ICC brake hold relay drive signal below to end the test	OFF
	On	Transmits the ICC brake hold relay drive signal	ON

ICC BUZZER

Test item	Operation	Description	Operation sound
ICC BUZZER	MODE1	Transmits the buzzer output signals to the driver assistance buzzer control module via ITS communication	Intermittent beep sound
	Test start	Starts the tests of "MODE1"	—
	Reset	Stops transmitting the buzzer output signal below to end the test	—
	End	Returns to the "SELECT TEST ITEM" screen	—

BRAKE ACTUATOR

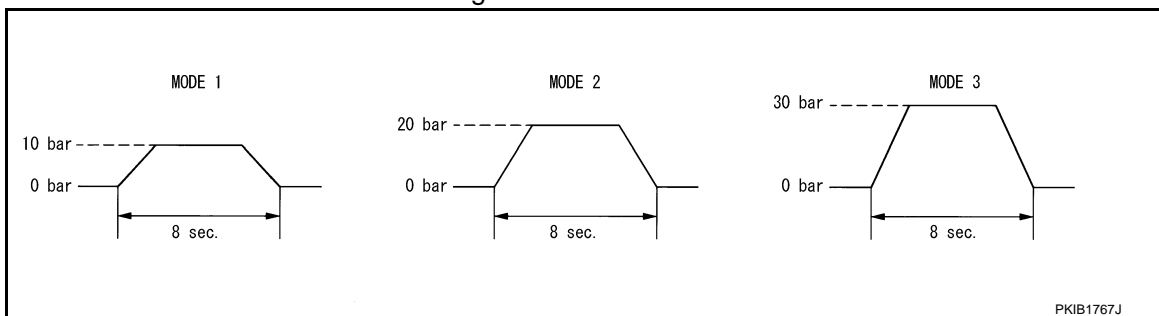
NOTE:

The test can be performed only when the engine is running.

Test item	Operation	Description	"PRESS SENS" value
BRAKE ACTUATOR	MODE1	Transmits the brake fluid pressure control signal to the ABS actuator and electric unit (control unit) via chassis control module	10 bar
	MODE2		20 bar
	MODE3		30 bar
	Test start	Starts the tests of "MODE1", "MODE2" and "MODE3"	—
	Reset	Stops transmitting the brake fluid pressure control signal below to end the test	—
	End	Returns to the "SELECT TEST ITEM" screen	—

NOTE:

The test is finished in 10 seconds after starting



Active Pedal

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DIAGNOSIS SYSTEM (ADAS CONTROL UNIT)

< SYSTEM DESCRIPTION >

[ADAS CONTROL UNIT]

CAUTION:

- Shift the selector lever to “P” position, and then perform the test.
- Never depress the accelerator pedal excessively. (The engine speed may rise unexpectedly when finishing the test.)

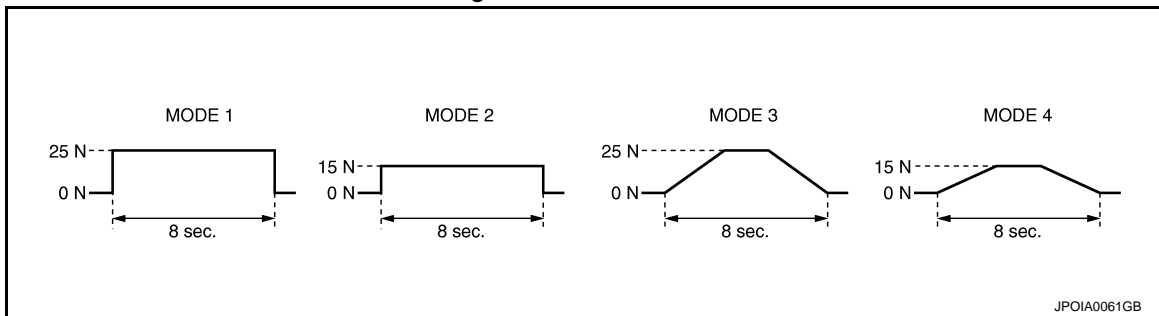
NOTE:

- Depress the accelerator pedal to check when performing the test.
- The test can be performed only when the engine is running.

Test item	Operation	Description	Accelerator pedal operation
ACTIVE PEDAL	MODE1	Transmit the accelerator pedal feedback force control signal to the accelerator pedal actuator via ITS communication.	Constant with a force of 25 N for 8 seconds
	MODE2		Constant with a force of 15 N for 8 seconds
	MODE3		Change up to a force of 25 N for 8 seconds
	MODE4		Change up to a force of 15 N for 8 seconds
	Test start	Starts the tests of “MODE1”, “MODE2”, “MODE3” and “MODE4”	—
	Reset	Stops transmitting the accelerator pedal feedback force control signal below to end the test.	—
	End	Returns to the “SELECT TEST ITEM” screen	—

NOTE:

The test is finished in 10 seconds after starting



DCA INDICATOR

NOTE:

The test can be performed only when the engine is running.

Test item	Operation	Description	DCA system display
DCA INDICATOR	Off	Stops transmitting the meter display signal below to end the test	—
	On	Transmits the meter display signal to the combination meter via CAN communication	ON

LDP BUZZER

Test item	Operation	Description	Warning buzzer
LDP BUZZER	Off	Stops transmitting the warning buzzer signal below to end the test	—
	On	Transmits the warning buzzer signal to the warning buzzer	ON

LDP ON IND

DIAGNOSIS SYSTEM (ADAS CONTROL UNIT)

< SYSTEM DESCRIPTION >

[ADAS CONTROL UNIT]

Test item	Operation	Description	LDP system display (Green)
LDP ON IND	Off	Stops transmitting the meter display signal below to end the test	—
	On	Transmits the meter display signal to the combination meter via CAN communication	ON

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LANE DEPARTURE W/L

Test item	Operation	Description	Lane departure system display (Yellow)
LANE DEPARTURE W/L	Off	Stops transmitting the meter display signal below to end the test	—
	On	Transmits the meter display signal to the combination meter via CAN communication	ON

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BSW ON INDICATOR

Test item	Operation	Description	Blind Spot Warning system display (Yellow)
BSW ON INDICATOR	Off	Stops transmitting the meter display signal below to end the test	—
	On	Transmits the meter display signal to the combination meter via CAN communication	ON

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BSI ON INDICATOR

Test item	Operation	Description	Blind Spot Intervention system display (Green)
BSI ON INDICATOR	Off	Stops transmitting the meter display signal below to end the test	—
	On	Transmits the meter display signal to the combination meter via CAN communication	ON

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LDW ON INDICATOR

Test item	Operation	Description	LDW system display (White)
LDW ON INDICATOR	Off	Stops transmitting the meter display signal below to end the test	—
	On	Transmits the meter display signal to the combination meter via CAN communication	ON

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LDP WARNING INDICATOR

Test item	Operation	Description	LDP malfunction (Yellow)
LDP WARNING INDICATOR	Off	Stops transmitting the meter display signal below to end the test	—
	On	Transmits the meter display signal to the combination meter via CAN communication	ON

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LDW WARNING INDICATOR

DIAGNOSIS SYSTEM (ADAS CONTROL UNIT)

< SYSTEM DESCRIPTION >

[ADAS CONTROL UNIT]

Test item	Operation	Description	LDW malfunction (Yellow)
LDW WARNING INDICATOR	Off	Stops transmitting the meter display signal below to end the test	—
	On	Transmits the meter display signal to the combination meter via CAN communication	ON

BSW WARNING INDICATOR

Test item	Operation	Description	BSW malfunction (Yellow)
BSW WARNING INDICATOR	Off	Stops transmitting the meter display signal below to end the test	—
	On	Transmits the meter display signal to the combination meter via CAN communication	ON

BSI WARNING INDICATOR

Test item	Operation	Description	Blind Spot Intervention malfunction (Yellow)
BSI WARNING INDICATOR	Off	Stops transmitting the meter display signal below to end the test	—
	On	Transmits the meter display signal to the combination meter via CAN communication	ON

ECU IDENTIFICATION

Displays ADAS control unit parts number.

ECU DIAGNOSIS INFORMATION

ADAS CONTROL UNIT

Reference Value

INFOID:0000000012796059

VALUES ON THE DIAGNOSIS TOOL

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor item	Condition		Value/Status
MAIN SW	Ignition switch ON	When MAIN switch is pressed	On
		When MAIN switch is not pressed	Off
SET/COAST SW	Ignition switch ON	When SET/COAST switch is pressed	On
		When SET/COAST switch is not pressed	Off
CANCEL SW	Ignition switch ON	When CANCEL switch is pressed	On
		When CANCEL switch is not pressed	Off
RESUME/ACC SW	Ignition switch ON	When RESUME/ACCELERATE switch is pressed	On
		When RESUME/ACCELERATE switch is not pressed	Off
DISTANCE SW	Ignition switch ON	When DISTANCE switch is pressed	On
		When DISTANCE switch is not pressed	Off
CRUISE OPE	Drive the vehicle and activate the vehicle-to-vehicle distance control mode	When ICC system is controlling	On
		When ICC system is not controlling	Off
BRAKE SW	Ignition switch ON	When brake or clutch pedal is depressed	Off
		When brake or clutch pedal is not depressed	On
STOP LAMP SW	Ignition switch ON	When brake pedal is depressed	On
		When brake pedal is not depressed	Off
IDLE SW	Engine running	Idling	On
		Except idling (depress accelerator pedal)	Off
SET DISTANCE	<ul style="list-style-type: none"> Start the engine and turn the ICC system ON Press the DISTANCE switch to change the vehicle-to-vehicle distance setting 	When set to "long"	Long
		When set to "middle"	Mid
		When set to "short"	Short
CRUISE LAMP	Start the engine and press MAIN switch	ICC system ON (MAIN switch indicator ON)	On
		ICC system OFF (MAIN switch indicator OFF)	Off
OWN VHCL	NOTE: The item is indicated, but not monitored		Off
VHCL AHEAD	Drive the vehicle and activate the vehicle-to-vehicle distance control mode	When a vehicle ahead is detected (vehicle ahead detection indicator ON)	On
		When a vehicle ahead is not detected (vehicle ahead detection indicator OFF)	Off
ICC WARNING	Start the engine and press MAIN switch	When ICC system is malfunctioning (ICC system malfunction ON)	On
		When ICC system is normal (ICC system malfunction OFF)	Off

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ADAS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[ADAS CONTROL UNIT]

Monitor item	Condition		Value/Status
VHCL SPEED SE	While driving		Displays the vehicle speed calculated by ADAS control unit
SET VHCL SPD	While driving	When vehicle speed is set	Displays the set vehicle speed
BUZZER O/P	Engine running	When the buzzer of the following system operates <ul style="list-style-type: none"> • Vehicle-to-vehicle distance control mode • DCA system • PFCW system • FEB system 	On
		When the buzzer of the following system not operates <ul style="list-style-type: none"> • Vehicle-to-vehicle distance control mode • DCA system • PFCW system • FEB system 	Off
THRTL SENSOR	NOTE: The item is indicated, but not monitored		0.0
ENGINE RPM	Engine running		Equivalent to tachometer reading
WIPER SW	Ignition switch ON	Wiper not operating	Off
		Wiper LO operation	Low
		Wiper HI operation	High
YAW RATE	NOTE: The item is indicated, but not monitored		0.0
BA WARNING	Engine running	FEB OFF indicator lamp ON <ul style="list-style-type: none"> • When FEB system is malfunctioning • When FEB system is turned to OFF 	On
		FEB OFF indicator lamp OFF <ul style="list-style-type: none"> • When FEB system is normal • When FEB system is turned to ON 	Off
STP LMP DRIVE	Drive the vehicle and activate the vehicle-to-vehicle distance control mode	When ICC brake hold relay is activated	On
		When ICC brake hold relay is not activated	Off
D RANGE SW	Engine running	When the selector lever is in "D" position or manual mode	On
		When the selector lever is in any position other than "D" or manual mode	Off
NP RANGE SW	Engine running	When the selector lever is in "N", "P" position	On
		When the selector lever is in any position other than "N", "P"	Off
PKB SW	Ignition switch ON	When the parking brake is applied	On
		When the parking brake is released	Off
PWR SUP MONI	Engine running		Power supply voltage value of ADAS control unit
VHCL SPD AT	While driving		Value of A/T vehicle speed sensor signal
THRTL OPENING	Engine running	Depress accelerator pedal	Displays the throttle position

ADAS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[ADAS CONTROL UNIT]

Monitor item	Condition		Value/Status
GEAR	While driving		Displays the gear position
CLUTCH SW SIG	Ignition switch ON	NOTE: The item is indicated, but not monitored.	Off
NP SW SIG	Ignition switch ON	When the shift lever is in neutral position	On
		When the shift lever is in any position other than neutral	Off
MODE SIG	Start the engine and press MAIN switch	When ICC system is deactivated	Off
		When vehicle-to-vehicle distance control mode is activated	ICC
		When conventional (fixed speed) cruise control mode is activated	ASCD
SET DISP IND	<ul style="list-style-type: none"> • Drive the vehicle and activate the conventional (fixed speed) cruise control mode • Press SET/COAST switch 	SET switch indicator ON	On
		SET switch indicator OFF	Off
DISTANCE	Drive the vehicle and activate the vehicle-to-vehicle distance control mode	When a vehicle ahead is detected	Displays the distance from the preceding vehicle
		When a vehicle ahead is not detected	0.0
RELATIVE SPD	Drive the vehicle and activate the vehicle-to-vehicle distance control mode	When a vehicle ahead is detected	Displays the relative speed.
		When a vehicle ahead is not detected	0.0
ON ROOT GUID-ANCE	NOTE: The item is indicated, but not monitored		Off
DYNA ASIST SW	Ignition switch ON	When dynamic driver assistance switch is pressed	On
		When dynamic driver assistance switch is not pressed	Off
DCA ON IND	Start the engine and press dynamic driver assistance switch (When DCA setting is ON)	DCA system OFF	Off
		DCA system ON	On
DCA VHL AHED	Drive the vehicle and activate the DCA system	When a vehicle ahead is not detected (vehicle ahead detection indicator OFF)	Off
		When a vehicle ahead is detected (vehicle ahead detection indicator ON)	On
IBA SW	NOTE: The item is indicated, but not monitored		Off
FCW SYSTEM ON	Ignition switch ON	When the PFCW system is ON	On
		When the PFCW system is OFF	Off
APA TEMP	Engine running		Display the accelerator pedal actuator integrated motor temperature
APA PWR	Ignition switch ON		Power supply voltage value of accelerator pedal actuator
NAVI-ICC DISP	NOTE: The item is indicated, but not monitored		Off
LDW SYSTEM ON	Ignition switch ON	When the LDW system is ON	On
		When the LDW system is OFF	Off

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ADAS CONTROL UNIT

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[ADAS CONTROL UNIT]

Monitor item	Condition		Value/Status
LDW ON LAMP	Ignition switch ON	When the LDW system is ON	On
		When the LDW system is OFF	Off
LDP ON IND	Start the engine and press dynamic driver assistance switch (When LDP system setting is ON)	When the LDW system is ON	On
		When the LDW system is OFF	Off
LANE DPRT W/L	Drive the vehicle and activate the LDW system or LDP system	Lane departure warning lamp ON	On
		Lane departure warning lamp OFF	Off
LDW BUZER OUTPUT	Drive the vehicle and activate the LDW/LDP system or Blind Spot Warning/Blind Spot Intervention system	When the buzzer of the following system operates • LDW/LDP system • Blind Spot Warning/Blind Spot Intervention system	On
		When the buzzer of the following system does not operate • LDW/LDP system • Blind Spot Warning/Blind Spot Intervention system	Off
LDP SYSTEM ON	Start the engine and press dynamic driver assistance switch (When LDP system setting is ON)	When the LDP system is ON	On
		When the LDP system is OFF	Off
WARN REQ	Drive the vehicle and activate the LDP system	Lane departure warning is operating	On
		Lane departure warning is not operating	Off
READY signal	Start the engine and press dynamic driver assistance switch (When LDP system setting is ON)	When the LDP system is ON	On
		When the LDP system is OFF	Off
Camera lost	Drive the vehicle and activate the LDW system, LDP system or Blind Spot Intervention system	Both side lane markers are detected	Detect
		Deviate side lane marker is lost	Deviate
		Both side lane markers are lost	Both
Lane unclear	While driving	Lane marker is unclear	On
		Lane marker is clear	Off
STATUS signal	Drive the vehicle and activate the LDP system	When the LDP system is ON	Stnby
		When the LDP system is operating	Warn
		When the LDP system is canceled	Cancel
		When the LDP system is OFF	Off
Shift position	<ul style="list-style-type: none"> • Engine running • While driving 		Displays the shift position
Turn signal	Turn signal lamps OFF	Turn signal lamp LH blinking	LH
		Turn signal lamp RH blinking	RH
		Turn signal lamp LH and RH blinking	LH&RH
		Turn signal lamp LH and RH blinking	LH&RH
SIDE G	While driving	Vehicle turning right	Negative value
		Vehicle turning left	Positive value
STATUS signal	Drive the vehicle and activate the LDP system	When the LDP system is ON	Stnby
		When the LDP system is operating	Warn
		When the LDP system is canceled	Cancel
		When the LDP system is OFF	Off
Lane unclear	While driving	Lane marker is unclear	On
		Lane marker is clear	Off
FUNC ITEM	Ignition switch ON		FUNC3

ADAS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[ADAS CONTROL UNIT]

Monitor item	Condition		Value/Status
FUNC ITEM (FCW)	Engine running	"Forward Emergency Braking" set with the integral switch is ON	On
		"Forward Emergency Braking" set with the integral switch is OFF	Off
FUNC ITEM (LDW)	Engine running	"Lane Departure Warning" set with the integral switch is ON	On
		"Lane Departure Warning" set with the integral switch is OFF	Off
FUNC ITEM (BSW)	Engine running	"Blind Spot Warning" set with the integral switch is ON	On
		"Blind Spot Warning" set with the integral switch is OFF	Off
FUNC ITEM (NV-ICC)	NOTE: The item is indicated, but not monitored		Off
FUNC ITEM (NV-DCA)	NOTE: The item is indicated, but not monitored		Off
DCA SELECT	Ignition switch ON	"Distance Control Assist" set with the integral switch is ON	On
		"Distance Control Assist" set with the integral switch is OFF	Off
LDP SELECT	Ignition switch ON	"Lane Departure Intervention" set with the integral switch is ON	On
		"Lane Departure Intervention" set with the integral switch is OFF	Off
BSI SELECT	Ignition switch ON	"Blind Spot Intervention" set with the integral switch is ON	On
		"Blind Spot Intervention" set with the integral switch is OFF	Off
FCW SELECT	Ignition switch ON	"Forward Emergency Braking" set with the integral switch is ON	On
		"Forward Emergency Braking" set with the integral switch is OFF	Off
LDW SELECT	Ignition switch ON	"Lane Departure Warning" set with the integral switch is ON	On
		"Lane Departure Warning" set with the integral switch is OFF	Off
BSW SELECT	Ignition switch ON	"Blind Spot Warning" set with the integral switch is ON	On
		"Blind Spot Warning" set with the integral switch is OFF	Off
NAVI ICC SELECT	NOTE: The item is indicated, but not monitored		Off
NAVI DCA SELECT	NOTE: The item is indicated, but not monitored		Off
SYS SELECTABILITY	Ignition switch ON	Items set with the integral switch can be switched normally	On
		Items set with the integral switch cannot be switched normally	Off
DRIVE MODE STATS	Ignition switch ON	When drive mode select switch position is STANDARD	STD
		When drive mode select switch position is in SPORT	SPORT
		When drive mode select switch position is in ECO	ECO
		When drive mode select switch position is in SNOW	SNOW
		When drive mode select switch position is in PERSONAL	STD
		A signal other than those above is input	ERROR

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ADAS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[ADAS CONTROL UNIT]

Monitor item	Condition		Value/Status
WARN SYS SW	NOTE: The item is indicated, but not monitored		Off
BSW/BSI WARN LMP	Ignition switch ON	When the BSW system is malfunctioning	On
		When the BSW system is normal	Off
BSI ON IND	Ignition switch ON	Blind Spot Intervention warning ON	On
		Blind Spot Intervention warning OFF	Off
BSW SYSTEM ON	Ignition switch ON	When the BSW system is ON	On
		When the BSW system is OFF	Off
BSI SYSTEM ON	Start the engine and press dynamic driver assistance switch (When Blind Spot Intervention system setting is ON)	When the Blind Spot Intervention system is ON	On
		When the Blind Spot Intervention system is OFF	Off
FCW SYSTEM ON	Engine running	When the FEB/PFCW system is ON	On
		When the FEB/PFCW system is OFF	Off
BCI SYSTEM ON	Engine running	When the BCI system is ON	On
		When the BCI system is OFF	Off
BCI SWITCH	NOTE: The item is indicated, but not monitored		Off
BATTERY CIRCUIT OFF	NOTE: The item is indicated, but not used		Off
LDP WARNING INDICATOR	Engine running	When the LDP system is malfunctioning	On
		When the LDP system is normal	Off
LDW ON INDICATOR	Ignition switch ON	LDW system display ON	On
		LDW system display OFF	Off
LDW WARNING INDICATOR	Ignition switch ON	When the LDW system is malfunctioning	On
		When the LDW system is normal	Off
SYSTEM CANCEL MESSAGE	Ignition switch ON	When the vehicle is normal	NOREQ
		When the wheel is slipping	SLIP
		When the drive mode selector is SNOW mode	SNOW
		When the VDC is OFF	VDC OFF
CAMERA HI TEMP MSG	Ignition switch ON	Lane camera unit high temperature warning display ON	On
		Lane camera unit high temperature warning display OFF	Off
ITS SETTING ITEM(DCA)	Ignition switch ON		On
ITS SETTING ITEM(LDP)	Ignition switch ON		On
ITS SETTING ITEM(BSI)	Ignition switch ON		On
BSI WARNING INDICATOR	Engine running	When the Blind Spot Intervention is malfunctioning	On
		When the Blind Spot Intervention is normal	Off
BSW ON INDICATOR	Ignition switch ON	BSW system display ON	On
		BSW system display OFF	Off
SIDE RADAR BLOCK COND	Ignition switch ON	Front bumper or side radar is dirty	On
		Front bumper and side radar is clean	Off
LDW WARNING ALERT TIMING	Ignition switch ON	LDW system OFF	Nothing
		Lane departure warning timing is early setting	Early
		Lane departure warning timing is late setting	Late

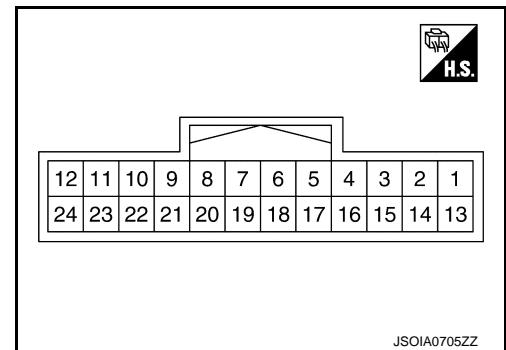
ADAS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[ADAS CONTROL UNIT]

Monitor item	Condition	Value/Status	
BSW IND BRIGHTNESS	Ignition switch ON	BSW system OFF	Nothing
		Blind Spot Warning/Blind Spot Intervention indicator brightness bright	Bright
		Blind Spot Warning/Blind Spot Intervention indicator brightness normal	Normal
		Blind Spot Warning/Blind Spot Intervention indicator brightness dark	Dark
SL MAIN SW	Engine running	When speed limiter MAIN switch is pressed	On
		When speed limiter MAIN switch is not pressed	Off
FUNC ITEM (FEB)	Engine running	"Forward Emergency Braking" set with the integral switch is ON	On
		"Forward Emergency Braking" set with the integral switch is OFF	Off
FEB SELECT	Ignition switch ON	"Forward Emergency Braking" set with the integral switch is ON	On
		"Forward Emergency Braking" set with the integral switch is OFF	Off
FEB SW	Engine running	FEB system ON	On
		FEB system OFF	Off
SL TARGET VEHICLE SPEED	While driving	When vehicle speed is set	Displays the set vehicle speed
SL SET LAMP	<ul style="list-style-type: none"> Drive the vehicle and activate the speed limiter Press speed limiter MAIN switch 	Speed limiter SET indicator ON	On
		Speed limiter SET indicator OFF	Off
SL LIMIT LAMP	<ul style="list-style-type: none"> Drive the vehicle and activate the speed limiter Press speed limiter MAIN switch 	Speed limiter system ON	On
		Speed limiter system OFF	Off
ASCD CANCEL (LOW SPEED)	Drive the vehicle and activate the ASCD	ASCD cancelled by low vehicle speed	On
		Other than above	Off
ASCD CANCEL (SPEED DIFF)	Drive the vehicle and activate the ASCD	ASCD cancelled by difference between set speed and vehicle speed	On
		Other than above	Off
KICK DOWN	Drive the vehicle and activate the speed limiter	When accelerator pedal is full depressed	On
		Other than above	Off

TERMINAL LAYOUT PHYSICAL VALUES



ADAS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[ADAS CONTROL UNIT]

Terminal No. (Wire color)		Description		Condition		Standard value	Reference value
+	-	Signal name	Input/ Output				
1 (L)	—	CAN -H	—		—	—	—
2 (R)		CAN -L	—		—	—	—
5 (B)	Ground	Ground	—		Ignition switch ON	0 - 0.1 V	Approx. 0 V
6 (L)	—	ITS communication-H	—		—	—	—
7 (Y)		ITS communication-L	—		—	—	—
8 (L)		Chassis communication-H	—		—	—	—
9 (R)		Chassis communication-L	—		—	—	—
12 (GR) ^{*1} (G) ^{*2}	5 (B)	Ignition power supply	Input	Ignition switch ON	—	10 - 16 V	Battery voltage
17 (V)		ICC brake hold relay drive signal	Output	Ignition switch ON	At "STOP LAMP" test of "Active test"	10 - 16 V 0 - 0.1 V	Approx. 12 V Approx. 0 V
23 (Y)		ICC/ASCD steering switch signal ground	—		Ignition switch ON	0 - 0.1 V	Approx. 0 V
24 ^{*3} (SB)	23 ^{*3} (Y)	ICC steering switch signal	Input	Ignition switch ON	ICC steering switch: OFF	4.1 - 4.3 V	Approx. 4.3 V
					CANCEL switch: Pressed	1.1 - 1.6	Approx. 1.3 V
					RESUME/ACCELERATE switch: Pressed	3.5 - 3.7 V	Approx. 3.7 V
					SET/COAST switch: Pressed	2.8 - 3.1 V	Approx. 3.0 V
					DISTANCE switch: Pressed	2.0 - 2.4 V	Approx. 2.2 V
24 ^{*4} (SB)	23 ^{*4} (Y)	ASCD steering switch signal	Input	Ignition switch ON	ASCD steering switch: OFF	3.8 - 4.3 V	Approx. 4.0 V
					CANCEL switch: Pressed	0.8 - 1.3 V	Approx. 1.0 V
					SET/COAST switch: Pressed	1.8 - 2.2 V	Approx. 2.0 V
					RESUME/ACCELERATE switch: Pressed	2.8 - 3.1 V	Approx. 3.0 V

NOTE:

- *1: VR30DDTT
- *2: 2.0 TURBO GASOLINE ENGINE
- *3: Used only in with ICC.
- *4: Used only in without ICC.

Fail-safe (ADAS Control Unit)

INFOID:000000012796060

If a malfunction occurs in each system, ADAS control unit cancels each control, sounds a beep, and turns ON the warning or indicator lamp.

ADAS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[ADAS CONTROL UNIT]

System	Buzzer	Warning lamp/Warning display	Description
Vehicle-to-vehicle distance control mode	High-pitched tone	ICC system warning	Cancel
Conventional (fixed speed) cruise control mode	High-pitched tone	ICC system warning	Cancel
Forward Emergency Braking (FEB)	High-pitched tone	<ul style="list-style-type: none"> • FEB warning lamp • Warning systems indicator (Forward position: Yellow) 	Cancel
Predictive Forward Collision Warning (PFCW)	High-pitched tone	Warning systems indicator (Forward position: Yellow)	Cancel
Distance Control Assist (DCA)	High-pitched tone	Warning systems indicator (Forward position: Yellow)	Cancel
Lane Departure Warning (LDW)	—	Warning systems indicator (Lane position: Yellow)	Cancel
Lane Departure Prevention (LDP)	Low-pitched tone	Warning systems indicator (Lane position: Yellow)	Cancel
Blind Spot Warning (BSW)	—	Warning systems indicator (Blind spot position: Yellow)	Cancel
Blind Spot Intervention	Low-pitched tone	Warning systems indicator (Blind spot position: Yellow)	Cancel
Back-up Collision Intervention (BCI)	High-pitched tone	BCI system warning	Cancel

DTC Inspection Priority Chart

INFOID:000000012796061

If multiple DTCs are detected simultaneously, check them one by one depending on the following DTC inspection priority chart.

Priority	Detected items (DTC)
1	<ul style="list-style-type: none"> • U1507: LOST COMM (SIDE RDR R) • U1508: LOST COMM (SIDE RDR L)
2	<ul style="list-style-type: none"> • 1CA0A: CONFIG UNFINISHED • U1000: CAN COMM CIRCUIT • U1010: CONTROL UNIT (CAN)
3	<ul style="list-style-type: none"> • C1B00: CAMERA UNIT MALF • C1F02: APA C/U MALF • C1B53: SIDE RDR R MALF • C1B54: SIDE RDR L MALF • C1B84: DIST SEN MALFUNCTION

DAS

ADAS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[ADAS CONTROL UNIT]

Priority	Detected items (DTC)	
4	<ul style="list-style-type: none"> • C1A01: POWER SUPPLY CIR • C1A02: POWER SUPPLY CIR 2 • C1A04: ABS/TCS/VDC CIRC • C1A05: BRAKE SW/STOP L SW • C1A06: OPERATION SW CIRC • C1A13: STOP LAMP RLY FIX • C1A14: ECM CIRCUIT • C1A24: NP RANGE • C1A26: ECD MODE MALF • C1A27: ECD PWR SUPPLY CIR • C1A33: CAN TRANSMISSION ERR • C1A34: COMMAND ERROR • C1A35: APA CIR • C1A36: APA CAN COMM CIR • C1A37: APA CAN CIR 2 • C1A38: APA CAN CIR 1 • C1A39: STRG SEN CIR • C1B01: CAM AIMING INCOMP • C1B03: CAM ABNRML TMP DETCT • C1B5D: FEB OPE COUNT LIMIT • C1B56: SONAR CIRCUIT • C1B57: AVM CIRCUIT • C1B59: CCM CIRCUIT • C1B82: DIST SEN OFF-CENTER • C1B85: DIST SEN ABNORMAL TEMP • C1B86: DIST SEN PWR SUP CIR • C1F01: APA MOTOR MALF • C1F05: APA PWR SUPPLY CIR 	<ul style="list-style-type: none"> • U0121: VDC CAN CIR 2 • U0126: STRG SEN CAN CIR 1 • U0235: ICC SENSOR CAN CIRC 1 • U0401: ECM CAN CIR 1 • U0402: TCM CAN CIR 1 • U0415: VDC CAN CIR 1 • U0424: HVAC CAN CIR 1 • U0428: STRG SEN CAN CIR 2 • U1500: CAM CAN CIR 2 • U1501: CAM CAN CIR 1 • U1502: ICC SEN CAN COMM CIR • U1503: SIDE RDR L CAN CIR 2 • U1504: SIDE RDR L CAN CIR 1 • U1505: SIDE RDR R CAN CIR 2 • U1506: SIDE RDR R CAN CIR 1 • U150B: ECM CAN CIRC 3 • U150C: VDC CAN CIRC 3 • U150D: TCM CAN CIRC 3 • U150E: BCM CAN CIRC 3 • U150F: AV CAN CIRC 3 • U1512: HVAC CAN CIRC3 • U1513: METER CAN CIRC 3 • U1514: STRG SEN CAN CIRC 3 • U1515: ICC SENSOR CAN CIRC 3 • U1516: CAM CAN CIRC 3 • U1517: APA CAN CIRC 3 • U1518: SIDE RDR L CAN CIRC 3 • U1519: SIDE RDR R CAN CIRC 3 • U1521: SONAR CAN COMMUNICATION 2 • U1522: SONAR CAN COMMUNICATION 1 • U1523: SONAR CAN COMMUNICATION 3 • U1524: AVM CAN COMMUNICATION 1 • U1525: AVM CAN COMMUNICATION 3 • U1527: CCM CAN CIR 1 • U153F: CCM CAN CIR 2 • U1530: DR ASSIST BUZZER CAN CIR 1 • U1538: EMCM CAN CIRCUIT 3 • U1540: DAST 3 CAN CIR 1 • U1541: DAST 3 CAN CIR 2
5	<ul style="list-style-type: none"> • C1A03: VHCL SPEED SE CIRC 	
6	<ul style="list-style-type: none"> • C1A15: GEAR POSITION 	
7	<ul style="list-style-type: none"> • C1A00: CONTROL UNIT 	

ADAS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[ADAS CONTROL UNIT]

DTC Index

INFOID:000000012796062

Systems for fail-safe

- A: Vehicle-to-vehicle distance control mode
- B: Conventional (fixed speed) cruise control mode
- C: Distance Control Assist (DCA)
- D: Forward Emergency Braking (FEB)
- E: Predictive Forward Collision Warning (PFCW)
- F: Blind Spot Warning (BSW)/Blind Spot Intervention (Without Active Lane control)
- G: Back-up Collision Intervention (BCI)
- H: Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- I: Automatic Speed Control Device (ASCD) (Without ICC)

DTC		CONSULT display	Fail-safe	Reference
CONSULT	On board display		System	
NO DTC IS DETECTED. FURTHER TESTING MAY BE REQUIRED	55	NO DTC IS DETECTED. FURTHER TESTING MAY BE REQUIRED	—	—
C1A0A	41	CONFIG UNFINISHED	A, B, C, D, E, F, G, H, I	DAS-103
C1A00	0	CONTROL UNIT	A, B, C, D, E, F, G, H, I	DAS-104
C1A01	1	POWER SUPPLY CIR	A, B, C, D, E, F, G, H, I	DAS-105
C1A02	2	POWER SUPPLY CIR 2	A, B, C, D, E, F, G, H, I	DAS-105
C1A03	3	VHCL SPEED SE CIRC	A, B, C, D, E, F, G, H, I	DAS-106
C1A04	4	ABS/TCS/VDC CIRC	A, B, C, D, E, F, G, H, I	DAS-108
C1A05	5	BRAKE SW/STOP L SW	A, B, C, D, G, H	DAS-109
C1A06	6	OPERATION SW CIRC	A, B, C, D, E, H, I	DAS-117
C1A13	13	STOP LAMP RLY FIX	A, B, C, D, E, G	DAS-121
C1A14	14	ECM CIRCUIT	A, B, C, D, E, I	DAS-132
C1A15	15	GEAR POSITION	A, B, C, D, E, I	DAS-134
C1A24	24	NP RANGE	A, B, C, D, E, F, G	DAS-136
C1A26	26	ECD MODE MALF	A, B, C, D, G	DAS-138
C1A27	27	ECD PWR SUPPLY CIR	A, B, C, D, G	DAS-140
C1A33	33	CAN TRANSMISSION ERR	A, B, C, D, E, I	DAS-142
C1A34	34	COMMAND ERROR	A, B, C, D, E, I	DAS-143
C1A35	35	APA CIR	A, C, D, E	DAS-144
C1A36	36	APA CAN COMM CIR	A, C, D, E	DAS-145
C1A37	133	APA CAN CIR 2	A, C, D, E	DAS-146
C1A38	132	APA CAN CIR 1	A, C, D, E	DAS-147
C1A39	39	STRG SEN CIR	A, B, C, D, E, F, G	DAS-148
C1B00	81	CAMERA UNIT MALF	F, H	DAS-149
C1B01	82	CAM AIMING INCOMP	F, H	DAS-150
C1B03	83	CAN ABNRML TMP DETCT	F, H	DAS-151
C1B5D	198	FEB OPE COUNT LIMIT	C, D, E	DAS-152
C1B53	84	SIDE RDR R MALF	F, G	DAS-153
C1B54	85	SIDE RDR L MALF	F, G	DAS-154
C1B56	86	SONAR CIRCUIT	G	DAS-155
C1B57	87	AVM CIRCUIT	G	DAS-156
C1B59	184	CCM CIRCUIT	A, B, C, F, G	DAS-157

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ADAS CONTROL UNIT

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[ADAS CONTROL UNIT]

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DTC		CONSULT display	Fail-safe	Reference
CONSULT	On board display		System	
C1B82	12	DIST SEN OFF-CENTER	A, C, D, E	DAS-158
C1B84	17	DIST SEN MALFUNCTION	A, C, D, E	DAS-159
C1B85	21	DIST SEN ABNORMAL TEMP	A, C, D, E	DAS-160
C1B86	80	DIST SEN PWR SUP CIR	A, C, D, E	DAS-161
C1F01	91	APA MOTOR MALF	A, C, D, E	DAS-163
C1F02	92	APA C/U MALF	A, C, D, E	DAS-164
C1F05	95	APA PWR SUPPLY CIR	A, C, D, E	DAS-165
U0121	127	VDC CAN CIR 2	A, B, C, D, E, F, G, H, I	DAS-166
U0126	130	STRG SEN CAN CIR 1	A, B, C, D, E, F, G	DAS-167
U0235	144	ICC SENSOR CAN CIRC 1	A, C, D, E	DAS-168
U0401	120	ECM CAN CIR 1	A, B, C, D, E, F, G, I	DAS-169
U0402	122	TCM CAN CIR 1	A, B, C, D, E, F, G, H	DAS-171
U0415	126	VDC CAN CIR 1	A, B, C, D, E, F, G, H, I	DAS-172
U0424	156	HVAC CAN CIR 1		DAS-173
U0428	131	STRG SEN CAN CIR 2	A, B, C, D, E, F, G	DAS-174
U1000 ^{NOTE}	100	CAN COMM CIRCUIT	A, B, C, D, E, F, G, H, I	DAS-175
U1010	110	CONTROL UNIT (CAN)	A, B, C, D, E, F, G, H, I	DAS-177
U150B	157	ECM CAN CIRC 3	A, B, C, D, E, F, G, H, I	DAS-178
U150C	158	VDC CAN CIRC 3	A, B, C, D, E, F, G, H, I	DAS-180
U150D	159	TCM CAN CIRC 3	A, B, C, D, E, F, G, H	DAS-181
U150E	160	BCM CAN CIRC 3	A, B, C, D, F, G, H	DAS-182
U150F	161	AV CAN CIRC 3		DAS-183
U1500	145	CAM CAN CIR2	F, H	DAS-184
U1501	146	CAM CAN CIR 1	F, H	DAS-185
U1502	147	ICC SEN CAN COMM CIR	A, C, D, E	DAS-186
U1503	150	SIDE RDR L CAN CIR 2	F, G	DAS-187
U1504	151	SIDE RDR L CAN CIR 1	F, G	DAS-188
U1505	152	SIDE RDR R CAN CIR 2	F, G	DAS-189
U1506	153	SIDE RDR R CAN CIR 1	F, G	DAS-190
U1507	154	LOST COMM (SIDE RDR R)	F, G	DAS-191
U1508	155	LOST COMM (SIDE RDR L)	F, G	DAS-192
U1512	162	HVAC CAN CIRC3		DAS-193
U1513	163	METER CAN CIRC 3	A, B, C, D, E, F, G, H, I	DAS-194
U1514	164	STRG SEN CAN CIRC 3	A, B, C, D, E, F, G	DAS-195
U1515	165	ICC SENSOR CAN CIRC 3	A, C, D, E	DAS-196

ADAS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[ADAS CONTROL UNIT]

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DTC		CONSULT display	Fail-safe	Reference
CONSULT	On board display		System	
U1516	166	CAM CAN CIRC 3	F, G, H	DAS-197
U1517	167	APA CAN CIRC 3	A, C, D, E	DAS-198
U1518	168	SIDE RDR L CAN CIRC 3	F, G	DAS-199
U1519	169	SIDE RDR R CAN CIRC 3	F, G	DAS-200
U1521	177	SONAR CAN COMMUNICATION 2	G	DAS-201
U1522	178	SONAR CAN COMMUNICATION 1	G	DAS-202
U1523	179	SONAR CAN COMMUNICATION 3	G	DAS-203
U1524	180	AVM CAN COMMUNICATION 1	G	DAS-204
U1525	181	AVM CAN COMMUNICATION 3	G	DAS-205
U1527	185	CCM CAN CIR1	A, B, C, F, G	DAS-206
U153F	186	CCM CAN CIR2	A, B, C, F, G	DAS-207
U1530	183	DR ASSIST BUZZER CAN CIR1		DAS-208
U1538	197	EMCM CAN CIRCUIT 3	A, B, C, D, E, F, G, H, I	DAS-209
U1540	200	DAST CAN CIR 1	C, D, E	DAS-211
U1541	201	DAST CAN CIR 2	C, D, E	DAS-212

NOTE:

With the detection of “U1000” some systems do not perform the fail-safe operation.

A system controlling based on a signal received from the control unit performs fail-safe operation when the communication with the ADAS control unit becomes inoperable.

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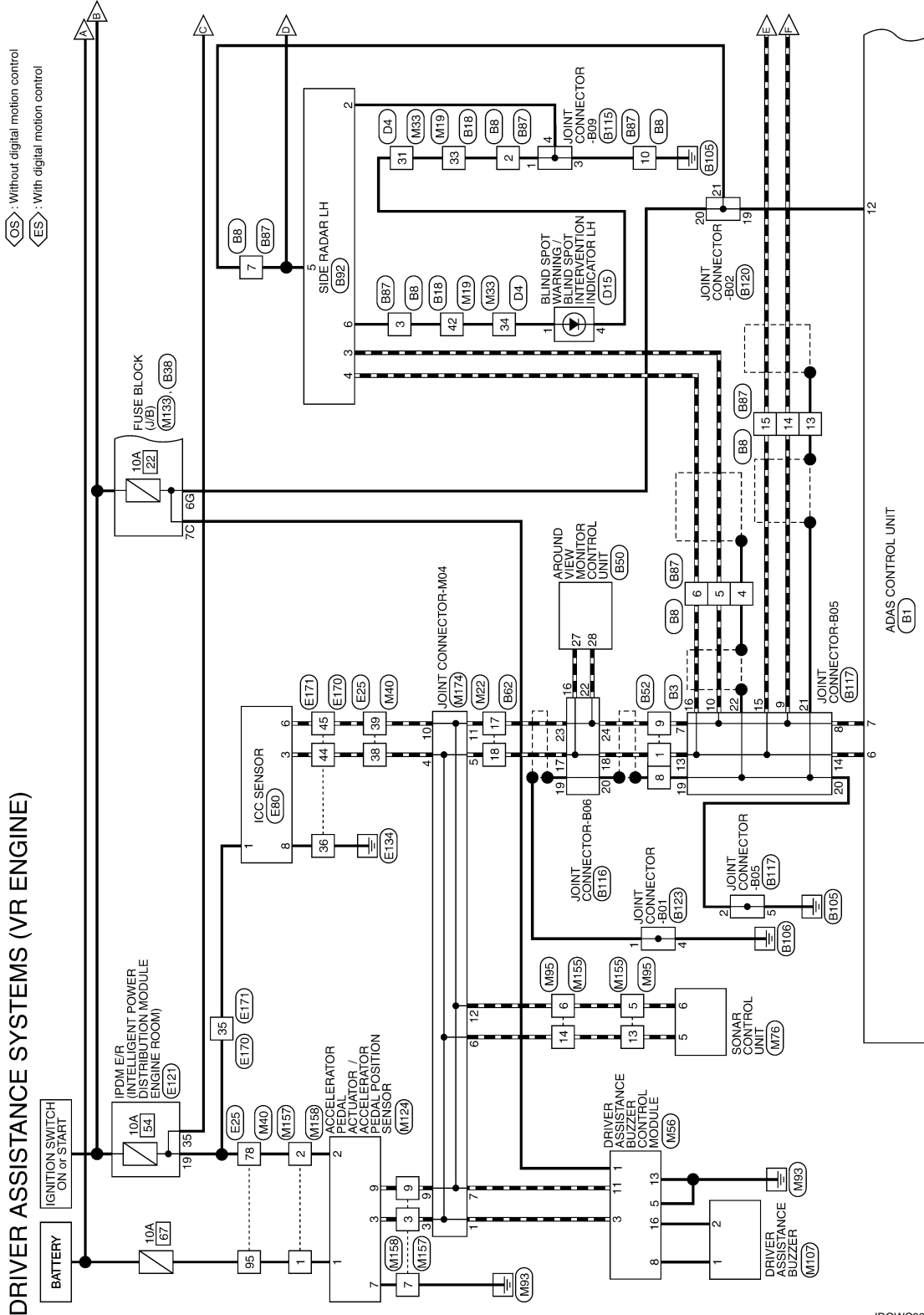
WIRING DIAGRAM

DRIVER ASSISTANCE SYSTEMS

Wiring Diagram

INFOID:000000012796063

VR ENGINE



*: This connector is not shown in "Harness Layout".

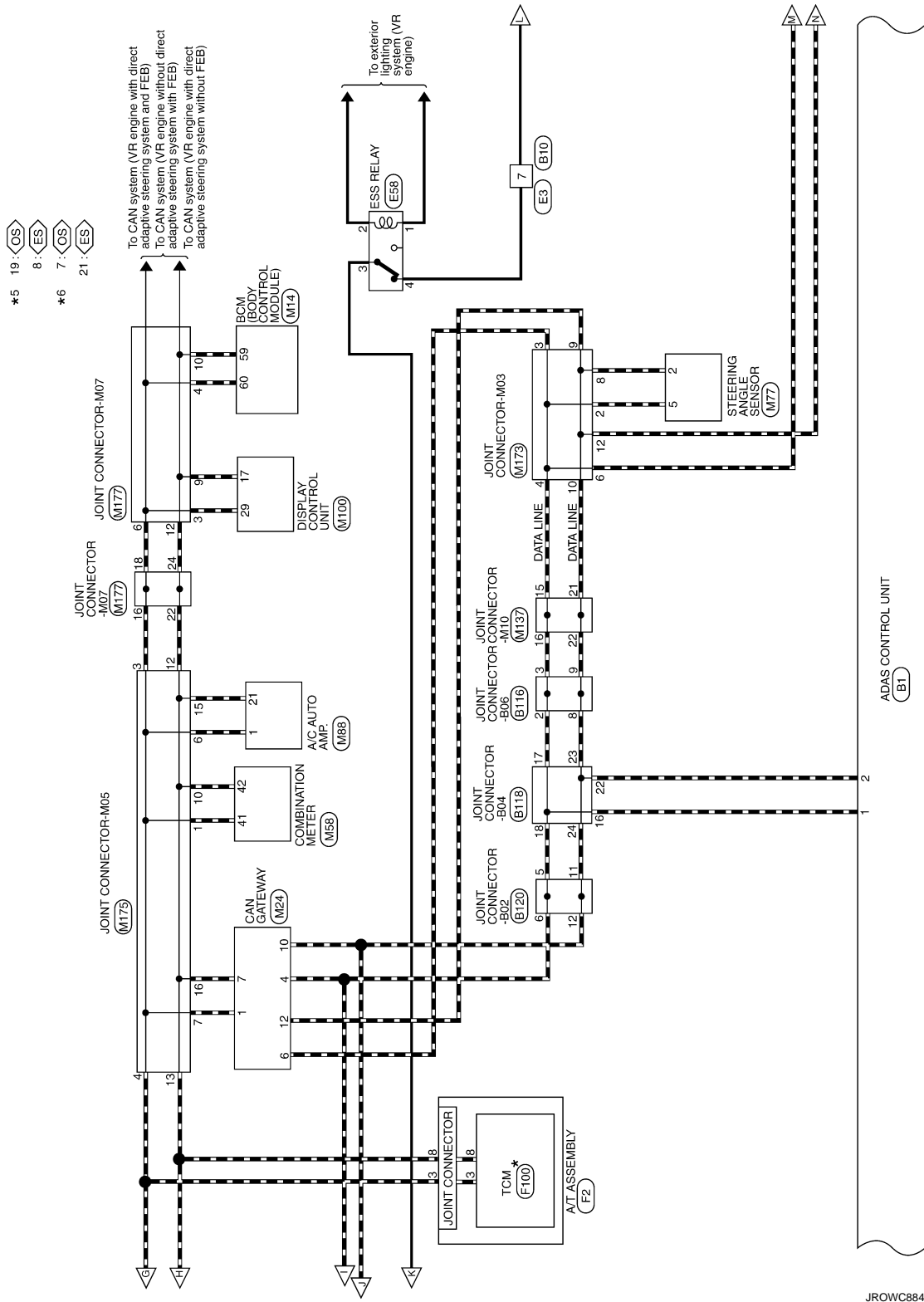
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DRIVER ASSISTANCE SYSTEMS

< WIRING DIAGRAM >

[ADAS CONTROL UNIT]



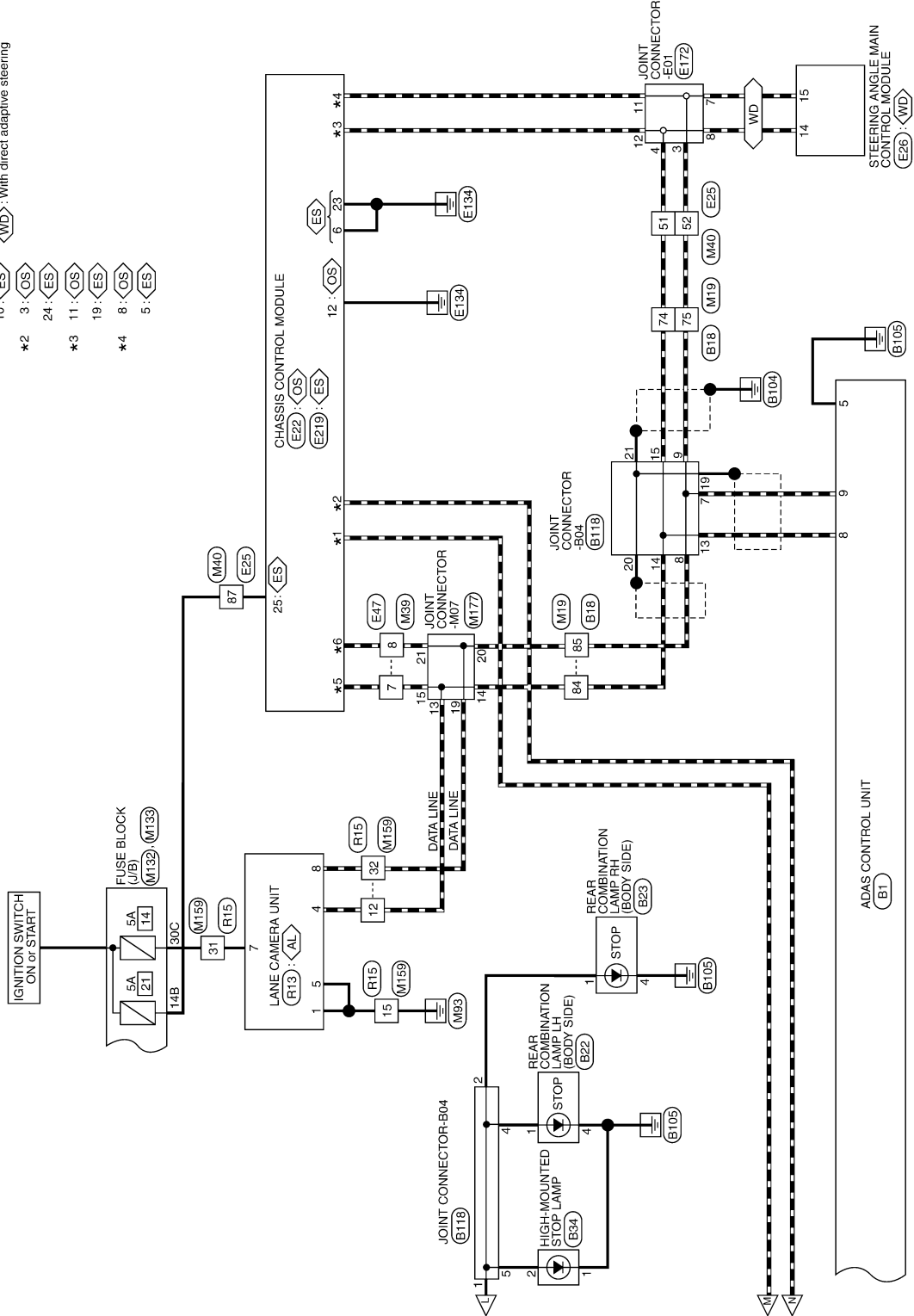
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DRIVER ASSISTANCE SYSTEMS

< WIRING DIAGRAM >

[ADAS CONTROL UNIT]

- *1 4: <OS> : With active lane control
- 10: <ES> : With direct adaptive steering
- *2 3: <OS>
- 24: <ES>
- *3 11: <OS>
- 19: <ES>
- *4 8: <OS>
- 5: <ES>



JROWC8843GB

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DRIVER ASSISTANCE SYSTEMS

< WIRING DIAGRAM >

[ADAS CONTROL UNIT]

DRIVER ASSISTANCE SYSTEMS (VR ENGINE)

Connector No.	B1
Connector Name	ADAS CONTROL UNIT
Connector Type	TH24FW-NH



12	1	9	8	7	6	5	4	3	2	1
24	23									

Connector No.	B8
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH



9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8

Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	CAN-H
2	R	CAN-L
3	B	GROUND
4	L	ITS COMM-H
5	L	ITS COMM-L
6	L	CHASSIS COMM-H
7	R	CHASSIS COMM-L
8	R	IGNITION [Except with VR30 engine and without BS]
9	G	IGNITION [VR30 engine and without BS]
10	GR	IGNITION [VR30 engine and without BS]
11	V	IGNITION [VR30 engine and without BS]
12	Y	IGNITION [VR30 engine and without BS]
13	Y	IGNITION [VR30 engine and without BS]
14	Y	IGNITION [VR30 engine and without BS]
15	Y	IGNITION [VR30 engine and without BS]
16	Y	IGNITION [VR30 engine and without BS]
17	V	IGNITION [VR30 engine and without BS]
18	V	IGNITION [VR30 engine and without BS]
19	V	IGNITION [VR30 engine and without BS]
20	V	IGNITION [VR30 engine and without BS]
21	V	IGNITION [VR30 engine and without BS]
22	V	IGNITION [VR30 engine and without BS]
23	Y	IGNITION [VR30 engine and without BS]
24	SB	IGNITION [VR30 engine and without BS]

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



7	6	5	4	3	2	1
16	15	14	13	12	11	10
9	8					

Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	L	-
3	L	-
4	B	-
5	BR	- [With BOSE system]
6	BR	- [Without BOSE system]
7	R	-
8	B	-
9	Y	-

11	B	-
12	GR	-
13	G	-
14	B	-
15	W	-
16	BR	-

Connector No.	B10
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH

12	11	10	9	8	7	6	5	4	3	2	1
24	23	22	21	20	19	18	17	16	15	14	13

Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	- [With 2.0L turbo gasoline engine]
2	Y	- [With VR30 engine]
3	LG	-
4	P	- [With VR30 engine]
5	SB	- [With 2.0L turbo gasoline engine]
6	L	-
7	V	-
8	V	-
9	W	-
10	B	-
11	G	-
12	R	-
13	GR	-
14	BG	-
15	BR	-
16	LG	-
17	V	-
18	BR	-
19	Y	- [With 2.0L turbo gasoline engine]
20	Y	- [With VR30 engine]
21	R	- [With 2.0L turbo gasoline engine]
22	V	- [With VR30 engine]
23	V	-
24	B	- [With VR30 engine]

Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



12	11	10	9	8	7	6	5	4	3	2	1
24	23	22	21	20	19	18	17	16	15	14	13

Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	G	-
3	L	-
4	LG	-
5	Y	-
6	R	-
7	V	-
8	LG	-
9	BG	-
10	BG	-
11	BG	-
12	LG	-
13	GR	-
14	R	-
15	L	-
16	V	-
17	W	-
18	W	-
19	BR	-
20	W	-
21	R	-
22	R	-
23	V	-
24	R	- [With 2.0L turbo gasoline engine]
25	P	- [With VR30 engine]
26	V	- [With 2.0L turbo gasoline engine and without gateway]
27	V	- [With 2.0L turbo gasoline engine and without gateway]
28	W	- [With VR30 engine]
29	G	-
30	R	-
31	B	- [With VR30 engine]
32	BR	- [With 2.0L turbo gasoline engine]
33	B	-
34	LG	-
35	P	-
36	W	-

DRIVER ASSISTANCE SYSTEMS

< WIRING DIAGRAM >

[ADAS CONTROL UNIT]

DRIVER ASSISTANCE SYSTEMS (VR ENGINE)

8	SHIELD	-	-	-	-
9	P	-	-	-	-
11	B	-	-	-	-
12	GR	-	-	-	-
13	G	-	-	-	-
14	B	-	-	-	-
15	W	-	-	-	-
16	BR	-	-	-	-

Connector No.	B82
Connector Name	WIRE TO WIRE
Connector Type	TH8SPW/CS16.TM4



Terminal No.	Color Of Wire	Signal Name (Specification)
1	BR	- [With 2.0L turbo gasoline engine and without BOSE system]
1	LG	- [With VR30 engine]
1	W	- [With 2.0L turbo gasoline engine and with BOSE system]
2	L	- [With VR30 engine]
3	BR	- [With 2.0L turbo gasoline engine]
3	R	- [With VR30 engine and with BOSE system]
3	W	- [With VR30 engine and without BOSE system]
4	SHIELD	- [With VR30 engine]
4	Y	- [With 2.0L turbo gasoline engine]
5	G	- [With VR30 engine]
5	V	- [With 2.0L turbo gasoline engine]
6	BG	- [With VR30 engine]
6	BR	- [With 2.0L turbo gasoline engine]
7	B	- [With 2.0L turbo gasoline engine and with BOSE system]
7	BR	- [With VR30 engine and without BOSE system]
7	W	- [With VR30 engine and with BOSE system]
7	V	- [With 2.0L turbo gasoline engine and without BOSE system]
8	B	- [With VR30 engine and with BOSE system]
8	G	- [With 2.0L turbo gasoline engine]
8	Y	- [With VR30 engine and without BOSE system]
9	LG	- [With 2.0L turbo gasoline engine]
9	SHIELD	- [With VR30 engine]
10	V	-
11	GR	-
12	Y	-

13	R	-	-	-	-
14	BG	-	-	-	-
15	BG	-	-	-	-
16	GR	-	-	-	-
17	P	-	-	-	-
18	L	-	-	-	-
19	R	-	-	-	-
20	GR	-	-	-	-
21	R	-	-	-	-
22	V	-	-	-	-
23	W	-	-	-	-
24	BG	-	-	-	-
25	L	-	-	-	-
25	SB	-	-	-	-
26	G	-	-	-	-
26	W	-	-	-	-
27	R	-	-	-	-
29	LG	-	-	-	-
30	LG	-	-	-	-
30	P	-	-	-	-
31	SHIELD	-	-	-	-
32	L	-	-	-	-
33	B	-	-	-	-
33	LG	-	-	-	-
34	SHIELD	-	-	-	-
35	LG	-	-	-	-
35	W	-	-	-	-
36	R	-	-	-	-
36	W	-	-	-	-
37	P	-	-	-	-
37	R	-	-	-	-
37	W	-	-	-	-
38	W	-	-	-	-
39	P	-	-	-	-
39	R	-	-	-	-
39	W	-	-	-	-
40	G	-	-	-	-
41	L	-	-	-	-
42	R	-	-	-	-
43	SHIELD	-	-	-	-
44	P	-	-	-	-
45	B	-	-	-	-
45	G	-	-	-	-
46	SHIELD	-	-	-	-
47	G	-	-	-	-
48	BG	-	-	-	-
49	G	-	-	-	-
50	V	-	-	-	-

51	GR	-	-	-	-
52	W	-	-	-	-
52	Y	-	-	-	-
53	R	-	-	-	-
54	GR	-	-	-	-
55	L	-	-	-	-
56	V	-	-	-	-
57	R	-	-	-	-
58	LG	-	-	-	-
59	P	-	-	-	-
61	L	-	-	-	-
62	P	-	-	-	-
62	V	-	-	-	-
63	L	-	-	-	-
64	W	-	-	-	-
66	LG	-	-	-	-
68	L	-	-	-	-
69	P	-	-	-	-
71	GR	-	-	-	-
71	R	-	-	-	-
72	G	-	-	-	-
72	Y	-	-	-	-
73	R	-	-	-	-
73	SHIELD	-	-	-	-
74	BG	-	-	-	-
74	L	-	-	-	-
75	GR	-	-	-	-
75	V	-	-	-	-
76	GR	-	-	-	-
76	V	-	-	-	-
77	P	-	-	-	-
78	L	-	-	-	-
79	R	-	-	-	-
80	GR	-	-	-	-
80	W	-	-	-	-
81	B	-	-	-	-
81	R	-	-	-	-
82	G	-	-	-	-
82	SHIELD	-	-	-	-
83	R	-	-	-	-
83	W	-	-	-	-
84	BR	-	-	-	-
84	SHIELD	-	-	-	-
85	BG	-	-	-	-
85	G	-	-	-	-
86	R	-	-	-	-
86	W	-	-	-	-
87	LG	-	-	-	-
87	SHIELD	-	-	-	-
89	LG	-	-	-	-

90	P	-	-	-	-
90	V	-	-	-	-
92	L	-	-	-	-
92	W	-	-	-	-
93	R	-	-	-	-
93	SHIELD	-	-	-	-
94	R	-	-	-	-
95	L	-	-	-	-
95	Y	-	-	-	-
96	R	-	-	-	-
96	W	-	-	-	-
97	L	-	-	-	-
97	R	-	-	-	-
97	W	-	-	-	-
98	LG	-	-	-	-
98	GR	-	-	-	-
99	P	-	-	-	-
99	Y	-	-	-	-
100	BR	-	-	-	-
100	W	-	-	-	-

Connector No.	B87
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



Terminal No.	Color Of Wire	Signal Name (Specification)
2	B	-
3	BR	-
4	SHIELD	-
5	R	-
6	L	-
7	GR	-
10	B	-
11	B	-
12	SB	-
13	SHIELD	-
14	P	-
15	L	-

DRIVER ASSISTANCE SYSTEMS

< WIRING DIAGRAM >

[ADAS CONTROL UNIT]

DRIVER ASSISTANCE SYSTEMS (VR ENGINE)

Connector No.	B82
Connector Name	SIDE RADAR LH
Connector Type	AAC0FB-WP-5P



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GROUND
2	R	ITS COMM-L
3	L	ITS COMM-H
4	GR	IGNITION
5	BR	BUNG SPOT WARNING/SPOT INTERVENTION INDICATOR

Connector No.	B83
Connector Name	SIDE RADAR RH
Connector Type	AAC0FB-WP



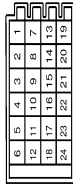
Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	RIGHT/LEFT SWITCHING SIGNAL
2	B	GROUND
3	P	ITS COMM-L
4	L	ITS COMM-H
5	GR	IGNITION
6	SB	BUNG SPOT WARNING/SPOT INTERVENTION INDICATOR

Connector No.	B115
Connector Name	JOINT CONNECTOR-B09
Connector Type	TK04FW-J



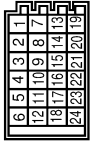
Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	B	-
3	B	-
4	B	-

Connector No.	B116
Connector Name	JOINT CONNECTOR-B06
Connector Type	24342_4GAZA



Terminal No.	Color Of Wire	Signal Name [Specification]
13	SHIELD	-
14	SHIELD	-
15	B	- [With 2.0L turbo gasoline engine]
16	SHIELD	- [With VR30 engine]
17	SHIELD	- [With 2.0L turbo gasoline engine]
18	SHIELD	- [With VR30 engine]
19	SHIELD	- [With VR30 engine]
20	L	- [With 2.0L turbo gasoline engine]
21	L	- [With VR30 engine]
22	P	-
23	P	-
24	P	- [With VR30 engine]

Connector No.	B117
Connector Name	JOINT CONNECTOR-B05
Connector Type	24342_4GAZA



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	- [With 2.0L turbo gasoline engine]
2	SHIELD	- [With VR30 engine]
3	B	- [With VR30 engine]
4	SHIELD	- [With 2.0L turbo gasoline engine]
5	B	-
6	B	-
7	Y	-
8	Y	-
9	P	- [With VR30 engine]
10	Y	- [With 2.0L turbo gasoline engine]
11	P	- [With VR30 engine]
12	Y	- [With 2.0L turbo gasoline engine]
13	P	-

Terminal No.	Color Of Wire	Signal Name [Specification]
12	P	-
13	L	-
14	L	-
15	L	-
16	L	-
17	L	-
18	L	-
19	B	-
20	B	-
21	B	- [With 2.0L turbo gasoline engine]
22	B	- [With VR30 engine]
23	SHIELD	- [With 2.0L turbo gasoline engine]
24	SHIELD	- [With VR30 engine]

Connector No.	B118
Connector Name	JOINT CONNECTOR-B04
Connector Type	24342_4GAZA



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	- [With VR30 engine]
2	SHIELD	- [With 2.0L turbo gasoline engine]
3	LG	- [With VR30 engine]
4	SHIELD	- [With 2.0L turbo gasoline engine]
5	LG	- [With VR30 engine]
6	SHIELD	- [With 2.0L turbo gasoline engine]
7	R	- [Color of wire differs depending on production]
8	V	- [Color of wire differs depending on production]
9	R	- [With VR30 engine and without paddle shift]
10	V	- [With VR30 engine and with paddle shift]
11	LG	- [With 2.0L turbo gasoline engine]
12	R	- [With VR30 engine and without paddle shift]
13	V	- [With VR30 engine and with paddle shift]

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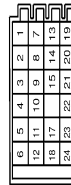
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DRIVER ASSISTANCE SYSTEMS (VR ENGINE)

10	LG	- [With 2.0L turbo gasoline engine]
10	SHIELD	- [With VR30 engine]
11	LG	- [With 2.0L turbo gasoline engine]
11	SHIELD	- [With VR30 engine]
12	LG	- [With 2.0L turbo gasoline engine]
12	SHIELD	- [With VR30 engine]
13	L	- [With VR30 engine]
13	P	- [With 2.0L turbo gasoline engine and without gateway]
13	R	- [With 2.0L turbo gasoline engine and with gateway]
14	P	- [With VR30 engine]
14	P	- [With 2.0L turbo gasoline engine and without gateway]
14	R	- [With 2.0L turbo gasoline engine and with gateway]
15	R	- [With VR30 engine]
16	L	- [With 2.0L turbo gasoline engine]
17	L	-
18	L	-
19	L	- [With 2.0L turbo gasoline engine]
19	SHIELD	- [With VR30 engine]
20	L	- [With 2.0L turbo gasoline engine]
20	SHIELD	- [With VR30 engine]
21	L	- [With 2.0L turbo gasoline engine]
21	SHIELD	- [With VR30 engine]
22	R	-
23	R	-
24	R	-

Connector No.	B120
Connector Name	JOINT CONNECTOR-B02
Connector Type	24342_4GAZA



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	R	-
3	L	- [With VR30 engine]
3	R	- [With 2.0L turbo gasoline engine]
4	L	- [With VR30 engine]
4	R	- [With 2.0L turbo gasoline engine]
5	L	-
6	L	-

7	L	-
8	L	- [With 2.0L turbo gasoline engine]
9	R	- [With VR30 engine]
9	L	- [With 2.0L turbo gasoline engine]
10	R	- [With VR30 engine]
10	L	- [With 2.0L turbo gasoline engine]
11	R	- [With VR30 engine]
12	R	-
12	W	-
13	W	-
14	W	-
15	W	-
17	SHIELD	-
18	B	-
19	B	- [With 2.0L turbo gasoline engine]
19	GR	- [With VR30 engine]
20	GR	- [With VR30 engine]
20	SHIELD	- [With 2.0L turbo gasoline engine]
21	B	- [With 2.0L turbo gasoline engine]
21	GR	- [With VR30 engine]
22	W	-
23	W	-
24	W	-

Connector No.	B123
Connector Name	JOINT CONNECTOR-B01
Connector Type	TK04F-WJ



Terminal No.	Color Of Wire	Signal Name [Specification]
1	SHIELD	-
2	SHIELD	-
3	B	- [With 2.0L turbo gasoline engine]
3	SHIELD	- [With VR30 engine]
4	B	-

Connector No.	D4
Connector Name	WIRE TO WIRE
Connector Type	NH60PW-TS12



Terminal No.	Color Of Wire	Signal Name [Specification]
2	SB	-
4	B	-
5	R	-
6	V	-
7	LG	-
8	G	-
9	GR	-
10	Y	-
11	SHIELD	-
12	B	-
13	L	-
14	B	-
15	Y	-
16	GR	-
17	R	-
18	GR	-
19	R	-
20	W	-
21	LG	-
22	W	-
23	L	-
24	G	-
25	BR	-
26	R	-
27	BR	-
28	V	-
29	B	-
30	W	-
31	P	-
32	Y	-
33	BR	-
34	L	-
35	R	-
36	GR	-
37	G	-
40	LG	- [Color of wire differs depending on production]

40	P	- [Color of wire differs depending on production]
41	L	-
43	B	-
44	Y	-
46	W	-
47	R	-
49	BR	-
50	B	-
52	V	-
53	GR	-
55	GR	- [Color of wire differs depending on production]
55	SB	- [Color of wire differs depending on production]
59	BR	-
57	R	-
58	L	-
59	V	-
60	G	-
61	B	-
62	Y	-
63	SB	-
64	B	-
65	Y	-
66	BR	-
68	Y	-
69	L	-
70	W	-
71	LG	-
72	P	-

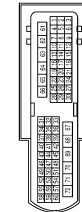
Connector No.	D15
Connector Name	15-PIN 30P WARMING/BLIND SPOT INTERVENTION INDICATOR LH
Connector Type	TH04MW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
4	P	-

DRIVER ASSISTANCE SYSTEMS (VR ENGINE)

Connector No.	D18
Connector Name	WIRE TO WIRE
Connector Type	NH60FW-TS12



Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	-
2	P	-
4	SB	-
5	BR	-
6	Y	-
7	LG	-
8	W	-
9	L	-
10	L	-
11	GR	-
13	Y	-
14	R	-
16	R	-
17	B	-
18	W	-
19	B	-
20	G	-
21	SHIELD	-
22	GR	-
23	BG	-
24	B	-
25	BR	-
26	V	-
27	G	-
28	V	-
29	Y	-
30	R	-
49	LG	-
52	P	-
55	L	-
56	Y	-
57	R	-
58	SB	-
59	R	-
60	G	-
63	B	-

64	Y	-
65	BR	-
66	GR	-
69	W	-
70	L	-
71	BG	-
72	Y	-

Connector No.	D27
Connector Name	BLIND SPOT WARNING/BLIND SPOT INTERVENTION INDICATOR BH
Connector Type	TH24MW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	SB	-
4	L	-

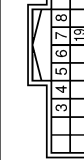
Connector No.	E3
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	- [With 2.0L turbo gasoline engine]
1	Y	- [With VR30 engine]
2	W	-
3	LG	-
4	P	- [With VR30 engine]
4	SB	- [With 2.0L turbo gasoline engine]
5	L	-
6	Y	-
7	LG	-

8	BG	-
9	W	-
10	B	-
11	G	-
12	R	-
13	GR	-
14	G	-
15	LG	- [With 2.0L turbo gasoline engine]
15	V	- [With VR30 engine]
17	P	-
18	BR	-
19	LG	- [With 2.0L turbo gasoline engine]
19	Y	- [With VR30 engine]
20	GR	-
21	R	- [With 2.0L turbo gasoline engine]
21	V	- [With VR30 engine]
22	L	-
23	P	-
24	B	- [With VR30 engine]
24	BR	- [With 2.0L turbo gasoline engine]

Connector No.	E22
Connector Name	CHASSIS CONTROL MODULE
Connector Type	TH24FW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
3	P	CAN-L [Without Gateway]
3	R	CAN-L [With Gateway]
4	L	CAN-H
5	V	DRIVE MODE SELECT SWITCH (UP) [With VR30 engine]
5	Y	DRIVE MODE SELECT SWITCH (UP) [With 2.0L turbo gasoline engine]
6	G	DRIVE MODE SELECT SW (DOWN) [With 2.0L turbo gasoline engine]
6	Y	DRIVE MODE SELECT SW (DOWN) [With VR30 engine]
7	W	CHASSIS COMM-L
8	W	CHASSIS COMM-L
10	BG	IGN [With 2.0L turbo gasoline engine]
10	G	IGN [With VR30 engine]
11	L	CHASSIS COMM-H
11	L	CHASSIS COMM-H
12	B	GROUND [With VR30 engine]

12	B/W	GROUND [With 2.0L turbo gasoline engine]
19	BR	CHASSIS COMM-H [With VR30 engine]
19	L	CHASSIS COMM-H [With 2.0L turbo gasoline engine]
23	G	ESS RELAY [With VR30 engine]
23	R	ESS RELAY [With 2.0L turbo gasoline engine]

Connector No.	E25
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	BG	-
6	V	-
7	L	-
8	BG	- [With VR30 engine]
8	BR	- [With 2.0L turbo gasoline engine]
9	B	- [With 2.0L turbo gasoline engine]
9	GR	- [With VR30 engine] (Color of wire differs depending on production)
9	LG	- [With VR30 engine] (Color of wire differs depending on production)
10	BR	-
11	L	-
12	GR	- [With VR30 engine]
12	P	- [With 2.0L turbo gasoline engine]
13	SHIELD	- [With 2.0L turbo gasoline engine]
13	B	- [With VR30 engine]
14	B	-
15	GR	- [With 2.0L turbo gasoline engine]
15	SB	- [With VR30 engine]
16	BR	- [With 2.0L turbo gasoline engine]
16	B	- [With VR30 engine]
17	BR	- [With VR30 engine]
17	GR	- [With 2.0L turbo gasoline engine]
18	G	- [With 2.0L turbo gasoline engine]
18	P	- [With VR30 engine]
19	Y	-
31	W	- [With 2.0L turbo gasoline engine]
31	Y	- [With VR30 engine]
32	G	- [With 2.0L turbo gasoline engine]
32	GR	- [With VR30 engine]
33	L	- [With VR30 engine]

A
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DRIVER ASSISTANCE SYSTEMS (VR ENGINE)

33	Y	-	[With VR30 engine]
34	P	-	[With 2.0L turbo gasoline engine]
35	GR	-	-
36	R	-	-
37	L	-	[With 2.0L turbo gasoline engine]
38	L	-	[With VR30 engine]
38	P	-	[With VR30 engine and without gateway]
38	R	-	[With 2.0L turbo gasoline engine and without gateway]
39	BR	-	[With 2.0L turbo gasoline engine]
39	X	-	[With VR30 engine]
40	SB	-	-
41	LG	-	-
44	Y	-	-
45	L	-	[With 2.0L turbo gasoline engine]
45	W	-	[With VR30 engine]
46	B	-	[With 2.0L turbo gasoline engine]
46	Y	-	[With 2.0L turbo gasoline engine]
47	G	-	-
48	SHIELD	-	-
49	R	-	-
50	BR	-	[With VR30 engine]
50	GR	-	[With 2.0L turbo gasoline engine]
51	L	-	-
52	W	-	-
53	V	-	[With VR30 engine]
54	P	-	[With 2.0L turbo gasoline engine]
54	W	-	[With 2.0L turbo gasoline engine]
55	B	-	[With 2.0L turbo gasoline engine]
55	W	-	[With VR30 engine]
56	BG	-	[With 2.0L turbo gasoline engine]
56	SB	-	[With VR30 engine]
57	BG	-	[With VR30 engine]
57	W	-	[With 2.0L turbo gasoline engine]
58	B	-	[Color of wire differs depending on production]
58	B/W	-	[Color of wire differs depending on production]
59	W	-	-
61	R	-	-
64	X	-	-
65	BR	-	[Color of wire differs depending on production]
65	GR	-	[Color of wire differs depending on production]
66	GR	-	-
67	LG	-	-
68	BG	-	-
69	L	-	-
70	R	-	-
71	G	-	[With 2.0L turbo gasoline engine]
71	LG	-	[With VR30 engine]
72	L	-	[With 2.0L turbo gasoline engine]
72	V	-	[With VR30 engine]

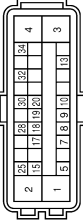
73	G	-	[With VR30 engine]
74	W	-	[With 2.0L turbo gasoline engine]
74	BR	-	[With VR30 engine]
75	L	-	[With 2.0L turbo gasoline engine]
75	P	-	[With 2.0L turbo gasoline engine and without gateway]
75	R	-	[With 2.0L turbo gasoline engine and with gateway]
75	V	-	[With VR30 engine]
76	G	-	-
77	Y	-	-
78	LG	-	[With 2.0L turbo gasoline engine and with ADAS]
78	P	-	[With VR30 engine]
78	V	-	[With 2.0L turbo gasoline engine and without ADAS]
79	SB	-	-
80	G	-	-
81	R	-	-
82	V	-	-
83	BR	-	[With 2.0L turbo gasoline engine]
83	R	-	[With VR30 engine]
84	LG	-	-
86	BG	-	-
87	G	-	-
89	LG	-	-
90	G	-	[With VR30 engine]
90	GR	-	[With 2.0L turbo gasoline engine]
91	G	-	-
93	BG	-	-
94	GR	-	[With VR30 engine]
94	L	-	[With 2.0L turbo gasoline engine]
95	BG	-	-
95	P	-	[With 2.0L turbo gasoline engine and without gateway]
95	R	-	[With 2.0L turbo gasoline engine and with gateway]
96	W	-	-
97	LG	-	-
98	L	-	-
99	LG	-	[With 2.0L turbo gasoline engine]
99	P	-	[With VR30 engine]
100	SHIELD	-	-

Connector No.	E26
Connector Name	STEERING ANGLE MAIN CONTROL MODULE
Connector Type	RH24FB-R28-L-1H



Terminal No.	Color	Wire	Signal Name [Specification]
1	BR	BR	TORQUE SENSOR MAIN SIGNAL
2	Y	Y	STEERING ANGLE MAIN MOTOR RESOLVER SIGNAL (S1-S3)
3	LG	LG	TORQUE SENSOR SUB SIGNAL
4	G	G	STEERING ANGLE MAIN MOTOR RESOLVER SIGNAL (S1-S3)
5	W	W	STEERING ANGLE MAIN MOTOR RESOLVER SIGNAL (S2-S4)
6	L	L	TORQUE SENSOR GROUND
7	SB	SB	TORQUE SENSOR POWER SUPPLY
8	P	P	STEERING ANGLE MAIN MOTOR RESOLVER SIGNAL (R1-R2)
10	R	R	STEERING ANGLE MAIN MOTOR RESOLVER SIGNAL (R1-R2)
11	BR	BR	STEERING ANGLE MAIN MOTOR RESOLVER SIGNAL (R1-R2)
14	L	L	CHASSIS COMMUNICATION-H
15	W	W	CHASSIS COMMUNICATION-L
17	BG	BG	BACK UP SIGNAL (FROM STEERING ANGLE SH CONTROL MODULE)
18	SB	SB	BACK UP SIGNAL (FROM STEERING ANGLE SH CONTROL MODULE)
19	Y	Y	FLEXRAY COMMUNICATION-H
20	GR	GR	FLEXRAY COMMUNICATION-L
22	GR	GR	BACK UP SIGNAL (TO STEERING ANGLE SH CONTROL MODULE)
23	BR	BR	CAN WAKE UP
24	P	P	BACK UP SIGNAL (TO STEERING ANGLE SH CONTROL MODULE)
25	G	G	IGNITION POWER SUPPLY (FROM STEERING ANGLE SH CONTROL MODULE)
30	B	B	GROUND
32	GR	GR	GROUND

Connector No.	E35
Connector Name	INDUCTIVE AND ELECTRIC UNIT (CONTROL UNIT)
Connector Type	SAZ30FB-S124-U



Terminal No.	Color	Wire	Signal Name [Specification]
1	B	B	GROUND
2	B	B	GROUND
3	G	G	VALVE BATTERY [With VR30 engine]
3	P	P	VALVE BATTERY [With 2.0L turbo gasoline engine]
4	Y	Y	MOTOR BATTERY
5	LG	LG	STOP LAMP SW SIGNAL [With ADAS]
5	V	V	STOP LAMP SW SIGNAL [With ASCD]
7	GR	GR	RR LH WHEEL SENSOR SIGNAL
8	G	G	RR LH WHEEL SENSOR POWER SUPPLY
9	BR	BR	FR RH WHEEL SENSOR SIGNAL
10	GR	GR	FR RH WHEEL SENSOR POWER SUPPLY
13	R	R	VACUUM SENSOR SIGNAL
15	P	P	CAN-L [Without gateway]
15	R	R	CAN-L [With gateway]
17	Y	Y	RR RH WHEEL SENSOR SIGNAL
18	LG	LG	RR RH WHEEL SENSOR POWER SUPPLY [With 2.0L turbo gasoline engine]
18	V	V	RR RH WHEEL SENSOR POWER SUPPLY [With VR30 engine]
19	SB	SB	FR LH WHEEL SENSOR SIGNAL
20	BG	BG	FR LH WHEEL SENSOR POWER SUPPLY
25	L	L	CAN-H
28	G	G	VACUUM SENSOR POWER SUPPLY
30	R	R	VDC OFF SW SIGNAL
32	SHIELD	SHIELD	VACUUM SENSOR GROUND
34	G	G	IGN

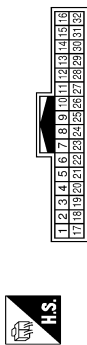
DRIVER ASSISTANCE SYSTEMS (VR ENGINE)

Connector No.	E44
Connector Name	BRAKE PEDAL POSITION SWITCH
Connector Type	S02FL



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	- [Color of wire differs depending on production]
2	BR	- [Color of wire differs depending on production]
3	BG	- [With VR30 engine]
4	W	- [With 2.0L turbo gasoline engine]

Connector No.	E47
Connector Name	WIRE TO WIRE
Connector Type	TH32XW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	- [Color of wire differs depending on production]
2	Y	- [Color of wire differs depending on production]
3	V	-
4	P	- [Without Gateway]
5	R	- [With Gateway]
6	W	-
7	SB	- [Color of wire differs depending on production]
8	L	- [Color of wire differs depending on production]
9	W	-
10	BG	- [Without BOSE system]
11	V	- [With BOSE system]
12	V	-

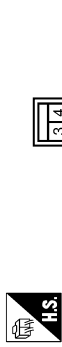
13	G	-
15	BR	-
16	P	-
17	SHELD	-
18	L	-
19	Y	-
20	W	-
21	G	-
22	R	-
23	BR	-
24	R	-
25	L	-
26	BG	-
27	LG	-
28	BR	-
29	W	-
30	Y	-
31	G	-
32	GR	-

Connector No.	E52
Connector Name	CC BRAKE HOLD RELAY
Connector Type	M502FL-M2-LC



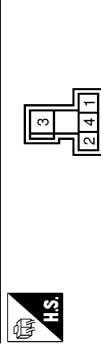
Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	G	-
3	V	-
5	BR	- [With 2.0L turbo gasoline engine]
5	L	- [With VR30 engine]

Connector No.	E57
Connector Name	STOP LAMP SWITCH
Connector Type	M04FW-LC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	- [With ASCD]
1	L	- [With ADAS]
2	GR	- [With ASCD]
2	LG	- [With ADAS]
3	BR	-
4	V	-

Connector No.	E58
Connector Name	ESS RELAY
Connector Type	M503FB-M2-LC



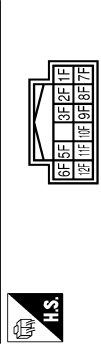
Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	- [With VR30 engine]
1	R	- [With 2.0L turbo gasoline engine]
2	G	-
3	W	-
4	LG	-

Connector No.	E64
Connector Name	FUSE BLOCK (I/B)
Connector Type	NS08FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1E	G	-
2E	P	-
3E	V	-
4E	GR	-
6E	L	-
7E	BG	-

Connector No.	E65
Connector Name	FUSE BLOCK (I/B)
Connector Type	TH12FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
10F	W	-
11E	G	- [Color of wire differs depending on production]
11F	R	- [Color of wire differs depending on production]
12F	W	- [With VR30 engine]
12F	Y	- [With 2.0L turbo gasoline engine]
1F	R	-
2F	BR	-
3F	P	-
5F	P	-
6F	L	-
7F	R	-
8F	L	-
9F	L	-

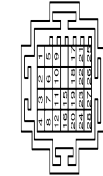
DRIVER ASSISTANCE SYSTEMS

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[ADAS CONTROL UNIT]

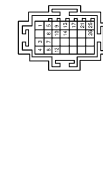
DRIVER ASSISTANCE SYSTEMS (VR ENGINE)

Connector No.	E172
Connector Name	JOINT CONNECTOR-E01
Connector Type	SGA238FLBR-J



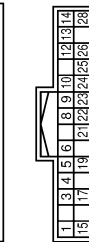
Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	-
2	Y	-
3	W	-
4	L	-
5	GR	-
6	Y	-
7	W	-
8	L	-
9	GR	-
10	Y	-
11	W	-
12	L	-
15	W	-
16	BG	-
17	P	-
18	L	-
19	W	-
20	BG	-
21	P	-
22	L	-
23	SB	- (Color of wire differs depending on production)
24	BG	- (Color of wire differs depending on production)
25	LG	- (Color of wire differs depending on production)
26	L	-
27	Y	-
28	L	-

Connector No.	E173
Connector Name	JOINT CONNECTOR-E02
Connector Type	SGA238FDG-J



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	- [Color of wire differs depending on production]
1	R	- [Color of wire differs depending on production]
3	B	-
4	B	-
5	G	-
6	BR	-
7	B	-
8	B	-
9	G	-
10	L	-
12	B	-
13	G	-
14	BR	-
17	G	-
21	G	-
25	R	-
26	L	-

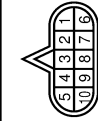
Connector No.	E219
Connector Name	CHASSIS CONTROL MODULE
Connector Type	TH28BW



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	ACTUATOR (EL-L)
3	BR	ACTUATOR (RR-H)
4	BG	IGN

Terminal No.	Color Of Wire	Signal Name [Specification]
5	W	CHASSIS COMM-L
6	B	GROUND
8	BR	CHASSIS COMMON (Color of wire differs depending on production)
8	L	CHASSIS COMMON (Color of wire differs depending on production)
9	G	CHASSIS COMMON (Color of wire differs depending on production)
9	Y	CHASSIS COMMON (Color of wire differs depending on production)
10	L	CAN-H
12	G	ACTUATOR (FR-H)
13	G	ESS RELAY
14	G	ACTUATOR (RL-L)
15	Y	ACTUATOR (RR-L)
17	V	ACTUATOR (FR-H)
19	L	CHASSIS COMMON-H
21	W	CHASSIS COMMON-L
22	V	DRIVE MODE SELECT SWITCH (UP)
23	B	GROUND
24	P	CAN-L [Without Gateway]
24	R	IGN
25	G	IGN
26	V	ACTUATOR (RL-H)
26	V	ACTUATOR (FR-L)
28	R	ACTUATOR (FR-L)

Connector No.	F2
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-1G7



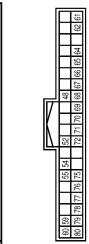
Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	IGNITION POWER SUPPLY (With 2.0L turbo gasoline engine)
1	L	IGNITION POWER SUPPLY (With V630 engine)
2	P	BATTERY POWER SUPPLY (MEMORY BACK-UP)
3	L	CAN-H
4	R	KEINE
5	B	GROUND (With 2.0L turbo gasoline engine)
5	BR	GROUND (With V630 engine)
6	GR	IGNITION POWER SUPPLY
7	BG	BACK-UP LAMP RELAY
8	P	CAN-L
9	V	STARTER RELAY
10	B	GROUND

Connector No.	F100
Connector Name	TCM
Connector Type	SP10FG



Terminal No.	Color Of Wire	Signal Name [Specification]
1	-	IGNITION POWER SUPPLY
2	-	BATTERY POWER SUPPLY (MEMORY BACK-UP)
3	-	CAN-H
4	-	K-LINE
5	-	GROUND
6	-	IGNITION POWER SUPPLY
7	-	BACK-UP LAMP RELAY
8	-	CAN-L
9	-	STARTER RELAY
10	-	GROUND

Connector No.	M14
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
48	R	PUSH-BTN IGN SW (L/PWR)
52	G	DONGLE LINK
54	V	COMM LINE
55	R	RAIN SENSOR
59	P	CAN-L
60	L	CAN-H
61	G	REAR WINDOW DEF RLY CONT
62	R	STARTER RLY CONT
64	V	I-KEY WARN BUZZER
65	B	OUTS HD LAMP CONT

A B C D E F G H I J K L M N P

DAS

JROWC8853GB

DRIVER ASSISTANCE SYSTEMS

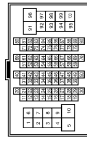
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[ADAS CONTROL UNIT]

DRIVER ASSISTANCE SYSTEMS (VR ENGINE)

66	B	BLOWER FAN RLY CONT [With VR30 engine]	
66	Y	BLOWER FAN RLY CONT [With 2.0L turbo gasoline engine]	
67	W/B	IGN RLYAY (F/B) CONT	
68	R	DIMMER	
69	GR	A/T SHIFT SELECT PWR SPV	
70	B	IGN RLYAY (IPDM E/R) CONT	
71	G	DR DOOR REQ SW	
72	SB	PASS DOOR REQ SW	
75	BR	COMB SW (INPUT 5)	
76	BG	COMB SW (INPUT 4)	
77	V	COMB SW (INPUT 3)	
78	Y	COMB SW (INPUT 2)	
79	LG	COMB SW (INPUT 1)	
80	L	TR LDO OPN SW	

Connector No.	M19
Connector Name	WIRE TO WIRE
Connector Type	TH80MM-CS16-TM4

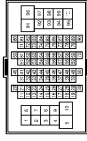


Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	
2	G	
3	SB	
4	BR	
5	Y	
6	R	
7	W	
8	V	
10	BG	
11	BR	
12	LG	
13	GR	
14	R	
15	L	
16	V	
18	W	
19	BR	
20	W	
22	SB	
23	R	

24	R		[With 2.0L turbo gasoline engine]
24	Y		[With VR30 engine]
25	P		[With 2.0L turbo gasoline engine]
25	W		[With VR30 engine]
26	G		
27	R		
28	R		
31	BR		
32	B		
33	B		
34	V		
35	B		
36	W		
37	SB		
38	LG		
40	P		
41	G		
42	BR		
43	BR		
44	BR		
46	BG		
50	W		
51	Y		
52	V		
53	LG		
54	R		
55	R		
58	V		
59	BG		
60	G		
61	G		
62	BG		
63	BR		
64	Y		
66	R		
70	LG		
71	W		
72	B		
73	W		
74	L		
75	W		
76	BR		
77	B		
78	SB		
79	P		[With VR30 engine]
79	W		
81	B		
82	R		
83	BG		

84	L		
85	W		
86	B		
88	G		
89	V		[With 2.0L turbo gasoline engine]
89	W		[With VR30 engine]
91	GR		
94	GR		
96	W		
97	V		
98	BR		[With VR30 engine and with BOSE system]
98	Y		[Except with VR30 engine and with BOSE system]

Connector No.	M22
Connector Name	WIRE TO WIRE
Connector Type	TH80MM-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	
2	SHIELD	[With VR30 engine]
3	R	[With 2.0L turbo gasoline engine]
3	BR	[With VR30 engine]
4	SHIELD	[With VR30 engine]
4	Y	[With 2.0L turbo gasoline engine]
5	V	[With VR30 engine]
5	G	[With 2.0L turbo gasoline engine]
6	BG	[With VR30 engine]
6	BR	[With VR30 engine]
7	LG	[With VR30 engine]
7	P	[With 2.0L turbo gasoline engine]
8	G	[With 2.0L turbo gasoline engine]
8	P	[With VR30 engine]
9	LG	[With 2.0L turbo gasoline engine]
9	SHIELD	[With VR30 engine]
10	V	
11	GR	
12	V	
13	LG	
14	LG	

15	BR		[With 2.0L turbo gasoline engine]
15	P		[With VR30 engine]
16	SB		[With DCV]
17	V		[Without DCV]
18	L		
19	G		
20	GR		
21	R		
22	V		
23	L		
24	BG		[With 2.0L turbo gasoline engine]
24	V		[With VR30 engine]
25	L		[With 2.0L turbo gasoline engine]
25	SB		[With VR30 engine]
26	G		[With VR30 engine]
26	W		[With 2.0L turbo gasoline engine]
27	R		
29	LG		
30	SB		[With VR30 engine]
30	W		[With 2.0L turbo gasoline engine]
31	SHIELD		
32	L		
33	B		[With VR30 engine]
33	LG		[With 2.0L turbo gasoline engine]
34	SHIELD		
35	LG		[With VR30 engine]
35	W		[With 2.0L turbo gasoline engine]
36	R		[With VR30 engine]
36	V		[With 2.0L turbo gasoline engine]
37	R		[With VR30 engine]
37	V		[With 2.0L turbo gasoline engine]
38	W		
39	P		[With VR30 engine and without BOSE system]
39	R		[With 2.0L turbo gasoline engine]
39	V		[With VR30 engine and with BOSE system]
40	G		
41	L		
42	R		
43	SHIELD		
44	P		[With 2.0L turbo gasoline engine]
45	B		[With 2.0L turbo gasoline engine]
45	G		[With VR30 engine]
46	SHIELD		
47	G		
48	BG		[Except with VR30 engine and with BOSE system]
48	BR		[With VR30 engine and with BOSE system]
49	G		
50	V		
51	V		

DRIVER ASSISTANCE SYSTEMS

< WIRING DIAGRAM >

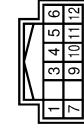
[ADAS CONTROL UNIT]

DRIVER ASSISTANCE SYSTEMS (VR ENGINE)

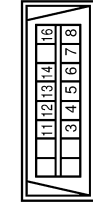
52	L	- [With 2.0L turbo gasoline engine]
53	Y	- [With VR30 engine]
54	GR	-
55	LG	-
56	P	-
57	R	-
58	LG	-
59	SB	-
60	L	-
61	P	- [With 2.0L turbo gasoline engine]
62	V	- [With VR30 engine]
63	L	-
64	W	-
65	R	-
66	L	-
67	P	-
68	L	-
69	P	-
70	GR	- [With 2.0L turbo gasoline engine]
71	R	- [With VR30 engine]
72	G	- [With VR30 engine]
73	V	- [With 2.0L turbo gasoline engine]
74	LG	- [With VR30 engine]
75	SHIELD	- [With VR30 engine]
76	L	- [With 2.0L turbo gasoline engine]
77	LG	- [With VR30 engine]
78	Y	-
79	G	-
80	GR	- [With 2.0L turbo gasoline engine]
81	W	- [With VR30 engine]
82	B	- [With 2.0L turbo gasoline engine]
83	R	- [With VR30 engine]
84	SHIELD	- [With VR30 engine]
85	BR	- [With VR30 engine]
86	G	- [With 2.0L turbo gasoline engine]
87	R	- [With VR30 engine]
88	V	- [With VR30 engine]
89	LG	- [With 2.0L turbo gasoline engine]
90	SB	- [With VR30 engine]

90	V	- [With VR30 engine]
92	L	- [With 2.0L turbo gasoline engine]
93	W	- [With VR30 engine]
94	R	- [With 2.0L turbo gasoline engine]
95	SHIELD	- [With 2.0L turbo gasoline engine]
96	L	-
97	R	- [With VR30 engine]
98	Y	- [With VR30 engine]
99	P	- [With 2.0L turbo gasoline engine]
100	BR	- [With VR30 engine]

Connector No.	M24
Connector Name	CAN GATEWAY
Connector Type	TH12FW-NH

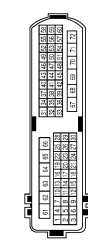


Connector No.	M25
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	M_CAN_L
4	B	EARTH
5	B	EARTH
6	L	CAN-H
7	V	K LINE [With 2.0L turbo gasoline engine]
7	W	K LINE [With VR30 engine]
8	W	IGN_SW
8	W	M_CAN_H
11	SB	CAN-L
12	R	CAN-H
13	L	CAN-H
14	P	CAN-L
16	W	POWER

Connector No.	M33
Connector Name	WIRE TO WIRE
Connector Type	NH60MW-TS12



Terminal No.	Color Of Wire	Signal Name [Specification]
2	W	-
4	G	-
5	G	-
6	R	-
7	R	-
8	GR	-
9	GR	-
10	W	-

11	SHIELD	-
12	P	-
13	SB	-
14	LG	-
15	Y	-
16	Y	-
17	P	-
18	W/B	- [Without DPO]
19	LG	- [Without DPO]
20	Y	-
21	B	-
22	BG	- [Without DPO]
22	G	- [With DPO]
23	L	-
24	Y	-
25	BG	- [Without DPO]
25	L	- [With DPO]
26	Y	-
27	GR	-
28	V	-
29	B	-
30	W	-
31	B	-
32	SB	-
33	L	-
34	BR	-
35	LG	-
36	W	-
37	B	-
40	P	-
41	SB	-
43	W	- [Except with VR30 engine and without ISS]
43	Y	- [With VR30 engine and without ISS]
44	BG	-
46	BR	-
47	G	-
49	V	-
50	B	-
52	BR	-
53	B	-
55	BG	-
56	LG	-
57	V	-
58	R	-
59	G	-
60	L	-
61	G	-
62	R	-
63	V	-

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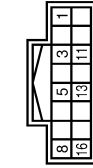


DRIVER ASSISTANCE SYSTEMS (VR ENGINE)

57	P	-	[With 2.0L turbo gasoline engine]
58	B	-	-
59	SB	-	-
61	W/B	-	-
64	Y	-	-
65	R	-	-
66	P	-	[Color of wire differs depending on production]
67	V	-	[Color of wire differs depending on production]
67	LG	-	-
68	BG	-	-
69	L	-	-
70	R	-	-
71	V	-	[With VR30 engine]
71	W	-	[With 2.0L turbo gasoline engine]
72	L	-	[With 2.0L turbo gasoline engine]
72	LG	-	[With VR30 engine]
73	R	-	[With VR30 engine]
73	W	-	[With 2.0L turbo gasoline engine]
74	BR	-	[With VR30 engine]
74	L	-	[With 2.0L turbo gasoline engine]
75	B	-	[With VR30 engine]
75	P	-	[With 2.0L turbo gasoline engine and without gateway]
75	R	-	[With 2.0L turbo gasoline engine and with gateway]
76	W/B	-	-
77	SB	-	-
78	G	-	[With VR30 engine]
78	LG	-	[With 2.0L turbo gasoline engine]
79	R	-	-
80	G	-	-
81	R	-	-
82	LG	-	-
83	BR	-	[With 2.0L turbo gasoline engine]
83	R	-	[With VR30 engine]
84	V	-	-
86	V	-	-
87	G	-	-
89	V	-	-
90	G	-	[With VR30 engine]
90	V	-	[With 2.0L turbo gasoline engine]
91	W	-	-
92	G	-	-
93	BR	-	-
94	GR	-	[With VR30 engine]
94	L	-	[With 2.0L turbo gasoline engine]
95	BR	-	[With VR30 engine]
95	P	-	[With 2.0L turbo gasoline engine and without gateway]
95	R	-	[With 2.0L turbo gasoline engine and with gateway]
96	W	-	-
97	LG	-	-
98	Y	-	-

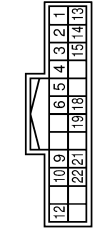
99	BR	-	[With VR30 engine]
99	LG	-	[With 2.0L turbo gasoline engine]
100	SHIELD	-	-

Connector No.	M55
Connector Name	DRIVER ASSISTANCE BUZZER CONTROL MODULE
Connector Type	TH12FW-AH



48	LG	AV COMMUNICATION SIGNAL (L)
51	BR	FUEL LEVEL SENSOR SIGNAL
52	B	GROUND

Connector No.	M76
Connector Name	SOMAR CONTROL UNIT
Connector Type	TH24FW-AH

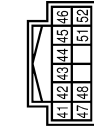


Connector No.	M77
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	IGNITION
3	L	ITS COMM-H
5	B	GROUND
8	R	WARNING BUZZER SIGNAL
11	Y	ITS COMM-L
13	B	GROUND
16	G	WARNING BUZZER SIGNAL GROUND

Connector No.	M58
Connector Name	COMBINATION METER
Connector Type	TH12FW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	SB	CENTER SENSOR SIGNAL FRONT RH
2	LG	CENTER SENSOR SIGNAL FRONT LH
3	W	CORNER SENSOR SIGNAL FRONT LH
4	GR	CORNER SENSOR SIGNAL FRONT RH
5	L	CAN-H [Without Gateway]
6	P	CAN-L [Without Gateway]
9	G	CORNER SENSOR SIGNAL REAR RH
10	BG	CORNER SENSOR SIGNAL REAR LH
12	R	IGN [For VR30 engine]
12	W	IGN [For 2.0L turbo gasoline engine]
13	B	FRONT SENSOR GND
14	B	REAR SENSOR GND
15	B	GND
18	GR	FRONT BUZZER DRIVE SIGNAL
19	P	BUZZER POWER SUPPLY
21	BR	CENTER SENSOR SIGNAL REAR LH
22	W	CORNER SENSOR SIGNAL REAR LH

Terminal No.	Color Of Wire	Signal Name [Specification]
41	L	CAN-H
42	P	CAN-L
43	B	ILLUMINATION CONTROL SIGNAL
44	Y	FUEL LEVEL SENSOR GROUND
45	W	BATTERY POWER SUPPLY
46	BG	IGNITION SIGNAL [Except with VR30 engine and without ISS]
46	R	IGNITION SIGNAL [With VR30 engine and without ISS]
47	SB	AV COMMUNICATION SIGNAL (H)

Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GROUND
2	P	CAN-L [Without Gateway]
2	R	CAN-L [With Gateway]
4	G	IGN
5	L	CAN-H

Connector No.	M85
Connector Name	RESISTOR
Connector Type	MD2FBR-LC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	-
2	B	-


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DRIVER ASSISTANCE SYSTEMS (VR ENGINE)

Connector No.	M187
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FEV-1V



Terminal No.	Color Of Wire	Signal Name [Specification]
24	P	-
25	SB	-
31	W/B	-
32	Y	-
33	B	-


Connector No.	M188
Connector Name	A/C AUTO AMP.
Connector Type	TH40PW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	CAN-H
2	B	GROUND
3	W	BATTERY POWER SUPPLY
7	G	AMBIENT SENSOR SIGNAL
9	R	SUN LOAD SENSOR SIGNAL
13	SB	ACC POWER SUPPLY [With VRS (baseline engine)]
13	P	ACC POWER SUPPLY [With VASD engine]
15	P	LIN SIGNAL
17	R	DOOR MOTOR POWER SUPPLY
20	L	BLOWER MOTOR CONTROL SIGNAL
21	P	HEATED STEERING WHEEL RELAY CONTROL SIGNAL
21	P	CAN-L
22	B	GROUND
23	R	IGNITION POWER SUPPLY [With VR00 engine and with ESS]
23	W	IGNITION POWER SUPPLY [Except with VR00 engine and with ESS]


26	B	SENSOR GROUND
27	LG	IN-VEHICLE SENSOR SIGNAL
28	BR	INTAKE SENSOR SIGNAL
30	BG	EXHAUST GAS / OUTSIDE COLOR DETECTING SENSOR SIGNAL
37	B	GROUND
38	BG	IONIZER (ON/OFF) CONTROL SIGNAL
40	BG	ECV CONTROL SIGNAL

Connector No.	M195
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH



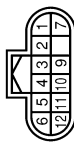
Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	BR	-
3	BR	-
5	P	- [Without Gateway]
5	R	- [With Gateway]
6	Y	-
7	P	- [Without Gateway]
7	R	- [With Gateway]
9	R/W	-
10	R	-
11	SHIELD	-
13	L	-
14	L	-
15	L	-

Connector No.	M107
Connector Name	DRIVER ASSISTANCE BUZZER
Connector Type	NS02FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	G	-

Connector No.	M124
Connector Name	ACCELERATOR PEDAL ACTUATOR/ACCELERATOR PEDAL POSITION SENSOR
Connector Type	RH12FB




Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	BATTERY
2	G	IGNITION
3	L	ITS COMM-H
4	W	-
5	G	-
6	Y	-
7	B	GROUND
9	Y	ITS COMM-L
10	L	-
11	R	-
12	BR	-

Connector No.	M132
Connector Name	FUSE BLOCK (I/B)
Connector Type	NS16FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
11B	LG	-
13B	P	-
14B	G	-
15B	Y	-
16B	Y	-
2B	B	-
4B	W	-
5B	R	-
9B	Y	-

Connector No.	M133
Connector Name	FUSE BLOCK (I/B)
Connector Type	TH40FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
10C	Y	-
12C	L	-
13C	L	-
14C	Y	-
15C	R	-
16C	R	-
17C	L	-
18C	BG	- [Without DRPO]
18C	P	- [With DRPO]
19C	B	-
1C	R	-

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DRIVER ASSISTANCE SYSTEMS

< WIRING DIAGRAM >

[ADAS CONTROL UNIT]

DRIVER ASSISTANCE SYSTEMS (VR ENGINE)

20C	W	-	-	-	-
21C	L	-	-	-	-
22C	L	-	-	-	-
23C	L	-	-	-	-
25C	LG	-	-	-	-
26C	SB	-	-	-	-
27C	P	-	-	-	-
28C	W	-	-	-	-
29C	W	-	-	-	-
2C	R	-	-	-	-
30C	R	-	-	-	-
31C	W	-	-	-	-
32C	R	-	-	-	-
33C	B	-	-	-	-
34C	R	-	-	-	-
35C	SB	-	-	-	-
36C	R	-	-	-	-
37C	W	-	-	-	-
38C	SB	-	-	-	-
39C	V	-	-	-	-
3C	P	-	-	-	-
40C	G	-	-	-	-
4C	P	-	-	-	-
5C	P	-	-	-	-
6C	G	-	-	-	-
7C	G	-	-	-	-
8C	G	-	-	-	-
9C	V	-	-	-	-

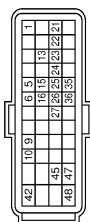
Connector No.	M137
Connector Name	JOINT CONNECTOR-M10
Connector Type	24342-4G42A



Terminal No.	1	2	3	4	5
Color Of Wire	B	B	B	B	B
Signal Name [Specification]	-	-	-	-	-

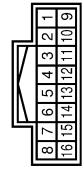
7	B	-	-	-	-
8	B	-	-	-	-
9	B	-	-	-	-
10	B	-	-	-	-
11	B	-	-	-	-
13	L	-	-	-	-
14	L	-	-	-	-
15	L	-	-	-	-
16	L	-	-	-	-
19	R	-	-	-	-
20	R	-	-	-	-
21	R	-	-	-	-
22	R	-	-	-	-

Connector No.	M147
Connector Name	EMCM
Connector Type	1R40FB-R28-R-LHZ



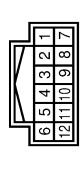
Terminal No.	1	Y	EMCM RELAY CONTROL (SOFF)
2	L	IGNITION SWITCH	
3	LG	STOP LAMP SWITCH	
4	L	CAN-H	
5	P	CAN-L	
6	W	STOP/START OFF SWITCH	
7	Y	ENGINE POWER SUPPLY (MAIN BATTERY CURRENT/TEMPERATURE SENSOR)	
8	W	SENSOR GROUND (MAIN BATTERY CURRENT/TEMPERATURE SENSOR)	
9	V	SUB BATTERY RELAY CONTROL	
10	V	ENGINE RESTART BYPASS CONTROL RELAY	
11	G	ENGINE RESTART BYPASS CONTROL RELAY	
12	BR	ENGINE RESTART BYPASS CONTROL RELAY	
13	BR	ENGINE RESTART BYPASS CONTROL RELAY	
14	BR	ENGINE RESTART BYPASS CONTROL RELAY	
15	BR	ENGINE RESTART BYPASS CONTROL RELAY	
16	BR	ENGINE RESTART BYPASS CONTROL RELAY	
17	BR	ENGINE RESTART BYPASS CONTROL RELAY	
18	BR	ENGINE RESTART BYPASS CONTROL RELAY	
19	BR	ENGINE RESTART BYPASS CONTROL RELAY	
20	BR	ENGINE RESTART BYPASS CONTROL RELAY	
21	BR	ENGINE RESTART BYPASS CONTROL RELAY	
22	BR	ENGINE RESTART BYPASS CONTROL RELAY	
23	BR	ENGINE RESTART BYPASS CONTROL RELAY	
24	BR	ENGINE RESTART BYPASS CONTROL RELAY	
25	BR	ENGINE RESTART BYPASS CONTROL RELAY	
26	R	SUB BATTERY CURRENT SENSOR	
27	BR	SUB BATTERY CURRENT SENSOR	
28	BR	SUB BATTERY CURRENT SENSOR	
29	BR	SUB BATTERY CURRENT SENSOR	
30	BR	SUB BATTERY CURRENT SENSOR	
31	BR	SUB BATTERY CURRENT SENSOR	
32	BR	SUB BATTERY CURRENT SENSOR	
33	BR	SUB BATTERY CURRENT SENSOR	
34	BR	SUB BATTERY CURRENT SENSOR	
35	SB	ENGINE POWER SUPPLY	
36	G	ENGINE POWER SUPPLY	
37	G	ENGINE POWER SUPPLY	
38	G	ENGINE POWER SUPPLY	
39	G	ENGINE POWER SUPPLY	
40	G	ENGINE POWER SUPPLY	
41	G	ENGINE POWER SUPPLY	
42	R	SUB BATTERY VOLTAGE MONITOR	
43	R	SUB BATTERY VOLTAGE MONITOR	
44	R	SUB BATTERY VOLTAGE MONITOR	
45	R	SUB BATTERY VOLTAGE MONITOR	
46	R	SUB BATTERY VOLTAGE MONITOR	
47	B	EMCM GROUND	
48	B	EMCM GROUND	

Connector No.	M155
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



Terminal No.	1	R	-	-	-
2	R	-	-	-	-
3	R	-	-	-	-
4	P	-	-	-	-
5	P	-	-	-	-
6	Y	-	-	-	-
7	Y	-	-	-	-
8	P	-	-	-	-
9	R/W	-	-	-	-
10	R	-	-	-	-
11	SHIELD	-	-	-	-
12	L	-	-	-	-
13	L	-	-	-	-
14	L	-	-	-	-
15	L	-	-	-	-

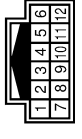
Connector No.	M157
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



Terminal No.	1	BR	-	-	-
2	G	-	-	-	-
3	L	-	-	-	-
4	W	-	-	-	-
5	G	-	-	-	-
6	Y	-	-	-	-
7	B	-	-	-	-
8	Y	-	-	-	-
9	L	-	-	-	-
10	L	-	-	-	-
11	R	-	-	-	-
12	BR	-	-	-	-

5	BR	-	-	-	-
6	G	-	-	-	-
7	Y	-	-	-	-
8	B	-	-	-	-
9	Y	-	-	-	-
10	L	-	-	-	-
11	L	-	-	-	-
12	R	-	-	-	-
13	R	-	-	-	-
14	BR	-	-	-	-
15	W	-	-	-	-

Connector No.	M158
Connector Name	WIRE TO WIRE
Connector Type	TH12MM-NH



Terminal No.	1	BR	-	-	-
2	G	-	-	-	-
3	L	-	-	-	-
4	W	-	-	-	-
5	G	-	-	-	-
6	Y	-	-	-	-
7	B	-	-	-	-
8	Y	-	-	-	-
9	L	-	-	-	-
10	L	-	-	-	-
11	R	-	-	-	-
12	BR	-	-	-	-

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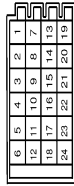
DRIVER ASSISTANCE SYSTEMS (VR ENGINE)

Connector No.	M159
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH



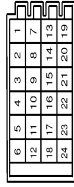
Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	B	-
3	BR	-
4	R	-
5	GR	-
6	R	- [With VR30 engine and with ISS]
7	W	- [Except with VR30 engine and with ISS]
8	L	-
9	SHIELD	-
10	W	-
11	R	-
12	L	-
13	G	-
14	Y	-
15	B	-
17	B	-
19	R	-
20	BG	- [Except with VR30 engine and with BOSE system]
20	BR	- [With VR30 engine and with BOSE system]
21	R	-
22	G	-
24	B	-
25	W	-
26	R	-
27	P	-
28	B	-
29	G	-
30	L	-
31	W	-
32	W	-
33	L	-
36	V	-
38	LG	-
40	W	-

Connector No.	M173
Connector Name	JOINT CONNECTOR-M03
Connector Type	24342_4GA2A



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	L	-
3	L	-
4	L	-
5	L	-
6	L	-
7	R	-
8	R	-
9	R	-
10	R	-
11	R	-
12	R	-
13	SB	-
14	SB	-
15	SB	-
16	L	- [With 2.0L turbo gasoline engine]
16	L	- [With VR30 engine]
17	L	- [With 2.0L turbo gasoline engine]
17	SB	- [With VR30 engine]
18	SB	- [With VR30 engine]
18	L	- [With 2.0L turbo gasoline engine]
18	SB	- [With VR30 engine]
19	BR	- [With VR30 engine]
19	LG	- [With 2.0L turbo gasoline engine]
20	BR	- [With VR30 engine]
20	LG	- [With 2.0L turbo gasoline engine]
21	BR	- [With VR30 engine]
21	LG	- [With 2.0L turbo gasoline engine]
22	R	- [With 2.0L turbo gasoline engine]
22	SB	- [With VR30 engine and without ISS]
22	V	- [With VR30 engine and with ISS]
23	R	- [With 2.0L turbo gasoline engine]
23	SB	- [With VR30 engine and without ISS]
23	V	- [With VR30 engine and with ISS]
24	R	- [With 2.0L turbo gasoline engine]
24	SB	- [With VR30 engine and without ISS]
24	V	- [With VR30 engine and with ISS]

Connector No.	M174
Connector Name	JOINT CONNECTOR-M04
Connector Type	24342_4GA2A



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	L	-
3	L	-
4	L	-
5	L	-
6	L	-
7	Y	-
8	Y	-
9	Y	-
10	Y	-
11	Y	-
12	Y	-
13	SB	-
14	SB	-
15	SB	-
16	SB	-
17	SB	-
18	SB	-
19	LG	-
20	LG	-
21	LG	-
22	LG	-
23	LG	-
24	LG	-

Connector No.	M175
Connector Name	JOINT CONNECTOR-M05
Connector Type	NH2DFI-DC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	L	-
3	L	-
4	L	-
5	L	-
6	L	-
7	L	-
8	L	-
10	P	-
11	P	-
12	P	-
13	P	-
14	P	-
15	P	-
16	P	-
16	R	- [With VR30 engine]
16	R	- [With 2.0L turbo gasoline engine]
17	P	- [With VR30 engine]
17	R	- [With 2.0L turbo gasoline engine]
19	R	- [With VR30 engine and with ISS]
19	W	- [Except with VR30 engine and with ISS]
20	R	- [With VR30 engine and with ISS]
20	W	- [Except with VR30 engine and with ISS]

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DRIVER ASSISTANCE SYSTEMS (VR ENGINE)

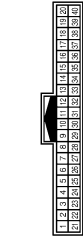
Connector No.	M177
Connector Name	JOINT CONNECTOR-M07
Connector Type	24342_4GAZA



Connector No.	M301
Connector Name	COMBINATIONS SWITCH (SPIRAL CABLE)
Connector Type	TH08FCY



Connector No.	R15
Connector Name	WIRE TO WIRE
Connector Type	TH40WVA-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	L	-
3	L	-
4	L	-
5	L	-
6	L	-
7	P	-
8	P	-
9	P	-
10	P	-
11	P	-
12	P	-
13	L	-
14	L	-
15	L	-
16	L	-
17	L	-
18	L	-
19	W	-
20	W	-
21	W	-
22	P	-
23	P	-
24	P	-

Terminal No.	Color Of Wire	Signal Name [Specification]
13	-	-
14	-	-
15	-	-
16	-	-
17	-	-
18	-	-
19	-	-
20	-	-

Connector No.	R13
Connector Name	LANE CAMERA UNIT
Connector Type	TH08FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	CAN_GND
4	L	CAN-H
5	B	GND
7	V	IGN
8	W	CAN-L

Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	LG	-
3	BR	-
4	V	-
5	BG	-
6	GR	-
7	BR	-
9	SHIELD	-
10	GR	-
11	R	-
12	L	-
13	G	-
14	Y	-
15	B	-
17	S8	-
19	BG	-
20	BG	- [Without BOSE system]
20	BR	- [With BOSE system]
21	R	-
22	G	-
24	B	-
25	BG	- [Color of wire differs depending on production]
25	P	- [Color of wire differs depending on production]
26	BR	-
27	GR	-
28	B	-
29	R	-
30	L	-
31	V	-
32	W	-
33	L	-
36	BR	-
38	S8	-
40	W	-

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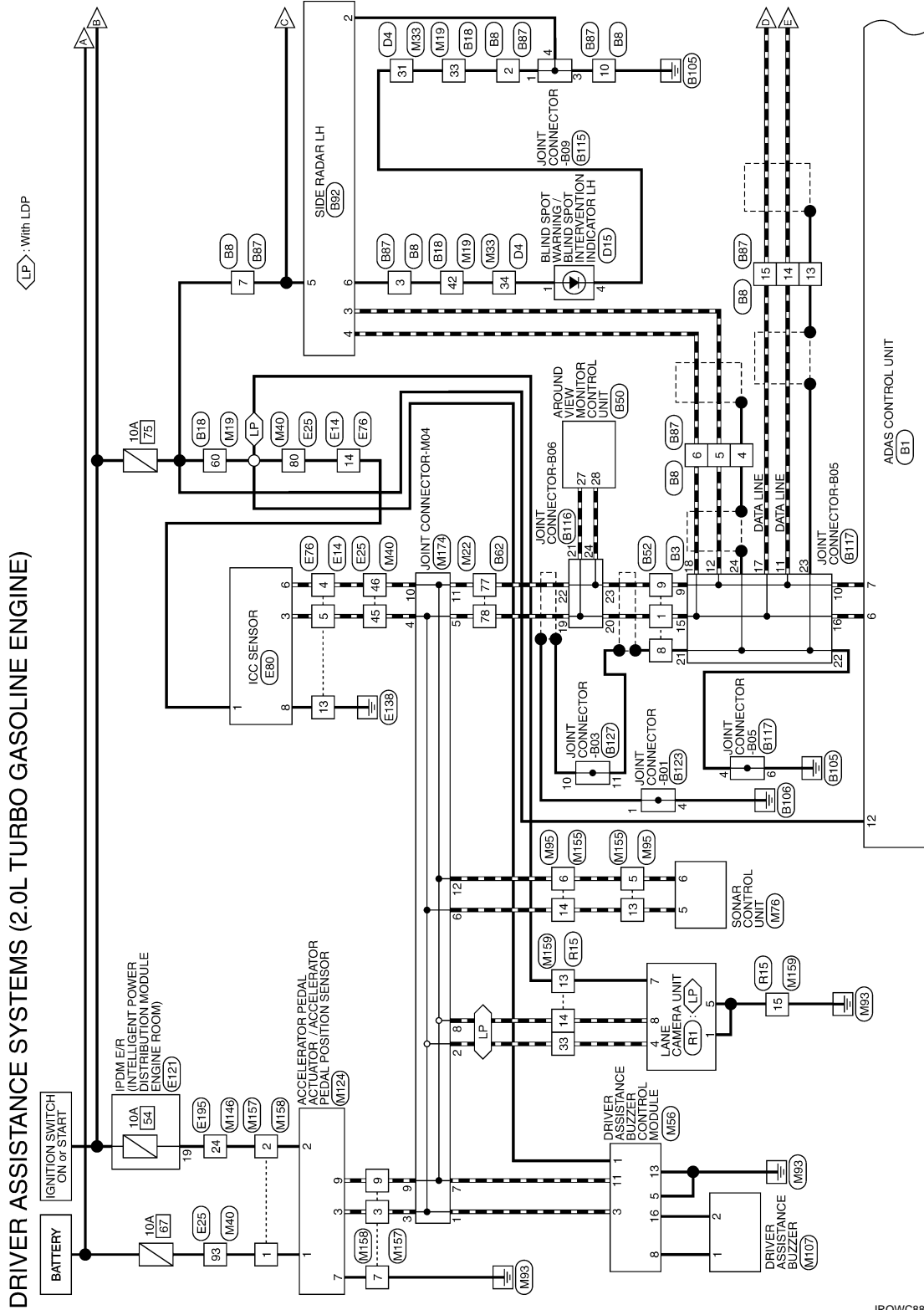
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DRIVER ASSISTANCE SYSTEMS

< WIRING DIAGRAM >

[ADAS CONTROL UNIT]

2.0L TURBO GASOLINE ENGINE



*: This connector is not shown in "Harness Layout".

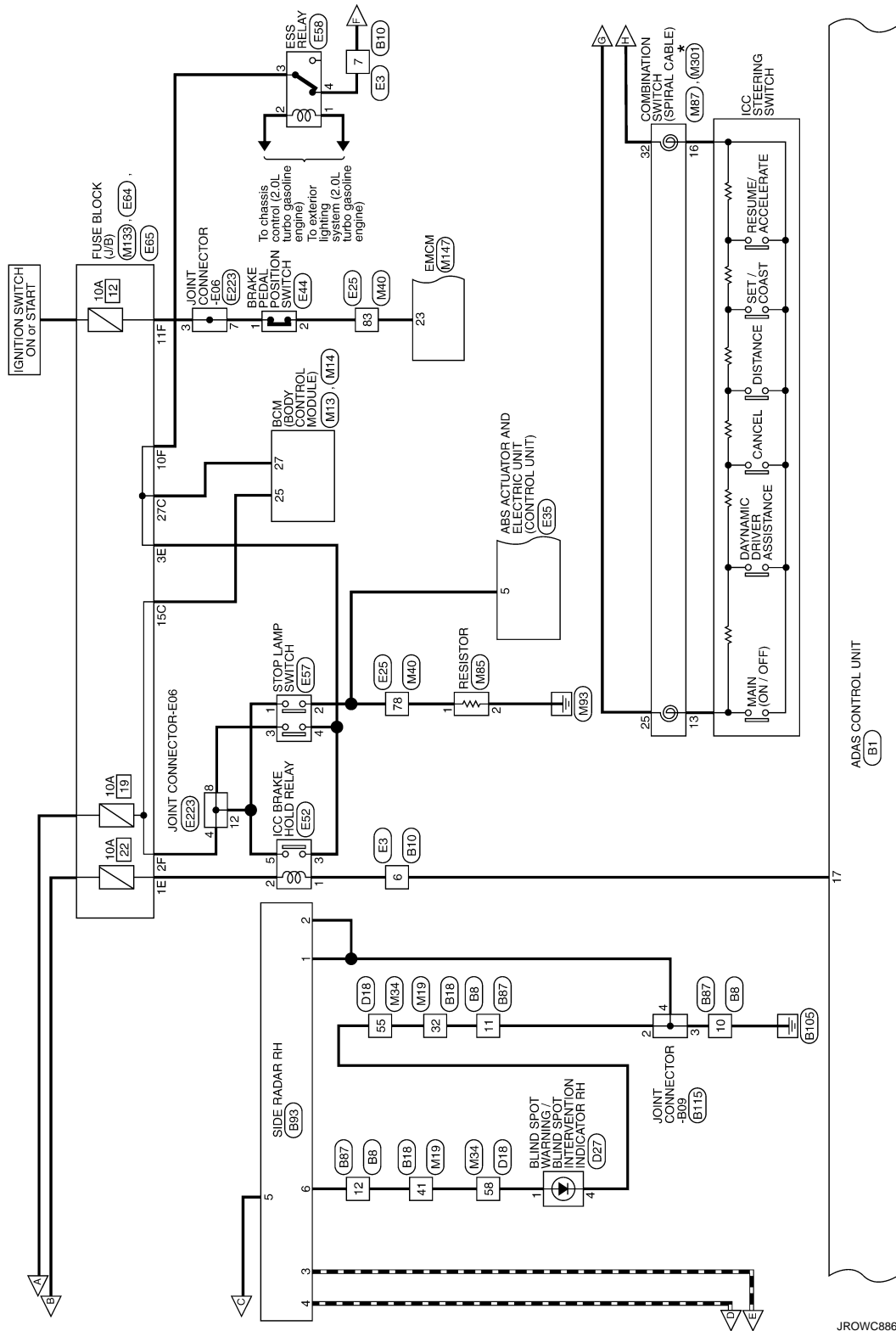
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DRIVER ASSISTANCE SYSTEMS

< WIRING DIAGRAM >

[ADAS CONTROL UNIT]



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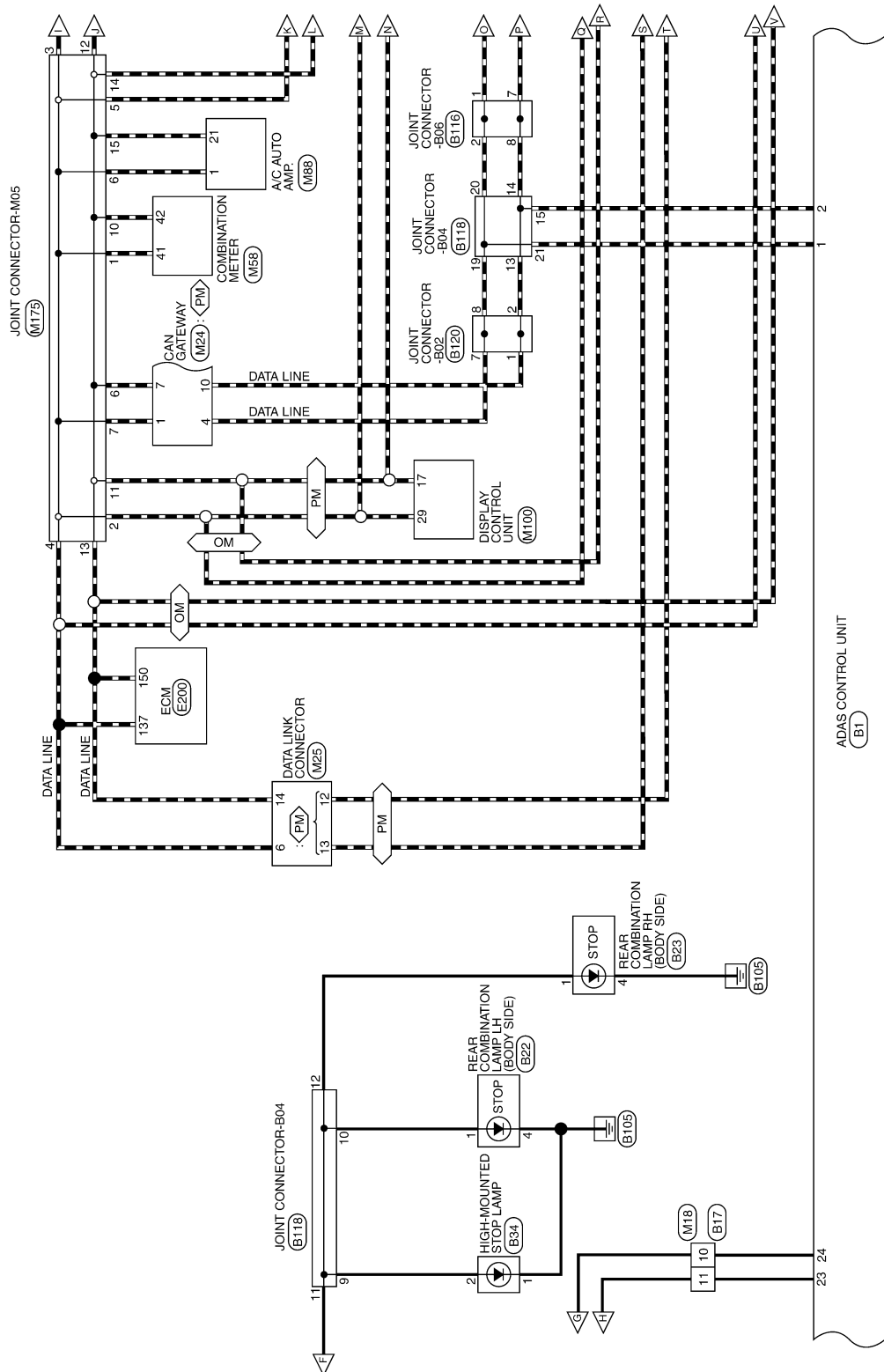
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DAS

DRIVER ASSISTANCE SYSTEMS

< WIRING DIAGRAM >

[ADAS CONTROL UNIT]

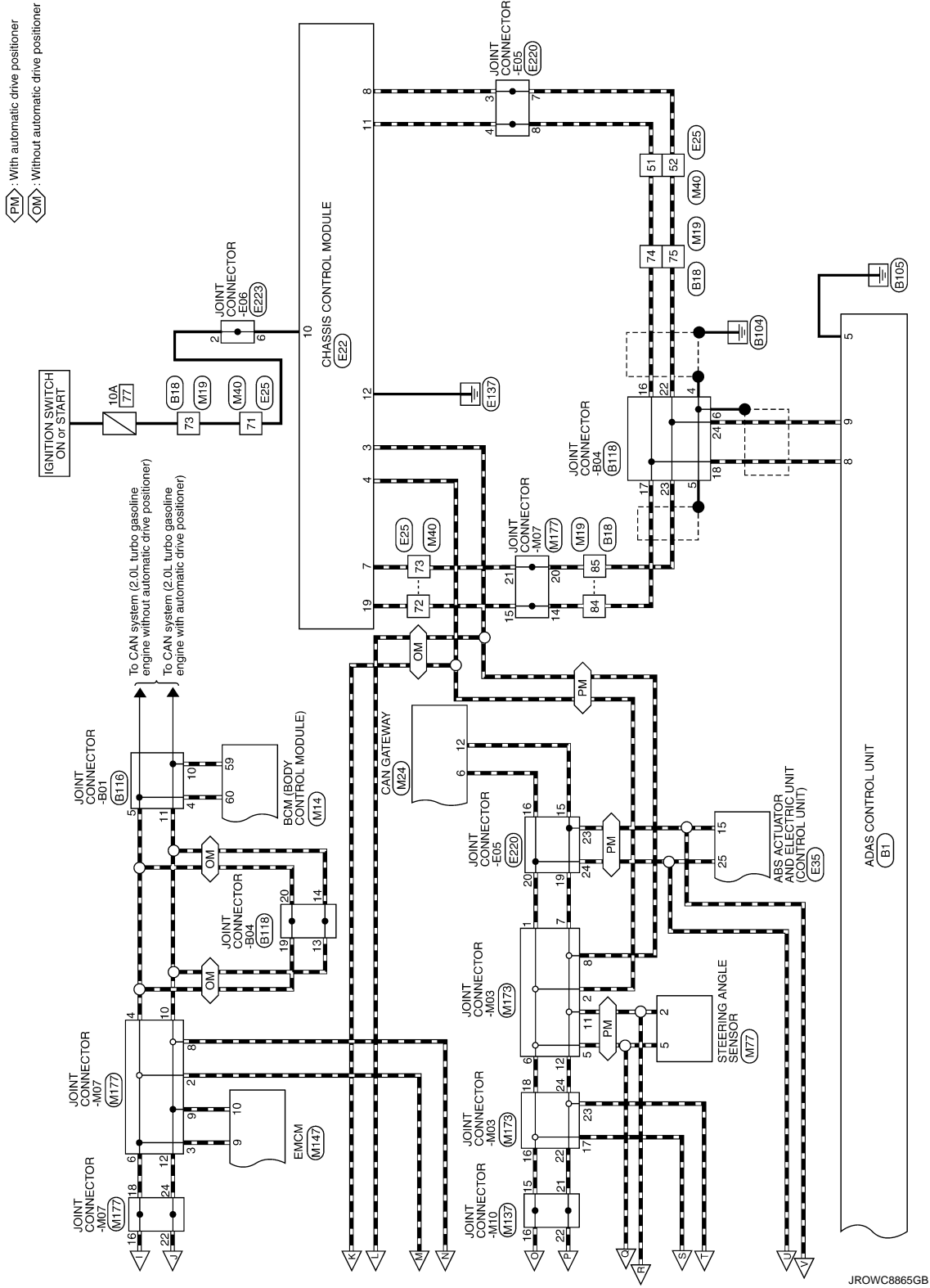


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DRIVER ASSISTANCE SYSTEMS

< WIRING DIAGRAM >

[ADAS CONTROL UNIT]





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DAS



DRIVER ASSISTANCE SYSTEMS (2.0L TURBO GASOLINE ENGINE)

Connector No.	B1
Connector Name	ADAS CONTROL UNIT
Connector Type	TH24FW-NH


Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	CAN-H
2	R	CAN-L
5	B	GROUND
6	L	ITS COMM-H
7	Y	ITS COMM-L
8	L	CHASSIS COMM-H
9	R	CHASSIS COMM-L
12	G	IGNITION [Except with VR30 engine and without BS]
12	GR	IGNITION [VR30 engine and without BS]
17	V	BRAKE HOLD RLY DRIVE SIGNAL
23	Y	STEERING SW SIGNAL GROUND
24	SB	STEERING SW SIGNAL

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
4	B	-
5	BR	- [With BOSE system]
5	Y	- [Without BOSE system]
7	R	-
8	B	-
9	Y	-

Connector No.	B8
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH




Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	GR	-
13	G	-
14	B	-
15	W	-
16	BR	-

Terminal No.	Color Of Wire	Signal Name [Specification]
2	B	-
3	BR	-
4	SHIELD	-
5	P	-
6	L	-
7	G	- [With 2.0L turbo gasoline engine]
7	GR	- [Without VR30 engine]
10	B	-
11	B	-
12	SB	-
13	SHIELD	-
14	P	-
15	L	-

Connector No.	B10
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH






Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	- [With 2.0L turbo gasoline engine]
1	Y	- [Without VR30 engine]
2	W	-
3	LG	-
4	P	- [With VR30 engine]
4	SB	- [Without 2.0L turbo gasoline engine]
5	L	-
6	V	-
7	LG	-
8	R	-
9	W	-
10	B	-
11	G	-
12	R	-
13	GR	-
14	BG	-
15	BR	-
16	LG	-
17	V	-
18	BR	-
19	LG	- [With 2.0L turbo gasoline engine]
19	Y	- [Without VR30 engine]
20	V	-
21	R	- [With 2.0L turbo gasoline engine]
21	V	- [Without VR30 engine]
22	L	-
23	V	-
24	B	- [With VR30 engine]
24	R	- [Without 2.0L turbo gasoline engine]

Connector No.	B17
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS




Terminal No.	Color Of Wire	Signal Name [Specification]
10	SB	-
11	Y	-
12	GR	-

Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TH8DFV-CS16-TM4

Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	G	-
3	L	-
4	LG	-
5	Y	-
6	R	-
7	V	-
8	LG	-
10	BG	-
11	BG	-
12	LG	-
13	GR	-
14	R	-
15	L	-
16	V	-
18	W	-

DRIVER ASSISTANCE SYSTEMS

< WIRING DIAGRAM >

[ADAS CONTROL UNIT]

DRIVER ASSISTANCE SYSTEMS (2.0L TURBO GASOLINE ENGINE)

8	SHIELD	-	-	-	-
9	P	-	-	-	-
11	B	-	-	-	-
12	GR	-	-	-	-
13	G	-	-	-	-
14	B	-	-	-	-
15	W	-	-	-	-
16	BR	-	-	-	-

Connector No.	B82
Connector Name	WIRE TO WIRE
Connector Type	TH8SPW/CS16.TM4



Terminal No.	Color Of Wire	Signal Name (Specification)
1	BR	- [With 2.0L turbo gasoline engine and without BOSE system]
1	LG	- [With VR30 engine]
1	W	- [With 2.0L turbo gasoline engine and with BOSE system]
2	L	- [With VR30 engine]
3	BR	- [With 2.0L turbo gasoline engine]
3	R	- [With VR30 engine and with BOSE system]
3	W	- [With VR30 engine and without BOSE system]
4	SHIELD	- [With VR30 engine]
4	Y	- [With 2.0L turbo gasoline engine]
5	G	- [With VR30 engine]
5	V	- [With 2.0L turbo gasoline engine]
6	BG	- [With VR30 engine]
6	BR	- [With 2.0L turbo gasoline engine]
7	B	- [With 2.0L turbo gasoline engine and with BOSE system]
7	BR	- [With VR30 engine and without BOSE system]
7	W	- [With VR30 engine and with BOSE system]
7	V	- [With 2.0L turbo gasoline engine and without BOSE system]
8	B	- [With VR30 engine and with BOSE system]
8	G	- [With 2.0L turbo gasoline engine]
8	Y	- [With VR30 engine and without BOSE system]
9	LG	- [With 2.0L turbo gasoline engine]
9	SHIELD	- [With VR30 engine]
10	V	-
11	GR	-
12	Y	-

13	R	-	-	-	-
14	BG	-	-	-	-
15	BG	-	-	-	-
16	GR	-	-	-	-
17	P	-	-	-	-
18	L	-	-	-	-
19	R	-	-	-	-
20	GR	-	-	-	-
21	R	-	-	-	-
22	V	-	-	-	-
23	W	-	-	-	-
24	BG	-	-	-	-
25	L	-	-	-	-
25	SB	-	-	-	-
26	G	-	-	-	-
26	W	-	-	-	-
27	R	-	-	-	-
29	LG	-	-	-	-
30	LG	-	-	-	-
30	P	-	-	-	-
31	SHIELD	-	-	-	-
32	L	-	-	-	-
33	B	-	-	-	-
33	LG	-	-	-	-
34	SHIELD	-	-	-	-
35	LG	-	-	-	-
35	W	-	-	-	-
36	R	-	-	-	-
36	W	-	-	-	-
37	P	-	-	-	-
37	R	-	-	-	-
37	W	-	-	-	-
38	W	-	-	-	-
39	P	-	-	-	-
39	R	-	-	-	-
39	W	-	-	-	-
40	G	-	-	-	-
41	L	-	-	-	-
42	R	-	-	-	-
43	SHIELD	-	-	-	-
44	P	-	-	-	-
45	B	-	-	-	-
45	G	-	-	-	-
46	SHIELD	-	-	-	-
47	G	-	-	-	-
48	BG	-	-	-	-
49	G	-	-	-	-
50	V	-	-	-	-

51	GR	-	-	-	-
52	W	-	-	-	-
52	Y	-	-	-	-
53	R	-	-	-	-
54	GR	-	-	-	-
55	L	-	-	-	-
56	V	-	-	-	-
57	R	-	-	-	-
58	LG	-	-	-	-
59	P	-	-	-	-
61	L	-	-	-	-
62	P	-	-	-	-
62	V	-	-	-	-
63	L	-	-	-	-
64	W	-	-	-	-
66	LG	-	-	-	-
68	L	-	-	-	-
69	P	-	-	-	-
71	GR	-	-	-	-
71	R	-	-	-	-
72	G	-	-	-	-
72	Y	-	-	-	-
73	R	-	-	-	-
73	SHIELD	-	-	-	-
74	BG	-	-	-	-
74	L	-	-	-	-
75	GR	-	-	-	-
75	V	-	-	-	-
76	GR	-	-	-	-
76	V	-	-	-	-
77	P	-	-	-	-
78	L	-	-	-	-
79	R	-	-	-	-
80	GR	-	-	-	-
80	W	-	-	-	-
81	B	-	-	-	-
81	R	-	-	-	-
82	G	-	-	-	-
82	SHIELD	-	-	-	-
83	R	-	-	-	-
83	W	-	-	-	-
84	BR	-	-	-	-
84	SHIELD	-	-	-	-
85	BG	-	-	-	-
85	G	-	-	-	-
86	R	-	-	-	-
86	W	-	-	-	-
87	LG	-	-	-	-
87	SHIELD	-	-	-	-
89	LG	-	-	-	-

90	P	-	-	-	-
90	V	-	-	-	-
92	L	-	-	-	-
92	W	-	-	-	-
93	R	-	-	-	-
93	SHIELD	-	-	-	-
94	R	-	-	-	-
95	L	-	-	-	-
95	Y	-	-	-	-
96	R	-	-	-	-
96	W	-	-	-	-
97	L	-	-	-	-
97	R	-	-	-	-
97	W	-	-	-	-
98	LG	-	-	-	-
98	BR	-	-	-	-
99	P	-	-	-	-
99	Y	-	-	-	-
100	BR	-	-	-	-
100	W	-	-	-	-

Connector No.	B87
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



Terminal No.	Color Of Wire	Signal Name (Specification)
2	B	-
3	BR	-
4	SHIELD	-
5	R	-
6	L	-
7	GR	-
10	B	-
11	B	-
12	SB	-
13	SHIELD	-
14	P	-
15	L	-

DRIVER ASSISTANCE SYSTEMS

< WIRING DIAGRAM >

[ADAS CONTROL UNIT]

DRIVER ASSISTANCE SYSTEMS (2.0L TURBO GASOLINE ENGINE)

Connector No.	B82
Connector Name	SIDE RADAR LH
Connector Type	AAC0FB-WP-5P



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GROUND
2	R	ITS COMM-L
3	L	ITS COMM-H
4	GR	IGNITION
5	BR	BUNG SPOT WARNING/SPOT INTERVENTION INDICATOR

Connector No.	B83
Connector Name	SIDE RADAR RH
Connector Type	AAC0FB-WP



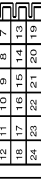
Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	RIGHT/LEFT SWITCHING SIGNAL
2	B	GROUND
3	P	ITS COMM-L
4	L	ITS COMM-H
5	GR	IGNITION
6	SB	BUNG SPOT WARNING/SPOT INTERVENTION INDICATOR

Connector No.	B115
Connector Name	JOINT CONNECTOR-B09
Connector Type	TK04FW-J



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	B	-
3	B	-
4	B	-

Connector No.	B116
Connector Name	JOINT CONNECTOR-B06
Connector Type	24342_4GAZA



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	L	-
3	L	-
4	L	-
5	L	-
6	R	-
7	R	- [With Gateway]
8	V	- [Without Gateway]
9	V	- [Without Gateway]
10	R	- [With VR30 engine]
11	V	- [With 2.0L turbo gasoline engine]
12	P	- [With Gateway]
13	R	- [Without Gateway]

13	SHIELD	-
14	SHIELD	-
15	B	- [With 2.0L turbo gasoline engine]
16	L	- [With VR30 engine]
17	SHIELD	- [With 2.0L turbo gasoline engine]
18	L	- [With VR30 engine]
19	SHIELD	- [With VR30 engine]
20	L	- [With 2.0L turbo gasoline engine]
21	L	-
22	P	-
23	P	-
24	P	- [With VR30 engine]

Connector No.	B117
Connector Name	JOINT CONNECTOR-B05
Connector Type	24342_4GAZA



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	- [With 2.0L turbo gasoline engine]
2	SHIELD	- [With VR30 engine]
3	B	- [With VR30 engine]
4	B	- [With 2.0L turbo gasoline engine]
5	SHIELD	- [With 2.0L turbo gasoline engine]
6	B	-
7	Y	-
8	Y	-
9	P	- [With VR30 engine]
10	P	- [With VR30 engine]
11	Y	- [With 2.0L turbo gasoline engine]
12	Y	- [With 2.0L turbo gasoline engine]
13	P	-

12	P	-
13	L	-
14	L	-
15	L	-
16	L	-
17	L	-
18	L	-
19	B	-
20	B	-
21	B	- [With 2.0L turbo gasoline engine]
22	B	- [With VR30 engine]
23	SHIELD	- [With 2.0L turbo gasoline engine]
24	SHIELD	- [With VR30 engine]

Connector No.	B118
Connector Name	JOINT CONNECTOR-B04
Connector Type	24342_4GAZA



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	- [With VR30 engine]
2	SHIELD	- [With 2.0L turbo gasoline engine]
3	LG	- [With VR30 engine]
4	SHIELD	- [With 2.0L turbo gasoline engine]
5	LG	- [With VR30 engine]
6	SHIELD	- [With 2.0L turbo gasoline engine]
7	LG	- [With VR30 engine]
8	R	- [Color of wire differs depending on production]
9	R	- [Color of wire differs depending on production]
10	R	- [With VR30 engine and without paddle shift]
11	V	- [With VR30 engine and with paddle shift]
12	LG	- [With 2.0L turbo gasoline engine]
13	R	- [With VR30 engine and without paddle shift]
14	V	- [With VR30 engine and with paddle shift]
15	R	- [With VR30 engine and without paddle shift]
16	V	- [With VR30 engine and with paddle shift]

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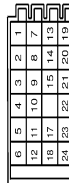
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DRIVER ASSISTANCE SYSTEMS (2.0L TURBO GASOLINE ENGINE)

10	LG	- [With 2.0L turbo gasoline engine]
10	SHIELD	- [With VR30 engine]
11	LG	- [With 2.0L turbo gasoline engine]
11	SHIELD	- [With VR30 engine]
12	LG	- [With 2.0L turbo gasoline engine]
12	SHIELD	- [With VR30 engine]
13	L	- [With VR30 engine]
13	P	- [With 2.0L turbo gasoline engine and without gateway]
13	R	- [With 2.0L turbo gasoline engine and with gateway]
14	L	- [With VR30 engine]
14	P	- [With 2.0L turbo gasoline engine and without gateway]
14	R	- [With 2.0L turbo gasoline engine and with gateway]
15	R	- [With VR30 engine]
15	R	- [With 2.0L turbo gasoline engine]
16	L	-
17	L	-
18	L	-
19	L	- [With 2.0L turbo gasoline engine]
19	SHIELD	- [With VR30 engine]
20	L	- [With 2.0L turbo gasoline engine]
20	SHIELD	- [With VR30 engine]
21	L	- [With 2.0L turbo gasoline engine]
21	L	- [With VR30 engine]
22	R	- [With VR30 engine]
23	R	-
24	R	-

Connector No.	B120
Connector Name	JOINT CONNECTOR-B02
Connector Type	24342_4GAZA



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	R	-
3	L	- [With VR30 engine]
3	R	- [With 2.0L turbo gasoline engine]
4	L	- [With VR30 engine]
4	R	- [With 2.0L turbo gasoline engine]
5	L	-
6	L	-

7	L	-
8	L	- [With 2.0L turbo gasoline engine]
9	R	- [With VR30 engine]
9	L	- [With 2.0L turbo gasoline engine]
10	R	- [With VR30 engine]
10	L	- [With 2.0L turbo gasoline engine]
11	R	- [With VR30 engine]
11	R	- [With 2.0L turbo gasoline engine]
12	R	-
13	W	-
13	W	-
14	W	-
14	W	-
15	W	-
15	W	-
17	SHIELD	-
18	B	-
19	B	- [With 2.0L turbo gasoline engine]
19	GR	- [With VR30 engine]
20	GR	- [With VR30 engine]
20	SHIELD	- [With 2.0L turbo gasoline engine]
21	B	- [With 2.0L turbo gasoline engine]
21	GR	- [With VR30 engine]
22	W	-
23	W	-
24	W	-

Connector No.	B123
Connector Name	JOINT CONNECTOR-B01
Connector Type	TK04F-WJ



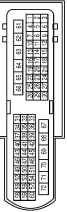
Terminal No.	Color Of Wire	Signal Name [Specification]
1	SHIELD	-
2	SHIELD	-
3	B	- [With 2.0L turbo gasoline engine]
3	SHIELD	- [With VR30 engine]
4	B	-

Connector No.	B127
Connector Name	JOINT CONNECTOR-B03
Connector Type	NH20FG-DC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	SHIELD	-
3	SHIELD	-
4	SHIELD	-
5	SHIELD	-
6	P	-
7	P	-
8	P	-
9	P	-
10	LG	- [With VR30 engine]
10	SHIELD	- [With 2.0L turbo gasoline engine]
11	LG	- [With VR30 engine]
11	SHIELD	- [With 2.0L turbo gasoline engine]
13	BG	-
14	BG	-
15	BG	-
17	LG	-
18	LG	-
19	LG	-
20	LG	-

Connector No.	D4
Connector Name	WIRE TO WIRE
Connector Type	NH60FW-TS12



Terminal No.	Color Of Wire	Signal Name [Specification]
2	SB	-
4	BG	-
5	R	-
6	V	-
7	LG	-
8	G	-
9	GR	-
10	Y	-
11	SHIELD	-
12	BG	-
13	L	-
14	B	-
15	Y	-
16	GR	-
17	R	-
18	GR	-
19	R	-
20	W	-
21	LG	-
22	W	-
23	L	-
24	G	-
25	BR	-
26	R	-
27	BR	-
28	V	-
29	B	-
30	W	-
31	P	-
32	P	-
33	BR	-
34	L	-
35	R	-
36	GR	-
37	G	-
40	LG	- [Color of wire differs depending on production]

DRIVER ASSISTANCE SYSTEMS

< WIRING DIAGRAM >

[ADAS CONTROL UNIT]

DRIVER ASSISTANCE SYSTEMS (2.0L TURBO GASOLINE ENGINE)

Terminal No.	Color Of Wire	Signal Name [Specification]
40	P	-
41	L	-
43	BG	-
44	Y	-
46	W	-
47	R	-
49	BR	-
50	B	-
52	V	-
53	GR	-
53	GR	[Color of wire differs depending on production]
53	SB	[Color of wire differs depending on production]
56	BR	-
57	R	-
58	L	-
59	V	-
60	G	-
61	BG	-
62	Y	-
63	SB	-
64	B	-
65	Y	-
66	BR	-
68	Y	-
69	L	-
70	W	-
71	LG	-
72	P	-

Connector No.	D15
Connector Name	BLIND SPOT WARNING/BLIND SPOT INTERVENTION INDICATOR LH
Connector Type	TH04MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
4	P	-

Connector No.	D18
Connector Name	WIRE TO WIRE
Connector Type	NH00PW-TSL2



Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	-
2	P	-
4	SB	-
5	BR	-
6	Y	-
7	LG	-
8	W	-
9	L	-
10	L	-
11	GR	-
13	Y	-
14	R	-
16	R	-
17	B	-
18	W	-
19	B	-
20	G	-
21	SHIELD	-
22	GR	-
23	BG	-
24	B	-
25	BR	-
26	V	-
27	G	-
28	V	-
29	Y	-
30	R	-
49	LG	-
52	P	-
55	L	-
56	Y	-
57	R	-
58	SB	-
59	R	-
60	G	-
63	B	-

64	Y	-
65	BR	-
66	GR	-
69	W	-
70	L	-
71	BG	-
72	Y	-

Connector No.	D27
Connector Name	BLIND SPOT WARNING/BLIND SPOT INTERVENTION INDICATOR RH
Connector Type	TH04MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	SB	-
4	L	-

Connector No.	E3
Connector Name	WIRE TO WIRE
Connector Type	TH04MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	- [With 2.0L turbo gasoline engine]
1	Y	- [With VR30 engine]
2	W	-
3	LG	-
4	P	- [With VR30 engine]
4	SB	- [With 2.0L turbo gasoline engine]
5	L	-
6	Y	-
7	LG	-

8	BG	-
9	W	-
10	B	-
11	G	-
12	R	-
13	GR	-
14	G	- [With 2.0L turbo gasoline engine]
15	LG	- [With VR30 engine]
16	V	-
16	Y	- [With VR30 engine]
17	B	-
18	BR	-
19	LG	- [With 2.0L turbo gasoline engine]
19	Y	- [With VR30 engine]
20	GR	-
21	R	- [With 2.0L turbo gasoline engine]
21	V	- [With VR30 engine]
22	L	-
23	P	-
24	B	- [With VR30 engine]
24	BR	- [With 2.0L turbo gasoline engine]

Connector No.	E14
Connector Name	WIRE TO WIRE
Connector Type	SA018MB-RS1G-SJ22



Terminal No.	Color Of Wire	Signal Name [Specification]
4	Y	-
5	L	-
6	B	-
7	BG	-
8	LG	-
9	R	-
11	GR	-
12	R	-
13	B	-
14	G	-
15	G	-
16	V	-
17	B	-

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DRIVER ASSISTANCE SYSTEMS

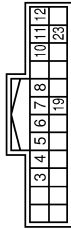
< WIRING DIAGRAM >

[ADAS CONTROL UNIT]

DRIVER ASSISTANCE SYSTEMS (2.0L TURBO GASOLINE ENGINE)

18	SB	-
21	B	-
22	SHIELD	-
23	P	-
24	L	-
25	V	-
26	B	-
28	B	-

Connector No.	E22
Connector Name	CHASSIS CONTROL MODULE
Connector Type	T124F/W/NH



Terminal No.	Color Of Wire	Signal Name [Specification]
3	P	CAN-L [Without Gateway]
3	R	CAN-L [With Gateway]
4	L	CAN-H
5	V	DRIVE MODE SELECT SWITCH (UP) [With VR30 engine]
5	Y	DRIVE MODE SELECT SWITCH (DOWN) [With 2.0L turbo gasoline engine]
6	G	DRIVE MODE SELECT SW [DOWN] [With VR30 engine]
7	W	CHASSIS COMM-L
8	W	CHASSIS COMM-L
10	BG	IGN [With 2.0L turbo gasoline engine]
10	G	IGN [With VR30 engine]
11	L	CHASSIS COMM-H
12	B	GROUND [With VR30 engine]
19	B/W	GROUND [With 2.0L turbo gasoline engine]
19	BR	CHASSIS COMM-H [With VR30 engine]
19	L	CHASSIS COMM-H [With 2.0L turbo gasoline engine]
23	G	ESS RELAY [With VR30 engine]
23	R	ESS RELAY [With 2.0L turbo gasoline engine]

Connector No.	E25
Connector Name	WIRE TO WIRE
Connector Type	THROF/W-CS16-TM4

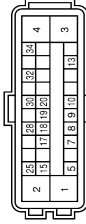


Terminal No.	Color Of Wire	Signal Name [Specification]
1	BG	R
6	V	L
7	L	-
8	BG	- [With VR30 engine]
8	BR	- [With 2.0L turbo gasoline engine]
9	GR	- [With 2.0L turbo gasoline engine]
9	LG	- [With VR30 engine] [Color of wire differs depending on production]
10	BR	- [With VR30 engine] [Color of wire differs depending on production]
11	L	-
12	GR	- [With VR30 engine]
12	P	- [With 2.0L turbo gasoline engine]
13	SHIELD	- [With 2.0L turbo gasoline engine]
13	W	- [With VR30 engine]
14	B	-
15	GR	- [With 2.0L turbo gasoline engine]
15	SB	- [With VR30 engine]
16	BR	- [With 2.0L turbo gasoline engine]
16	Y	- [With VR30 engine]
17	GR	- [With VR30 engine]
17	GR	- [With 2.0L turbo gasoline engine]
18	G	- [With 2.0L turbo gasoline engine]
18	P	- [With VR30 engine]
19	Y	-
21	W	- [With 2.0L turbo gasoline engine]
21	Y	- [With VR30 engine]
32	G	- [With 2.0L turbo gasoline engine]
32	GR	- [With VR30 engine]
33	L	- [With VR30 engine]
33	Y	- [With 2.0L turbo gasoline engine]
34	P	-
35	GR	-
36	R	-
37	L	- [With 2.0L turbo gasoline engine]
37	V	- [With VR30 engine]
38	L	- [With VR30 engine]

38	P	- [With 2.0L turbo gasoline engine and without gateway]
38	R	- [With 2.0L turbo gasoline engine and with gateway]
39	BR	- [With 2.0L turbo gasoline engine]
39	Y	- [With VR30 engine]
40	SB	-
41	LG	-
44	Y	-
45	L	- [With 2.0L turbo gasoline engine]
45	W	- [With VR30 engine]
46	B	- [With VR30 engine]
46	Y	- [With 2.0L turbo gasoline engine]
47	G	-
48	SHIELD	-
49	R	-
50	BR	- [With VR30 engine]
50	GR	- [With 2.0L turbo gasoline engine]
51	L	-
52	W	-
53	V	-
54	P	- [With VR30 engine]
54	W	- [With 2.0L turbo gasoline engine]
55	B	- [With VR30 engine]
55	W	- [With 2.0L turbo gasoline engine]
56	BG	- [With VR30 engine]
56	SB	- [With 2.0L turbo gasoline engine]
57	BG	- [With VR30 engine]
57	W	- [With 2.0L turbo gasoline engine]
58	B	- [Color of wire differs depending on production]
58	B/W	- [Color of wire differs depending on production]
59	W	-
61	R	-
64	Y	-
65	BR	- [Color of wire differs depending on production]
66	GR	- [Color of wire differs depending on production]
67	LG	-
68	BG	-
69	L	-
70	R	-
71	G	- [With 2.0L turbo gasoline engine]
71	LG	- [With VR30 engine]
72	L	- [With 2.0L turbo gasoline engine]
72	V	- [With VR30 engine]
73	G	- [With VR30 engine]
73	W	- [With 2.0L turbo gasoline engine]
74	BR	- [With VR30 engine]
74	L	- [With 2.0L turbo gasoline engine]
75	P	- [With 2.0L turbo gasoline engine and without gateway]
75	R	- [With 2.0L turbo gasoline engine and with gateway]
75	V	- [With VR30 engine]

76	G	-
77	Y	-
78	LG	- [With 2.0L turbo gasoline engine and with ADAS]
78	P	- [With VR30 engine]
78	V	- [With 2.0L turbo gasoline engine and without ADAS]
79	SB	-
80	G	-
81	R	-
82	V	- [With 2.0L turbo gasoline engine]
83	BR	- [With VR30 engine]
84	R	- [With 2.0L turbo gasoline engine]
84	LG	-
86	BG	-
87	G	-
89	LG	-
90	G	- [With VR30 engine]
90	GR	- [With 2.0L turbo gasoline engine]
91	G	-
93	BG	-
94	GR	- [With VR30 engine]
94	L	- [With 2.0L turbo gasoline engine]
95	BG	- [With VR30 engine]
95	P	- [With 2.0L turbo gasoline engine and without gateway]
95	R	- [With 2.0L turbo gasoline engine and with gateway]
96	W	-
97	LG	-
98	L	-
99	LG	- [With 2.0L turbo gasoline engine]
99	P	- [With VR30 engine]
100	SHIELD	-

Connector No.	E35
Connector Name	RESACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)
Connector Type	SAZ30FHSJ24-U



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GND
2	B	GND
3	G	VALVE BATTERY [With VR30 engine]
3	P	VALVE BATTERY [With 2.0L turbo gasoline engine]

DRIVER ASSISTANCE SYSTEMS

< WIRING DIAGRAM >

[ADAS CONTROL UNIT]

DRIVER ASSISTANCE SYSTEMS (2.0L TURBO GASOLINE ENGINE)

4	Y	MOTOR BATTERY
5	LG	STOP LAMP SW SIGNAL [With ADAS]
5	V	STOP LAMP SW SIGNAL [With ASCD]
7	GR	RR LH WHEEL SENSOR SIGNAL
8	G	RR LH WHEEL SENSOR POWER SUPPLY
9	BR	FR RH WHEEL SENSOR SIGNAL
10	GR	FR RH WHEEL SENSOR POWER SUPPLY
13	R	VACUUM SENSOR SIGNAL
15	P	CAN-L [With CAN Gateway]
15	R	CAN-L [With Gateway]
17	Y	RR BR WHEEL SENSOR SIGNAL
18	LG	[With 2.0L turbo gasoline engine] RR BR WHEEL SENSOR POWER SUPPLY [With 2.0L turbo gasoline engine]
19	S8	FR LH WHEEL SENSOR SIGNAL
20	B6	FR LH WHEEL SENSOR POWER SUPPLY
25	L	CAN-H
28	G	VACUUM SENSOR POWER SUPPLY
30	R	VDC OFF SW SIGNAL
32	SHIELD	VACUUM SENSOR GROUND
34	G	IGN

Connector No.	E52
Connector Name	ICC BRAKE HOLD RELAY
Connector Type	MS02FL-M2-LC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	G	-
3	V	-
5	BR	- [With 2.0L turbo gasoline engine]
5	L	- [With V330 engine]

Connector No.	E57
Connector Name	STOP LAMP SWITCH
Connector Type	MS04FW-LC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	- [With ASCD]
1	L	- [With ADAS]
2	GR	- [With ASCD]
3	LG	- [With ADAS]
4	V	-

Connector No.	E44
Connector Name	BRAKE PEDAL POSITION SWITCH
Connector Type	MS02FL



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	- [Color of wire differs depending on production]
1	V	- [Color of wire differs depending on production]
2	B6	- [With V330 engine]
2	BR	- [With 2.0L turbo gasoline engine]

Connector No.	E58
Connector Name	ESS RELAY
Connector Type	MS03FB-M2-LC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	-
1	R	- [With V330 engine]
2	G	- [With 2.0L turbo gasoline engine]
3	W	-
4	LG	-

Connector No.	E64
Connector Name	FUSE BLOCK (J/B)
Connector Type	MS08FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1E	G	-
2E	P	-
3E	V	-
4E	GR	-
6E	L	-
7E	B6	-

Connector No.	E65
Connector Name	FUSE BLOCK (J/B)
Connector Type	TH12FW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
10F	W	-
11F	G	- [Color of wire differs depending on production]
11F	R	- [Color of wire differs depending on production]
12F	W	- [With V330 engine]
12F	Y	- [With 2.0L turbo gasoline engine]
1F	R	-
2F	BR	-
3F	P	-
5F	P	-
6F	L	-
7F	R	-
8F	L	-
9F	L	-

Connector No.	E76
Connector Name	WIRE TO WIRE
Connector Type	SAA18FB-RC10-S1Z2



Terminal No.	Color Of Wire	Signal Name [Specification]
4	Y	-
5	L	-
6	B	-
7	BR	-
8	LG	-
9	GR	-
11	LG	-

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DRIVER ASSISTANCE SYSTEMS

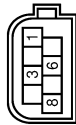
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[ADAS CONTROL UNIT]

DRIVER ASSISTANCE SYSTEMS (2.0L TURBO GASOLINE ENGINE)

12	BG	-	-
13	B	-	-
14	R	-	-
15	G	-	-
16	V	-	-
17	B	-	-
18	P	-	-
21	B	-	-
22	SHIELD	-	-
23	P	-	-
24	L	-	-
25	V	-	-
26	B	-	-
28	B	-	-

Connector No.	E80
Connector Name	ICC SENSOR
Connector Type	IAZ08FB



Terminal No.	1	3	6	8
Color	R	L	Y	B
Wire	IGNITION	ITS COMM-H	ITS COMM-L	GROUND

Connector No.	E121
Connector Name	IPMA (R) INTELLIGENT POWER DISTRIBUTION MODE/ENGINE (R004)
Connector Type	TH32FW-AH



Terminal No.	Color	Wire	Signal Name [Specification]
19	L	-	- [With 2.0L turbo gasoline engine]
22	BG	-	- [With VFS0 engine]
23	GR	-	- [With VFS0 engine]
23	LG	-	- [With 2.0L turbo gasoline engine and without Am (left side)]
23	P	-	- [With 2.0L turbo gasoline engine and with Am (left side)]
27	GR	-	-
28	P	-	-
29	L	-	-
31	G	-	-
32	SB	-	-
33	SB	-	-
34	Y	-	-
35	G	-	-
36	SB	-	- [With VFS0 engine]
36	W	-	- [With 2.0L turbo gasoline engine]
37	GR	-	-
38	BR	-	-
41	GR	-	-
43	V	-	-

Connector No.	E195
Connector Name	WIRE TO WIRE
Connector Type	TK36FW-AN10



Terminal No.	Color	Wire	Signal Name [Specification]
5	BR	-	-
8	GR	-	-
9	P	-	-
10	R	-	-
11	L	-	-
12	P	-	-
13	GR	-	-
14	Y	-	-
15	G	-	-
16	W	-	-
17	L	-	-
18	R	-	-
19	BR	-	-
20	SHIELD	-	-
21	BR	-	-
22	V	-	-
23	W	-	-
24	L	-	-
25	G	-	-
26	G	-	-
30	Y	-	-
31	GR	-	-
32	SA	-	-
33	W	-	-
34	W	-	-
35	B	-	-
36	G	-	-
37	SHIELD	-	-
38	R	-	-
39	L	-	-
40	GR	-	-
41	W	-	-
42	B	-	-
43	BR	-	-
44	P	-	-
45	SB	-	-

45	Y	-
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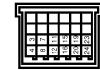
Connector No.	E200
Connector Name	ECM
Connector Type	ADA52FB-4H26



Terminal No.	Color	Wire	Signal Name [Specification]
97	G	-	POWER SUPPLY (MAIN)
98	B	-	ECM GROUND
99	G	-	POWER SUPPLY (MAIN)
100	B	-	ECM GROUND
101	G	-	POWER SUPPLY (MAIN)
102	B	-	ECM GROUND
103	V	-	COOLING FAN CONTROL SIGNAL (PWM)
104	Y	-	SENSOR POWER SUPPLY
105	R	-	SENSOR POWER SUPPLY
106	W	-	SENSOR GROUND
109	P	-	ENGINE SPEED SIGNAL
111	G	-	POWER SUPPLY
116	LG	-	STARTER RELAY-L
119	BR	-	SENSOR GROUND
120	BG	-	SENSOR GROUND
123	BR	-	MAIN RELAY CONTROL SIGNAL
127	V	-	FUEL PUMP ON SIGNAL
132	G	-	ACCELERATOR PEDAL POSITION SENSOR 1
137	L	-	CAN-H
138	L	-	DRIVETRAIN CAN-H
142	GR	-	BACK-UP LAMP SWITCH
143	LG	-	REFRIGERANT PRESSURE SENSOR
145	L	-	ACCELERATOR PEDAL POSITION SENSOR 2
146	L	-	FUEL TANK PRESSURE SENSOR
148	L	-	STARTER RELAY-H
150	P	-	CAN-L
151	P	-	DRIVETRAIN CAN-L
152	B	-	EVAP CANISTER VENT CONTROL VALVE
153	G	-	EVAP PURGE CONTROL VALVE

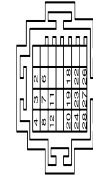
DRIVER ASSISTANCE SYSTEMS (2.0L TURBO GASOLINE ENGINE)

Connector No.	E220
Connector Name	JOINT CONNECTOR-E05
Connector Type	NH24FEJ



Terminal No.	Color Of Wire	Signal Name [Specification]
3	W	-
4	L	-
7	W	-
8	L	-
11	W	-
12	L	-
15	P	- [Without Gateway]
16	L	- [With Gateway]
19	P	- [Without Gateway]
20	L	- [With Gateway]
23	P	- [Without Gateway]
24	L	- [With Gateway]

Connector No.	E223
Connector Name	JOINT CONNECTOR-E06
Connector Type	SGA28FB-1



Terminal No.	Color Of Wire	Signal Name [Specification]
2	GR	-
3	G	-
4	BR	-
6	BG	-
7	G	-

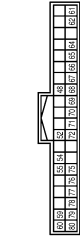
8	BR	-
11	G	-
12	L	-
18	V	-
19	W	-
20	BG	-
22	GR	-
23	P	-
24	BR	-
26	V	-
27	W	-
28	BG	-

Connector No.	M13
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FE-NH



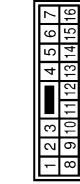
Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	PUSH SW
3	Y	SENS PWR/SPLY
4	BG	OPTICAL SENSOR
5	LG	-
10	W	COMBI SW OUTPUT 5
11	SB	COMBI SW OUTPUT 4
12	L	COMBI SW OUTPUT 3
13	G	COMBI SW OUTPUT 2
14	P	COMBI SW OUTPUT 1
15	G	ONE TOUCH UNLK SENS (DR)
16	G	ONE TOUCH UNLK SENS (PASS)
17	P	RECEIVER/SENSOR GND
18	L	SECURITY FND LAMP CONT
20	R	DEFENT SW
21	SB	STEP LAMP CONT
25	R	STOP LAMP SW2
26	R	EXTENDED STORAGE FUSE SW
27	P	STOP LAMP SW
30	W	DR DOOR UNLK SENS
33	V	TR LID OP CANCEL SW
36	G	HAZARD SW
39	BR	P/N POSITION

Connector No.	M14
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
48	R	PUSH-BTN IGN SW LLL PWR
52	G	DONGLE LINK
54	V	COMMI LINE
55	R	RAIN SENSOR
59	P	GRN-L
60	L	CAN-H
61	G	REAR WINDOW DEF RLY CONT
62	R	STARTER RLY CONT
64	V	L-KEY WARN BUZZER
65	B	OUTS HD LAMP CONT
66	B	BLOWER FAN RLY CONT [With VR30 engine]
66	Y	BLOWER FAN RLY CONT [With 2.0L turbo gasoline engine]
67	W/B	IGN RLY/VAY (F/B) CONT
68	R	DIMMER
69	GR	A/T SHIFT SELECT PWR SPLY
70	B	IGN RLY/VAY (PDM E/FB) CONT
71	G	DR DOOR REQ SW
72	SB	PASS DOOR REQ SW
75	BR	COMBI SW INPUT 5
76	BG	COMBI SW INPUT 4
77	V	COMBI SW INPUT 3
78	V	COMBI SW INPUT 2
79	LG	COMBI SW INPUT 1
80	L	TR LID OP/RN SW

Connector No.	M18
Connector Name	WIRE TO WIRE
Connector Type	NS16MMV-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
10	SB	-
11	Y	-
12	GR	-

Connector No.	M19
Connector Name	WIRE TO WIRE
Connector Type	TH80MMV-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	G	-
3	G	-
4	BR	-
5	Y	-
9	R	-
7	W	-
8	V	-
10	BG	-
11	BR	-
12	LG	-
13	GR	-
14	R	-
15	L	-
16	V	-
18	W	-
19	BR	-

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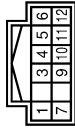


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DRIVER ASSISTANCE SYSTEMS (2.0L TURBO GASOLINE ENGINE)

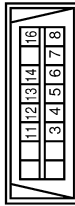
89	BR	- [With VR30 engine]
89	LG	- [With 2.0L turbo gasoline engine]
90	SB	- [With 2.0L turbo gasoline engine]
90	V	- [With VR30 engine]
92	L	- [With 2.0L turbo gasoline engine]
92	W	- [With VR30 engine]
93	R	- [With VR30 engine]
93	SHIELD	- [With 2.0L turbo gasoline engine]
94	R	- [With 2.0L turbo gasoline engine]
95	L	- [With 2.0L turbo gasoline engine]
95	Y	- [With VR30 engine]
96	R	- [With 2.0L turbo gasoline engine]
96	W	- [With VR30 engine]
97	L	- [With 2.0L turbo gasoline engine]
97	R	- [With 2.0L turbo gasoline engine]
98	BR	- [With VR30 engine]
99	BR	- [With VR30 engine and with BOSE system]
99	P	- [With 2.0L turbo gasoline engine]
99	Y	- [With VR30 engine and without BOSE system]
100	BR	- [With VR30 engine]
100	W	- [With 2.0L turbo gasoline engine]

Connector No.	M24
Connector Name	CAN GATEWAY
Connector Type	TH12FW-NH



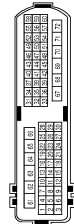
Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	CAN-H (CAN COMMUNICATION CIRCUIT 1)
3	W	BATTERY POWER SUPPLY
4	L	CAN-H (CAN COMMUNICATION CIRCUIT 2)
5	B	GROUND
6	L	CAN-H (CAN COMMUNICATION CIRCUIT 2)
7	P	CAN-H (CAN COMMUNICATION CIRCUIT 1)
9	R	BATTERY POWER SUPPLY (With VR30 engine and without IS3)
9	W	BATTERY POWER SUPPLY (Except with VR30 engine and without IS3)
10	R	CAN-H (CAN COMMUNICATION CIRCUIT 2)
11	B	GROUND
12	R	CAN-H (CAN COMMUNICATION CIRCUIT 2)

Connector No.	M25
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	M_CAN_L
4	B	EARTH
5	B	EARTH
6	L	CAN-H
7	V	KLINE [With 2.0L turbo gasoline engine]
7	W	KLINE [With VR30 engine]
8	W	IGN_SW
11	SB	M_CAN_H
12	R	CAN-L
13	L	CAN-H
14	P	CAN-L
16	W	POWER

Connector No.	M33
Connector Name	WIRE TO WIRE
Connector Type	NH60MW-TS12



Terminal No.	Color Of Wire	Signal Name [Specification]
2	W	-
4	G	-
5	G	-
6	R	-
7	R	-
8	GR	-
9	GR	-
10	W	-

Terminal No.	Color Of Wire	Signal Name [Specification]
11	SHIELD	-
12	P	-
13	SB	-
14	LG	-
15	Y	-
16	Y	-
17	P	-
18	W/B	-
19	LG	- [With DRPO]
19	V	- [Without DRPO]
20	V	-
21	B	-
22	BG	- [Without DRPO]
22	G	- [With DRPO]
23	L	-
24	Y	-
25	BG	- [Without DRPO]
25	L	- [With DRPO]
26	Y	-
27	GR	-
28	V	-
29	B	-
30	W	-
31	B	-
32	SB	-
33	L	-
34	BR	-
35	LG	-
36	W	-
37	B	-
40	P	-
41	SB	-
43	W	- [Except with VR30 engine and without IS3]
43	Y	- [With VR30 engine and without IS3]
44	BG	-
46	BR	-
47	G	-
49	V	-
50	B	-
52	BR	-
53	B	-
55	BG	-
56	LG	-
57	V	-
58	R	-
59	G	-
60	L	-
61	G	-
62	R	-
62	LG	-
63	V	-

64	B	-
65	R	-
66	BR	-
68	P	-
69	V	-
70	W	-
71	LG	-
72	V	-

Connector No.	M34
Connector Name	WIRE TO WIRE
Connector Type	NH60MW-TS12



Terminal No.	Color Of Wire	Signal Name [Specification]
1	V	-
2	R	-
4	G	- [With DRPO]
4	SB	- [Without DRPO]
5	L	-
6	R	-
7	R	-
8	W	-
9	GR	-
10	V	-
11	Y	-
13	LG	-
14	W	-
16	G	-
17	B	-
18	W	-
19	B	-
20	SB	- [With DRPO]
20	Y	- [Without DRPO]
21	SHIELD	-
22	B	-
23	BG	- [Without DRPO]
23	P	- [With DRPO]
24	G	-
25	LG	-
26	LG	-

A B C D E F G H I J K L M N P



JROWC8877GB

DRIVER ASSISTANCE SYSTEMS

< WIRING DIAGRAM >

[ADAS CONTROL UNIT]

DRIVER ASSISTANCE SYSTEMS (2.0L TURBO GASOLINE ENGINE)

26	BR	- [With DRPO]
27	R	- [With 2.0L turbo gasoline engine]
28	SB	-
29	BG	- [Without DRPO]
29	W/B	- [With DRPO]
30	L	-
49	P	-
52	V	-
55	B	- [With VR30 engine]
56	SB	- [With 2.0L turbo gasoline engine]
57	G	-
58	G	-
59	G	- [With 2.0L turbo gasoline engine]
60	R	- [With VR30 engine]
63	B	- [With VR30 engine]
64	R	- [With 2.0L turbo gasoline engine]
65	BR	-
66	Y	-
69	BR	-
70	Y	-
71	SB	-
72	W	-

Connector No.	M40
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



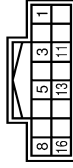
Terminal No.	Color Of Wire	Signal Name [Specification]
1	BG	-
2	W/B	-
3	Y	-
4	BG	- [With VR30 engine]
8	BR	- [With 2.0L turbo gasoline engine]
9	LG	- [With VR30 engine]
9	P	- [With 2.0L turbo gasoline engine]
10	W	-
11	W	- [With VR30 engine]
11	Y	- [With 2.0L turbo gasoline engine]
12	B	- [With VR30 engine]
12	BR	- [With 2.0L turbo gasoline engine]

13	GR	- [With VR30 engine]
13	SHIELD	- [With 2.0L turbo gasoline engine]
14	B	-
15	BG	- [With 2.0L turbo gasoline engine]
15	SB	- [With VR30 engine]
16	B	- [With 2.0L turbo gasoline engine]
16	BR	- [With 2.0L turbo gasoline engine]
17	LG	-
18	B	- [With VR30 engine]
18	W/B	- [With 2.0L turbo gasoline engine]
19	V	-
31	W	-
32	G	- [With 2.0L turbo gasoline engine]
32	V	- [With VR30 engine]
33	L	- [With VR30 engine]
33	Y	- [With 2.0L turbo gasoline engine]
34	P	-
35	BG	-
36	G	-
37	B	- [With VR30 engine]
37	L	- [With 2.0L turbo gasoline engine]
38	L	- [With VR30 engine]
38	P	- [With 2.0L turbo gasoline engine and without gateway]
38	R	- [With 2.0L turbo gasoline engine and with gateway]
39	R	- [With 2.0L turbo gasoline engine]
39	Y	- [With VR30 engine]
40	GR	-
41	L	-
44	BR	-
45	L	- [With 2.0L turbo gasoline engine]
45	W	- [With VR30 engine]
46	G	- [With VR30 engine]
46	Y	- [With 2.0L turbo gasoline engine]
47	BG	- [With 2.0L turbo gasoline engine]
47	R	- [With VR30 engine]
48	SHIELD	-
49	B	- [With VR30 engine]
49	G	- [With 2.0L turbo gasoline engine]
50	B	- [With 2.0L turbo gasoline engine]
50	BR	- [With VR30 engine]
51	L	-
52	W	-
53	G	-
54	SB	- [With 2.0L turbo gasoline engine]
54	Y	- [With VR30 engine]
55	B	- [With 2.0L turbo gasoline engine]
55	P	- [With VR30 engine]
56	BG	- [With VR30 engine]
56	GR	- [With 2.0L turbo gasoline engine]
57	GR	- [With VR30 engine]

57	P	- [With 2.0L turbo gasoline engine]
58	B	-
59	SB	-
61	W/B	-
64	Y	-
65	R	-
66	P	- [Color of wire differs depending on production]
66	V	- [Color of wire differs depending on production]
67	LG	-
68	BG	-
69	V	-
70	R	-
71	V	- [With VR30 engine]
71	W	- [With 2.0L turbo gasoline engine]
72	L	- [With 2.0L turbo gasoline engine]
72	LG	- [With VR30 engine]
73	R	- [With VR30 engine]
73	W	- [With 2.0L turbo gasoline engine]
74	BR	- [With VR30 engine]
74	L	- [With 2.0L turbo gasoline engine]
75	B	- [With VR30 engine]
75	P	- [With 2.0L turbo gasoline engine and without gateway]
75	R	- [With 2.0L turbo gasoline engine and with gateway]
76	W/B	-
77	SB	-
78	G	- [With VR30 engine]
78	LG	- [With 2.0L turbo gasoline engine]
79	R	-
80	G	-
81	R	-
82	LG	-
83	BR	- [With 2.0L turbo gasoline engine]
83	R	- [With VR30 engine]
84	V	-
86	V	-
87	G	-
89	V	-
90	G	- [With VR30 engine]
90	V	- [With 2.0L turbo gasoline engine]
91	W	-
92	G	-
93	BR	-
94	GR	- [With VR30 engine]
94	L	- [With 2.0L turbo gasoline engine]
95	BR	- [With VR30 engine]
95	P	- [With 2.0L turbo gasoline engine and without gateway]
95	R	- [With 2.0L turbo gasoline engine and with gateway]
96	W	-
97	LG	-
98	Y	-

99	BR	- [With VR30 engine]
99	LG	- [With 2.0L turbo gasoline engine]
100	SHIELD	-

Connector No.	M55
Connector Name	DRIVER ASSISTANCE BUZZER CONTROL MODULE
Connector Type	TH116FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	IGNITION
3	L	ITS COMM-H
5	B	GROUND
8	R	WARNING BUZZER SIGNAL
11	Y	ITS COMM-L
13	B	GROUND
16	G	WARNING BUZZER SIGNAL GROUND

Connector No.	M58
Connector Name	COMBINATION METER
Connector Type	TH12FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
41	L	CAN-H
42	P	CAN-L
43	B	ILLUMINATION CONTROL SIGNAL
44	Y	FUEL LEVEL SENSOR GROUND
45	W	BATTERY POWER SUPPLY
46	R	IGNITION SIGNAL [Except with VR30 engine and without IS]
47	SB	AV COMMUNICATION SIGNAL [H]

DRIVER ASSISTANCE SYSTEMS

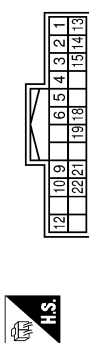
< WIRING DIAGRAM >

[ADAS CONTROL UNIT]

DRIVER ASSISTANCE SYSTEMS (2.0L TURBO GASOLINE ENGINE)

48	LG	AV COMMUNICATION SIGNAL (L)
51	BR	FUEL LEVEL SENSOR SIGNAL
52	B	GROUND

Connector No.	M76
Connector Name	SONAR CONTROL UNIT
Connector Type	TH2RFW-NH



Connector No.	M77
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GROUND
2	P	CAN-L [Without Gateway]
3	R	CAN-L [With Gateway]
4	G	IGN
5	L	CAN-H

Connector No.	M85
Connector Name	RESISTOR
Connector Type	MD2FRR-LC

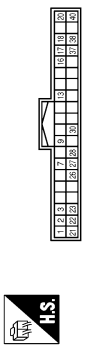


Connector No.	M87
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGV-1V



Terminal No.	Color Of Wire	Signal Name [Specification]
24	P	-
25	SB	-
31	W/B	-
32	Y	-
33	B	-

Connector No.	M88
Connector Name	A/C AUTO AMP.
Connector Type	TH4DFV-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	-
2	B	-

26	B	SENSOR GROUND
27	LG	IN-VEHICLE SENSOR SIGNAL
28	BR	INTAKE SENSOR SIGNAL
30	BG	EXHAUST GAS / OUTSIDE ODOR DETECTING SENSOR SIGNAL
37	B	GROUND
38	BG	IONIZER (ION/OFF) CONTROL SIGNAL
40	BG	ECU CONTROL SIGNAL

Connector No.	M95
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	BR	-
3	BR	-
5	P	- [Without Gateway]
6	Y	- [With Gateway]
7	P	- [Without Gateway]
9	R	- [With Gateway]
10	R	-
11	SHIELD	-
13	L	-
14	L	-
15	L	-

Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	CAN-H
2	B	GROUND
3	W	BATTERY POWER SUPPLY
7	G	AMBIENT SENSOR SIGNAL
9	R	SUNLOAD SENSOR SIGNAL
13	SB	A/C POWER SUPPLY [With 2.0L turbo gasoline engine]
13	V	A/C POWER SUPPLY [With V630 engine]
16	P	LIN SIGNAL
17	R	DOOR MOTOR POWER SUPPLY
18	P	BLOWER MOTOR CONTROL SIGNAL
20	L	HEATED STEERING WHEEL RELAY CONTROL SIGNAL
21	P	CAN-L
22	B	GROUND
23	R	IGNITION POWER SUPPLY [With V630 engine and with BS5]
23	W	IGNITION POWER SUPPLY [Except with V630 engine and with BS5]

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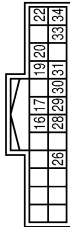
DRIVER ASSISTANCE SYSTEMS

< WIRING DIAGRAM >

[ADAS CONTROL UNIT]

DRIVER ASSISTANCE SYSTEMS (2.0L TURBO GASOLINE ENGINE)

Connector No.	M100
Connector Name	DISPLAY CONTROL UNIT
Connector Type	TH24FW-AH



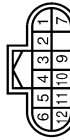
Terminal No.	Color Of Wire	Signal Name [Specification]
16	LG	AV COMM (L)
17	P	CAN-L
19	R	DIMMER SIGNAL
20	BR	REVERSE SIGNAL
22	B	GND
26	BR	CAMERA SWITCH SIGNAL
28	SB	AV COMM (H)
29	L	CAN-H
30	R	IGN [For VR30 engine]
31	R	IGN [For 2.0L turbo gasoline engine]
33	SB	VEHICLE SPEED SIGNAL (8-PULSE)
33	V	ACC [Except for VR30 engine and with ISS]
34	Y	ACC [For VR30 engine and with ISS]
		BAT

Connector No.	M107
Connector Name	DRIVER ASSISTANCE BUZZER
Connector Type	NS02FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	G	-

Connector No.	M124
Connector Name	ACCELERATOR PEDAL ACTUATOR/ACCELERATOR PEDAL POSITION SENSOR
Connector Type	RH12FB



Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	BATTERY
2	G	IGNITION
3	L	ITS COMM-H
4	W	-
5	G	GND
6	Y	-
7	B	GROUND
9	Y	ITS COMM-L
10	L	-
11	R	-
12	BR	-

Connector No.	M133
Connector Name	FUSE BLOCK (J/B)
Connector Type	TH40FW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
13C	V	-
13C	L	-
14C	L	-
15C	R	-
16C	R	-
17C	L	-
18C	BG	-
18C	P	- [Without DRPO]
		- [With DRPO]

19C	B	-
1C	R	-
20C	W	-
21C	L	-
22C	L	-
23C	L	-
24C	LG	-
25C	SB	-
26C	SB	-
27C	P	-
28C	W	-
29C	W	-
3C	R	-
30C	R	-
31C	W	-
32C	R	-
33C	B	- [With VR30 engine]
33C	R	- [With 2.0L Turbo gasoline engine]
34C	W/B	-
35C	SB	-
36C	R	-
37C	W	-
38C	SB	-
39C	V	-
3C	P	-
40C	G	-
4C	P	-
5C	P	-
6C	G	-
7C	G	-
8C	G	-
9C	V	-

Connector No.	M137
Connector Name	JOINT CONNECTOR-M10
Connector Type	24342-4G42A



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	B	-
3	B	-

4	B	-
5	B	-
7	B	-
8	B	-
9	B	-
10	B	-
11	B	-
13	L	-
14	L	-
15	L	-
16	L	-
19	R	-
20	R	-
21	R	-
22	R	-

Connector No.	M146
Connector Name	WIRE TO WIRE
Connector Type	TK36MW-NS10



Terminal No.	Color Of Wire	Signal Name [Specification]
5	R	-
8	GR	-
9	V	-
10	BG	-
11	L	-
12	P	-
13	SB	-
14	Y	-
15	G	-
16	BR	-
17	W	-
18	R	-
19	L	-
20	SHIELD	-
21	BR	-
22	B	-
23	G	-
24	L	-
25	R	-

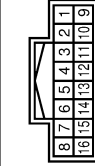
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DRIVER ASSISTANCE SYSTEMS (2.0L TURBO GASOLINE ENGINE)

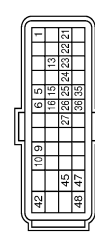
26	G	-	-	-	-
30	Y	-	-	-	-
31	GR	-	-	-	-
32	SB	-	-	-	-
33	BG	-	-	-	-
34	W	-	-	-	-
35	G	-	-	-	-
36	R	-	-	-	-
37	SHIELD	-	-	-	-
38	B	-	-	-	-
39	W	-	-	-	-
40	B	-	-	-	-
41	GR	-	-	-	-
42	B	-	-	-	-
43	LG	-	-	-	-
44	B	-	-	-	-
45	SB	-	-	-	-
46	B	-	-	-	-

36	G	SENSOR GROUND SUB BATTERY CURRENT/TEMPERATURE SENSOR
42	G	EMCM POWER SUPPLY
45	R	SUB BATTERY VOLTAGE MONITOR
47	B	EMCM GROUND
48	B	EMCM GROUND

Connector No.	M155
Connector Name	WIRE TO WIRE
Connector Type	TH16FM-NH

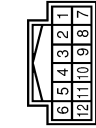


Connector No.	M147
Connector Name	EMCM
Connector Type	RH40FRZ8-RLHZ



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	EMCM RELAY CONTROL (SSOFF)
5	L	IGNITION SWITCH
6	LG	STOP LAMP SWITCH
9	L	CAN-L
10	P	CAN-R
13	W	STOP/START OFF SWITCH
15	Y	SENSOR POWER (SUB BATTERY CURRENT/TEMPERATURE SENSOR)
16	W	SENSOR POWER (SUB BATTERY CURRENT/TEMPERATURE SENSOR)
21	V	SUB BATTERY RELAY CONTROL
22	G	ENGINE RESTART BYPASS CONTROL RELAY
23	BR	BRAKE PEDAL POSITION SWITCH
24	GR	MAIN BATTERY CURRENT SENSOR
25	BG	MAIN BATTERY TEMPERATURE SENSOR
26	R	SUB BATTERY CURRENT SENSOR
27	BR	SUB BATTERY TEMPERATURE SENSOR
35	SB	SENSOR GROUND (MAIN BATTERY CURRENT/TEMPERATURE SENSOR)

Connector No.	M157
Connector Name	WIRE TO WIRE
Connector Type	TH12FM-NH



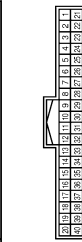
Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	-
2	G	- [With VR30 engine]
3	L	- [With 2.0L turbo gasoline engine]
4	W	-
5	BR	- [With VR30 engine]
6	G	- [With 2.0L turbo gasoline engine]
7	Y	- [With VR30 engine]
8	Y	- [With 2.0L turbo gasoline engine]
9	Y	-
10	L	- [With VR30 engine]
11	L	- [With 2.0L turbo gasoline engine]
12	BR	- [With VR30 engine]
12	W	- [With 2.0L turbo gasoline engine]

Connector No.	M158
Connector Name	WIRE TO WIRE
Connector Type	TH12NM-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	-
2	G	-
3	L	-
4	W	-
5	G	-
6	Y	-
7	B	-
8	Y	-
9	Y	-
10	L	-
11	R	-
12	BR	-

Connector No.	M159
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	B	-
3	BR	-
4	R	-
5	GR	-
6	R	- [With VR30 engine and with SS]
7	W	- [Except with VR30 engine and with SS]
8	L	-
9	SHIELD	-
10	W	-
11	R	-
12	L	-
13	G	-
14	Y	-
15	B	-
17	B	-
19	R	-
20	BG	- [Except with VR30 engine and with BOSE system]
21	R	- [With VR30 engine and with BOSE system]
22	G	-

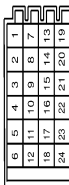
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DRIVER ASSISTANCE SYSTEMS (2.0L TURBO GASOLINE ENGINE)

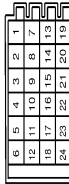
24	B	-	-
25	W	-	-
26	R	-	-
27	P	-	-
28	B	-	-
29	G	-	-
30	L	-	-
31	W	-	-
32	W	-	-
33	L	-	-
34	V	-	-
38	LG	-	-
40	W	-	-

Connector No.	M173
Connector Name	JOINT CONNECTOR-M03
Connector Type	24342_4GAZA



19	BR	-	-	[With VR30 engine]
19	LG	-	-	[With 2.0L turbo gasoline engine]
20	BR	-	-	[With VR30 engine]
20	LG	-	-	[With 2.0L turbo gasoline engine]
21	BR	-	-	[With VR30 engine]
21	LG	-	-	[With 2.0L turbo gasoline engine]
22	R	-	-	[With 2.0L turbo gasoline engine]
22	SB	-	-	[With VR30 engine and without ISS]
22	V	-	-	[With VR30 engine and with ISS]
23	R	-	-	[With 2.0L turbo gasoline engine]
23	SB	-	-	[With VR30 engine and without ISS]
23	V	-	-	[With VR30 engine and with ISS]
24	R	-	-	[With 2.0L turbo gasoline engine]
24	SB	-	-	[With VR30 engine and without ISS]
24	V	-	-	[With VR30 engine and with ISS]

Connector No.	M174
Connector Name	JOINT CONNECTOR-M04
Connector Type	24342_4GAZA

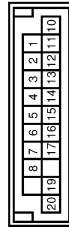


Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	L	-
3	L	-
4	L	-
5	L	-
6	L	-
7	R	-
8	R	-
9	R	-
10	R	-
11	R	-
12	R	-
13	SB	-
14	SB	-
15	SB	-
16	SB	-
17	SB	-
18	L	-
18	SB	-

Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	L	-
3	L	-
4	L	-
5	L	-
6	L	-
7	Y	-
8	Y	-
9	Y	-
10	Y	-
11	Y	-
12	Y	-
13	SB	-
14	SB	-
15	SB	-
16	SB	-
17	SB	-
18	SB	-
19	LG	-

20	LG	-	-
21	LG	-	-
22	LG	-	-
23	LG	-	-
24	LG	-	-

Connector No.	M175
Connector Name	JOINT CONNECTOR-M05
Connector Type	NR201-DC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	L	-
3	L	-
4	L	-
5	L	-
6	L	-
7	L	-
8	L	-
10	P	-
11	P	-
12	P	-
13	P	-
14	P	-
15	P	-
16	P	-
16	R	[With 2.0L turbo gasoline engine]
17	P	[With VR30 engine]
17	R	[With 2.0L turbo gasoline engine]
19	R	[With VR30 engine and with ISS]
19	W	[Except with VR30 engine and with ISS]
20	R	[With VR30 engine and with ISS]
20	W	[Except with VR30 engine and with ISS]

Connector No.	M177
Connector Name	JOINT CONNECTOR-M07
Connector Type	24342_4GAZA



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	L	-
3	L	-
4	L	-
5	L	-
6	L	-
7	P	-
8	P	-
9	P	-
10	P	-
11	P	-
12	P	-
13	L	-
14	L	-
15	L	-
16	L	-
17	L	-
18	L	-
19	W	-
20	W	-
21	W	-
22	P	-
23	P	-
24	P	-

DRIVER ASSISTANCE SYSTEMS (2.0L TURBO GASOLINE ENGINE)

Connector No.	M301
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TH08FGY



Connector No.	R15
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
13	-	-
14	-	-
15	-	-
16	-	-
17	-	-
18	-	-
19	-	-
20	-	-



Connector No.	R1
Connector Name	LANE CAMERA UNIT
Connector Type	TH08FW-NH

Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	LG	-
3	BR	-
4	V	-
5	BG	-
6	GR	-
7	BR	-
9	SHIELD	-
10	GR	-
11	R	-
12	L	-
13	G	-
14	Y	-
15	B	-
17	SB	-
19	BG	-
20	RG	- [Without BOSE system]
20	BR	- [With BOSE system]
21	R	-
22	G	-
24	B	-
25	BG	- [Color of wire differs depending on production]
26	P	- [Color of wire differs depending on production]
26	BR	-
27	GR	-
28	B	-
29	R	-
30	L	-
31	V	-
32	W	-
33	L	-
36	BR	-
38	SB	-
40	W	-

Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GND
4	L	ITS COMM-H
5	B	GND
7	G	IGNITION
8	V	ITS COMM-L

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JROWC8883GB

BASIC INSPECTION

ADDITIONAL SERVICE WHEN REPLACING ADAS CONTROL UNIT

Description

INFOID:000000012796064

Always perform the ADAS control unit configuration after replacing the ADAS control unit.

NOTE:

Models with FEB system only.

Work Procedure

INFOID:000000012796065

1. ADAS CONTROL UNIT CONFIGURATION (WITH ICC MODELS)

Perform the ADAS control unit configuration with CONSULT. Refer to [DAS-101, "Description"](#).

>> GO TO 2.

2. PERFORM SELF-DIAGNOSIS

Perform the self-diagnosis of ADAS control unit with CONSULT. Check if any DTC is detected.

Is any DTC detected?

- YES >> Perform the trouble diagnosis for the detected DTC. Refer to [DAS-53, "DTC Index"](#).
- NO >> INSPECTION END

CONFIGURATION (ADAS CONTROL UNIT)

< BASIC INSPECTION >

[ADAS CONTROL UNIT]

CONFIGURATION (ADAS CONTROL UNIT)

Description

INFOID:000000012796066

- Since vehicle specifications are not included in the ADAS control unit after replacement, it is required to write vehicle specifications with CONSULT. Refer to [DAS-101, "Work Procedure"](#).

NOTE:

- Models with FEB system only.
- Configuration has three functions as follows.

Function		Description
Read/Write Configuration	Before Replace ECU	Allows the reading of vehicle specification written in ADAS control unit to store the specification in CONSULT.
	After Replace ECU	Allows the writing of the vehicle information stored in CONSULT into the ADAS control unit.
Manual Configuration		Allows the writing of the vehicle specification into the ADAS control unit by hand.

Work Procedure

INFOID:000000012796067

CAUTION:

- Use "Manual Configuration" only when "Parts number" of ADAS control unit cannot be read.
- If an error occurs during configuration, start over from the beginning.

1. CHECKING PARTS NUMBER

Ⓜ WITH CONSULT

1. Select "Before Replace ECU" of "Read/Write Configuration".
2. Check that "Parts number" is displayed on CONSULT.

Is "Parts number" displayed?

- YES >> GO TO 2.
- NO >> GO TO 6.

2. VERIFYING PARTS NUMBER (1)

Ⓜ WITH CONSULT

Compare a "Parts number" displayed on the CONSULT screen with the one searched by using FAST (service parts catalogue) to check that these "Parts number" agree with each other.

NOTE:

For the "Parts number" searched by using FAST (service parts catalog), use the last five digits of the "Parts number".

>> GO TO 3.

3. SAVING PARTS NUMBER

Ⓜ WITH CONSULT

Save "Parts number" on CONSULT.

>> GO TO 4.

4. REPLACE ADAS CONTROL UNIT (1)

Replace ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

>> GO TO 5.

5. WRITING (AUTOMATIC WRITING)

Ⓜ WITH CONSULT

1. Select "After Replace ECU" of "Re/programming, Configuration" or that of "Read / Write Configuration".
2. Select the "Parts number" agreeing with the one stored on CONSULT and the one searched by using FAST (service parts catalogue) to write the "Parts number" into the ADAS control unit.

CONFIGURATION (ADAS CONTROL UNIT)

< BASIC INSPECTION >

[ADAS CONTROL UNIT]

>> GO TO 8.

6. REPLACE ADAS CONTROL UNIT (2)

Replace ADAS control unit. Refer to [DAS-214. "Removal and Installation"](#).

>> GO TO 7.

7. WRITING (MANUAL WRITING)

Ⓜ WITH CONSULT

1. Select "Manual Configuration".
2. Select the "Parts number" searched by using FAST (service parts catalogue) to write the "Parts number" into the ADAS control unit.

NOTE:

For the "Parts number" searched by using FAST (service parts catalog), use the last five digits of the "Parts number".

>> GO TO 8.

8. VERIFYING PARTS NUMBER (2)

Ⓜ WITH CONSULT

Compare a "Parts number" displayed on the CONSULT screen with the one searched by using FAST (service parts catalogue) to check that these "Parts number" agree with each other.

NOTE:

For the "Parts number" searched by using FAST (service parts catalog), use the last five digits of the "Parts number".

>> GO TO 9.

9. OPERATION CHECK

Confirm that each function controlled by ADAS control unit operates normally.

>> WORK END

DTC/CIRCUIT DIAGNOSIS

C1A0A CONFIG UNFINISHED

DTC Logic

INFOID:0000000012796068

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1A0A (41)	CONFIG UNFINISH (Configuration unfinished)	The vehicle specifications of ADAS control unit is incomplete.

POSSIBLE CAUSE

Vehicle specifications for ADAS control unit is incomplete.

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)
- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention
- Back-up Collision Intervention (BCI)
- Automatic Speed Control Device (ASCD)

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the MAIN switch of ICC system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "C1A01" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "C1A01" detected as the current malfunction?

- YES >> Refer to [DAS-103, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000012796069

1.PERFORM CONFIGURATION OF ADAS CONTROL UNIT

Perform configuration of ADAS control unit when DTC "C1A0A" is detected.

>> Perform configuration of ADAS control unit. Refer to [DAS-101, "Description"](#).

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C1A00 CONTROL UNIT

DTC Logic

INFOID:000000012796070

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1A00 (0)	CONTROL UNIT (Control unit)	ADAS control unit internal malfunction

POSSIBLE CAUSE

ADAS control unit

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)
- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention
- Back-up Collision Intervention (BCI)
- Automatic Speed Control Device (ASCD)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Perform "All DTC Reading" with CONSULT.
3. Check if the "C1A00" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "C1A00" detected as the current malfunction?

- YES >> Refer to [DAS-104, "Diagnosis Procedure"](#).
 NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
 NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796071

1. CHECK SELF-DIAGNOSIS RESULTS

Check if any DTC other than "C1A00" is detected in "Self Diagnostic Result" of "ICC/ADAS".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DAS-53, "DTC Index"](#).
 NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

C1A01 POWER SUPPLY CIRCUIT 1, C1A02 POWER SUPPLY CIRCUIT 2

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

C1A01 POWER SUPPLY CIRCUIT 1, C1A02 POWER SUPPLY CIRCUIT 2

DTC Logic

INFOID:000000012796072

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1A01 (1)	POWER SUPPLY CIR (Power supply circuit)	The battery voltage sent to ADAS control unit remains less than 7.9 V for 5 seconds
C1A02 (2)	POWER SUPPLY CIR 2 (Power supply circuit 2)	The battery voltage sent to ADAS control unit remains more than 19.3 V for 5 seconds

POSSIBLE CAUSE

- Connector, harness, fuse
- ADAS control unit

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)
- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention
- Back-up Collision Intervention (BCI)
- Automatic Speed Control Device (ASCD)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the MAIN switch of ICC system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "C1A01" or "C1A02" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "C1A01" or "C1A02" detected as the current malfunction?

YES >> Refer to [DAS-105. "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45. "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796073

1. CHECK ADAS CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT

Check power supply and ground circuit of ADAS control unit. Refer to [DAS-213. "Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> Replace the ADAS control unit. Refer to [DAS-214. "Removal and Installation"](#).

NO >> Repair or replace the malfunctioning parts.

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DAS

C1A03 VEHICLE SPEED SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

C1A03 VEHICLE SPEED SENSOR

DTC Logic

INFOID:000000012796074

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1A03 (3)	VHCL SPEED SE CIRC (Vehicle speed sensor circuit)	If the vehicle speed signal (wheel speed) from ABS actuator and electric unit (control unit) and the A/T vehicle speed sensor signal (output shaft revolution signal) from TCM, received by the ADAS control unit via CAN communication, are inconsistent

POSSIBLE CAUSE

- Wheel speed sensor
- ABS actuator and electric unit (control unit)
- Vehicle speed sensor A/T (output speed sensor)
- TCM
- ADAS control unit

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)
- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention
- Back-up Collision Intervention (BCI)
- Automatic Speed Control Device (ASCD)

DTC CONFIRMATION PROCEDURE

1. CHECK DTC PRIORITY

If DTC "C1A03" is displayed with DTC "U1000" or "C1A04", first diagnose the DTC "U1000" or "C1A04".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable.
- U1000: Refer to [DAS-175, "DTC Logic"](#)
 - C1A04: Refer to [DAS-108, "DTC Logic"](#)

NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the MAIN switch of ICC system ON.
3. Drive the vehicle at 30 km/h (19 MPH) or more.
CAUTION:
Always drive safely.
4. Stop the vehicle.
5. Perform "All DTC Reading" with CONSULT.
6. Check if the "C1A03" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "C1A03" detected as the current malfunction?

- YES >> Refer to [DAS-106, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796075

1. CHECK DTC PRIORITY

C1A03 VEHICLE SPEED SENSOR

[ADAS CONTROL UNIT]

< DTC/CIRCUIT DIAGNOSIS >

If DTC "C1A03" is displayed with DTC "U1000" or "C1A04", first diagnose the DTC "U1000" or "C1A04".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable.
- U1000: Refer to [DAS-175, "DTC Logic"](#)
 - C1A04: Refer to [DAS-108, "DTC Logic"](#)

NO >> GO TO 2.

2.CHECK DATA MONITOR

1. Start the engine.
2. Drive the vehicle.
3. Check that the value of "VHCL SPD AT" is almost the same as the value of "VHCL SPEED SE" in "DATA MONITOR" of "ICC/ADAS".

CAUTION:

Be careful of the vehicle speed.

Is the inspection result normal?

YES >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

NO >> GO TO 3.

3.CHECK TCM SELF-DIAGNOSIS RESULTS

1. Perform "All DTC Reading".
2. Check if any DTC is detected in "Self Diagnostic Result" of "TRANSMISSION".

Is any DTC detected?

YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [TM-102, "2.0L TURBO GASOLINE ENGINE : DTC Index"](#) (2.0L turbo gasoline engine) or [TM-111, "VR30DDTT : DTC Index"](#) (VR30DDTT).

NO >> GO TO 4.

4.CHECK ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "ABS".

Is any DTC detected?

YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [BRC-72, "DTC Index"](#).

NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

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DAS

C1A04 ABS/TCS/VDC SYSTEM

DTC Logic

INFOID:000000012796076

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1A04 (4)	ABS/TCS/VDC CIRC (ABS/TCS/VDC circuit)	If a malfunction occurs in the VDC/TCS/ABS system

POSSIBLE CAUSE

ABS actuator and electric unit (control unit)

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)
- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention
- Back-up Collision Intervention (BCI)
- Automatic Speed Control Device (ASCD)

DTC CONFIRMATION PROCEDURE

1. CHECK DTC PRIORITY

If DTC "C1A04" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
 NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the MAIN switch of ICC system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "C1A04" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "C1A04" detected as the current malfunction?

- YES >> Refer to [DAS-108, "Diagnosis Procedure"](#).
 NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
 NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796077

1. CHECK DTC PRIORITY

If DTC "C1A04" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
 NO >> GO TO 2.

2. CHECK ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "ABS".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [BRC-72, "DTC Index"](#).
 NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

C1A05 BRAKE SW/STOP LAMP SW

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

C1A05 BRAKE SW/STOP LAMP SW

DTC Logic

INFOID:000000012796078

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1A05 (5)	BRAKE SW/STOP L SW (Brake switch/Stop lamp switch)	<ul style="list-style-type: none">A mismatch between a stop lamp switch signal and a brake pedal position switch signal received from ECM and a stop lamp signal received from the ABS actuator and electric unit (control unit) continues for 10 seconds or more with vehicle speeds at approximately 40 km/h or more (VR30DDTT)A mismatch between a stop lamp switch signal and a brake pedal position switch signal received from EMCM continues for 10 seconds or more with vehicle speeds at approximately 40 km/h (25 MPH) or more (2.0 TURBO GASOLINE ENGINE)

POSSIBLE CAUSE

- Stop lamp switch circuit
- Brake pedal position switch circuit
- Stop lamp switch
- Brake pedal position switch
- Incorrect stop lamp switch installation
- Incorrect brake pedal position switch installation
- ECM
- EMCM
- ABS actuator and electric unit (control unit)

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1. CHECK DTC PRIORITY

If DTC "C1A05" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175. "DTC Logic"](#).
NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the MAIN switch of ICC system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "C1A05" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "C1A05" detected as the current malfunction?

- YES-1 >> Refer to [DAS-110. "Diagnosis Procedure \(VR30DDTT\)"](#) (VR30DDTT).
YES-2 >> Refer to [DAS-113. "Diagnosis Procedure \(2.0 TURBO GASOLINE ENGINE\)"](#) (2.0 TURBO GASOLINE ENGINE).
NO-1 >> To check malfunction symptom before repair: Refer to [GI-45. "Intermittent Incident"](#).
NO-2 >> Confirmation after repair: INSPECTION END

C1A05 BRAKE SW/STOP LAMP SW

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

Diagnosis Procedure (VR30DDTT)

INFOID:000000012796079

1. CHECK DTC PRIORITY

If DTC "C1A05" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175. "DTC Logic"](#).
- NO >> GO TO 2.

2. CHECK STOP LAMP SWITCH AND BRAKE PEDAL POSITION SWITCH

Check that "STOP LAMP SW" and "BRAKE SW" operate normally in "DATA MONITOR" of "ICC/ADAS".

Is the inspection result normal?

- YES >> GO TO 3.
- NO-1 >> When "BRAKE SW" operation is malfunctioning: GO TO 4.
- NO-2 >> When "STOP LAMP SW" operation is malfunctioning: GO TO 9.

3. CHECK STOP LAMP SWITCH

Check that "STOP LAMP SW" operate normally in "DATA MONITOR" of "ABS".

Is the inspection result normal?

- YES >> GO TO 14.
- NO >> GO TO 9.

4. CHECK BRAKE PEDAL POSITION SWITCH INSTALLATION

1. Turn ignition switch OFF.
2. Check brake pedal position switch for correct installation. Refer to [BR-12. "Inspection and Adjustment"](#).

Is the inspection result normal?

- YES >> GO TO 5.
- NO >> Adjust brake pedal position switch installation. Refer to [BR-12. "Inspection and Adjustment"](#).

5. BRAKE PEDAL POSITION SWITCH INSPECTION

1. Disconnect brake pedal position switch connector.
2. Check brake pedal position switch. Refer to [DAS-116. "Component Inspection \(Brake Pedal Position Switch\)"](#).

Is the inspection result normal?

- YES >> GO TO 6.
- NO >> Replace brake pedal position switch.

6. CHECK BRAKE PEDAL POSITION SWITCH POWER SUPPLY CIRCUIT

1. Turn the ignition switch ON.
2. Check voltage between brake pedal position switch harness connector and ground.

Terminals		Voltage (Approx.)
(+)	(-)	
Brake pedal position switch		Ground
Connector	Terminal	
E44	1	
		Battery voltage

Is the inspection result normal?

- YES >> GO TO 7.
- NO >> Repair the harnesses or connectors.

7. CHECK HARNESS BETWEEN BRAKE PEDAL POSITION SWITCH AND ECM

1. Turn ignition switch OFF
2. Disconnect ECM connector.
3. Check for continuity between brake pedal position switch harness connector and ECM harness connector.

C1A05 BRAKE SW/STOP LAMP SW

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

Brake pedal position switch		ECM		Continuity
Connector	Terminal	Connector	Terminal	
E44	2	E152	192	Existed

4. Check for continuity between brake pedal position switch harness connector and ground.

Brake pedal position switch		Ground	Continuity
Connector	Terminal		
E44	2		Not existed

Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair the harnesses or connectors.

8.PERFORM SELF-DIAGNOSIS OF ECM

1. Connect all connectors again if the connectors are disconnected.
2. Turn ignition switch ON.
3. Perform "All DTC Reading".
4. Check if any DTC is detected in "Self Diagnostic Result" of "ENGINE".
 - USA and Canada
 - Turbo high pressure model: Refer to [EC6-164, "TURBO HIGH PRESSURE MODEL : DTC Index"](#).
 - Turbo low pressure model: Refer to [EC6-205, "TURBO LOW PRESSURE MODEL : DTC Index"](#).
 - Mexico: Refer to [EC6-1139, "DTC Index"](#).

Is any DTC detected?

YES >> Repair or replace the malfunctioning parts identified by the self-diagnosis result.

NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

9.CHECK STOP LAMP SWITCH INSTALLATION

1. Turn ignition switch OFF.
2. Check stop lamp switch for correct installation. Refer to [BR-12, "Inspection and Adjustment"](#).

Is the inspection result normal?

YES >> GO TO 10.

NO >> Adjust stop lamp switch installation. Refer to [BR-12, "Inspection and Adjustment"](#).

10.STOP LAMP SWITCH INSPECTION

1. Disconnect stop lamp switch connector.
2. Check stop lamp switch. Refer to [DAS-116, "Component Inspection \(Stop Lamp Switch\)"](#).

Is the inspection result normal?

YES >> GO TO 11.

NO >> Replace stop lamp switch.

11.CHECK STOP LAMP SWITCH POWER SUPPLY CIRCUIT

Check voltage between stop lamp switch harness connector and ground.

Terminals		Voltage (Approx.)
(+)	(-)	
Stop lamp switch		Ground
Connector	Terminal	
E57	1	
	3	Battery voltage

Is the inspection result normal?

YES-1 >> GO TO 12.

NO >> Repair the harnesses or connectors.

12.CHECK HARNESS BETWEEN STOP LAMP SWITCH AND ECM

C1A05 BRAKE SW/STOP LAMP SW

[ADAS CONTROL UNIT]

< DTC/CIRCUIT DIAGNOSIS >

1. Turn ignition switch OFF
2. Disconnect ECM, rear combination lamp and high-mounted stop lamp connectors.
3. Check for continuity between stop lamp switch harness connector and ECM harness connector.

Stop lamp switch		ECM		Continuity
Connector	Terminal	Connector	Terminal	
E57	4	E152	191	Existed

4. Check for continuity between stop lamp switch harness connector and ground.

Stop lamp switch		Ground	Continuity
Connector	Terminal		
E57	4		Not existed

Is the inspection result normal?

YES >> GO TO 13.

NO >> Repair the harnesses or connectors.

13. CHECK HARNESS BETWEEN STOP LAMP SWITCH AND ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)

1. Disconnect ABS actuator and electric unit (control unit) connector and resistor.
2. Check for continuity between stop lamp switch harness connector and ABS actuator and electric unit (control unit) harness connector.

Stop lamp switch		ABS actuator and electric unit (control unit)		Continuity
Connector	Terminal	Connector	Terminal	
E57	2	E35	5	Existed

3. Check for continuity between stop lamp switch harness connector and ground.

Stop lamp switch		Ground	Continuity
Connector	Terminal		
E57	2		Not existed

Is the inspection result normal?

YES >> GO TO 14.

NO >> Repair the harnesses or connectors.

14. PERFORM SELF-DIAGNOSIS OF ECM

1. Connect all connectors again if the connectors are disconnected.
2. Turn ignition switch ON.
3. Perform "All DTC Reading".
4. Check if any DTC is detected in "Self Diagnostic Result" of "ENGINE".
 - USA and Canada
 - Turbo high pressure model: Refer to [EC6-164, "TURBO HIGH PRESSURE MODEL : DTC Index"](#).
 - Turbo low pressure model: Refer to [EC6-205, "TURBO LOW PRESSURE MODEL : DTC Index"](#).
 - Mexico: Refer to [EC6-1139, "DTC Index"](#).

Is any DTC detected?

YES >> Repair or replace the malfunctioning parts identified by the self-diagnosis result.

NO >> GO TO 15.

15. PERFORM SELF-DIAGNOSIS OF ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)

Check if any DTC is detected in "Self Diagnostic Result" of "ABS". Refer to [BRC-72, "DTC Index"](#).

Is any DTC detected?

YES >> Repair or replace the malfunctioning parts identified by the self-diagnosis result.

NO >> Repair the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#)

C1A05 BRAKE SW/STOP LAMP SW

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

Diagnosis Procedure (2.0 TURBO GASOLINE ENGINE)

INFOID:000000013399643

1. CHECK DTC PRIORITY

If DTC "C1A05" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175. "DTC Logic"](#).
- NO >> GO TO 2.

2. CHECK STOP LAMP SWITCH AND BRAKE PEDAL POSITION SWITCH

Check that "STOP LAMP SW" and "BRAKE SW" operate normally in "DATA MONITOR" of "ICC/ADAS".

Is the inspection result normal?

- YES >> GO TO 3.
- NO-1 >> When "BRAKE SW" operation is malfunctioning: GO TO 4.
- NO-2 >> When "STOP LAMP SW" operation is malfunctioning: GO TO 9.

3. CHECK STOP LAMP SWITCH

Check that "STOP LAMP SW" operate normally in "DATA MONITOR" of "ABS".

Is the inspection result normal?

- YES >> GO TO 16.
- NO >> GO TO 9.

4. CHECK BRAKE PEDAL POSITION SWITCH INSTALLATION

1. Turn ignition switch OFF.
2. Check brake pedal position switch for correct installation. Refer to [BR-12. "Inspection and Adjustment"](#).

Is the inspection result normal?

- YES >> GO TO 5.
- NO >> Adjust brake pedal position switch installation. Refer to [BR-12. "Inspection and Adjustment"](#).

5. BRAKE PEDAL POSITION SWITCH INSPECTION

1. Disconnect brake pedal position switch connector.
2. Check brake pedal position switch. Refer to [DAS-116. "Component Inspection \(Brake Pedal Position Switch\)"](#).

Is the inspection result normal?

- YES >> GO TO 6.
- NO >> Replace brake pedal position switch.

6. CHECK BRAKE PEDAL POSITION SWITCH POWER SUPPLY CIRCUIT

1. Turn the ignition switch ON.
2. Check voltage between brake pedal position switch harness connector and ground.

Terminals		Voltage (Approx.)
(+)	(-)	
Brake pedal position switch		Ground Battery voltage
Connector	Terminal	
E44	1	

Is the inspection result normal?

- YES >> GO TO 7.
- NO >> Repair the harnesses or connectors.

7. CHECK HARNESS BETWEEN BRAKE PEDAL POSITION SWITCH AND EMCM

1. Turn ignition switch OFF
2. Disconnect EMCM connector.
3. Check for continuity between brake pedal position switch harness connector and EMCM harness connector.

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DAS

C1A05 BRAKE SW/STOP LAMP SW

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

Brake pedal position switch		EMCM		Continuity
Connector	Terminal	Connector	Terminal	
E44	2	M147	23	Existed

4. Check for continuity between brake pedal position switch harness connector and ground.

Brake pedal position switch		Ground	Continuity
Connector	Terminal		
E44	2		Not existed

Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair the harnesses or connectors.

8.PERFORM SELF-DIAGNOSIS OF EMCM

1. Connect all connectors again if the connectors are disconnected.
2. Turn ignition switch ON.
3. Perform "All DTC Reading".
4. Check if any DTC is detected in "Self Diagnostic Result" of "EMCM". Refer to [EC4-165, "DTC Index"](#).

Is any DTC detected?

YES >> Repair or replace the malfunctioning parts identified by the self-diagnosis result.

NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

9.CHECK STOP LAMP SWITCH INSTALLATION

1. Turn ignition switch OFF.
2. Check stop lamp switch for correct installation. Refer to [BR-12, "Inspection and Adjustment"](#).

Is the inspection result normal?

YES >> GO TO 10.

NO >> Adjust stop lamp switch installation. Refer to [BR-12, "Inspection and Adjustment"](#).

10.STOP LAMP SWITCH INSPECTION

1. Disconnect stop lamp switch connector.
2. Check stop lamp switch. Refer to [DAS-116, "Component Inspection \(Stop Lamp Switch\)"](#).

Is the inspection result normal?

YES >> GO TO 11.

NO >> Replace stop lamp switch.

11.CHECK STOP LAMP SWITCH POWER SUPPLY CIRCUIT

Check voltage between stop lamp switch harness connector and ground.

Terminals		Voltage (Approx.)
(+)	(-)	
Stop lamp switch		Battery voltage
Connector	Terminal	
E57	1 3	

Is the inspection result normal?

YES >> GO TO 12.

NO >> Repair the harnesses or connectors.

12.CHECK STOP LAMP SWITCH INPUT SIGNAL

Check the voltage between BCM harness connector and ground.

C1A05 BRAKE SW/STOP LAMP SW

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

Terminals		Voltage (Approx.)
(+)	(-)	
BCM		Ground
Connector	Terminal	
M13	25	
		Battery voltage

Is the inspection result normal?

YES >> GO TO 13.

NO >> Repair the harnesses or connectors.

13.CHECK HARNESS BETWEEN STOP LAMP SWITCH AND BCM

1. Turn ignition switch OFF
2. Check for continuity between stop lamp switch harness connector and BCM harness connector.

Stop lamp switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
E57	4	M13	27	Existed

3. Check for continuity between stop lamp switch harness connector and ground.

Stop lamp switch		Ground	Continuity
Connector	Terminal		
E57	4		Not existed

Is the inspection result normal?

YES >> GO TO 14.

NO >> Repair the harnesses or connectors.

14.CHECK HARNESS BETWEEN STOP LAMP SWITCH AND ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)

1. Disconnect ABS actuator and electric unit (control unit) connector.
2. Check for continuity between stop lamp switch harness connector and ABS actuator and electric unit (control unit) harness connector.

Stop lamp switch		ABS actuator and electric unit (control unit)		Continuity
Connector	Terminal	Connector	Terminal	
E57	2	E35	5	Existed

3. Check for continuity between stop lamp switch harness connector and ground.

Stop lamp switch		Ground	Continuity
Connector	Terminal		
E57	2		Not existed

Is the inspection result normal?

YES >> GO TO 15.

NO >> Repair the harnesses or connectors.

15.PERFORM SELF-DIAGNOSIS OF BCM

1. Connect all connectors again if the connectors are disconnected.
2. Turn ignition switch ON.
3. Perform "All DTC Reading".
4. Check if any DTC is detected in "Self Diagnostic Result" of "BCM". Refer to [BCS-63, "DTC Index"](#).

Is any DTC detected?

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DAS

C1A05 BRAKE SW/STOP LAMP SW

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

- YES >> Repair or replace the malfunctioning parts identified by the self-diagnosis result.
NO >> GO TO 16.

16.PERFORM SELF-DIAGNOSIS OF EMCM

1. Connect all connectors again if the connectors are disconnected.
2. Turn ignition switch ON.
3. Perform "All DTC Reading".
4. Check if any DTC is detected in "Self Diagnostic Result" of "EMCM". Refer to [EC4-165. "DTC Index"](#).

Is any DTC detected?

- YES >> Repair or replace the malfunctioning parts identified by the self-diagnosis result.
NO >> GO TO 17.

17.PERFORM SELF-DIAGNOSIS OF ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)

Check if any DTC is detected in "Self Diagnostic Result" of "ABS". Refer to [BRC-72. "DTC Index"](#).

Is any DTC detected?

- YES >> Repair or replace the malfunctioning parts identified by the self-diagnosis result.
NO >> Replace the ADAS control unit. Refer to [DAS-214. "Removal and Installation"](#).

Component Inspection (Brake Pedal Position Switch)

INFOID:000000012796080

1.CHECK BRAKE PEDAL POSITION SWITCH

Check for continuity between brake pedal position switch terminals.

Terminal		Condition	Continuity
1	2	When brake pedal is depressed	Not exist- ed
		When brake pedal is released	Existed

Is the inspection result normal?

- YES >> INSPECTION END
NO >> Replace brake pedal position switch.

Component Inspection (Stop Lamp Switch)

INFOID:000000012796081

1.CHECK STOP LAMP SWITCH

Check for continuity between stop lamp switch terminals.

Terminal		Condition	Continuity
1	2	When brake pedal is depressed	Existed
		When brake pedal is released	Not exist- ed
3	4	When brake pedal is depressed	Existed
		When brake pedal is released	Not exist- ed

Is the inspection result normal?

- YES >> INSPECTION END
NO >> Replace stop lamp switch.

C1A06 OPERATION SW

DTC Logic

INFOID:000000012796082

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1A06 (6)	OPERATION SW CIRC (Operation switch circuit)	<ul style="list-style-type: none"> Any switch of the ICC steering switch is detected as "ON" continuously for 60 seconds An ON/OFF state judgment of the ICC differs between ECM and ADAS control unit, and the state continues for 2 seconds or more

POSSIBLE CAUSE

- ICC steering switch circuit
- ICC steering switch
- ECM
- ADAS control unit (2.0 turbo gasoline engine)

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)
- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention
- Automatic Speed Control Device (ASCD)

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "C1A06" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Wait for approximately 5 minutes after turning the MAIN switch of ICC system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "C1A06" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "C1A06" detected as the current malfunction?

- YES-1 >> Refer to [DAS-117, "Diagnosis Procedure \(VR30DDTT\)"](#) (VR30DDTT).
- YES-2 >> Refer to [DAS-119, "Diagnosis Procedure \(2.0 TURBO GASOLINE ENGINE\)"](#) (2.0 turbo gasoline engine).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure (VR30DDTT)

INFOID:000000012796083

1.CHECK DTC PRIORITY

If DTC "C1A06" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

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< DTC/CIRCUIT DIAGNOSIS >

2. CHECK ICC STEERING SWITCH

1. Turn the ignition switch OFF.
2. Disconnect the ICC steering switch connector.
3. Check the ICC steering switch. Refer to [DAS-120, "Component Inspection \(With ICC\)"](#).

Is the inspection result normal?

- YES >> GO TO 3.
 NO >> Replace the ICC steering switch.

3. CHECK HARNESS BETWEEN SPIRAL CABLE AND ECM

1. Disconnect the ECM connector.
2. Check for continuity between the spiral cable harness connector and ECM harness connector.

Spiral cable		ECM		Continuity
Connector	Terminal	Connector	Terminal	
M87	25	E152	186	Existed
	32		187	

3. Check for continuity between spiral cable harness connector and ground.

Spiral cable		Ground	Continuity
Connector	Terminal		
M87	25		Not existed
	32		

Is the inspection result normal?

- YES >> GO TO 4.
 NO >> Repair the harnesses or connectors.

4. CHECK SPIRAL CABLE

Check for continuity between spiral cable terminals.

Spiral cable		Continuity
Terminal		
13	25	Existed
16	32	

Is the inspection result normal?

- YES >> GO TO 5.
 NO >> Replace the spiral cable.

5. PERFORM SELF-DIAGNOSIS OF ECM

1. Connect the connectors of ICC steering switch and ECM connector.
2. Turn the ignition switch ON.
3. Perform "All DTC Reading".
4. Check if any DTC is detected in "Self Diagnostic Result" of "ENGINE".

Is any DTC detected?

- YES >> Perform self-diagnosis on the detected DTC and repair or replace the malfunctioning parts.
- USA and Canada
 - Turbo high pressure model: Refer to [EC6-164, "TURBO HIGH PRESSURE MODEL : DTC Index"](#).
 - Turbo low pressure model: Refer to [EC6-205, "TURBO LOW PRESSURE MODEL : DTC Index"](#).
 - Mexico: Refer to [EC6-1139, "DTC Index"](#).
- NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

Diagnosis Procedure (2.0 TURBO GASOLINE ENGINE)

1. CHECK DTC PRIORITY

If DTC "C1A06" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175. "DTC Logic"](#).
- NO >> GO TO 2.

2. CHECK ICC/ASCD STEERING SWITCH

1. Disconnect the ICC/ASCD steering switch connector.
2. Check the ICC/ASCD steering switch. Refer to [DAS-120. "Component Inspection \(With ICC\)"](#) (With ICC) or [DAS-120. "Component Inspection \(Without ICC\)"](#) (Without ICC).

Is the inspection result normal?

- YES >> GO TO 3.
- NO >> Replace the ICC/ASCD steering switch.

3. CHECK HARNESS BETWEEN SPIRAL CABLE AND ADAS CONTROL UNIT

1. Disconnect the ECM connector.
2. Check for continuity between the spiral cable harness connector and ADAS control unit harness connector.

Spiral cable		ADAS control unit		Continuity
Connector	Terminal	Connector	Terminal	
M87	25	B1	24	Existed
	32		23	

3. Check for continuity between spiral cable harness connector and ground.

Spiral cable		Ground	Continuity
Connector	Terminal		
M87	25		Not existed
	32		

Is the inspection result normal?

- YES >> GO TO 4.
- NO >> Repair the harnesses or connectors.

4. CHECK SPIRAL CABLE

Check for continuity between spiral cable terminals.

Spiral cable		Continuity
Terminal		
16	32	Existed
13	25	

Is the inspection result normal?

- YES >> GO TO 5.
- NO >> Replace the spiral cable.

5. PERFORM SELF-DIAGNOSIS OF ADAS CONTROL UNIT

1. Connect the connectors of ICC/ASCD steering switch and ADAS control unit.
2. Turn the ignition switch ON.
3. Perform "All DTC Reading".
4. Check if any DTC is detected in "Self Diagnostic Result" of "ICC/ADAS".

Is any DTC detected?

- YES >> Perform self-diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DAS-53, "DTC Index"](#).
- NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

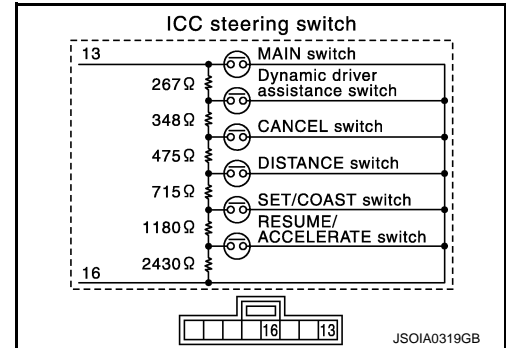
Component Inspection (With ICC)

INFOID:000000012796084

1. CHECK ICC STEERING SWITCH

Check resistance between ICC steering switch terminals.

Terminal	Switch operation	Resistance [Ω]
13 16	When pressing MAIN switch	Approx. 0
	When pressing dynamic driver assistance switch	Approx. 267
	When pressing CANCEL switch	Approx. 615
	When pressing DISTANCE switch	Approx. 1090
	When pressing SET/COAST switch	Approx. 1805
	When pressing RESUME/ACCELERATE switch	Approx. 2985
	When all switches are not pressed	Approx. 5415



Is the inspection result normal?

- YES >> INSPECTION END
- NO >> Replace the ICC steering switch.

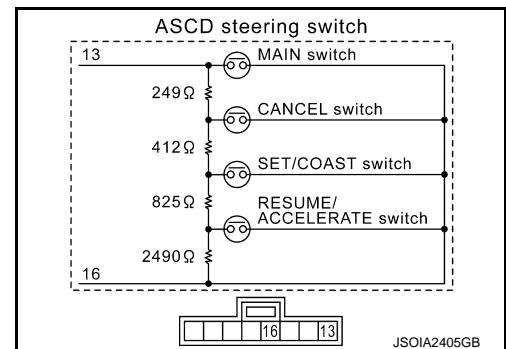
Component Inspection (Without ICC)

INFOID:000000013501077

1. CHECK ASCD STEERING SWITCH

Check resistance between ASCD steering switch terminals.

Terminal	Switch operation	Resistance [Ω]
13 16	When pressing MAIN switch	Approx. 0
	When pressing CANCEL switch	Approx. 249
	When pressing SET/COAST switch	Approx. 661
	When pressing RESUME/ACCELERATE switch	Approx. 1486
	When all switches are not pressed	Approx. 3976



Is the inspection result normal?

- YES >> INSPECTION END
- NO >> Replace the ASCD steering switch.

C1A13 STOP LAMP RELAY

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

C1A13 STOP LAMP RELAY

DTC Logic

INFOID:000000012796085

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1A13 (13)	STOP LAMP RLY FIX (Stop lamp relay fix)	<ul style="list-style-type: none">• Stop lamp inactive state continues for 0.3 seconds or more despite the outputting of an ICC sensor ICC brake hold relay drive signal• The stop lamp remains ON for 60 seconds or more under the following conditions:<ul style="list-style-type: none">- Driving at 40 km/h (25 MPH) or more- No stop lamp drive signal output from ADAS control unit- No brake operation

POSSIBLE CAUSE

- Stop lamp switch circuit
- Brake pedal position switch circuit
- ICC brake hold relay circuit
- Stop lamp switch
- Brake pedal position switch
- ICC brake hold relay
- Incorrect stop lamp switch installation
- Incorrect brake pedal position switch installation
- ECM
- ABS actuator and electric unit (control unit)

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1. CHECK DTC PRIORITY

If DTC "C1A13" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE (1)

1. Start the engine.
2. Perform the active test item "STOP LAMP" with CONSULT.
3. Perform "All DTC Reading".
4. Check if the "C1A13" is detected as the current malfunction in the "Self Diagnostic Result" of "ICC/ADAS".

Is "C1A13" detected as the current malfunction?

- YES-1 >> Refer to [DAS-122, "Diagnosis Procedure \(VR30DDTT\)"](#).
YES-2 >> Refer to [DAS-126, "Diagnosis Procedure \(2.0 TURBO GASOLINE ENGINE\)"](#).
NO >> GO TO 3.

3. PERFORM DTC CONFIRMATION PROCEDURE (2)

1. Drive at the vehicle speed of 40 km/h (25 MPH) or more for approximately 20 seconds or more without the brake pedal depressed.

CAUTION:

C1A13 STOP LAMP RELAY

[ADAS CONTROL UNIT]

< DTC/CIRCUIT DIAGNOSIS >

Always drive safely.

NOTE:

If it is outside the above condition, repeat step 1.

2. Perform "All DTC Reading".
3. Check if the "C1A13" is detected as the current malfunction in the "Self Diagnostic Result" of "ICC/ADAS".

Is "C1A13" detected as the current malfunction?

- YES-1 >> Refer to [DAS-122, "Diagnosis Procedure \(VR30DDTT\)"](#).
- YES-2 >> Refer to [DAS-126, "Diagnosis Procedure \(2.0 TURBO GASOLINE ENGINE\)"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure (VR30DDTT)

INFOID:000000012796086

1.CHECK DTC PRIORITY

If DTC "C1A13" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2.CHECK STOP LAMP SWITCH

Check that "STOP LAMP SW" operate normally in "DATA MONITOR" of "ICC/ADAS".

Is the inspection result normal?

- YES >> GO TO 10.
- NO >> GO TO 3.

3.CHECK STOP LAMP SWITCH INSTALLATION

1. Turn ignition switch OFF.
2. Check stop lamp switch for correct installation. Refer to [BR-12, "Inspection and Adjustment"](#).

Is the inspection result normal?

- YES >> GO TO 4.
- NO >> Adjust stop lamp switch installation. Refer to [BR-12, "Inspection and Adjustment"](#).

4.CHECK STOP LAMP SWITCH

1. Disconnect stop lamp switch connector.
2. Check stop lamp switch. Refer to [DAS-116, "Component Inspection \(Stop Lamp Switch\)"](#).

Is the inspection result normal?

- YES >> GO TO 5.
- NO >> Replace stop lamp switch.

5.CHECK STOP LAMP FOR ILLUMINATION

1. Connect stop lamp switch connector.
2. Remove ICC brake hold relay.
3. Check that the stop lamp is illuminated by depressing the brake pedal to turn the stop lamp ON.

Is the inspection result normal?

- YES >> GO TO 6.
- NO >> Check the stop lamp circuit, and repair or replace the malfunctioning parts.

6.CHECK HARNESS BETWEEN STOP LAMP SWITCH AND ECM

1. Turn the ignition switch OFF.
2. Disconnect stop lamp switch, ECM, rear combination lamp, and high-mounted stop lamp connectors.
3. Check for continuity between the stop lamp switch harness connector and the ECM harness connector.

Stop lamp switch		ECM		Continuity
Connector	Terminal	Connector	Terminal	
E57	4	E152	191	Existed

4. Check for continuity between stop lamp switch harness connector and ground.

C1A13 STOP LAMP RELAY

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

Stop lamp switch		Ground	Continuity
Connector	Terminal		
E57	4		Not existed

Is the inspection result normal?

- YES >> GO TO 7.
NO >> Repair the harnesses or connectors.

7. CHECK ICC BRAKE HOLD RELAY CIRCUIT

1. Connect ICC brake hold relay, ECM, rear combination lamp, and high-mounted stop lamp connectors.
2. Check that the stop lamp does not illuminate when brake pedal is not depressed.

Is the inspection result normal?

- YES >> GO TO 9.
NO >> GO TO 8.

8. CHECK ICC BRAKE HOLD RELAY

1. Remove ICC brake hold relay.
2. Check ICC brake hold relay. Refer to [DAS-131, "Component Inspection"](#).

Is the inspection result normal?

- YES >> GO TO 9.
NO >> Replace ICC brake hold relay. Refer to [DAS-131, "Component Inspection"](#)

9. PERFORM SELF-DIAGNOSIS OF ECM

1. Connect all connectors again if the connectors are disconnected.
2. Turn ignition switch ON.
3. Perform "All DTC Reading".
4. Check if any DTC is detected in "Self Diagnostic Result" of "ENGINE".
 - USA and Canada
 - Turbo high pressure model: Refer to [EC6-164, "TURBO HIGH PRESSURE MODEL : DTC Index"](#).
 - Turbo low pressure model: Refer to [EC6-205, "TURBO LOW PRESSURE MODEL : DTC Index"](#).
 - Mexico: Refer to [EC6-1139, "DTC Index"](#).

Is any DTC detected?

- YES >> Repair or replace the malfunctioning parts identified by the self-diagnosis result.
NO >> Replace ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

10. CHECK ICC BRAKE HOLD RELAY POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Remove ICC brake hold relay.
3. Turn ignition switch ON
4. Check the voltage between ICC brake hold relay harness connector and ground.

Terminal		Ground	Voltage (Approx.)
(+)	(-)		
ICC brake hold relay		Ground	Battery voltage
Connector	Terminal		
E52	2		

Is the inspection result normal?

- YES >> GO TO 11.
NO >> Repair or replace ICC brake hold relay power supply circuit.

11. CHECK HARNESS BETWEEN AND ICC BRAKE HOLD RELAY AND ADAS CONTROL UNIT

1. Turn ignition switch OFF.
2. Disconnect ADAS control unit connectors.
3. Check for continuity between ICC brake hold relay harness connector and ADAS control unit harness connector.

C1A13 STOP LAMP RELAY

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

ICC brake hold relay		ADAS control unit		Continuity
Connector	Terminal	Connector	Terminal	
E52	1	B1	17	Existed

4. Check for continuity between ADAS control unit harness connector and ground.

ICC brake hold relay		Ground	Continuity
Connector	Terminal		
E52	1		Not existed

Is the inspection result normal?

YES >> GO TO 12.

NO >> Repair the harnesses or connectors.

12. CHECK ADAS CONTROL UNIT STANDARD VOLTAGE

1. Connect all connectors again if the connectors are disconnected.
2. Turn ignition switch ON.
3. Perform "STOP LAMP" on "Active Test" of "ICC/ADAS", and then check the voltage between ADAS control unit harness connector and ground.

Terminal		Condition	Voltage (Approx.)
(+)	(-)		
ADAS control unit		Ground	Active Test item "STOP LAMP"
Connector	Terminal		
B1	17		
		On	0 V

Is the inspection result normal?

YES >> GO TO 13.

NO >> Replace ADAS control unit. Refer to [DAS-214. "Removal and Installation"](#).

13. CHECK ICC BRAKE HOLD RELAY POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Check the voltage between ICC brake hold relay harness connector and ground.

Terminal		Ground	Voltage (Approx.)
(+)	(-)		
ICC brake hold relay		Ground	Battery voltage
Connector	Terminal		
E52	5		

Is the inspection result normal?

YES >> GO TO 14.

NO >> Repair or replace ICC brake hold relay power supply circuit.

14. CHECK HARNESS BETWEEN ICC BRAKE HOLD RELAY AND ECM

1. Disconnect ECM, rear combination lamp, and high-mounted stop lamp connectors and remove ICC brake hold relay.
2. Check for continuity between ICC brake hold relay harness connector and ECM harness connector.

C1A13 STOP LAMP RELAY

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

ICC brake hold relay		ECM		Continuity
Connector	Terminal	Connector	Terminal	
E52	3	E152	191	Existed

3. Check for continuity between ICC brake hold relay harness connector and ground.

ICC brake hold relay		Ground	Continuity
Connector	Terminal		
E52	3		Not existed

Is the inspection result normal?

YES >> GO TO 15.

NO >> Repair the harnesses or connectors.

15.CHECK ICC BRAKE HOLD RELAY

1. Remove ICC brake hold relay.
2. Check ICC brake hold relay. Refer to [DAS-131, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 16.

NO >> Replace ICC brake hold relay.

16.CHECK STOP LAMP SWITCH

Check that "STOP LAMP SW" operate normally in "DATA MONITOR" of "ABS".

Is the inspection result normal?

YES >> GO TO 21.

NO >> GO TO 17.

17.CHECK STOP LAMP SWITCH INSTALLATION

1. Turn ignition switch OFF.
2. Check stop lamp switch for correct installation. Refer to [BR-12, "Inspection and Adjustment"](#).

Is the inspection result normal?

YES >> GO TO 18.

NO >> Adjust stop lamp switch installation. Refer to [BR-12, "Inspection and Adjustment"](#).

18.CHECK STOP LAMP SWITCH

1. Disconnect stop lamp switch connector.
2. Check stop lamp switch. Refer to [DAS-116, "Component Inspection \(Stop Lamp Switch\)"](#).

Is the inspection result normal?

YES >> GO TO 19.

NO >> Replace stop lamp switch.

19.CHECK STOP LAMP SWITCH POWER SUPPLY CIRCUIT

1. Connect stop lamp switch connector.
2. Check the voltage between stop lamp switch harness connector and ground.

Terminal		Voltage (Approx.)
(+)	(-)	
Stop lamp switch		Ground
Connector	Terminal	
E57	1	
		Battery voltage

Is the inspection result normal?

YES >> GO TO 20.

NO >> Repair or replace stop lamp switch power supply circuit.

C1A13 STOP LAMP RELAY

[ADAS CONTROL UNIT]

< DTC/CIRCUIT DIAGNOSIS >

20. CHECK HARNESS BETWEEN STOP LAMP SWITCH AND ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)

1. Turn the ignition switch OFF.
2. Disconnect stop lamp switch, ABS actuator and electric unit (control unit), and resistor connectors.
3. Check for continuity between the stop lamp switch harness connector and the ABS actuator and electric unit (control unit) harness connector.

Stop lamp switch		ABS actuator and electric unit (control unit)		Continuity
Connector	Terminal	Connector	Terminal	
E57	2	E35	5	Existed

4. Check for continuity between stop lamp switch harness connector and ground.

Stop lamp switch		Ground	Continuity
Connector	Terminal		
E57	2		Not existed

Is the inspection result normal?

YES >> GO TO 21.

NO >> Repair the harnesses or connectors.

21. PERFORM SELF-DIAGNOSIS OF ECM

1. Connect all connectors again if the connectors are disconnected.
2. Turn ignition switch ON.
3. Perform "All DTC Reading".
4. Check if any DTC is detected in "Self Diagnostic Result" of "ENGINE".
 - USA and Canada
 - Turbo high pressure model: Refer to [EC6-164, "TURBO HIGH PRESSURE MODEL : DTC Index"](#).
 - Turbo low pressure model: Refer to [EC6-205, "TURBO LOW PRESSURE MODEL : DTC Index"](#).
 - Mexico: Refer to [EC6-1139, "DTC Index"](#).

Is any DTC detected?

YES >> Repair or replace the malfunctioning parts identified by the self-diagnosis result.

NO >> GO TO 22.

22. PERFORM SELF-DIAGNOSIS OF ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)

1. Connect all connectors again if the connectors are disconnected.
2. Turn ignition switch ON.
3. Perform "All DTC Reading".
4. Check if any DTC is detected in "Self Diagnostic Result" of "ABS". Refer to [BRC-72, "DTC Index"](#).

Is any DTC detected?

YES >> Repair or replace the malfunctioning parts identified by the self-diagnosis result.

NO >> Replace ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

Diagnosis Procedure (2.0 TURBO GASOLINE ENGINE)

INFOID:000000013399820

1. CHECK DTC PRIORITY

If DTC "C1A13" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).

NO >> GO TO 2.

2. CHECK STOP LAMP SWITCH

Check that "STOP LAMP SW" operate normally in "DATA MONITOR" of "ICC/ADAS".

Is the inspection result normal?

YES >> GO TO 13.

C1A13 STOP LAMP RELAY

[ADAS CONTROL UNIT]

< DTC/CIRCUIT DIAGNOSIS >

NO >> GO TO 3.

3.CHECK STOP LAMP SWITCH INSTALLATION

1. Turn ignition switch OFF.
2. Check stop lamp switch for correct installation. Refer to [BR-12. "Inspection and Adjustment"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Adjust stop lamp switch installation. Refer to [BR-12. "Inspection and Adjustment"](#).

4.CHECK STOP LAMP SWITCH

1. Disconnect stop lamp switch connector.
2. Check stop lamp switch. Refer to [DAS-116. "Component Inspection \(Stop Lamp Switch\)"](#).

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace stop lamp switch.

5.CHECK STOP LAMP FOR ILLUMINATION

1. Connect stop lamp switch connector.
2. Remove ICC brake hold relay.
3. Check that the stop lamp is illuminated by depressing the brake pedal to turn the stop lamp ON.

Is the inspection result normal?

YES >> GO TO 6.

NO >> Check the stop lamp circuit, and repair or replace the malfunctioning parts.

6.CHECK STOP LAMP SWITCH INPUT SIGNAL

Check the voltage between BCM harness connector and ground.

Terminals		Voltage (Approx.)
(+)	(-)	
BCM		Ground
Connector	Terminal	
M13	25	
		Battery voltage

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair the harnesses or connectors.

7.CHECK HARNESS BETWEEN STOP LAMP SWITCH AND BCM

1. Disconnect the stop lamp switch connector.
2. Check for continuity between stop lamp switch harness connector and BCM harness connector.

Stop lamp switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
E57	4	M13	27	Existed

3. Check for continuity between stop lamp switch harness connector and ground.

Stop lamp switch		Ground	Continuity
Connector	Terminal		
E57	4		Not existed

Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair the harnesses or connectors.

8.CHECK ICC BRAKE HOLD RELAY CIRCUIT

1. Connect all connectors again if the connectors are disconnected.

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DAS

C1A13 STOP LAMP RELAY

[ADAS CONTROL UNIT]

< DTC/CIRCUIT DIAGNOSIS >

2. Check that the stop lamp does not illuminate when brake pedal is not depressed.

Is the inspection result normal?

YES >> GO TO 10.

NO >> GO TO 9.

9. CHECK ICC BRAKE HOLD RELAY

1. Remove ICC brake hold relay.

2. Check ICC brake hold relay. Refer to [DAS-131. "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 10.

NO >> Replace ICC brake hold relay.

10. PERFORM SELF-DIAGNOSIS OF BCM

1. Connect all connectors again if the connectors are disconnected.

2. Turn ignition switch ON.

3. Perform "All DTC Reading".

4. Check if any DTC is detected in "Self Diagnostic Result" of "BCM". Refer to [BCS-63. "DTC Index"](#).

Is any DTC detected?

YES >> Repair or replace the malfunctioning parts identified by the self-diagnosis result.

NO >> GO TO 11.

11. CHECK ICC BRAKE HOLD RELAY POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.

2. Remove ICC brake hold relay.

3. Turn ignition switch ON.

4. Check the voltage between ICC brake hold relay harness connector and ground.

Terminal		Voltage (Approx.)
(+)	(-)	
ICC brake hold relay		Ground
Connector	Terminal	
E52	2	
		Battery voltage

Is the inspection result normal?

YES >> GO TO 12.

NO >> Repair or replace ICC brake hold relay power supply circuit.

12. CHECK HARNESS BETWEEN AND ICC BRAKE HOLD RELAY AND ADAS CONTROL UNIT

1. Turn ignition switch OFF.

2. Disconnect ADAS control unit connectors.

3. Check for continuity between ICC brake hold relay harness connector and ADAS control unit harness connector.

ICC brake hold relay		ADAS control unit		Continuity
Connector	Terminal	Connector	Terminal	
E52	1	B1	17	Existed

4. Check for continuity between ADAS control unit harness connector and ground.

ICC brake hold relay		Ground	Continuity
Connector	Terminal		
E52	1		Not existed

Is the inspection result normal?

YES >> GO TO 13.

NO >> Repair the harnesses or connectors.

C1A13 STOP LAMP RELAY

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

13. CHECK ADAS CONTROL UNIT STANDARD VOLTAGE

1. Connect all connectors again if the connectors are disconnected.
2. Turn ignition switch ON.
3. Perform "STOP LAMP" on "Active Test" of "ICC/ADAS", and then check the voltage between ADAS control unit harness connector and ground.

Terminal		Condition	Voltage (Approx.)
(+)	(-)		
ADAS control unit		Active Test item "STOP LAMP"	Battery voltage
Connector	Terminal		
B1	17		
		Off	Battery voltage
		On	0 V

Is the inspection result normal?

YES >> GO TO 14.

NO >> Replace ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

14. CHECK ICC BRAKE HOLD RELAY POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Check the voltage between ICC brake hold relay harness connector and ground.

Terminal		Condition	Voltage (Approx.)
(+)	(-)		
ICC brake hold relay		Ground	Battery voltage
Connector	Terminal		
E52	5		

Is the inspection result normal?

YES >> GO TO 15.

NO >> Repair or replace ICC brake hold relay power supply circuit.

15. CHECK STOP LAMP SWITCH INPUT SIGNAL

Check the voltage between BCM harness connector and ground.

Terminals		Condition	Voltage (Approx.)
(+)	(-)		
BCM		Ground	Battery voltage
Connector	Terminal		
M13	25		

Is the inspection result normal?

YES >> GO TO 16.

NO >> Repair the harnesses or connectors.

16. CHECK HARNESS BETWEEN ICC BRAKE HOLD RELAY AND BCM

1. Turn ignition switch OFF
2. Check for continuity between ICC brake hold relay harness connector and BCM harness connector.

ICC brake hold relay		BCM		Continuity
Connector	Terminal	Connector	Terminal	
E52	3	M13	27	Existed

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C1A13 STOP LAMP RELAY

[ADAS CONTROL UNIT]

< DTC/CIRCUIT DIAGNOSIS >

3. Check for continuity between ICC brake hold relay harness connector and ground.

ICC brake hold relay		Ground	Continuity
Connector	Terminal		
E52	3		Not existed

Is the inspection result normal?

- YES >> GO TO 17.
NO >> Repair the harnesses or connectors.

17.CHECK ICC BRAKE HOLD RELAY

1. Remove ICC brake hold relay.
2. Check ICC brake hold relay. Refer to [DAS-131, "Component Inspection"](#).

Is the inspection result normal?

- YES >> GO TO 18.
NO >> Replace ICC brake hold relay.

18.CHECK STOP LAMP SWITCH

Check that "STOP LAMP SW" operate normally in "DATA MONITOR" of "ABS".

Is the inspection result normal?

- YES >> GO TO 23.
NO >> GO TO 19.

19.CHECK STOP LAMP SWITCH INSTALLATION

1. Turn ignition switch OFF.
2. Check stop lamp switch for correct installation. Refer to [BR-12, "Inspection and Adjustment"](#).

Is the inspection result normal?

- YES >> GO TO 20.
NO >> Adjust stop lamp switch installation. Refer to [BR-12, "Inspection and Adjustment"](#).

20.CHECK STOP LAMP SWITCH

1. Disconnect stop lamp switch connector.
2. Check stop lamp switch. Refer to [DAS-116, "Component Inspection \(Stop Lamp Switch\)"](#).

Is the inspection result normal?

- YES >> GO TO 21.
NO >> Replace stop lamp switch.

21.CHECK STOP LAMP SWITCH POWER SUPPLY CIRCUIT

1. Connect stop lamp switch connector.
2. Check the voltage between stop lamp switch harness connector and ground.

Terminal		Ground	Voltage (Approx.)
(+)	(-)		
Stop lamp switch		Ground	Battery voltage
Connector	Terminal		
E57	1		

Is the inspection result normal?

- YES >> GO TO 22.
NO >> Repair or replace stop lamp switch power supply circuit.

22.CHECK HARNESS BETWEEN STOP LAMP SWITCH AND ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)

1. Turn the ignition switch OFF.
2. Disconnect stop lamp switch, ABS actuator and electric unit (control unit), and resistor connectors.

C1A13 STOP LAMP RELAY

[ADAS CONTROL UNIT]

< DTC/CIRCUIT DIAGNOSIS >

- Check for continuity between the stop lamp switch harness connector and the ABS actuator and electric unit (control unit) harness connector.

Stop lamp switch		ABS actuator and electric unit (control unit)		Continuity
Connector	Terminal	Connector	Terminal	
E57	2	E35	5	Existed

- Check for continuity between stop lamp switch harness connector and ground.

Stop lamp switch		Ground	Continuity
Connector	Terminal		
E57	2		Not existed

Is the inspection result normal?

YES >> GO TO 23.

NO >> Repair the harnesses or connectors.

23. PERFORM SELF-DIAGNOSIS OF BCM

- Connect all connectors again if the connectors are disconnected.
- Turn ignition switch ON.
- Perform "All DTC Reading".
- Check if any DTC is detected in "Self Diagnostic Result" of "BCM". Refer to [BCS-63, "DTC Index"](#).

Is any DTC detected?

YES >> Repair or replace the malfunctioning parts identified by the self-diagnosis result.

NO >> GO TO 24.

24. PERFORM SELF-DIAGNOSIS OF ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)

- Connect all connectors again if the connectors are disconnected.
- Turn ignition switch ON.
- Perform "All DTC Reading".
- Check if any DTC is detected in "Self Diagnostic Result" of "ABS". Refer to [BRC-72, "DTC Index"](#).

Is any DTC detected?

YES >> Repair or replace the malfunctioning parts identified by the self-diagnosis result.

NO >> Replace ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

Component Inspection

INFOID:0000000012796087

1. CHECK ICC BRAKE HOLD RELAY

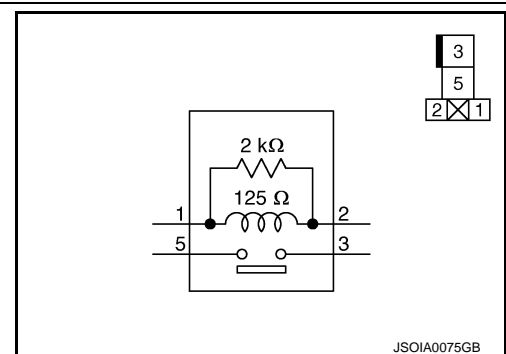
Apply battery voltage to ICC brake hold relay terminals 1 and 2, and then check for continuity under the following conditions.

Terminal	Condition	Continuity
3	When the battery voltage is applied	Existed
	When the battery voltage is not applied	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace ICC brake hold relay.



< DTC/CIRCUIT DIAGNOSIS >

C1A14 ECM

DTC Logic

INFOID:000000012796088

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1A14 (14)	ECM CIRCUIT (ECM circuit)	If ECM is malfunctioning

POSSIBLE CAUSE

- Accelerator pedal position sensor
- ECM
- ADAS control unit

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)
- Automatic Speed Control Device (ASCD)

DTC CONFIRMATION PROCEDURE

1. CHECK DTC PRIORITY

If DTC "C1A14" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
 NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Operate the ICC system and drive.
CAUTION:
Always drive safely.
3. Stop the vehicle.
4. Perform "All DTC Reading" with CONSULT.
5. Check if the "C1A14" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "C1A14" detected as the current malfunction?

- YES >> Refer to [DAS-132, "Diagnosis Procedure"](#).
 NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
 NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796089

1. CHECK DTC PRIORITY

If DTC "C1A14" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
 NO >> GO TO 2.

2. CHECK SELF-DIAGNOSIS RESULTS

Check if "U1000" is detected other than "C1A14" in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1000" detected?

C1A14 ECM

[ADAS CONTROL UNIT]

< DTC/CIRCUIT DIAGNOSIS >

- YES >> Perform the CAN communication system inspection. Repair or replace the malfunctioning parts.
Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 3.

3.PERFORM SELF-DIAGNOSIS OF ECM

Check if any DTC is detected in "Self Diagnostic Result" of "ENGINE".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts.
- 2.0L turbo gasoline engine: Refer to [EC4-146, "DTC Index"](#).
 - VR30DDTT for USA and Canada
 - Turbo high pressure model: Refer to [EC6-164, "TURBO HIGH PRESSURE MODEL : DTC Index"](#).
 - Turbo low pressure model: Refer to [EC6-205, "TURBO LOW PRESSURE MODEL : DTC Index"](#).
 - VR30DDTT for Mexico: Refer to [EC6-1139, "DTC Index"](#).
- NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

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DAS

C1A15 GEAR POSITION

Description

INFOID:000000012796090

ADAS control unit judges the gear position based on the following signals.

- Current gear position signal transmitted from TCM via CAN communication.
- Value of gear ratio calculated from input speed signal transmitted from TCM via CAN communication.
- Value of gear ratio calculated from the vehicle speed signal transmitted from ABS actuator and electric unit (control unit) via CAN communication.

DTC Logic

INFOID:000000012796091

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1A15 (15)	GEAR POSITION (Gear position)	A mismatch between an current gear position signal transmitted from TCM via CAN communication and a gear position calculated by the ADAS control unit continues for approximately 11 minutes or more

POSSIBLE CAUSE

- Input speed sensor
- Vehicle speed sensor A/T (output speed sensor)
- TCM

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)
- Automatic Speed Control Device (ASCD)

DTC CONFIRMATION PROCEDURE

1. CHECK DTC PRIORITY

If DTC "C1A15" is displayed with DTC "U1000" or "C1A03", or "C1A04" first diagnose the DTC "U1000", "C1A03", or "C1A04"

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable.
- U1000: Refer to [DAS-175, "DTC Logic"](#)
 - C1A03: Refer to [DAS-106, "DTC Logic"](#)
 - C1A04: Refer to [DAS-108, "DTC Logic"](#)

NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the MAIN switch of ICC system ON.
3. Drive the vehicle at 10 km/h (6 MPH) or faster for approximately 15 minutes or more.

CAUTION:

Always drive safely.

4. Stop the vehicle.
5. Perform "All DTC Reading" with CONSULT.
6. Check if "C1A15" is detected as the current malfunction in the "Self Diagnostic Result" of "ICC/ADAS".

Is "C1A15" detected as the current malfunction?

- YES >> Refer to [DAS-135, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

1. CHECK DTC PRIORITY

If DTC "C1A15" is displayed with DTC "U1000" or "C1A03", or "C1A04" first diagnose the DTC "U1000", "C1A03", or "C1A04"

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable.
- U1000: Refer to [DAS-175, "DTC Logic"](#)
 - C1A03: Refer to [DAS-106, "DTC Logic"](#)
 - C1A04: Refer to [DAS-108, "DTC Logic"](#)

NO >> GO TO 2.

2. CHECK VEHICLE SPEED SIGNAL

Check that "VHCL SPEED SE" operates normally in "DATA MONITOR" of "ICC/ADAS".

CAUTION:

Be careful of the vehicle speed.

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 7.

3. CHECK GEAR POSITION

Check that "GEAR" operates normally in "DATA MONITOR" of "ICC/ADAS".

CAUTION:

Be careful of the vehicle speed.

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4. CHECK GEAR POSITION SIGNAL

Check that "GEAR" operates normally in "DATA MONITOR" of "TRANSMISSION".

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 6.

5. CHECK INPUT SPEED SENSOR SIGNAL

Check that "INPUT SPEED" operates normally in "DATA MONITOR" of "TRANSMISSION".

Is the inspection result normal?

YES >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

NO >> GO TO 6.

6. CHECK TCM SELF-DIAGNOSIS RESULTS

1. Perform "All DTC Reading".

2. Check if any DTC is detected in "Self Diagnostic Result" of "TRANSMISSION".

Is any DTC detected?

YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [TM-102, "2.0L TURBO GASOLINE ENGINE : DTC Index"](#) (2.0L turbo gasoline engine) or [TM-111, "VR30DDTT : DTC Index"](#) (VR30DDTT).

NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

7. CHECK ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) SELF-DIAGNOSIS RESULTS

1. Perform "All DTC Reading".

2. Check if any DTC is detected in "Self Diagnostic Result" of "ABS".

Is any DTC detected?

YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [BRC-72, "DTC Index"](#).

NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

C1A24 NP RANGE

DTC Logic

INFOID:000000012796093

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1A24 (24)	NP RANGE (NP range)	A mismatch between a shift position signal transmitted from TCM via CAN communication and an current gear position signal continues for 60 seconds or more

POSSIBLE CAUSE

- TCM
- Transmission range switch

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)
- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC “C1A24” is displayed with DTC “U1000”, first diagnose the DTC “U1000”.

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2.CHECK DTC REPRODUCE (1)

1. Start the engine.
2. Turn the MAIN switch of ICC system ON.
3. Wait for approximately 5 minutes or more after shifting the selector lever to “P” position.
4. Perform “All DTC Reading” with CONSULT.
5. Check if the “C1A24” is detected as the current malfunction in “Self Diagnostic Result” of “ICC/ADAS”.

Is “C1A24” detected as the current malfunction?

- YES >> Refer to [DAS-136, "Diagnosis Procedure"](#).
- NO >> GO TO 3.

3.CHECK DTC REPRODUCE (2)

1. Wait for approximately 5 minutes or more after shifting the selector lever to “N” position.
2. Perform “All DTC Reading”.
3. Check if the “C1A24” is detected as the current malfunction in “Self Diagnostic Result” of “ICC/ADAS”.

Is “C1A24” detected as the current malfunction?

- YES >> Refer to [DAS-136, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796094

1.CHECK DTC PRIORITY

If DTC “C1A24” is displayed with DTC “U1000”, first diagnose the DTC “U1000”.

C1A24 NP RANGE

[ADAS CONTROL UNIT]

< DTC/CIRCUIT DIAGNOSIS >

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).

NO >> GO TO 2.

2.CHECK TCM DATA MONITOR

Check that "SLCT LVR POSI" operates normally in "DATA MONITOR" of "TRANSMISSION".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Perform diagnosis for transmission range switch circuit and repair or replace the malfunctioning parts. Refer to [TM-177, "Diagnosis Procedure"](#).

3.PERFORM TCM SELF-DIAGNOSIS

1. Perform "All DTC Reading".

2. Check if any DTC is detected in "Self Diagnostic Result" of "TRANSMISSION".

Is any DTC detected?

YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [TM-102, "2.0L TURBO GASOLINE ENGINE : DTC Index"](#) (2.0L turbo gasoline engine) or [TM-111, "VR30DDTT : DTC Index"](#) (VR30DDTT).

NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

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DAS

C1A26 ECD MODE MALFUNCTION

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

C1A26 ECD MODE MALFUNCTION

DTC Logic

INFOID:000000012796095

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1A26 (26)	ECD MODE MALF (ECD mode malfunction)	If an abnormal condition occurs with ECD system

POSSIBLE CAUSE

ABS actuator and electric unit (control unit)

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Back-up Collision Intervention (BCI)
- Predictive Forward Collision Warning (PFCW)

DTC CONFIRMATION PROCEDURE

1. CHECK DTC PRIORITY

If DTC "C1A26" is displayed with DTC "U1000", "U0415" or "U0121", first diagnose the DTC "U1000""U0415" or "U0121".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable.
- U1000: Refer to [DAS-175. "DTC Logic"](#)
 - U0415: Refer to [DAS-172. "DTC Logic"](#)
 - U0121: Refer to [DAS-166. "DTC Logic"](#)

NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Wait for approximately 1 minute after turning the MAIN switch of ICC system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "C1A26" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "C1A26" detected as the current malfunction?

- YES >> Refer to [DAS-138. "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45. "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796096

1. CHECK DTC PRIORITY

If DTC "C1A26" is displayed with DTC "U1000", "U0415" or "U0121", first diagnose the DTC "U1000""U0415" or "U0121".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable.
- U1000: Refer to [DAS-175. "DTC Logic"](#)
 - U0415: Refer to [DAS-172. "DTC Logic"](#)
 - U0121: Refer to [DAS-166. "DTC Logic"](#)

NO >> GO TO 2.

2. PERFORM SELF-DIAGNOSIS OF ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)

C1A26 ECD MODE MALFUNCTION

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

Check if any DTC is detected in "Self Diagnostic Result" of "ABS".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [BRC-72, "DTC Index"](#).
- NO >> Replace ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

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DAS

C1A27 ECD POWER SUPPLY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

C1A27 ECD POWER SUPPLY CIRCUIT

DTC Logic

INFOID:000000012796097

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1A27 (27)	ECD PWR SUPPLY CIR (ECD power supply circuit)	ECD system power supply voltage is excessively low

POSSIBLE CAUSE

- ABS actuator and electric unit (control unit) power supply circuit
- ABS actuator and electric unit (control unit)

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Back-up Collision Intervention (BCI)
- Predictive Forward Collision Warning (PFCW)

DTC CONFIRMATION PROCEDURE

1. CHECK DTC PRIORITY

If DTC "C1A27" is displayed with DTC "U1000", "U0415" or "U0121", first diagnose the DTC "U1000""U0415" or "U0121".

Is applicable DTC detected?

YES >> Perform diagnosis of applicable.

- U1000: Refer to [DAS-175. "DTC Logic"](#)
- U0415: Refer to [DAS-172. "DTC Logic"](#)
- U0121: Refer to [DAS-166. "DTC Logic"](#)

NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Wait for approximately 1 minute after turning the MAIN switch of ICC system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "C1A27" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "C1A27" detected as the current malfunction?

YES >> Refer to [DAS-140. "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45. "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796098

1. CHECK DTC PRIORITY

If DTC "C1A27" is displayed with DTC "U1000", "U0415" or "U0121", first diagnose the DTC "U1000""U0415" or "U0121".

Is applicable DTC detected?

YES >> Perform diagnosis of applicable.

- U1000: Refer to [DAS-175. "DTC Logic"](#)
- U0415: Refer to [DAS-172. "DTC Logic"](#)
- U0121: Refer to [DAS-166. "DTC Logic"](#)

NO >> GO TO 2.

C1A27 ECD POWER SUPPLY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

2. CHECK POWER SUPPLY CIRCUIT OF ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)

Check power supply circuit of ABS actuator and electric unit (control unit). Refer to [BRC-171, "Diagnosis Procedure"](#).

Is the inspection result normal?

- YES >> Perform self-diagnosis of ABS actuator and electric unit (control unit). Refer to [BRC-72, "DTC Index"](#).
- NO >> Repair the harnesses or connectors.

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DAS

C1A33 CAN TRANSMISSION ERROR

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

C1A33 CAN TRANSMISSION ERROR

DTC Logic

INFOID:000000012796099

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1A33 (33)	CAN TRANSMISSION ERR (CAN transmission error)	If an error occurs in the CAN communication signal that ADAS control unit transmits to ECM

POSSIBLE CAUSE

ADAS control unit

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)
- Automatic Speed Control Device (ASCD)

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "C1A33" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the MAIN switch of ICC system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "C1A33" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "C1A33" detected as the current malfunction?

- YES >> Refer to [DAS-142, "Diagnosis Procedure"](#).
NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796100

1.CHECK DTC PRIORITY

If DTC "C1A33" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
NO >> GO TO 2.

2.CHECK SELF-DIAGNOSIS RESULTS

Check if "U1000" is detected other than "C1A33" in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1000" detected?

- YES >> Perform the CAN communication system inspection. Repair or replace the malfunctioning parts.
Refer to [DAS-53, "DTC Index"](#).
NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

C1A34 COMMAND ERROR

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

C1A34 COMMAND ERROR

DTC Logic

INFOID:000000012796101

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1A34 (34)	COMMAND ERROR (Command error)	If an error occurs in the command signal that ADAS control unit transmits to ECM via CAN communication

POSSIBLE CAUSE

ADAS control unit

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)
- Automatic Speed Control Device (ASCD)

DTC CONFIRMATION PROCEDURE

1. CHECK DTC PRIORITY

If DTC "C1A34" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Operate the ICC system and drive.
CAUTION:
Always drive safely.
3. Stop the vehicle.
4. Perform "All DTC Reading" with CONSULT.
5. Check if the "C1A34" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "C1A34" detected as the current malfunction?

- YES >> Refer to [DAS-143, "Diagnosis Procedure"](#).
NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796102

1. CHECK SELF-DIAGNOSIS RESULTS

Check if "U1000" is detected other than "C1A34" in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1000" detected?

- YES >> Perform the CAN communication system inspection. Repair or replace the malfunctioning parts.
Refer to [DAS-175, "DTC Logic"](#).
NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

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DAS

C1A35 ACCELERATOR PEDAL ACTUATOR

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

C1A35 ACCELERATOR PEDAL ACTUATOR

DTC Logic

INFOID:000000012796103

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1A35 (35)	APA CIR (Accelerator pedal actuator circuit)	If the accelerator pedal actuator is malfunctioning

POSSIBLE CAUSE

Accelerator pedal actuator

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "C1A35" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the DCA system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "C1A35" is detected as the current malfunction in self-diagnosis results of "ICC/ADAS".

Is "C1A35" detected as the current malfunction?

YES >> Refer to [DAS-144, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796104

1.CHECK DTC PRIORITY

If DTC "C1A35" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).

NO >> GO TO 2.

2.CHECK ACCELERATOR PEDAL ACTUATOR SELF-DIAGNOSIS RESULTS

Check if the DTC is detected in "Self Diagnostic Result" of "ACCELE PEDAL ACT".

Is any DTC detected?

YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DAS-345, "DTC Index"](#).

NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

C1A36 ACCELERATOR PEDAL ACTUATOR CAN COMM

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

C1A36 ACCELERATOR PEDAL ACTUATOR CAN COMM

DTC Logic

INFOID:000000012796105

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1A36 (36)	APA CAN COMM CIR (Accelerator pedal actuator CAN circuit)	If an error occurs in the signal that the accelerator pedal actuator transmits via ITS communication

POSSIBLE CAUSE

- ADAS control unit
- Accelerator pedal actuator
- ITS communication system

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "C1A36" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the DCA system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "C1A36" is detected as the current malfunction in self-diagnosis results of "ICC/ADAS".

Is "C1A36" detected as the current malfunction?

- YES >> Refer to [DAS-145, "Diagnosis Procedure"](#).
NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796106

1.CHECK DTC PRIORITY

If DTC "C1A36" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
NO >> GO TO 2.

2.CHECK ACCELERATOR PEDAL ACTUATOR SELF-DIAGNOSIS RESULTS

Check if the DTC is detected in "Self Diagnostic Result" of "ACCELE PEDAL ACT".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DAS-345, "DTC Index"](#).
NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

C1A37 ACCELERATOR PEDAL ACTUATOR CAN 2

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

C1A37 ACCELERATOR PEDAL ACTUATOR CAN 2

DTC Logic

INFOID:000000012796107

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1A37 (133)	APA CAN CIR2 (Accelerator pedal actuator CAN circuit2)	If ADAS control unit detects an error signal that is received from accelerator pedal actuator via ITS communication

POSSIBLE CAUSE

Accelerator pedal actuator malfunction

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "C1A37" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the DCA system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "C1A37" is detected as the current malfunction in self-diagnosis results of "ICC/ADAS".

Is "C1A37" detected as the current malfunction?

- YES >> Refer to [DAS-146, "Diagnosis Procedure"](#).
NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796108

1.CHECK DTC PRIORITY

If DTC "C1A37" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
NO >> GO TO 2.

2.REPLACE ACCELERATOR PEDAL ASSEMBLY

1. Turn the ignition switch OFF.
2. Replace the accelerator pedal assembly.
3. Turn the ignition switch ON.
4. Erases All self-diagnosis results.
5. Perform "All DTC Reading" again.
6. Check if the DTC "C1A37" is detected in self-diagnosis results of "ICC/ADAS".

Is "C1A37" detected?

- YES >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).
NO >> INSPECTION END

C1A38 ACCELERATOR PEDAL ACTUATOR CAN 1

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

C1A38 ACCELERATOR PEDAL ACTUATOR CAN 1

DTC Logic

INFOID:000000012796109

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1A38 (132)	APA CAN CIR1 (Accelerator pedal actuator CAN circuit1)	If ADAS control unit detects an error signal that is received from accelerator pedal actuator via ITS communication

POSSIBLE CAUSE

Accelerator pedal actuator malfunction

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "C1A38" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the DCA system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "C1A38" is detected as the current malfunction in self-diagnosis results of "ICC/ADAS".

Is "C1A38" detected as the current malfunction?

- YES >> Refer to [DAS-147, "Diagnosis Procedure"](#).
NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796110

1.CHECK DTC PRIORITY

If DTC "C1A38" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
NO >> GO TO 2.

2.REPLACE ACCELERATOR PEDAL ASSEMBLY

1. Turn the ignition switch OFF.
2. Replace the accelerator pedal assembly.
3. Turn the ignition switch ON.
4. Erases All self-diagnosis results.
5. Perform "All DTC Reading" again.
6. Check if the "C1A38" is detected in self-diagnosis results of "ICC/ADAS".

Is "C1A38" detected?

- YES >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).
NO >> INSPECTION END

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C1A39 STEERING ANGLE SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

C1A39 STEERING ANGLE SENSOR

DTC Logic

INFOID:000000012796111

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1A39 (39)	STRG SEN CIR (Steering angle sensor circuit)	If the steering angle sensor is malfunction

POSSIBLE CAUSE

Steering angle sensor

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)
- Blind Spot Warning (BSW)/Blind Spot Intervention
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "C1A39" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175. "DTC Logic"](#).
NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the MAIN switch of ICC system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "C1A39" is detected as the current malfunction in self-diagnosis results of "ICC/ADAS".

Is "C1A39" detected as the current malfunction?

- YES >> Refer to [DAS-148. "Diagnosis Procedure"](#).
NO-1 >> To check malfunction symptom before repair: Refer to [GI-45. "Intermittent Incident"](#).
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796112

1.CHECK DTC PRIORITY

If DTC "C1A39" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175. "DTC Logic"](#).
NO >> GO TO 2.

2.CHECK ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "ABS".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [BRC-72. "DTC Index"](#).
NO >> Replace the ADAS control unit. Refer to [DAS-214. "Removal and Installation"](#).

C1B00 CAMERA UNIT MALF

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

C1B00 CAMERA UNIT MALF

DTC Logic

INFOID:000000013399929

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1B00 (81)	CAMERA UNIT MALF (Camera unit malfunction)	If lane camera unit is malfunctioning

POSSIBLE CAUSE

Lane camera unit

FAIL-SAFE

The following systems are canceled.

- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Perform "All DTC Reading" with CONSULT.
3. Check if the "C1B00" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "C1B00" detected as the current malfunction?

- YES >> Refer to [DAS-149. "Diagnosis Procedure"](#).
NO-1 >> To check malfunction symptom before repair: Refer to [GI-45. "Intermittent Incident"](#)
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000013399930

1. CHECK SELF-DIAGNOSIS RESULTS

Check if "C1B00" is detected in "Self Diagnostic Result" of "LANE CAMERA".

Is "C1B00" detected?

- YES >> Refer to [DAS-444. "LANE CAMERA UNIT : DTC Logic"](#)
NO >> Replace the ADAS control unit. Refer to [DAS-214. "Removal and Installation"](#).

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DAS

< DTC/CIRCUIT DIAGNOSIS >

C1B01 CAM AIMING INCOMP

DTC Logic

INFOID:000000013399931

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1B01 (82)	CAM AIMING INCOMP (Camera aiming incomplete)	Camera aiming is not completed

POSSIBLE CAUSE

- Lane camera aiming is not adjusted
- Lane camera aiming adjustment has been interrupted

FAIL-SAFE

The following systems are canceled.

- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Operate the LDP system and drive.
CAUTION:
Always drive safely.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "C1B01" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "C1B01" detected as the current malfunction?

- YES >> Refer to [DAS-150, "Diagnosis Procedure"](#).
 NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
 NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000013399932

1. CHECK SELF-DIAGNOSIS RESULTS

Check if "C1B01" is detected in "Self Diagnostic Result" of "LANE CAMERA".

Is "C1B01" detected?

- YES >> Refer to [DAS-445, "LANE CAMERA UNIT : DTC Logic"](#)
 NO >> GO TO 2.

2. CHECK DATA MONITOR

1. Start the engine.
2. Check that "OK" is indicated for the value of "AIMING RESULT" in "DATA MONITOR" of "LANE CAMERA".

Is "OK" indicated?

- YES >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).
 NO >> Replace the lane camera unit. Refer to [DAS-507, "Removal and Installation"](#).

C1B03 ABNRML TEMP DETECT

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

C1B03 ABNRML TEMP DETECT

DTC Logic

INFOID:000000013399933

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1B03 (83)	CAM ABNRML TMP DETCT (Camera abnormal temperature detect)	Temperature around lane camera unit is excessively high

POSSIBLE CAUSE

Interior room temperature is excessively high

FAIL-SAFE

The following systems are canceled.

- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the LDP system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "C1B03" is detected as the current malfunction in self-diagnosis results of "ICC/ADAS".

Is "C1A39" detected as the current malfunction?

- YES >> Refer to [DAS-151, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000013399934

1. CHECK LANE CAMERA UNIT SELF-DIAGNOSIS RESULTS

1. Perform "All DTC Reading" with CONSULT.
2. Check if the "C1B03" is detected in "Self Diagnostic Result" of "LANE CAMERA"

Is "C1B03" detected?

- YES >> Refer to [DAS-446, "LANE CAMERA UNIT : DTC Logic"](#)
- NO >> GO TO 2.

2. CHECK ADAS CONTROL UNIT SELF-DIAGNOSIS RESULTS

1. Erase all self-diagnosis results with CONSULT.
2. Perform "All DTC Reading".
3. Check if the "C1B03" is detected in "Self Diagnostic Result" of "ICC/ADAS"

Is "C1B03" detected?

- YES >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).
- NO >> INSPECTION END

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DAS

C1B5D FEB OPE COUNT LIMIT

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

C1B5D FEB OPE COUNT LIMIT

DTC Logic

INFOID:000000012796113

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1B5D (198)	FEB OPE COUNT LIMIT (Forward Emergency Braking operation count limit)	FEB system operated 3 times within ignition switch ON.

NOTE:

If "C1B5D" detected, perform the ICC system action test and check ICC system operates normally.

POSSIBLE CAUSE

FEB system operated 3 times within ignition switch ON.

FAIL-SAFE

The following systems are canceled.

- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)

DTC CONFIRMATION PROCEDURE

1. PERFORM ICC SYSTEM ACTION TEST

Perform the ICC system action test.

Is there any malfunction symptom?

YES >> Refer to [DAS-152, "Diagnosis Procedure"](#).

NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000012796114

1. DTC CHECK SELF-DIAGNOSIS RESULTS

1. Turn ignition switch OFF.
2. Turn ignition switch ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "C1B5D" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is C1B5D detected as current malfunction?

YES >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

NO >> Perform ICC system action test. Refer to [CCS-126, "Description"](#).

C1B53 SIDE RADAR RIGHT MALFUNCTION

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

C1B53 SIDE RADAR RIGHT MALFUNCTION

DTC Logic

INFOID:0000000012796115

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1B53 (84)	SIDE RDR R MALF (Side radar right malfunction)	ADAS control unit detects that side radar RH has a malfunction.

POSSIBLE CAUSE

Side radar RH

FAIL-SAFE

The following systems are canceled.

- Blind Spot Warning (BSW)/Blind Spot Intervention
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Perform "All DTC Reading" with CONSULT.
3. Check if the "C1B53" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "C1B53" detected as the current malfunction?

YES >> Refer to [DAS-153, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000012796116

1. CHECK SELF-DIAGNOSIS RESULTS

Check if "U1000" is detected other than "C1B53" in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1000" detected?

YES >> Perform the CAN communication system inspection. Repair or replace the malfunctioning parts.
Refer to [DAS-175, "DTC Logic"](#).

NO >> GO TO 2.

2. CHECK SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "SIDE RADAR RIGHT".

Is any DTC detected?

YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DAS-347, "DTC Index"](#) (SIDE RADAR LH), [DAS-349, "DTC Index"](#) (SIDE RADAR RH).

NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

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C1B54 SIDE RADAR LEFT MALFUNCTION

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

C1B54 SIDE RADAR LEFT MALFUNCTION

DTC Logic

INFOID:000000012796117

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1B54 (85)	SIDE RDR L MALF (Side radar left malfunction)	ADAS control unit detects that side radar LH has a malfunction.

POSSIBLE CAUSE

Side radar LH

FAIL-SAFE

The following systems are canceled.

- Blind Spot Warning (BSW)/Blind Spot Intervention
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Perform "All DTC Reading" with CONSULT.
3. Check if the "C1B54" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "C1B54" detected as the current malfunction?

- YES >> Refer to [DAS-153, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796118

1. CHECK SELF-DIAGNOSIS RESULTS

Check if "U1000" is detected other than "C1B54" in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1000" detected?

- YES >> Perform the CAN communication system inspection. Repair or replace the malfunctioning parts.
Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2. CHECK SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "SIDE RADAR LEFT".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DAS-347, "DTC Index"](#) (SIDE RADAR LH), [DAS-349, "DTC Index"](#) (SIDE RADAR RH).
- NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

C1B56 SONAR CIRCUIT

DTC Logic

INFOID:000000012796119

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1B56 (86)	SONAR CIRCUIT MALF (Sonar controller circuit)	ADAS control unit detects that rear sonar control unit circuit has a malfunction.

POSSIBLE CAUSE

Sonar control unit

FAIL-SAFE

The following systems are canceled.
Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Perform "All DTC Reading" with CONSULT.
3. Check if the "C1B56" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "C1B56" detected as the current malfunction?

- YES >> Refer to [DAS-155. "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45. "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796120

1. CHECK SELF-DIAGNOSIS RESULTS

Check if "U1000" is detected other than "C1B56" in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1000" detected?

- YES >> Perform the CAN communication system inspection. Repair or replace the malfunctioning parts.
Refer to [DAS-175. "DTC Logic"](#).
- NO >> GO TO 2.

2. CHECK SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "SONAR".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [AV-490. "DTC Index"](#).
- NO >> Replace the ADAS control unit. Refer to [DAS-214. "Removal and Installation"](#).

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C1B57 AVM CIRCUIT

DTC Logic

INFOID:000000012796121

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1B57 (87)	AVM CIRCUIT MALF (Around view monitor circuit)	ADAS control unit detects that around view monitor control unit has a malfunction.

POSSIBLE CAUSE

Around view monitor control unit

FAIL-SAFE

The following systems are canceled.
Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Perform "All DTC Reading" with CONSULT.
3. Check if the "C1B57" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "C1B57" detected as the current malfunction?

- YES >> Refer to [DAS-156. "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45. "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796122

1. CHECK SELF-DIAGNOSIS RESULTS

Check if "U1000" is detected other than "C1B57" in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1000" detected?

- YES >> Perform the CAN communication system inspection. Repair or replace the malfunctioning parts.
Refer to [DAS-175. "DTC Logic"](#).
- NO >> GO TO 2.

2. CHECK SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "AVM".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [AV-485. "DTC Index"](#).
- NO >> Replace the ADAS control unit. Refer to [DAS-214. "Removal and Installation"](#).

C1B59 CCM

DTC Logic

INFOID:000000012796123

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1B59 (184)	CCM CIRCUIT (Chassis control module circuit)	ADAS control unit detects that chassis control module has a malfunction.

POSSIBLE CAUSE

- Chassis control module
- ADAS control unit

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Distance Control Assist (DCA)
- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Operate the ICC system and drive.
CAUTION:
Always drive safely.
3. Stop the vehicle.
4. Perform "All DTC Reading" with CONSULT.
5. Check if the "C1B59" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "C1B59" detected as the current malfunction?

- YES >> Refer to [DAS-157, "Diagnosis Procedure"](#).
 NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
 NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796124

1. CHECK DTC PRIORITY

If DTC "C1B59" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
 NO >> GO TO 2.

2. PERFORM SELF-DIAGNOSIS OF ECM

Check if any DTC is detected in "Self Diagnostic Result" of "CHASSIS CONTROL".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DAS-550, "DTC Index"](#).
 NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

C1B82 DISTANCE SENSOR OFF-CENTER

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

C1B82 DISTANCE SENSOR OFF-CENTER

DTC Logic

INFOID:000000012796125

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1B82 (12)	DIST SEN OFF-CENTER (Distance sensor off-center)	ICC sensor is off the alignment point

POSSIBLE CAUSE

Radar alignment is off the aiming point

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Perform "All DTC Reading" with CONSULT.
3. Check if the "C1B82" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "C1B82" detected as the current malfunction?

- YES >> Refer to [DAS-158, "Diagnosis Procedure"](#).
NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796126

1. CHECK ICC SENSOR SELF-DIAGNOSIS RESULTS

1. Perform "All DTC Reading" with CONSULT.
2. Check if the "C1A12" is detected as the current malfunction in "Self Diagnostic Result" of "LASER/RADAR".

Is "C1A12" detected?

- YES >> Refer to [CCS-134, "DTC Logic"](#).
NO >> GO TO 2.

2. CHECK ADAS CONTROL UNIT SELF-DIAGNOSIS RESULTS

Check if the "C1B82" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "C1B82" detected?

- YES >> Replace ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).
NO >> INSPECTION END

C1B84 DISTANCE SENSOR

DTC Logic

INFOID:000000012796127

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1B84 (17)	DIST SEN MALFUNCTION (Distance sensor malfunction)	If ICC sensor is malfunctioning

POSSIBLE CAUSE

ICC sensor

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Perform "All DTC Reading" with CONSULT.
3. Check if the "C1B84" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "C1B84" detected as the current malfunction?

- YES >> Refer to [DAS-159, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796128

1. CHECK ADAS CONTROL UNIT SELF-DIAGNOSIS RESULTS

1. Perform "All DTC Reading" with CONSULT.
2. Check if "U1000" is detected other than "C1B84" in "Self Diagnostic Result" of "ICC/ADAS".

Is "C1B84" detected?

- YES >> Perform the CAN communication system inspection. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2. CHECK ICC SENSOR SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" "LASER/RADAR "

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [CCS-71, "DTC Index"](#).
- NO >> Replace ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

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C1B85 DISTANCE SENSOR ABNORMAL TEMP

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

C1B85 DISTANCE SENSOR ABNORMAL TEMP

DTC Logic

INFOID:000000012796129

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1B85 (21)	DIST SEN ABNORMAL TEMP (Distance sensor abnormal temperature)	ICC sensor judges high temperature abnormality

POSSIBLE CAUSE

Temperature around the ICC sensor becomes high

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Turn the ignition switch OFF.
2. Wait for 10 minutes or more to cool the ICC sensor.
3. Start the engine.
4. Turn the ICC system ON.
5. Perform "All DTC Reading" with CONSULT.
6. Check if the "C1B85" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "C1B85" detected as the current malfunction?

- YES >> Refer to [DAS-160, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796130

1. CHECK SELF-DIAGNOSIS RESULTS

Check if "C1B85" is detected in "Self Diagnostic Result" of "ICC/ADAS".

Is "C1B85" detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DAS-160, "DTC Logic"](#).
- NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

C1B86 DISTANCE SENSOR POWER SUPPLY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

C1B86 DISTANCE SENSOR POWER SUPPLY CIRCUIT

DTC Logic

INFOID:000000012796131

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1B86 (80)	DIST SEN PWR SUP CIR (Distance sensor power supply circuit)	ICC sensor power supply voltage is malfunction

POSSIBLE CAUSE

- Harness, connector, fuse
- ICC sensor

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "C1B86" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175. "DTC Logic"](#).
NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the DCA system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "C1B86" is detected as the current malfunction in self-diagnosis results of "ICC/ADAS".

Is "C1A86" detected as the current malfunction?

- YES >> Refer to [DAS-161. "Diagnosis Procedure"](#).
NO-1 >> To check malfunction symptom before repair: Refer to [GI-45. "Intermittent Incident"](#).
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796132

1.CHECK DTC PRIORITY

If DTC "C1B86" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175. "DTC Logic"](#).
NO >> GO TO 2.

2.CHECK ICC SENSOR SELF-DIAGNOSIS RESULTS

1. Perform "All DTC Reading" with CONSULT.
2. Check if the "C1B86" is detected as the current malfunction in "Self Diagnostic Result" of "LASER/RADAR".

Is "C1B86" detected?

- YES >> Refer to [DAS-161. "DTC Logic"](#).
NO >> GO TO 3.

3.CHECK ADAS CONTROL UNIT SELF-DIAGNOSIS RESULTS

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C1B86 DISTANCE SENSOR POWER SUPPLY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

Check if the "C1B86" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "C1B86" detected?

YES >> Replace ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).
NO >> INSPECTION END

C1F01 ACCELERATOR PEDAL ACTUATOR

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

C1F01 ACCELERATOR PEDAL ACTUATOR

DTC Logic

INFOID:000000012796133

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1F01 (91)	APA MOTOR MALF (Accelerator pedal actuator malfunction)	If the accelerator pedal actuator motor error is detected

POSSIBLE CAUSE

Accelerator pedal actuator integrated motor malfunction

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Turn the ignition switch OFF.
2. Turn the ignition switch ON.
3. Slowly depress the accelerator pedal completely, and then release it.
4. Repeat step 3 several times.
5. Perform "All DTC Reading" with CONSULT.
6. Check if the DTC "C1F01" is detected as the current malfunction on the self-diagnosis results of "ICC/ADAS".

Is "C1F01" detected as the current malfunction?

YES >> Refer to [DAS-163, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796134

1. CHECK ADAS CONTROL UNIT SELF-DIAGNOSIS RESULTS

Check if "U1000" is detected other than "C1F01" in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1000" detected?

YES >> Perform the CAN communication system inspection. Repair or replace the malfunctioning parts.
Refer to [DAS-175, "DTC Logic"](#).

NO >> GO TO 2.

2. CHECK ACCELERATOR PEDAL ACTUATOR SELF-DIAGNOSIS RESULTS

Check if "C1F01" is detected in "Self Diagnostic Result" of "ACCELE PEDAL ACT".

Is "C1F01" detected?

YES >> Refer to [DAS-345, "DTC Index"](#).

NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

C1F02 ACCELERATOR PEDAL ACTUATOR

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

C1F02 ACCELERATOR PEDAL ACTUATOR

DTC Logic

INFOID:000000012796135

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1F02 (92)	APA C/U MALF (Accelerator pedal actuator internal malfunction)	If the accelerator pedal actuator integrated control unit error is detected

POSSIBLE CAUSE

Accelerator pedal actuator integrated control unit malfunction

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the DCA system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "C1F02" is detected as the current malfunction on the self-diagnosis results of "ICC/ADAS".

Is "C1F02" detected as the current malfunction?

- YES >> Refer to [DAS-164, "Diagnosis Procedure"](#).
NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796136

1. CHECK ADAS CONTROL UNIT SELF-DIAGNOSIS RESULTS

Check if "U1000" is detected other than "C1F02" in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1000" detected?

- YES >> Perform the CAN communication system inspection. Repair or replace the malfunctioning parts.
Refer to [DAS-175, "DTC Logic"](#).
NO >> GO TO 2.

2. CHECK ACCELERATOR PEDAL ACTUATOR SELF-DIAGNOSIS RESULTS

Check if "C1F02" is detected in "Self Diagnostic Result" of "ACCELE PEDAL ACT".

Is "C1F02" detected?

- YES >> Refer to [DAS-345, "DTC Index"](#).
NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

C1F05 ACCELERATOR PEDAL ACTUATOR POWER SUPPLY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

C1F05 ACCELERATOR PEDAL ACTUATOR POWER SUPPLY CIRCUIT

DTC Logic

INFOID:000000012796137

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1F05 (95)	APA PWR SUPPLY CIR (Accelerator pedal actuator power supply circuit)	The battery voltage sent to accelerator pedal actuator remains less than 7.9 V or more than 19.3 V for 5 seconds

POSSIBLE CAUSE

- Harness, connector, or fuse
- Accelerator pedal actuator

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the DCA system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "C1F05" is detected as the current malfunction on the self-diagnosis results of "ICC/ADAS".

Is "C1F05" detected as the current malfunction?

YES >> Refer to [DAS-165, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796138

1. CHECK ADAS CONTROL UNIT SELF-DIAGNOSIS RESULTS

Check if "U1000" is detected other than "C1F05" in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1000" detected?

YES >> Perform the CAN communication system inspection. Repair or replace the malfunctioning parts.
Refer to [DAS-175, "DTC Logic"](#).

NO >> GO TO 2.

2. CHECK ACCELERATOR PEDAL ACTUATOR SELF-DIAGNOSIS RESULTS

Check if "C1F05" is detected in "Self Diagnostic Result" of "ACCELE PEDAL ACT".

Is "C1F05" detected?

YES >> Refer to [DAS-345, "DTC Index"](#).

NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

U0121 VDC CAN 2

DTC Logic

INFOID:000000012796139

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U0121 (127)	VDC CAN CIR2 (VDC CAN circuit2)	If ADAS control unit detects an error signal that is received from ABS actuator and electric unit (control unit) via CAN communication

POSSIBLE CAUSE

ABS actuator and electric unit (control unit)

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)
- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention
- Back-up Collision Intervention (BCI)
- Automatic Speed Control Device (ASCD)

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC “U0121” is displayed with DTC “U1000”, first diagnose the DTC “U1000”.

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the MAIN switch of ICC system ON.
3. Perform “All DTC Reading” with CONSULT.
4. Check if the “U0121” is detected as the current malfunction in “Self Diagnostic Result” of “ICC/ADAS”.

Is “U0121” detected as the current malfunction?

- YES >> Refer to [DAS-166, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796140

1.CHECK DTC PRIORITY

If DTC “U0121” is displayed with DTC “U1000”, first diagnose the DTC “U1000”.

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2.CHECK ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in “Self Diagnostic Result” of “ABS”.

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [BRC-72, "DTC Index"](#).
- NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

U0126 STRG SEN CAN 1

DTC Logic

INFOID:0000000012796141

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U0126 (130)	STRG SEN CAN CIR1 (Steering sensor CAN circuit1)	If ADAS control unit detects an error signal that is received from steering angle sensor via CAN communication

POSSIBLE CAUSE

Steering angle sensor

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)
- Blind Spot Warning (BSW)
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1. CHECK DTC PRIORITY

If DTC "U0126" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175. "DTC Logic"](#).
 NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the MAIN switch of ICC system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U0126" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U0126" detected as the current malfunction?

- YES >> Refer to [DAS-167. "Diagnosis Procedure"](#).
 NO-1 >> To check malfunction symptom before repair: Refer to [GI-45. "Intermittent Incident"](#).
 NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000012796142

1. CHECK DTC PRIORITY

If DTC "U0126" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175. "DTC Logic"](#).
 NO >> GO TO 2.

2. CHECK ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "ABS".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [BRC-72. "DTC Index"](#).
 NO >> Replace the ADAS control unit. Refer to [DAS-214. "Removal and Installation"](#).



U0235 ICC SENSOR CAN 1

DTC Logic

INFOID:000000012796143

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U0235 (144)	ICC SENSOR CAN CIR1 (ICC sensor CAN circuit1)	If ADAS control unit detects an error signal that is received from ICC sensor via ITS communication

POSSIBLE CAUSE

ICC sensor

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "U0235" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. Refer to [DAS-175. "DTC Logic"](#).

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the MAIN switch of ICC system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U0235" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U0235" detected as the current malfunction?

YES >> Refer to [DAS-168. "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45. "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796144

1.CHECK DTC PRIORITY

If DTC "U0235" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. Refer to [DAS-175. "DTC Logic"](#).

NO >> GO TO 2.

2.CHECK ICC SENSOR SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "LASER/RADAR".

Is any DTC detected?

YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [CCS-71. "DTC Index"](#).

NO >> Replace the ADAS control unit. Refer to [DAS-214. "Removal and Installation"](#).

U0401 ECM CAN 1

DTC Logic

INFOID:000000012796145

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U0401 (120)	ECM CAN CIR1 (ECM CAN circuit1)	If ADAS control unit detects an error signal that is received from ECM via CAN communication

POSSIBLE CAUSE

ECM

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)
- Blind Spot Warning (BSW)/Blind Spot Intervention
- Back-up Collision Intervention (BCI)
- Automatic Speed Control Device (ASCD)

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC “U0401” is displayed with DTC “U1000”, first diagnose the DTC “U1000”.

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the MAIN switch of ICC system ON.
3. Perform “All DTC Reading” with CONSULT.
4. Check if the “U0401” is detected as the current malfunction in “Self Diagnostic Result” of “ICC/ADAS”.

Is “U0401” detected as the current malfunction?

- YES >> Refer to [DAS-169, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796146

1.CHECK DTC PRIORITY

If DTC “U0401” is displayed with DTC “U1000”, first diagnose the DTC “U1000”.

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2.CHECK ECM SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in “Self Diagnostic Result” of “ENGINE”.

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts.
 - 2.0L turbo gasoline engine: Refer to [EC4-146, "DTC Index"](#).
 - VR30DDTT for USA and Canada

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U0401 ECM CAN 1

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

- Turbo high pressure model: Refer to [EC6-164, "TURBO HIGH PRESSURE MODEL : DTC Index"](#).
- Turbo low pressure model: Refer to [EC6-205, "TURBO LOW PRESSURE MODEL : DTC Index"](#).
- VR30DDTT for Mexico: Refer to [EC6-1139, "DTC Index"](#).

NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

U0402 TCM CAN 1

DTC Logic

INFOID:0000000012796147

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U0402 (122)	TCM CAN CIRC1 (TCM CAN circuit1)	If ADAS control unit detects an error signal that is received from TCM via CAN communication

POSSIBLE CAUSE

TCM

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)
- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC “U0402” is displayed with DTC “U1000”, first diagnose the DTC “U1000”.

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the MAIN switch of ICC system ON.
3. Perform “All DTC Reading” with CONSULT.
4. Check if the “U0402” is detected as the current malfunction in “Self Diagnostic Result” of “ICC/ADAS”.

Is “U0402” detected as the current malfunction?

- YES >> Refer to [DAS-171, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000012796148

1.CHECK DTC PRIORITY

If DTC “U0402” is displayed with DTC “U1000”, first diagnose the DTC “U1000”.

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2.CHECK TCM SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in “Self Diagnostic Result” of “TRANSMISSION”.

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [TM-102, "2.0L TURBO GASOLINE ENGINE : DTC Index"](#).
- NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

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U0415 VDC CAN 1

DTC Logic

INFOID:000000012796149

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U0415 (126)	VDC CAN CIR1 (VDC CAN circuit1)	If ADAS control unit detects an error signal that is received from ABS actuator and electric unit (control unit) via CAN communication

POSSIBLE CAUSE

ABS actuator and electric unit (control unit)

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)
- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention
- Back-up Collision Intervention (BCI)
- Automatic Speed Control Device (ASCD)

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC “U0415” is displayed with DTC “U1000”, first diagnose the DTC “U1000”.

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the MAIN switch of ICC system ON.
3. Perform “All DTC Reading” with CONSULT.
4. Check if the “U0415” is detected as the current malfunction in “Self Diagnostic Result” of “ICC/ADAS”.

Is “U0415” detected as the current malfunction?

- YES >> Refer to [DAS-172, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796150

1.CHECK DTC PRIORITY

If DTC “U0415” is displayed with DTC “U1000”, first diagnose the DTC “U1000”.

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2.CHECK ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in “Self Diagnostic Result” of “ABS”.

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [BRC-72, "DTC Index"](#).
- NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

U0424 HVAC CAN CIRCUIT 1

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

U0424 HVAC CAN CIRCUIT 1

Description

INFOID:0000000012796151

ADAS control unit reads status of signal that is transmitted from A/C auto AMP. to ADAS control unit.

DTC Logic

INFOID:0000000012796152

DTC DETECTION LOGIC

DTC (On board display)	Display Item	Malfunction detected condition
U0424 (156)	HVAC CAN CIR 1 (HVAC CAN circuit 1)	When signal that is transmitted from A/C auto amp. is not the latest information

POSSIBLE CAUSE

A/C auto amp.

FAIL-SAFE

None

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "U0424" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. Refer to [DAS-175. "DTC Logic"](#).

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the MAIN switch of ICC system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U0424" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U0424" detected as the current malfunction?

YES >> Refer to [DAS-173. "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45. "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000012796153

1.CHECK DTC PRIORITY

If DTC "U0424" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. Refer to [DAS-175. "DTC Logic"](#).

NO >> GO TO 2.

2.CHECK A/C AUTO AMP. SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "HVAC".

Is any DTC detected?

YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [HAC-48. "DTC Index"](#).

NO >> Replace the ADAS control unit. Refer to [DAS-214. "Removal and Installation"](#).

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DAS

U0428 STRG SEN CAN 2

DTC Logic

INFOID:000000012796154

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U0428 (131)	STRG SEN CAN CIR2 (Steering sensor CAN circuit2)	If ADAS control unit detects an error signal that is received from steering angle sensor via CAN communication

POSSIBLE CAUSE

Steering angle sensor

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)
- Blind Spot Warning (BSW)/Blind Spot Intervention
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "U0428" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175. "DTC Logic"](#).
- NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the MAIN switch of ICC system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U0428" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U0428" detected as the current malfunction?

- YES >> Refer to [DAS-174. "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45. "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796155

1.CHECK DTC PRIORITY

If DTC "U0428" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175. "DTC Logic"](#).
- NO >> GO TO 2.

2.CHECK ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "ABS".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [BRC-72. "DTC Index"](#).
- NO >> Replace the ADAS control unit. Refer to [DAS-214. "Removal and Installation"](#).

U1000 CAN COMM CIRCUIT

Description

INFOID:0000000012796156

CAN COMMUNICATION

CAN (Controller Area Network) is a serial communication line for real time applications. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Modern vehicle is equipped with many electronic control units, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN-H, CAN-L) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads the required data only.

CAN communication signal chart. Refer to [LAN-67, "CAN COMMUNICATION SYSTEM : CAN Communication Signal Chart \(2.0L Turbo Gasoline Engine Models\)"](#).

ITS COMMUNICATION

- ITS communication is a multiplex communication system. This enables the system to transmit and receive large quantities of data at high speed by connecting control units with 2 communication lines.
- ITS communication lines adopt twisted-pair line style (two lines twisted) for noise immunity.

CHASSIS COMMUNICATION

- Chassis communication is a multiplex communication system. This enables the system to transmit and receive large quantities of data at high speed by connecting control units with 2 communication lines.
- Chassis communication lines adopt twisted-pair line style (two lines twisted) for noise immunity.

DTC Logic

INFOID:0000000012796157

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U1000 (100)	CAN COMM CIRCUIT (CAN communication circuit)	If ADAS control unit is not transmitting or receiving CAN communication signal, ITS communication or chassis communication signal for 2 seconds or more

NOTE:

If "U1000" is detected, first diagnose the CAN communication system.

POSSIBLE CAUSE

- CAN communication system
- ITS communication system
- Chassis communication system

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)
- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention
- Back-up Collision Intervention (BCI)
- Automatic Speed Control Device (ASCD)

NOTE:

With the detection of "U1000" some systems do not perform the fail-safe operation. A system controlling based on a signal received from the control unit performs fail-safe operation when the communication with the ADAS control unit becomes inoperable.

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.

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U1000 CAN COMM CIRCUIT

[ADAS CONTROL UNIT]

< DTC/CIRCUIT DIAGNOSIS >

2. Turn the MAIN switch of ICC system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1000" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1000" detected as the current malfunction?

- YES >> Refer to [DAS-169, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796158

1. PERFORM THE SELF-DIAGNOSIS

1. Turn the ignition switch ON.
2. Turn the MAIN switch of ICC system ON, and then wait for 30 seconds or more.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1000" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1000" detected as the current malfunction?

- YES >> Refer to [LAN-41, "Trouble Diagnosis Flow Chart"](#).
- NO >> INSPECTION END

U1010 CONTROL UNIT (CAN)

Description

INFOID:000000012796159

CAN controller controls the communication of CAN communication signal and ITS communication signal, and the error detection.

DTC Logic

INFOID:000000012796160

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U1010 (110)	CONTROL UNIT (CAN) [Control unit (CAN)]	If ADAS control unit detects malfunction by CAN controller initial diagnosis

POSSIBLE CAUSE

ADAS control unit

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)
- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention
- Back-up Collision Intervention (BCI)
- Automatic Speed Control Device (ASCD)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the MAIN switch of ICC system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1010" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1000" detected as the current malfunction?

- YES >> Refer to [DAS-177, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796161

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Turn the MAIN switch of ICC system ON.
2. Perform "All DTC Reading" with CONSULT.
3. Check if the "U1010" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1010" detected as the current malfunction?

- YES >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

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DAS

U150B ECM CAN 3

DTC Logic

INFOID:000000012796162

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U150B (157)	ECM CAN CIRC 3 (ECM CAN circuit 3)	ADAS control unit detects an error signal that is received from ECM via CAN communication

POSSIBLE CAUSE

ECM

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)
- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention
- Back-up Collision Intervention (BCI)
- Automatic Speed Control Device (ASCD)

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC “U0150B” is displayed with DTC “U1000”, first diagnose the DTC “U1000”.

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the MAIN switch of ICC system ON.
3. Perform “All DTC Reading” with CONSULT.
4. Check if the “U150B” is detected as the current malfunction in “Self Diagnostic Result” of “ICC/ADAS”.

Is “U150B” detected as the current malfunction?

- YES >> Refer to [DAS-178, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796163

1.CHECK DTC PRIORITY

If DTC “U0150B” is displayed with DTC “U1000”, first diagnose the DTC “U1000”.

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2.CHECK ECM SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in “Self Diagnostic Result” of “ENGINE”.

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts.
 - 2.0L turbo gasoline engine: Refer to [EC4-146, "DTC Index"](#).
 - VR30DDTT for USA and Canada

U150B ECM CAN 3

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

- Turbo high pressure model: Refer to [EC6-164. "TURBO HIGH PRESSURE MODEL : DTC Index"](#).
 - Turbo low pressure model: Refer to [EC6-205. "TURBO LOW PRESSURE MODEL : DTC Index"](#).
 - VR30DDTT for Mexico: Refer to [EC6-1139. "DTC Index"](#).
- NO >> Replace the ADAS control unit. Refer to [DAS-214. "Removal and Installation"](#).

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DAS

U150C VDC CAN 3

DTC Logic

INFOID:000000012796164

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U150C (158)	VDC CAN CIRC 3 (VDC CAN circuit 3)	ADAS control unit detects an error signal that is received from ABS actuator and electric unit (control unit) via CAN communication

POSSIBLE CAUSE

ABS actuator and electric unit (control unit)

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)
- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention
- Back-up Collision Intervention (BCI)
- Automatic Speed Control Device (ASCD)

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "U0150C" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the MAIN switch of ICC system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U150C" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U150C" detected as the current malfunction?

- YES >> Refer to [DAS-180, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796165

1.CHECK DTC PRIORITY

If DTC "U0150C" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2.CHECK ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "ABS".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [BRC-72, "DTC Index"](#).
- NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

U150D TCM CAN 3

DTC Logic

INFOID:0000000012796166

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U150D (159)	TCM CAN CIRC 3 (TCM CAN circuit 3)	ADAS control unit detects an error signal that is received from TCM via CAN communication

POSSIBLE CAUSE

TCM

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)
- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "U0150D" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the MAIN switch of ICC system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U150D" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U150D" detected as the current malfunction?

- YES >> Refer to [DAS-181, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000012796167

1.CHECK DTC PRIORITY

If DTC "U0150D" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2.CHECK TCM SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "TRANSMISSION".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [TM-102, "2.0L TURBO GASOLINE ENGINE : DTC Index"](#).
- NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

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DAS

U150E BCM CAN 3

DTC Logic

INFOID:000000012796168

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U150E (160)	BCM CAN CIRC 3 (BCM CAN circuit 3)	ADAS control unit detects an error signal that is received from BCM via CAN communication

POSSIBLE CAUSE

BCM

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "U0150E" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175. "DTC Logic"](#).
- NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the MAIN switch of ICC system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U150E" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U150E" detected as the current malfunction?

- YES >> Refer to [DAS-182. "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45. "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796169

1.CHECK DTC PRIORITY

If DTC "U0150E" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175. "DTC Logic"](#).
- NO >> GO TO 2.

2.CHECK BCM SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "BCM".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [BCS-63. "DTC Index"](#).
- NO >> Replace the ADAS control unit. Refer to [DAS-214. "Removal and Installation"](#).

U150F AV CAN 3

DTC Logic

INFOID:000000012796170

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U150F (161)	AV CAN CIRC 3 (AV CAN circuit 3)	ADAS control unit detects an error signal that is received from display control unit via CAN communication

POSSIBLE CAUSE

Display

FAIL-SAFE

None

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "U0150F" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175. "DTC Logic"](#).
- NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the DCA, LDP, or Blind Spot Intervention system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U150F" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U150F" detected as the current malfunction?

- YES >> Refer to [DAS-183. "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45. "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796171

1.CHECK DTC PRIORITY

If DTC "U0150F" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175. "DTC Logic"](#).
- NO >> GO TO 2.

2.CHECK AV CONTROL UNIT SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "MULTI AV".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [AV-107. "DTC Index"](#).
- NO >> Replace the ADAS control unit. Refer to [DAS-214. "Removal and Installation"](#).

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DAS

U1500 CAM CAN 2

DTC Logic

INFOID:000000013400249

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U1500 (145)	CAM CAN CIR2 (Camera can circuit 2)	ADAS control unit detects an error signal that is received from lane camera via ITS communication

POSSIBLE CAUSE

Lane camera unit

FAIL-SAFE

The following systems are canceled.

- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "U1500" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the Blind Spot Intervention system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1500" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1500" detected as the current malfunction?

- YES >> Refer to [DAS-184, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000013400250

1.CHECK DTC PRIORITY

If DTC "U1500" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2.CHECK LANE CAMERA UNIT SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "LANE CAMERA".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DAS-362, "WITHOUT DIRECT ADAPTIVE STEERING SYSTEM : DTC Index"](#).
- NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

U1501 CAM CAN 1

DTC Logic

INFOID:0000000013400251

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U1501 (146)	CAM CAN CIR 1 (Camera can circuit 1)	ADAS control unit detects an error signal that is received from lane camera via ITS communication

POSSIBLE CAUSE

Lane camera unit

FAIL-SAFE

The following systems are canceled.

- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "U1501" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the Blind Spot Intervention system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1501" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1501" detected as the current malfunction?

- YES >> Refer to [DAS-185, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013400252

1.CHECK DTC PRIORITY

If DTC "U1501" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2.CHECK LANE CAMERA UNIT SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "LANE CAMERA".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DAS-362, "WITHOUT DIRECT ADAPTIVE STEERING SYSTEM : DTC Index"](#).
- NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

DAS

U1502 ICC SENSOR CAN COMM CIRC

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

U1502 ICC SENSOR CAN COMM CIRC

DTC Logic

INFOID:000000012796172

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U1502 (147)	ICC SEN CAN COMM CIR (ICC sensor CAN communication circuit)	ADAS control unit detects an error signal that is received from ICC sensor via CAN communication

POSSIBLE CAUSE

ICC sensor

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "U1502" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the MAIN switch of ICC system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1502" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1502" detected as the current malfunction?

- YES >> Refer to [DAS-186, "Diagnosis Procedure"](#).
NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796173

1.CHECK DTC PRIORITY

If DTC "U1502" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
NO >> GO TO 2.

2.CHECK ICC SENSOR SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "LASER/RADAR".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [CCS-71, "DTC Index"](#).
NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

U1503 SIDE RDR L CAN 2

DTC Logic

INFOID:000000012796174

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U1503 (150)	SIDE RDR L CAN CIR 2 (Side radar left CAN circuit 2)	ADAS control unit detects an error signal that is received from side radar LH via ITS communication

POSSIBLE CAUSE

Side radar LH

FAIL-SAFE

The following systems are canceled.

- Blind Spot Warning (BSW)/Blind Spot Intervention
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "U1503" is displayed with DTC "U1000" or "U1508", first diagnose the DTC "U1000" or "U1508".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable.
- U1000: Refer to [DAS-175, "DTC Logic"](#)
 - U1508: Refer to [DAS-192, "DTC Logic"](#)

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the Blind Spot Intervention system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1503" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1503" detected as the current malfunction?

- YES >> Refer to [DAS-187, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796175

1.CHECK DTC PRIORITY

If DTC "U1503" is displayed with DTC "U1000" or "U1508", first diagnose the DTC "U1000" or "U1508".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable.
- U1000: Refer to [DAS-175, "DTC Logic"](#)
 - U1508: Refer to [DAS-192, "DTC Logic"](#)

NO >> GO TO 2.

2.CHECK SIDE RADAR LH SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "SIDE RADAR LEFT".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DAS-347, "DTC Index"](#).
- NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

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U1504 SIDE RDR L CAN 1

DTC Logic

INFOID:000000012796176

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U1504 (151)	SIDE RDR L CAN CIR 1 (Side radar left CAN circuit 1)	ADAS control unit detects an error signal that is received from side radar LH via ITS communication

POSSIBLE CAUSE

Side radar LH

FAIL-SAFE

The following systems are canceled.

- Blind Spot Warning (BSW)/Blind Spot Intervention
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1. CHECK DTC PRIORITY

If DTC "U1504" is displayed with DTC "U1000" or "U1508", first diagnose the DTC "U1000" or "U1508".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable.
- U1000: Refer to [DAS-175, "DTC Logic"](#)
 - U1508: Refer to [DAS-192, "DTC Logic"](#)

NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the Blind Spot Intervention system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1504" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1504" detected as the current malfunction?

- YES >> Refer to [DAS-188, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796177

1. CHECK DTC PRIORITY

If DTC "U1504" is displayed with DTC "U1000" or "U1508", first diagnose the DTC "U1000" or "U1508".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable.
- U1000: Refer to [DAS-175, "DTC Logic"](#)
 - U1508: Refer to [DAS-192, "DTC Logic"](#)

NO >> GO TO 2.

2. CHECK SIDE RADAR LH SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "SIDE RADAR LEFT".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DAS-347, "DTC Index"](#).
- NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

U1505 SIDE RDR R CAN 2

DTC Logic

INFOID:000000012796178

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U1505 (152)	SIDE RDR R CAN CIR 2 (Side radar right CAN circuit 2)	ADAS control unit detects an error signal that is received from side radar RH via ITS communication

POSSIBLE CAUSE

Side radar RH

FAIL- SAFE

The following systems are canceled.

- Blind Spot Warning (BSW)/Blind Spot Intervention
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "U1505" is displayed with DTC "U1000" or "U1507", first diagnose the DTC "U1000" or "U1507".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable.
- U1000: Refer to [DAS-175, "DTC Logic"](#)
 - U1507: Refer to [DAS-191, "DTC Logic"](#)

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the Blind Spot Intervention system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1505" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1505" detected as the current malfunction?

- YES >> Refer to [DAS-189, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796179

1.CHECK DTC PRIORITY

If DTC "U1505" is displayed with DTC "U1000" or "U1507", first diagnose the DTC "U1000" or "U1507".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable.
- U1000: Refer to [DAS-175, "DTC Logic"](#)
 - U1507: Refer to [DAS-191, "DTC Logic"](#)

NO >> GO TO 2.

2.CHECK SIDE RADAR RH SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "SIDE RADAR RIGHT".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DAS-349, "DTC Index"](#).
- NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

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U1506 SIDE RDR R CAN 1

DTC Logic

INFOID:000000012796180

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U1506 (153)	SIDE RDR R CAN CIR 1 (Side radar right CAN circuit 1)	ADAS control unit detects an error signal that is received from side radar RH via ITS communication

POSSIBLE CAUSE

Side radar RH

FAIL-SAFE

The following systems are canceled.

- Blind Spot Warning (BSW)/Blind Spot Intervention
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1. CHECK DTC PRIORITY

If DTC "U1506" is displayed with DTC "U1000" or "U1507", first diagnose the DTC "U1000" or "U1507".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable.
- U1000: Refer to [DAS-175, "DTC Logic"](#)
 - U1507: Refer to [DAS-191, "DTC Logic"](#)

NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the Blind Spot Intervention system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1506" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1506" detected as the current malfunction?

- YES >> Refer to [DAS-188, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796181

1. CHECK DTC PRIORITY

If DTC "U1506" is displayed with DTC "U1000" or "U1507", first diagnose the DTC "U1000" or "U1507".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable.
- U1000: Refer to [DAS-175, "DTC Logic"](#)
 - U1507: Refer to [DAS-191, "DTC Logic"](#)

NO >> GO TO 2.

2. CHECK SIDE RADAR RH SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "SIDE RADAR RIGHT".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DAS-349, "DTC Index"](#).
- NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

U1507 LOST COMM(SIDE RDR R)

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

U1507 LOST COMM(SIDE RDR R)

DTC Logic

INFOID:000000012796182

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U1507 (154)	LOST COMM(SIDE RDR R) [Lost communication (Side radar right)]	ADAS control unit cannot receive ITS communication signal from side radar RH for 2 seconds or more

POSSIBLE CAUSE

- Side radar RH right/left switching signal circuit
- ITS communication system
- Side radar RH

FAIL-SAFE

The following systems are canceled.

- Blind Spot Warning (BSW)/Blind Spot Intervention
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "U1507" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the Blind Spot Intervention system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1507" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1507" detected as the current malfunction?

- YES >> Refer to [DAS-191, "Diagnosis Procedure"](#).
NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796183

1.CHECK DTC PRIORITY

If DTC "U1507" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
NO >> GO TO 2.

2.CHECK RIGHT/LEFT SWITCHING SIGNAL CIRCUIT

Check right/left switching signal circuit. Refer to [DAS-483, "Diagnosis Procedure"](#).

Is the inspection result normal?

- YES >> Perform the CAN communication system inspection. Repair or replace the malfunctioning parts.
Refer to [LAN-41, "Trouble Diagnosis Flow Chart"](#).
NO >> Repair right/left switching signal circuit.

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DAS

U1508 LOST COMM(SIDE RDR L)

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

U1508 LOST COMM(SIDE RDR L)

DTC Logic

INFOID:000000012796184

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U1508 (155)	LOST COMM(SIDE RDR L) [Lost communication (Side radar left)]	ADAS control unit cannot receive ITS communication signal from side radar LH for 2 seconds or more

POSSIBLE CAUSE

- Side radar LH harness connector
- ITS communication system
- Side radar LH

FAIL-SAFE

The following systems are canceled.

- Blind Spot Warning (BSW)/Blind Spot Intervention
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "U1508" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the Blind Spot Intervention system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1508" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1508" detected as the current malfunction?

- YES >> Refer to [DAS-192, "Diagnosis Procedure"](#).
NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796185

1.CHECK DTC PRIORITY

If DTC "U1508" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
NO >> GO TO 2.

2.CHECK SIDE RADAR HARNESS CONNECTOR

1. Turn the ignition switch OFF.
2. Check the terminals and connectors of the side radar LH for damage, bend and short (unit side and connector side).

Is the inspection result normal?

- YES >> Perform the CAN communication system inspection. Repair or replace the malfunctioning parts.
Refer to [LAN-41, "Trouble Diagnosis Flow Chart"](#).
NO >> Repair the terminal or connector.

U1512 HVAC CAN 3

DTC Logic

INFOID:000000012796186

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U1512 (162)	HVAC CAN CIRC 3 (HVAC CAN circuit 3)	ADAS control unit detects an error signal that is received from A/C auto amp. via CAN communication

POSSIBLE CAUSE

A/C auto amp.

FAIL- SAFE

The following systems are canceled.

- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "U1512" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175. "DTC Logic"](#).
- NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the Blind Spot Intervention system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1512" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1512" detected as the current malfunction?

- YES >> Refer to [DAS-193. "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45. "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796187

1.CHECK DTC PRIORITY

If DTC "U1512" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175. "DTC Logic"](#).
- NO >> GO TO 2.

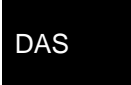
2.CHECK A/C AUTO AMP. SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "HVAC".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [HAC-48. "DTC Index"](#).
- NO >> Replace the ADAS control unit. Refer to [DAS-214. "Removal and Installation"](#).

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U1513 METER CAN 3

DTC Logic

INFOID:000000012796188

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U1513 (163)	METER CAN CIRC 3 (Meter CAN circuit 3)	ADAS control unit detects an error signal that is received from combination meter via CAN communication

POSSIBLE CAUSE

Combination meter

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)
- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention
- Back-up Collision Intervention (BCI)
- Automatic Speed Control Device (ASCD)

DTC CONFIRMATION PROCEDURE

1. CHECK DTC PRIORITY

If DTC "U1513" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
 NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the MAIN switch of ICC system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1513" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1513" detected as the current malfunction?

- YES >> Refer to [DAS-194, "Diagnosis Procedure"](#).
 NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
 NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796189

1. CHECK DTC PRIORITY

If DTC "U1513" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
 NO >> GO TO 2.

2. CHECK COMBINATION METER SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "METER/M&A".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [MWI-87, "DTC Index"](#).
 NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

U1514 STRG SEN CAN 3

DTC Logic

INFOID:0000000012796190

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U1514 (164)	STRG SEN CAN CIRC 3 (Steering sensor CAN circuit 3)	ADAS control unit detects an error signal that is received from steering angle sensor via CAN communication

POSSIBLE CAUSE

Steering angle sensor

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)
- Blind Spot Warning (BSW)/Blind Spot Intervention
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1. CHECK DTC PRIORITY

If DTC "U1514" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
 NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the MAIN switch of ICC system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1514" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1514" detected as the current malfunction?

- YES >> Refer to [DAS-195, "Diagnosis Procedure"](#).
 NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
 NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000012796191

1. CHECK DTC PRIORITY

If DTC "U1514" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
 NO >> GO TO 2.

2. CHECK ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "ABS".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [BRC-72, "DTC Index"](#).
 NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).



U1515 ICC SENSOR CAN 3

DTC Logic

INFOID:000000012796192

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U1515 (165)	ICC SENSOR CAN CIRC 3 (ICC sensor CAN circuit 3)	ADAS control unit detects an error signal that is received from ICC sensor via ITS communication

POSSIBLE CAUSE

ICC sensor

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "U1515" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. Refer to [DAS-175. "DTC Logic"](#).

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the ICC MAIN switch of ICC system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1515" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1515" detected as the current malfunction?

YES >> Refer to [DAS-196. "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45. "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796193

1.CHECK DTC PRIORITY

If DTC "U1515" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. Refer to [DAS-175. "DTC Logic"](#).

NO >> GO TO 2.

2.CHECK ICC SENSOR SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "LASER/RADAR".

Is any DTC detected?

YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [CCS-71. "DTC Index"](#).

NO >> Replace the ADAS control unit. Refer to [DAS-214. "Removal and Installation"](#).

U1516 CAM CAN 3

DTC Logic

INFOID:000000013400602

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U1516 (166)	CAM CAN CIRC 3 (Camera CAN circuit 3)	ADAS control unit detects an error signal that is received from lane camera unit via CAN communication

POSSIBLE CAUSE

Lane camera unit

FAIL-SAFE

The following systems are canceled.

- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "U1516" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the Blind Spot Intervention system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1516" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1516" detected as the current malfunction?

- YES >> Refer to [DAS-197, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000013400603

1.CHECK DTC PRIORITY

If DTC "U1516" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2.CHECK LANE CAMERA UNIT SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "LANE CAMERA".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DAS-362, "WITHOUT DIRECT ADAPTIVE STEERING SYSTEM : DTC Index"](#).
- NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

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U1517 ACCELERATOR PEDAL ACTUATOR CAN 3

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

U1517 ACCELERATOR PEDAL ACTUATOR CAN 3

DTC Logic

INFOID:000000012796194

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U1517 (167)	APA CAN CIRC 3 (Accelerator pedal actuator CAN circuit 3)	ADAS control unit detects an error signal that is received from accelerator pedal actuator via CAN communication

POSSIBLE CAUSE

Accelerator pedal actuator

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "U1517" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the MAIN switch of ICC system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1517" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1517" detected as the current malfunction?

- YES >> Refer to [DAS-198, "Diagnosis Procedure"](#).
NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796195

1.CHECK DTC PRIORITY

If DTC "U1517" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
NO >> GO TO 2.

2.CHECK ACCELERATOR PEDAL ACTUATOR SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "ACCELE PEDAL ACT".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DAS-345, "DTC Index"](#).
NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

U1518 SIDE RDR L CAN 3

DTC Logic

INFOID:000000012796196

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U1518 (168)	SIDE RDR L CAN CIRC 3 (Side radar left CAN circuit 3)	ADAS control unit detects an error signal that is received from side radar LH via ITS communication

POSSIBLE CAUSE

Side radar LH

FAIL-SAFE

The following systems are canceled.

- Blind Spot Warning (BSW)/Blind Spot Intervention
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "U1518" is displayed with DTC "U1000" or "U1508", first diagnose the DTC "U1000" or "U1508".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable.
- U1000: Refer to [DAS-175, "DTC Logic"](#)
 - U1508: Refer to [DAS-192, "DTC Logic"](#)

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the Blind Spot Intervention system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1518" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1518" detected as the current malfunction?

- YES >> Refer to [DAS-199, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796197

1.CHECK DTC PRIORITY

If DTC "U1518" is displayed with DTC "U1000" or "U1508", first diagnose the DTC "U1000" or "U1508".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable.
- U1000: Refer to [DAS-175, "DTC Logic"](#)
 - U1508: Refer to [DAS-192, "DTC Logic"](#)

NO >> GO TO 2.

2.CHECK SIDE RADAR LH SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "SIDE RADAR LEFT".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DAS-347, "DTC Index"](#).
- NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

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U1519 SIDE RDR R CAN 3

DTC Logic

INFOID:000000012796198

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U1519 (169)	SIDE RDR R CAN CIRC 3 (Side radar right CAN circuit 3)	ADAS control unit detects an error signal that is received from side radar RH via ITS communication

POSSIBLE CAUSE

Side radar RH

FAIL-SAFE

The following systems are canceled.

- Blind Spot Warning (BSW)/Blind Spot Intervention
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

If DTC "U1519" is detected along with DTC "U1000", or "U1507", first diagnose the DTC "U1000" or "U1507".

- Refer to [DAS-175, "DTC Logic"](#) for DTC "U1000".
- Check if "U1000" or "U1507" is detected other than "U1519" in "Self Diagnostic Result" of "ICC/ADAS".

1.CHECK DTC PRIORITY

If DTC "U1519" is displayed with DTC "U1000" or "U1507", first diagnose the DTC "U1000" or "U1507".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable.
- U1000: Refer to [DAS-175, "DTC Logic"](#)
 - U1507: Refer to [DAS-191, "DTC Logic"](#)

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the Blind Spot Intervention system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1519" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1519" detected as the current malfunction?

- YES >> Refer to [DAS-200, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796199

1.CHECK DTC PRIORITY

If DTC "U1519" is displayed with DTC "U1000" or "U1507", first diagnose the DTC "U1000" or "U1507".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable.
- U1000: Refer to [DAS-175, "DTC Logic"](#)
 - U1507: Refer to [DAS-191, "DTC Logic"](#)

NO >> GO TO 2.

2.CHECK SIDE RADAR RH SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "SIDE RADAR RIGHT".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DAS-349, "DTC Index"](#).
- NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

U1521 SONAR CAN 2

DTC Logic

INFOID:000000012796200

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U1521 (177)	SONAR CAN COMMUNICATION 2 (Sonar CAN communication 2)	ADAS control unit detects an error signal that is received from sonar control unit via ITS communication

POSSIBLE CAUSE

Sonar control unit

FAIL-SAFE

The following systems are canceled.
Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

If DTC "U1521" is detected along with DTC "U1000", first diagnose the DTC "U1000". Refer to [DAS-175. "DTC Logic"](#).

1.CHECK DTC PRIORITY

If DTC "U1521" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175. "DTC Logic"](#).
- NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the Backup Collision Intervention system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1521" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1521" detected as the current malfunction?

- YES >> Refer to [DAS-201. "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45. "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796201

1.CHECK DTC PRIORITY

If DTC "U1521" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175. "DTC Logic"](#).
- NO >> GO TO 2.

2.CHECK SONAR SYSTEM SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "SONAR".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [AV-490. "DTC Index"](#).
- NO >> Replace the ADAS control unit. Refer to [DAS-214. "Removal and Installation"](#).

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DAS

U1522 SONAR CAN 1

DTC Logic

INFOID:000000012796202

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U1522 (178)	SONAR CAN COMMUNICATION 1 (Sonar CAN communication 1)	ADAS control unit detects an error signal that is received from sonar control unit via ITS communication

POSSIBLE CAUSE

Sonar control unit

FAIL-SAFE

The following systems are canceled.
Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "U1522" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the Backup Collision Intervention system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1522" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1522" detected as the current malfunction?

- YES >> Refer to [DAS-202, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796203

1.CHECK DTC PRIORITY

If DTC "U1522" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2.CHECK SONAR SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "SONAR".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [AV-490, "DTC Index"](#).
- NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

U1523 SONAR CAN 3

DTC Logic

INFOID:0000000012796204

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U1523 (179)	SONAR CAN COMMUNICATION 3 (Sonar CAN communication 3)	ADAS control unit detects an error signal that is received from sonar control unit via ITS communication

POSSIBLE CAUSE

Sonar control unit

FAIL-SAFE

The following systems are canceled.
Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "U1523" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175. "DTC Logic"](#).
- NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the Backup Collision Intervention system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1523" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1523" detected as the current malfunction?

- YES >> Refer to [DAS-203. "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45. "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000012796205

1.CHECK DTC PRIORITY

If DTC "U1523" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175. "DTC Logic"](#).
- NO >> GO TO 2.

2.CHECK SONAR SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "SONAR".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [AV-490. "DTC Index"](#).
- NO >> Replace the ADAS control unit. Refer to [DAS-214. "Removal and Installation"](#).

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U1524 AVM CAN 1

DTC Logic

INFOID:000000012796206

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U1524 (180)	AVM CAN COMMUNICATION 1 (Around view monitor CAN communication 1)	ADAS control unit detects an error signal that is received from around view monitor control unit via ITS communication

POSSIBLE CAUSE

Around view monitor control unit

FAIL-SAFE

The following systems are canceled.
Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1. CHECK DTC PRIORITY

If DTC "U1524" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the Blind Spot Intervention system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1524" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1524" detected as the current malfunction?

- YES >> Refer to [DAS-204, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796207

1. CHECK DTC PRIORITY

If DTC "U1524" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2. CHECK SONAR SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "AVM".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [AV-485, "DTC Index"](#).
- NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

U1525 AVM CAN 3

DTC Logic

INFOID:000000012796208

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U1525 (181)	AVM CAN COMMUNICATION 3 (Around view monitor CAN communication 3)	ADAS control unit detects an error signal that is received from around view monitor control unit via ITS communication

POSSIBLE CAUSE

Around view monitor control unit

FAIL-SAFE

The following systems are canceled.
Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "U1525" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the Back-up Collision Intervention system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1525" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1525" detected as the current malfunction?

- YES >> Refer to [DAS-205, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796209

1.CHECK DTC PRIORITY

If DTC "U1525" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2.CHECK SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "AVM".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [AV-485, "DTC Index"](#).
- NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

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DAS

U1527 CCM CAN 1

DTC Logic

INFOID:000000012796210

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U1527 (185)	CCM CAN CIR 1 (Chassis control module CAN circuit 1)	ADAS control unit detects that chassis control module has a malfunction.

POSSIBLE CAUSE

Chassis control module

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Distance Control Assist (DCA)
- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Perform "All DTC Reading" with CONSULT.
3. Check if the "U1527" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1527" detected as the current malfunction?

- YES >> Refer to [DAS-206, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796211

1.CHECK SELF-DIAGNOSIS RESULTS

Check if "U1000" is detected other than "U1527" in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1000" detected?

- YES >> Perform the CAN communication system inspection. Repair or replace the malfunctioning parts. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2.CHECK SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "CHASSIS CONTROL".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DAS-550, "DTC Index"](#).
- NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

U153F CCM CAN 2

DTC Logic

INFOID:000000012796212

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U153F (186)	CCM CAN CIR 2 (Chassis control module CAN circuit 2)	ADAS control unit detects that chassis control module has a malfunction.

POSSIBLE CAUSE

Chassis control module

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Distance Control Assist (DCA)
- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1. CHECK DTC PRIORITY

If DTC "U153F" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the DCA system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U153F" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U153F" detected as the current malfunction?

- YES >> Refer to [DAS-207, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796213

1. CHECK DTC PRIORITY

If DTC "U153F" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2. CHECK CHASSIS CONTROL MODULE SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "CHASSIS CONTROL".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DAS-550, "DTC Index"](#).
- NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

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DAS

U1530 DR ASSIST BUZZER CAN 1

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

U1530 DR ASSIST BUZZER CAN 1

DTC Logic

INFOID:000000012796214

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U1530 (183)	DR ASSIST BUZZER CAN CIR 1 (Driver assistance buzzer CAN circuit 1)	ADAS control unit detects an error signal that is received from driver assistance buzzer control module via ITS communication

POSSIBLE CAUSE

Driver assistance buzzer control module

FAIL-SAFE

None

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "U1530" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Perform "All DTC Reading" with CONSULT.
3. Check if the "U1530" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1530" detected as the current malfunction?

- YES >> Refer to [DAS-208, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796215

If DTC "U1530" is detected along with DTC "U1000", first diagnose the DTC "U1000". Refer to [DAS-175, "DTC Logic"](#).

1.CHECK DTC PRIORITY

If DTC "U1530" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
- NO >> GO TO 2.

2.CHECK DRIVER ASSISTANCE BUZZER CONTROL MODULE SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "BSW/BUZZER".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DAS-353, "DTC Index"](#).
- NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

U1538 EMCM CAN 3

DTC Logic

INFOID:000000013400836

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U1538 (197)	EMCM CAN CIRCUIT 3 (Energy management control module controller area network 3)	ADAS control unit detects an error signal that is received from EMCM via CAN communication

POSSIBLE CAUSE

EMCM

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Conventional (fixed speed) cruise control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)
- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention
- Back-up Collision Intervention (BCI)
- Automatic Speed Control Device (ASCD)

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "U1538" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the ICC/ASCD system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1538" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1538" detected as the current malfunction?

YES >> Refer to [DAS-209, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000013400837

1.CHECK DTC PRIORITY

If DTC "U1538" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).

NO >> GO TO 2.

2.CHECK EMCM SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "EMCM".

Is any DTC detected?



U1538 EMCM CAN 3

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

-
- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [EC4-165, "DTC Index"](#).
- NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

U1540 DAST 3 CAN 1

DTC Logic

INFOID:000000012796216

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U1540 (200)	DAST 3 CAN CIR 1 (Direct adaptive steering 3 controller area network circuit 1)	ADAS control unit detects that chassis control module has a malfunction.

POSSIBLE CAUSE

Chassis control module

FAIL-SAFE

The following systems are canceled.

- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)

DTC CONFIRMATION PROCEDURE

1. CHECK DTC PRIORITY

If DTC "U1540" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. Refer to [DAS-175. "DTC Logic"](#).

NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Perform "All DTC Reading" with CONSULT.
3. Check if the "U1540" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1540" detected as the current malfunction?

YES >> Refer to [DAS-211. "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45. "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796217

1. CHECK DTC PRIORITY

If DTC "U1540" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. Refer to [DAS-175. "DTC Logic"](#).

NO >> GO TO 2.

2. CHECK SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "CHASSIS CONTROL".

Is any DTC detected?

YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DAS-550. "DTC Index"](#).

NO >> Replace the ADAS control unit. Refer to [DAS-214. "Removal and Installation"](#).

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U1541 DAST 3 CAN 2

DTC Logic

INFOID:000000012796218

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
U1541 (201)	DAST 3 CAN CIR 2 (Direct adaptive steering 3 controller area network circuit 2)	ADAS control unit detects an error signal that is received from chassis control module via CAN communication

POSSIBLE CAUSE

Chassis control module

FAIL-SAFE

The following systems are canceled.

- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Predictive Forward Collision Warning (PFCW)

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC “U1541” is displayed with DTC “U1000”, first diagnose the DTC “U1000”.

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the DCA system ON.
3. Perform “All DTC Reading” with CONSULT.
4. Check if the “U1541” is detected as the current malfunction in “Self Diagnostic Result” of “ICC/ADAS”.

Is “U1541” detected as the current malfunction?

YES >> Refer to [DAS-212, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796219

1.CHECK DTC PRIORITY

If DTC “U1541” is displayed with DTC “U1000”, first diagnose the DTC “U1000”.

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).

NO >> GO TO 2.

2.CHECK BCM SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in “Self Diagnostic Result” of “CHASSIS CONTROL”.

Is any DTC detected?

YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DAS-550, "DTC Index"](#).

NO >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure

INFOID:000000012796220

1. CHECK FUSES

Check if any of the following fuses are blown:

Signal name	Fuse No.
Ignition power supply (VR30DDTT)	22
Ignition power supply (2.0 L turbo gasoline engine)	75

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.

2. CHECK ADAS CONTROL UNIT POWER SUPPLY CIRCUIT

Check voltage between ADAS control unit harness connector and ground.

Terminal		Condition	Voltage (Approx.)
(+)	(-)		
ADAS control unit		Ignition switch	0 V
Connector	Terminal		
B1	12	OFF	0 V
		ON	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair the ADAS control unit power supply circuit.

3. CHECK ADAS CONTROL UNIT GROUND CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect the ADAS control unit connector.
3. Check for continuity between ADAS control unit harness connector and ground.

ADAS control unit		Ground	Continuity
Connector	Terminal		
B1	5		Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair the ADAS control unit ground circuit.

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DAS

REMOVAL AND INSTALLATION

ADAS CONTROL UNIT

Removal and Installation

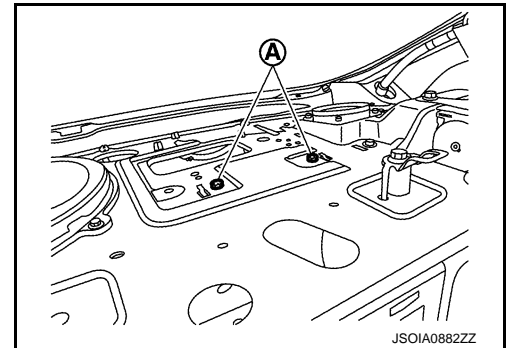
INFOID:000000012796221

REMOVAL

CAUTION:

Before replacing ADAS control unit, perform “Read/Write Configuration” to save or print current vehicle specification (With ICC models). For details, refer to [DAS-100, "Work Procedure"](#).

1. Remove the rear parcel shelf finisher. Refer to [INT-37, "Removal and Installation"](#).
2. Remove the trunk finisher front upper. Refer to [INT-57, "Removal and Installation"](#).
3. Disconnect ADAS control unit connector.
4. Remove mounting bolts from ADAS control unit.
5. Remove ADAS control unit.



JSOIA0882ZZ

INSTALLATION

CAUTION:

Be sure to perform “Read/Write Configuration” when replacing ADAS control unit (With ICC models). For details, refer to [DAS-101, "Work Procedure"](#).

Install in the reverse order of removal.

PRECAUTION

PRECAUTIONS

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

INFOID:000000013401344

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

WARNING:

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, it is recommended that all maintenance and repair be performed by an authorized NISSAN/INFINITI dealer.
- Improper repair, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see "SRS AIR BAG".
- Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery or batteries, and wait at least 3 minutes before performing any service.

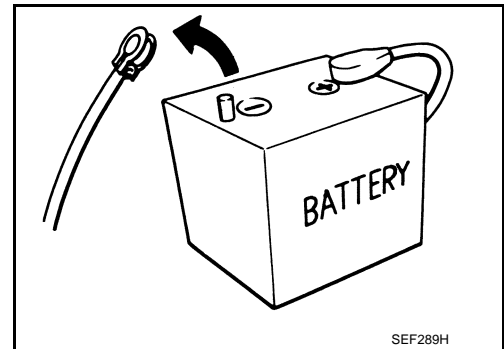
Precautions for Removing Battery Terminal

INFOID:000000013401345

When disconnecting the battery terminal, pay attention to the following.

- Always use a 12V battery as power source.
- Never disconnect battery terminal while engine is running.
- When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.
- For vehicles with the engine listed below, remove the battery terminal after a lapse of the specified time:

BR08DE	: 4 minutes	V9X engine	: 4 minutes
D4D engine	: 20 minutes	YD25DDTi	: 2 minutes
HR09DET	: 12 minutes	YS23DDT	: 4 minutes
HRA2DDT	: 12 minutes	YS23DDTT	: 4 minutes
K9K engine	: 4 minutes	ZD30DDTi	: 60 seconds
M9R engine	: 4 minutes	ZD30DDTT	: 60 seconds
R9M engine	: 4 minutes		



NOTE:

ECU may be active for several tens of seconds after the ignition switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption may occur.

- After high-load driving, if the vehicle is equipped with the V9X engine, turn the ignition switch OFF and wait for at least 15 minutes to remove the battery terminal.

NOTE:

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PRECAUTIONS

[DRIVER ASSISTANCE SYSTEM]

< PRECAUTION >

- Turbocharger cooling pump may operate in a few minutes after the ignition switch is turned OFF.
- Example of high-load driving
 - Driving for 30 minutes or more at 140 km/h (86 MPH) or more.
 - Driving for 30 minutes or more on a steep slope.
- For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch.

NOTE:

If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.

- After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC.

NOTE:

The removal of 12V battery may cause a DTC detection error.

Precautions For Harness Repair

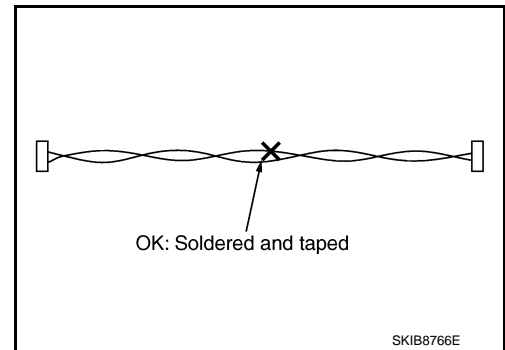
INFOID:000000012796224

ITS communication uses a twisted pair line. Be careful when repairing it.

- Solder the repaired area and wrap tape around the soldered area.

NOTE:

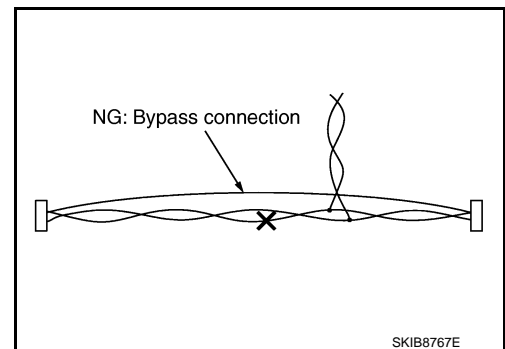
A fray of twisted lines must be within 110 mm (4.33 in).



- Bypass connection is never allowed at the repaired area.

NOTE:

Bypass connection may cause ITS communication error. The spliced wire becomes separated and the characteristics of twisted line are lost.



DCA System Service

INFOID:000000013401433

CAUTION:

- Turn the DCA system OFF in conditions similar to driving, such as free rollers or a chassis dynamometer.
- Erase DTC when replacing parts of DCA system, then check the operation of DCA system after radar alignment if necessary.

PRECAUTION FOR ICC SENSOR

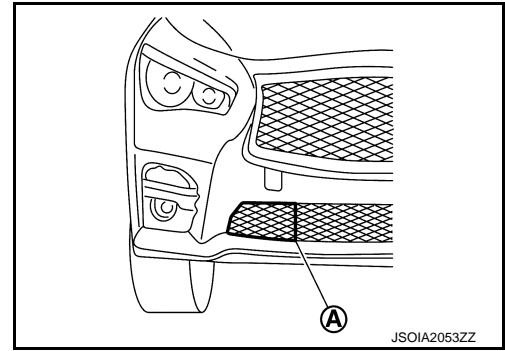
- Never use the ICC sensor removed from vehicle. Never disassemble or remodel.

PRECAUTIONS

[DRIVER ASSISTANCE SYSTEM]

< PRECAUTION >

- Never install a part that the radar irradiation range (A) is interfered with.
- If a part interferes with the radar irradiation range, then the following conditions are caused:
 - The condition of ICC sensor becomes equal to an unclean condition, and this makes it difficult to measure the distance between cars.
 - When it is impossible to measure the distance between cars, the following functions stop and DTC is detected.
- Forward Emergency Braking (FEB)
- Intelligent Cruise Control (ICC)
- Distance Control Assist (DCA)
- Predictive Forward Collision Warning (PFCW)



PFCW System Service

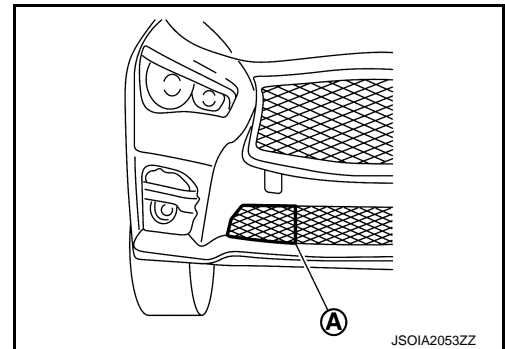
INFOID:000000013401434

CAUTION:

- Turn the PFCW/FEB system OFF in conditions similar to driving, such as free rollers or a chassis dynamometer.
- Erase DTC when replacing parts of ICC system, then check the operation of ICC system after radar alignment if necessary.

PRECAUTION FOR ICC SENSOR

- Never use the ICC sensor removed from vehicle. Never disassemble or remodel.
- Never install a part that the radar irradiation range (A) is interfered with.
- If a part interferes with the radar irradiation range, then the following conditions are caused:
 - The condition of ICC sensor becomes equal to an unclean condition, and this makes it difficult to measure the distance between cars.
 - When it is impossible to measure the distance between cars, the following functions stop and DTC is detected.
- Forward Emergency Braking (FEB)
- Intelligent Cruise Control (ICC)
- Distance Control Assist (DCA)
- Predictive Forward Collision Warning (PFCW)



LDW/LDP System Service

INFOID:000000012796227

WARNING:

Be careful of traffic conditions and safety around the vehicle when performing road test.

CAUTION:

- Never use the LDP system when driving with free rollers or a chassis dynamometer.
- Never perform the active test while driving.
- Never disassemble and remodel the lane camera unit.
- Do not use the lane camera unit that is removed from the vehicle.

Blind Spot Warning/Blind Spot Intervention System Service

INFOID:000000012796228

WARNING:

Be careful of traffic conditions and safety around the vehicle when performing road test.

CAUTION:

- Never use the Blind Spot Intervention system when driving with free rollers or a chassis dynamometer.
- Never perform the active test while driving.
- Never disassemble and remodel the lane camera unit.
- Do not use the lane camera unit that is removed from the vehicle.
- Never change BSW initial state ON ⇒ OFF without the consent of the customer.

TO KEEP THE BLIND SPOT WARNING/BLIND SPOT INTERVENTION SYSTEM OPERATING PROPERLY, BE SURE TO OBSERVE THE FOLLOWING ITEMS:

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PRECAUTIONS

[DRIVER ASSISTANCE SYSTEM]

< PRECAUTION >

Lane Camera Unit Maintenance

The lane camera unit for the LDW/LDP system is located above the inside mirror. To keep the proper operation of the LDW/LDP systems and prevent a system malfunction, be sure to observe the following:

- Always keep the windshield clean.
- Do not attach a sticker (including transparent material) or install an accessory near the camera unit.
- Do not place reflective materials, such as white paper or a mirror, on the instrument panel. The reflection of sunlight may adversely affect the camera unit capability of detecting the lane markers.
- Do not strike or damage the areas around the camera unit.
- Do not touch the camera lens or remove the screw located on the camera unit.

System Maintenance

The two side radar for the Blind Spot Warning and Blind Spot Intervention systems are located near the rear bumper.

- Always keep the area near the side radar clean.
- Do not attach stickers (including transparent material), install accessories or apply additional paint near the side radar.
- Do not strike or damage the area around the side radar.

BCI system service

INFOID:000000012796229

WARNING:

Be careful of traffic conditions and safety around the vehicle when performing road test.

CAUTION:

- **Never use the BCI system when driving with free rollers or a chassis dynamometer.**
- **Never perform the active test while driving.**
- **Never change BCI initial state ON ⇒ OFF without the consent of the customer.**

TO KEEP THE BCI SYSTEM OPERATING PROPERLY, BE SURE TO OBSERVE THE FOLLOWING ITEMS:

System Maintenance

The two side radars for the BCI system are located near the rear bumper.

- Always keep the area near the side radars clean.
- Do not attach stickers (including transparent material), install accessories or apply additional paint near the side radars.
- Do not strike or damage the area around the side radars.

System Maintenance

The four rear sonars for the BCI system are located in the rear bumper.

- Always keep the area near the rear sonars clean.
- Do not attach stickers (including transparent material), install accessories or apply additional paint near the rear sonars.
- Do not strike or damage the area around the rear sonars.

COMPONENT PARTS

< SYSTEM DESCRIPTION >

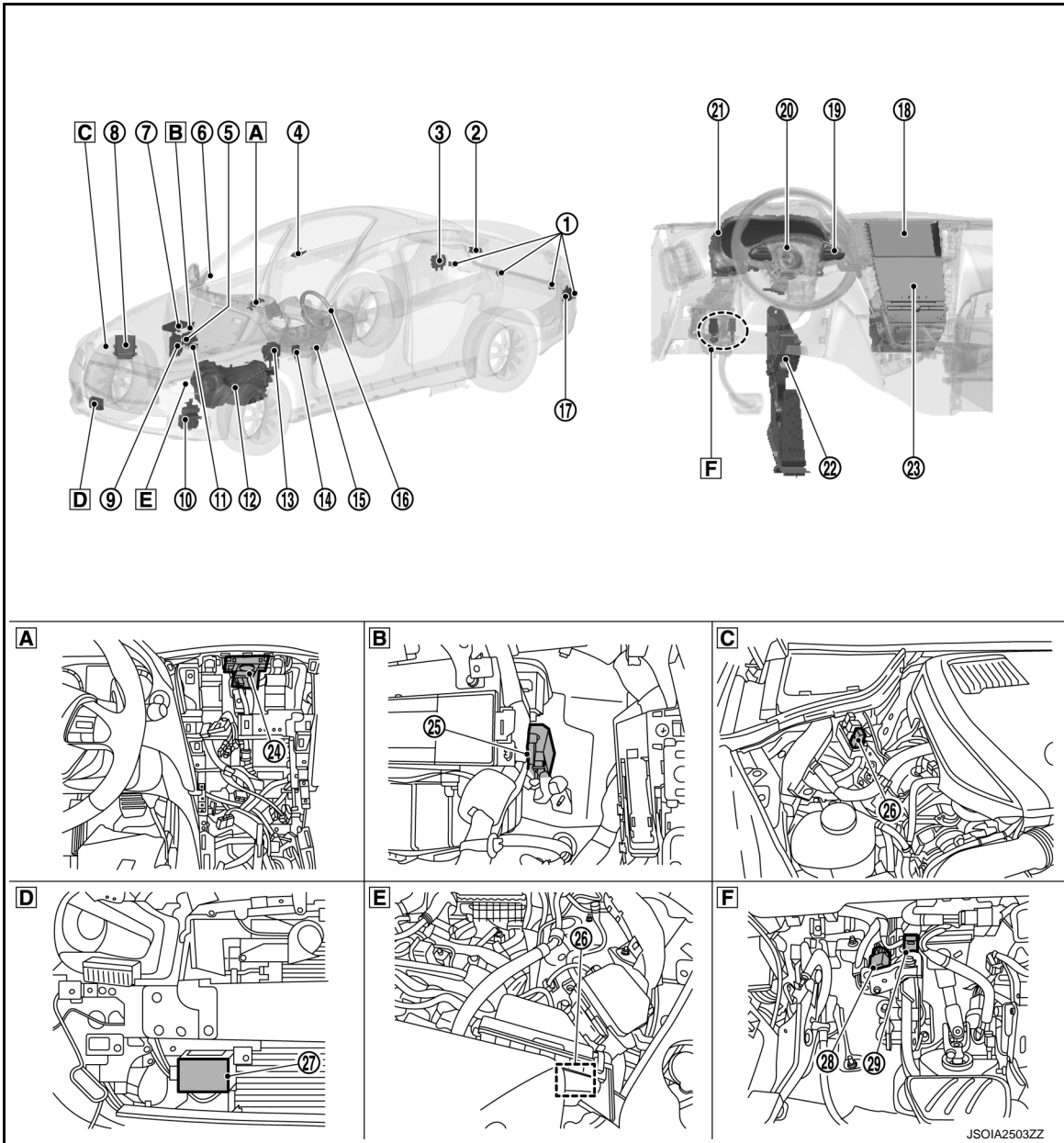
[DRIVER ASSISTANCE SYSTEM]

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:000000012796230



A Instrument panel (Center)

B Instrument lower panel (RH)

C Engine room (RH) (2.0L turbo gasoline engine)

D Front bumper (RH)

E Engine room (LH) (VR30DDTT)

Upper side of brake pedal

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COMPONENT PARTS

[DRIVER ASSISTANCE SYSTEM]

< SYSTEM DESCRIPTION >

No.	Component	Description
①	Sonar sensor (rear)	<ul style="list-style-type: none"> When a distance from an obstacle is detected, a distance signal is transmitted to the sonar control unit. Refer to AV-435, "Component Parts Location" for detailed installation location.
②	ADAS control unit	<ul style="list-style-type: none"> ADAS control unit calculates a target distance between vehicles and a target speed, based on signals received from each sensor and switch to transmit a brake fluid pressure control signal to ABS actuator and electric unit (control unit) via CAN communication ADAS control unit transmits the buzzer output signal to the combination meter via CAN communication ADAS control unit transmits an accelerator pedal feedback force control signal to the accelerator pedal actuator via ITS communication Refer to DAS-16, "Component Parts Location" for detailed installation location.
③	Side radar RH	Refer to DAS-224, "Side Radar LH/RH"
④	Lane camera unit	Refer to DAS-223, "Lane Camera Unit"
⑤	EMCM	<ul style="list-style-type: none"> EMCM transmits the brake pedal position switch signal and stop lamp switch signal to ADAS control unit via CAN communication Refer to EC4-25, "ENGINE CONTROL SYSTEM : Component Parts Location" for detailed installation location.
⑥	Blind Spot Warning/Blind Spot Intervention indicator RH	Refer to DAS-224, "Blind Spot Warning/Blind Spot Intervention Indicator LH/RH"
⑦	ECM (2.0L turbo gasoline engine)	<ul style="list-style-type: none"> ECM transmits the accelerator pedal position signal, ICC brake switch signal, stop lamp switch signal, ICC steering switch signal, etc. to ADAS control unit via CAN communication Refer to EC4-25, "ENGINE CONTROL SYSTEM : Component Parts Location" for detailed installation location.
⑧	ECM (VR30DDTT)	<ul style="list-style-type: none"> ECM transmits the accelerator pedal position signal, ICC brake switch signal, stop lamp switch signal, ICC steering switch signal, etc. to ADAS control unit via CAN communication Refer to EC6-33, "ENGINE CONTROL SYSTEM : Component Parts Location" (USA and Canada) or EC6-1024, "ENGINE CONTROL SYSTEM : Component Parts Location" (Mexico) for detailed installation location.
⑨	BCM	<ul style="list-style-type: none"> Transmits the turn indicator signal and position light request signal to ADAS control unit via CAN communication Refer to BCS-5, "BODY CONTROL SYSTEM : Component Parts Location" for detailed installation location.
⑩	Steering angle main control module	<ul style="list-style-type: none"> Direct adaptive steering system is controlled by three control modules of steering force control module, steering angle main control module and steering angle sub control module. Receives steering reaction force request signal and controls the steering reaction force. Refer to STC-113, "Component Parts Location" for detailed installation location.
⑪	Sonar control unit	<ul style="list-style-type: none"> The warning buzzer outputs by inputting the sensor signal from sonar sensors. Sensor signal that corresponds to the detected distance to an obstacle is transmitted to around view monitor control unit via can communication. Refer to AV-435, "Component Parts Location" for detailed installation location.
⑫	TCM	<ul style="list-style-type: none"> TCM transmits the signal related to A/T control to ADAS control unit. Refer to TM-13, "A/T CONTROL SYSTEM : Component Parts Location" for detailed installation location.
⑬	ABS actuator and electric unit (control unit)	<ul style="list-style-type: none"> ABS actuator and electric unit (control unit) transmits the vehicle speed signal (wheel speed), stop lamp signal and VDC/TCS/ABS system operation condition to ADAS control unit via CAN communication ABS actuator and electric unit (control unit) controls the brake, based on a brake fluid pressure control signal received from ADAS control unit via CAN communication Refer to BRC-10, "Component Parts Location" for detailed installation location.
⑭	Chassis control module	<ul style="list-style-type: none"> Chassis control module transmits the drive mode signal to ADAS control unit via CAN communication Refer to DAS-516, "Component Parts Location" for detailed installation location.

COMPONENT PARTS

< SYSTEM DESCRIPTION >

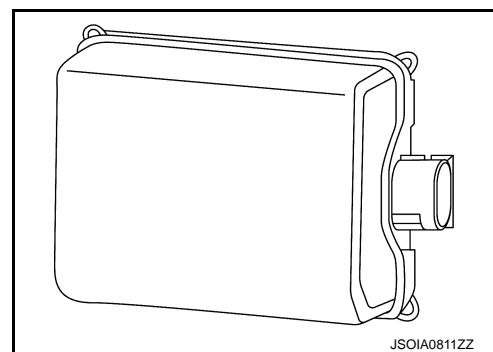
[DRIVER ASSISTANCE SYSTEM]

No.	Component	Description
⑮	Buzzer	<ul style="list-style-type: none"> The warning buzzer sounds with the signal from the sonar control unit. Refer to AV-435, "Component Parts Location" for detailed installation location.
⑯	Blind Spot Warning/Blind Spot Intervention indicator LH	Refer to DAS-224, "Blind Spot Warning/Blind Spot Intervention Indicator LH/RH"
⑰	Side radar LH	Refer to DAS-224, "Side Radar LH/RH"
⑱	Display control unit	<ul style="list-style-type: none"> Display control unit transmits the system selection signal to ADAS control unit via CAN communication Refer to AV-14, "Component Parts Location" for detailed installation location.
⑲	Dynamic driver assistance switch (On the ICC steering switch)	<ul style="list-style-type: none"> ECM receives an ICC steering switch (dynamic driver assistance switch) signal and transmits the signal to ADAS control unit via CAN communication (VR30DDTT) ADAS control unit receives an ICC steering switch (dynamic driver assistance switch) signal (2.0 TURBO GASOLINE ENGINE)
⑳	Steering angle sensor	<ul style="list-style-type: none"> Measures the rotation amount, rotation speed, and rotation direction of steering wheel, and then transmits them to ADAS control unit via CAN communication Refer to BRC-10, "Component Parts Location" for detailed installation location.
㉑	Combination meter	<p>Performs the following operations using the signals received from the ADAS control unit via the CAN communication</p> <ul style="list-style-type: none"> Displays the system operation status using the meter display signal Illuminates the system FEB warning lamp using the FEB warning lamp signal Operates the buzzer using the buzzer output signal Refer to MWI-8, "METER SYSTEM : Component Parts Location" for detailed installation location.
㉒	Accelerator pedal actuator	Refer to DAS-223, "Accelerator Pedal Actuator"
㉓	Integral switch	<ul style="list-style-type: none"> Change each system setting by switch operation Refer to AV-14, "Component Parts Location" for detailed installation location.
㉔	Driver assistance buzzer	Refer to DAS-224, "Driver Assistance Buzzer"
㉕	Driver assistance buzzer control module	Refer to DAS-223, "Driver Assistance Buzzer Control Module"
㉖	ICC brake hold relay	Refer to DAS-222, "ICC Brake Hold Relay"
㉗	ICC sensor	Refer to DAS-221, "ICC Sensor"
㉘	Stop lamp switch	Refer to DAS-222, "Brake Pedal Position Switch / Stop Lamp Switch"
㉙	Brake pedal position switch	

ICC Sensor

INFOID:000000012796231

- ICC sensor is installed on the back of the front bumper and detects a vehicle ahead by using millimeter waves.
- ICC sensor detects radar reflected from a vehicle ahead by irradiating radar forward and calculates a distance from the vehicle ahead and relative speed, based on the detected signal.
- ICC sensor transmits the presence/absence of vehicle ahead and the distance from the vehicle to ADAS control unit via ITS communication.



ICC Steering Switch

INFOID:000000013401958

- ICC steering switch is installed to the steering wheel and allows the driver to operate the ICC system by using this switch.
- ICC steering switch allows the ON/OFF of the Intelligent Cruise Control and the settings of a vehicle speed and distance between vehicles.
- ICC steering switch signal is transmitted to ECM. ECM transmits the signal to the ADAS control unit via CAN communication. (VR30DDTT)

COMPONENT PARTS

[DRIVER ASSISTANCE SYSTEM]

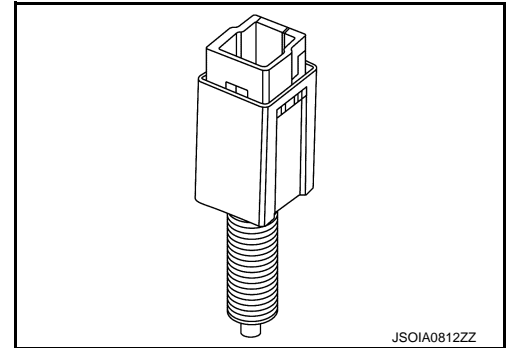
< SYSTEM DESCRIPTION >

- ICC steering switch signal is transmitted to ADAS control unit. ADAS control unit transmits the signal to the ADAS control unit via CAN communication. (2.0 TURBO GASOLINE ENGINE)

Brake Pedal Position Switch / Stop Lamp Switch

INFOID:000000012796233

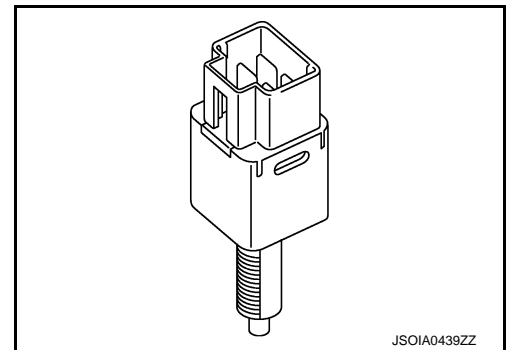
- Brake pedal position switch is installed at the upper part of the brake pedal and detects a brake operation performed by the driver.



- Brake pedal position switch is turned OFF when depressing the brake pedal.
- Brake pedal position switch signal is input to ECM. Brake pedal position switch signal is transmitted from ECM to ADAS control unit via CAN communication. (VR30DDTT)
- Brake pedal position switch signal is input to EMCM. Brake pedal position switch signal is transmitted from EMCM to ADAS control unit via CAN communication. (2.0 TURBO GASOLINE ENGINE)

- Stop lamp switch is installed at the upper part of the brake pedal and detects a brake operation performed by the driver.

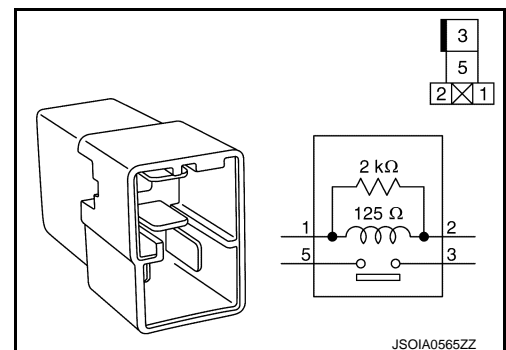
- Stop lamp switch is turned ON, when depressing the brake pedal.
- Stop lamp switch signal is input to ECM and ABS actuator and electric unit (control unit). Stop lamp switch signals are transmitted from ECM and ABS actuator and electric unit (control unit) to ADAS control unit via CAN communication. (VR30DDTT)
- Stop lamp switch signal is input to BCM and ABS actuator and electric unit (control unit). Stop lamp switch signals are transmitted from BCM and ABS actuator and electric unit (control unit) to ADAS control unit via CAN communication. (2.0 TURBO GASOLINE ENGINE)



ICC Brake Hold Relay

INFOID:000000012796234

- ICC brake hold relay is installed in the engine room (right side).
- When the brake is activated by the system, the ICC brake hold relay turns ON the stop lamp by bypassing the circuit of the stop lamp, according to a signal transmitted from the ADAS control unit.



Combination Meter

INFOID:000000012796235

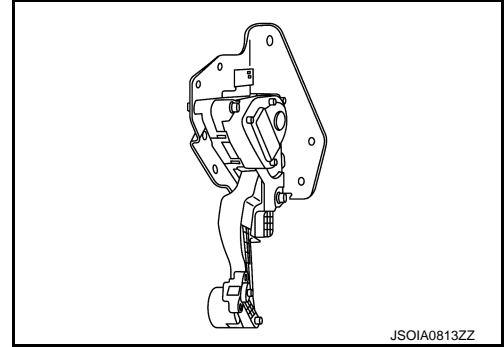
- Receives meter display signal from ADAS control unit via CAN communication.
- Displays the system status according to a signal received from the ADAS control unit.

< SYSTEM DESCRIPTION >

Accelerator Pedal Actuator

INFOID:000000012796236

- Installed to the upper portion of the accelerator pedal, this consists of the accelerator pedal actuator together with the accelerator pedal position sensor, and is linked with the accelerator pedal.
- If accelerator pedal feedback force control signal is received from ADAS control unit via ITS communication, it operates the integrated motor for applying control to move the accelerator pedal upward.



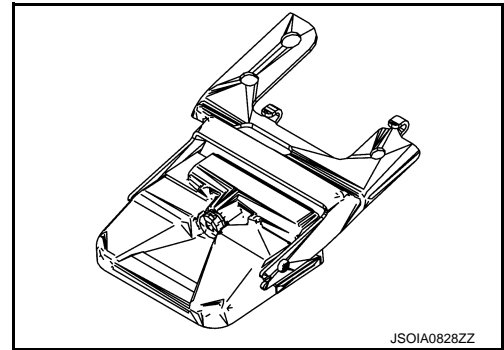
Lane Camera Unit

INFOID:000000012796237

Lane camera unit detects the lane marker in travel lane and located above the inside mirror.

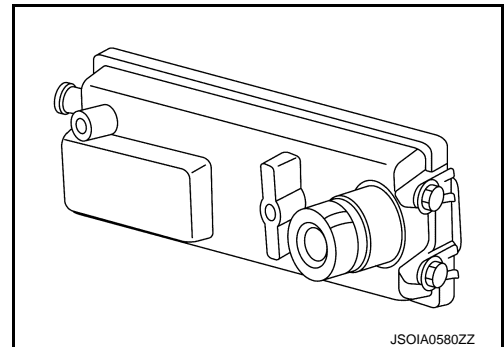
WITH DIRECT ADAPTIVE STEERING SYSTEM

Transmits lane marker signal to Chassis Control Module via Chassis communication.



WITHOUT DIRECT ADAPTIVE STEERING SYSTEM

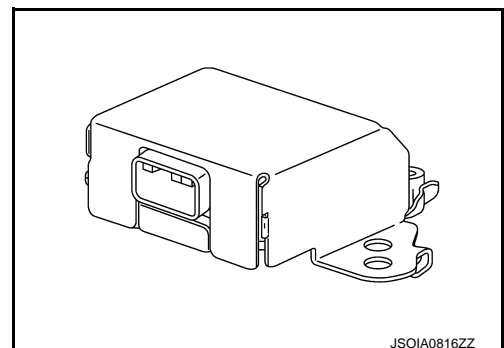
Transmits lane marker signal to ADAS control unit via ITS communication.



Driver Assistance Buzzer Control Module

INFOID:000000012796238

- Driver assistance buzzer control module is installed at the behind of glove box.
- When driver assistance buzzer signal is received from the ADAS control unit, the driver assistance buzzer control module transmits the warning buzzer signal to driver assistance buzzer.



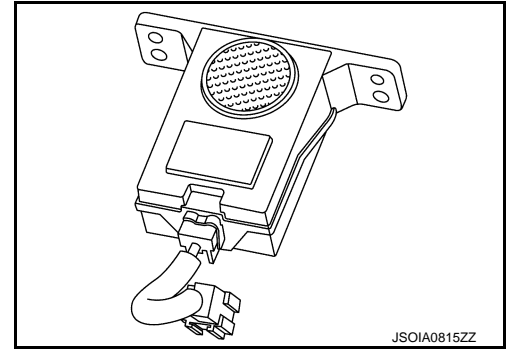
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Driver Assistance Buzzer

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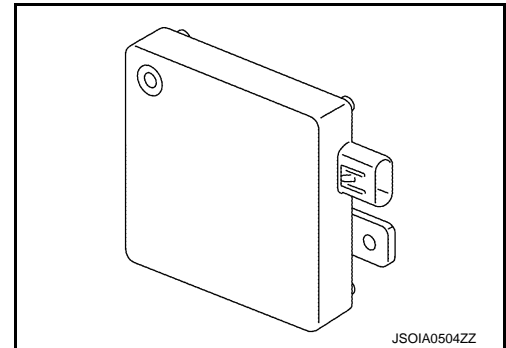
- Driver assistance buzzer is installed at the behind the display control unit.
- When a warning buzzer signal is received from the driver assistance buzzer control module, the driver assistance buzzer sounds a buzzer.



Side Radar LH/RH

INFOID:000000012796240

- Installed near the rear bumper, the side radar detects other vehicles beside own vehicle in an adjacent lane.
- Connected with the ADAS control unit via ITS communication, the side radar transmits a vehicle detection signal.
- Receives a Blind Spot Warning/Blind Spot Intervention indicator signal and a Blind Spot Warning/Blind Spot Intervention indicator dimmer signal from the ADAS control unit and transmits an indicator operation signal to the Blind Spot Warning/Blind Spot Intervention indicator LH/RH.
- Since side radar RH and side radar LH have the same specifications, side radar RH has the right/left switching signal circuit for identification.



Blind Spot Warning/Blind Spot Intervention Indicator LH/RH

INFOID:000000012796241

- Installed on the front door corner cover, the Blind Spot Warning/Blind Spot Intervention indicator warns the driver by lighting/blinking.
- Receives a Blind Spot Warning/Blind Spot Intervention indicator operation signal from the side radar LH/RH and blinks or turns ON/OFF the Blind Spot Warning/Blind Spot Intervention indicator.

Dynamic Driver Assistance Switch

INFOID:000000012796242

- Dynamic driver assistance switch is integrated in ICC steering switch.
- ICC steering switch is input to ADAS control unit.

NOTE:

Dynamic driver assistance switch is shared with following systems.

- Distance Control Assist (DCA)
- Lane Departure Prevention (LDP)
- Blind Spot Intervention

< SYSTEM DESCRIPTION >

SYSTEM

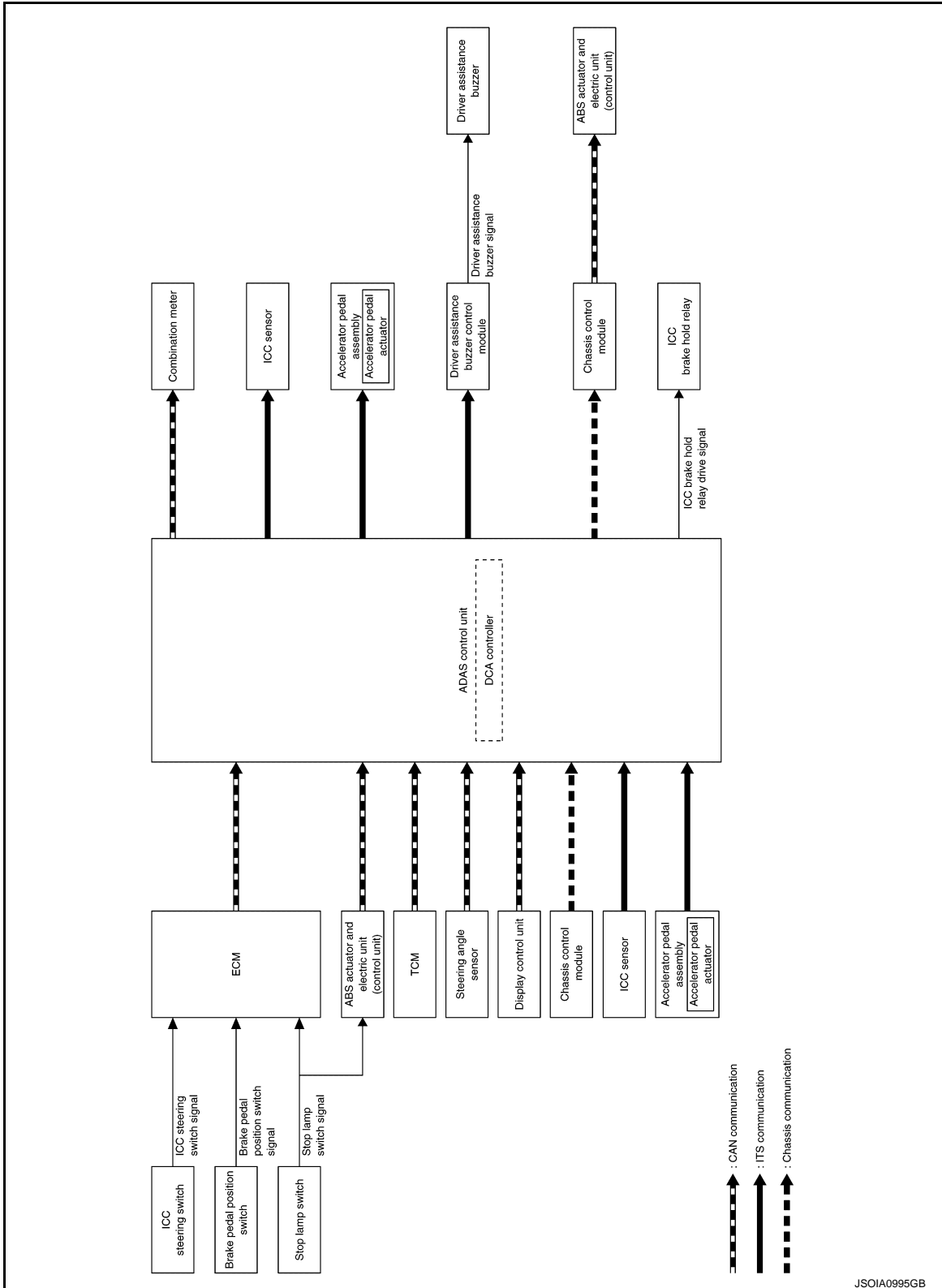
DCA

DCA : System Description

INFOID:000000012796243

SYSTEM DIAGRAM

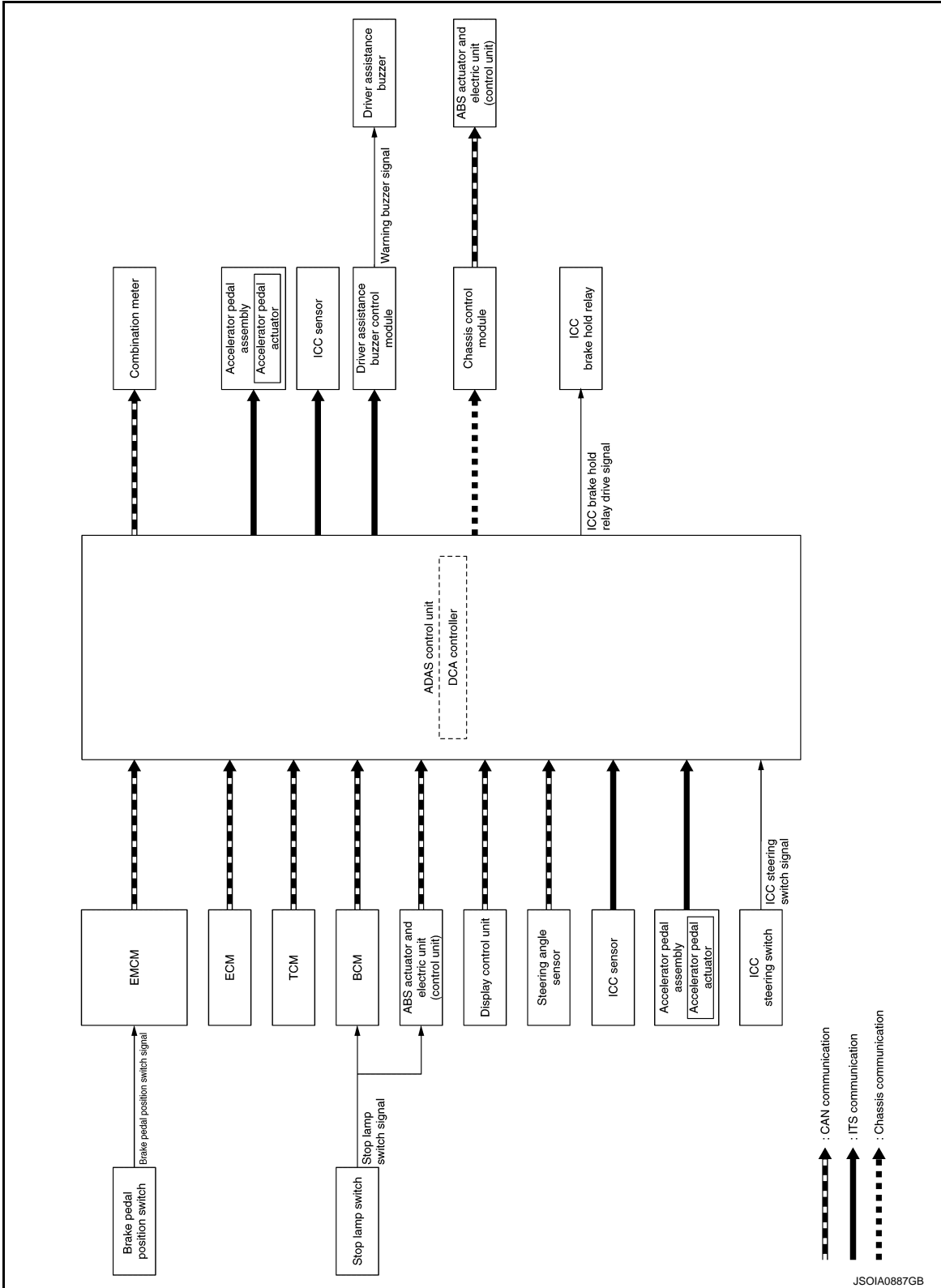
VR30DDTT



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NOTE:

TCM is connected to drivetrain CAN communication and transmits a CAN communication signal to ADAS control unit via ECM.

ADAS CONTROL UNIT INPUT/OUTPUT SIGNAL ITEM

Input Signal Item

SYSTEM

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Transmit unit	Signal name		Description
ECM	CAN communication	Idle switch signal	Receives idle position state (ON/OFF)
		Closed throttle position signal	Receives idle position state (ON/OFF)
		Accelerator pedal position signal	Receives accelerator pedal position (angle)
		Engine speed signal	Receives engine speed
		Stop lamp switch signal	Receives an operational state of the brake pedal
		Brake pedal position switch signal*1	Receives an operational state of the brake pedal
		ICC steering switch signal	Dynamic driver assistance switch signal
EMCM*2	CAN communication	Brake pedal position switch signal	Receives an operational state of the brake pedal
TCM (Via ECM*2)	CAN communication	Input speed signal	Receives the number of revolutions of input shaft
		Current gear position signal	Receives a current gear position
		Shift position signal	Receives a selector lever position
		Output shaft revolution signal	Receives the number of revolutions of output shaft
ABS actuator and electric unit (control unit)	CAN communication	ABS malfunction signal	Receives a malfunction state of ABS
		ABS operation signal	Receives an operational state of ABS
		ABS warning lamp signal	Receives an ON/OFF state of ABS warning lamp
		TCS malfunction signal	Receives a malfunction state of TCS
		TCS operation signal	Receives an operational state of TCS
		VDC OFF switch signal	Receives an ON/OFF state of VDC
		VDC malfunction signal	Receives a malfunction state of VDC
		VDC operation signal	Receives an operational state of VDC
		Vehicle speed signal (ABS)	Receives wheel speeds of four wheels
		Yaw rate signal	Receives yaw rate acting on the vehicle
Steering angle sensor	CAN communication	Steering angle sensor malfunction signal	Receives a malfunction state of steering angle sensor
		Steering angle sensor signal	Receives the number of revolutions, turning direction of the steering wheel
		Steering angle speed signal	Receives the turning angle speed of the steering wheel
Display control unit	CAN communication	System selection signal	Receives a selection state of each item in "Driver Aids" selected with the integral switch
ICC sensor	ITS communication	ICC sensor signal	Receives detection results, such as the presence or absence of a leading vehicle and distance from the vehicle
Accelerator pedal actuator	ITS communication	Accelerator pedal actuator operation status signal	Receives an operational state of accelerator pedal actuator

*1: VR30DDTT engine models

*2: 2.0L turbo gasoline engine models

Output Signal Item

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SYSTEM

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Reception unit	Signal name		Description
ABS actuator and electric unit (control unit)	CAN communication	Brake fluid pressure control signal	Transmits a brake fluid pressure control signal to activates the brake
Combination meter	CAN communication	Meter display signal	Transmits a signal to display a state of the system on the information display
		Vehicle ahead detection indicator signal DCA system display signal	
ICC sensor	ITS communication	Vehicle speed signal	Transmits a vehicle speed calculated by the ADAS control unit
		Steering angle sensor signal	Transmits a steering angle sensor signal received from the steering angle sensor
Accelerator pedal actuator	ITS communication	Accelerator pedal position signal	Transmits an accelerator pedal angle calculated by the ADAS control unit
		Accelerator pedal feedback force control signal	Transmits a target actuation force value calculated by the ADAS control unit
Driver assistance buzzer control module	ITS communication	Driver assistance buzzer signal	Transmits a driver assistance buzzer signal to active the buzzer
ICC brake hold relay	ICC brake hold relay drive signal		Activates the brake hold relay and turns ON the stop lamp

FUNCTION DESCRIPTION

When a vehicle is detected ahead

- The vehicle ahead detection indicator comes ON.

When vehicle approaches a vehicle ahead

- If the driver is not depressing the accelerator pedal, the system activates the brakes to decelerate smoothly as necessary. If the vehicle ahead comes to a stop, the vehicle decelerates to a standstill within the limitations of the system.
- If the driver is depressing the accelerator pedal, the system moves the accelerator pedal upward to assist the driver to release the accelerator pedal.

When brake operation by driver is required

- The system alerts the driver by a warning chime and blinking the vehicle ahead detection indicator. If the driver is depressing the accelerator pedal after the warning, the system moves the accelerator pedal upward to assist the driver to switch to the brake pedal.

CAUTION:

If the vehicle ahead comes to a standstill, the vehicle decelerates to a standstill within the limitations of the system. The system will release brake control with a warning chime once it judges the vehicle is at a standstill. To prevent the vehicle from moving, the driver must depress the brake pedal. [The system will resume control automatically once the system reaches 5 km/h (3 MPH)].

NOTE:

- Depending on the position of the accelerator pedal, the system may not be able to assist the driver to release the accelerator pedal appropriately.
- When the driver depresses the accelerator pedal even further while the system is moving the accelerator pedal upward, the accelerator pedal control will be canceled.
- When the driver is depressing the accelerator pedal, the brake control by the system is not operated.
- When the driver is depressing the brake pedal, neither the brake control nor the alert by the system operates.
- When the ICC system is set, the DCA system will be canceled.
- Setting of DCA is performed in synchronization with the log-in function of on-board personal assistant. For details of the log-in function, refer to [DMS-17, "LOG-IN FUNCTION : System Description"](#).

OPERATION DESCRIPTION

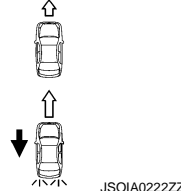
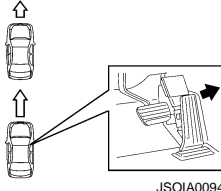
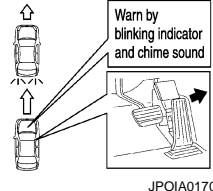
ICC sensor calculates a distance from a vehicle ahead and a relative speed to transmit the ICC sensor signal to the ADAS control unit via ITS communication. Based on the received signal, the ADAS control unit trans-

SYSTEM

[DRIVER ASSISTANCE SYSTEM]

< SYSTEM DESCRIPTION >

mits a control signal to the accelerator pedal actuator via ITS communication and to the ABS actuator control unit (control unit) via CAN communication.

When vehicle approaches a vehicle ahead	If the driver is not depressing the accelerator pedal, the system activates the brakes to decelerate smoothly as necessary	
	If the driver is depressing the accelerator pedal, the system moves the accelerator pedal upward to assist the driver to release the accelerator pedal	
When brake operation by driver is required	The system alerts the driver by a warning chime and blinking the vehicle ahead detection indicator. If the driver is depressing the accelerator pedal after the warning, the system moves the accelerator pedal upward to assist the driver to switch to the brake pedal	

Deceleration control	It transmits the brake fluid pressure control signal to the ABS actuator and electric unit (control unit) via chassis control module and performs the brake control
Accelerator pedal actuation control	It transmits the accelerator pedal feedback force control signal to the accelerator pedal actuator via ITS communication and controls the accelerator pedal in the upward direction

Operation Condition

ADAS control unit performs the control when the following conditions are satisfied.

- When the dynamic driver assistance switch is turned to ON.
- When the DCA system display is ON (green). (Dynamic driver assistance icon ON in "Forward" position)
- When the brake pedal is not depressed.
- When the vehicle speed is above approximately 5 km/h (3 MPH).
- When the vehicle ahead is detected.
- When the ICC system is not set.

No Operation Condition

The ADAS control unit is not operate when the system is under any conditions of the no operation condition.

- When the brake pedal depressed.
- When the ICC system is set.
- When the system judges that the vehicle comes to a standstill by the system control.
- When the vehicle ahead is not detected.

Operation Cancellation Condition

The ADAS control unit cancels the operation when the system is under any conditions of the operation cancellation condition.

- When the dynamic driver assistance switch is turned to OFF.
- When the system malfunction occurs.
- When ABS or VDC (including the TCS) operates.
- When the VDC is turned OFF.
- When the drive mode select switch is in SNOW position.
- When the front bumper grille near the ICC sensor is dirty and the measurement of the distance between the vehicles becomes difficult.

Operation At The Driver Operation

Give priority to the driver operation in the following situation.

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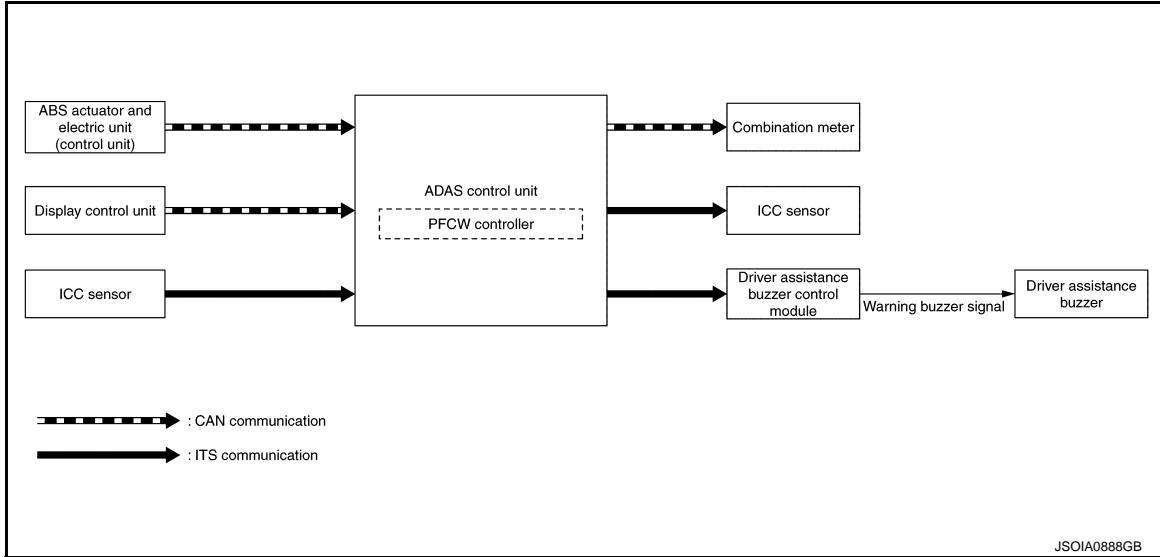
- When the accelerator pedal is depressed again.
- When the brake pedal is depressed.

PFCW

PFCW : System Description

INFOID:000000012796244

SYSTEM DIAGRAM



ADAS CONTROL UNIT INPUT/OUTPUT SIGNAL ITEM

Input Signal Item

Transmit unit	Signal name		Description
ABS actuator and electric unit (control unit)	CAN communication	Vehicle speed signal (ABS)	Receives wheel speeds of four wheels
Display control unit	CAN communication	System selection signal	Receives a selection state each item in "Driver Aids" selected with the integral switch
ICC sensor	ITS communication	ICC sensor signal	Receives detection results, such as the presence or absence of a leading vehicle and distance from the vehicle

Output Signal Item

Reception unit	Signal name		Description
Combination meter	CAN communication	Meter display signal	Transmits a signal to display a state of the system on the information display
		PFCW/FEB system indicator signal	Transmits a signal to turn ON the PFCW/FEB system indicator
ICC sensor	ITS communication	Vehicle speed signal	Transmits a vehicle speed calculated by the ADAS control unit
Driver assistance buzzer control module	ITS communication	Driver assistance buzzer signal	Transmits a driver assistance buzzer signal to activate the buzzer

DESCRIPTION

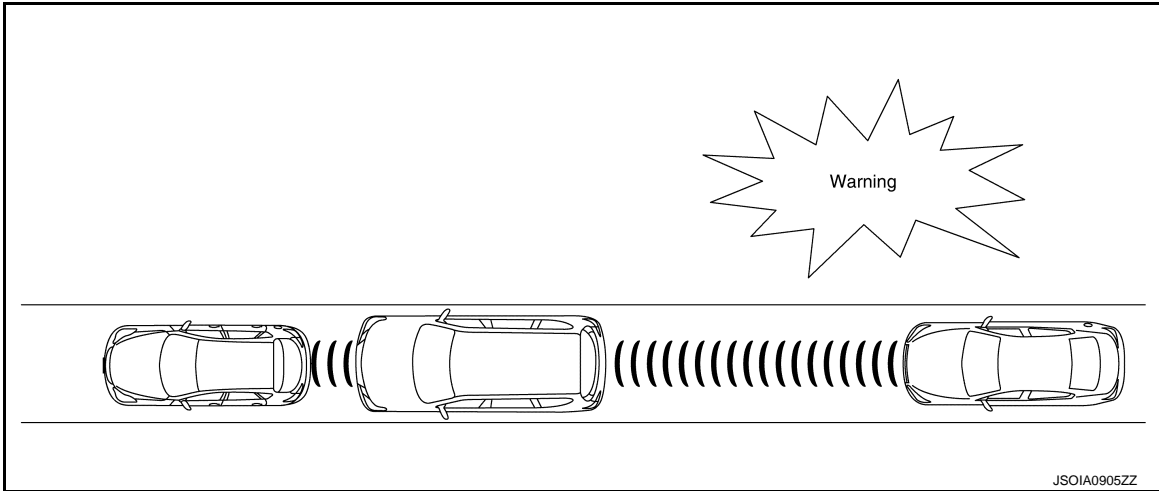
- The PFCW system will function when own vehicle is driven at speeds of approximately 5 km/h (3 MPH) and above.

SYSTEM

[DRIVER ASSISTANCE SYSTEM]

< SYSTEM DESCRIPTION >

- The Predictive Forward Collision Warning (PFCW) System alerts the driver by the vehicle ahead detection indicator and chime when the distance between own vehicle and a vehicle in front of the vehicle ahead becomes closer.



NOTE:

The PFCW/FEB system shares the diagnosis function with ICC/DCA system.

FUNCTION DESCRIPTION

The distance from the vehicle in front of the vehicle ahead and a relative speed are calculated by using the ICC sensor and an ICC sensor signal is transmitted to the ADAS control unit via ITS communication. When judging the necessity of warning according to the received ICC sensor signal, the ADAS control unit transmits a driver assistance buzzer signal to the chassis control module via ITS CAN and meter display signal to the combination meter via CAN communication.

PFCW Operating Condition

- PFCW/FEB system display (white): ON (Speaker icon ON in "Forward" position)
- Vehicle speed: Approximately 5 km/h (3 MPH) and above.
- Vehicle in front of the vehicle ahead: Detected.

NOTE:

- ON/OFF of PFCW/FEB system is performed with the integral switch.
- Setting of PFCW/FEB is performed in synchronization with the log-in function of on-board personal assistant. For details of the log-in function, refer to [DMS-17. "LOG-IN FUNCTION : System Description"](#).

LDW (WITH DIRECT ADAPTIVE STEERING SYSTEM)

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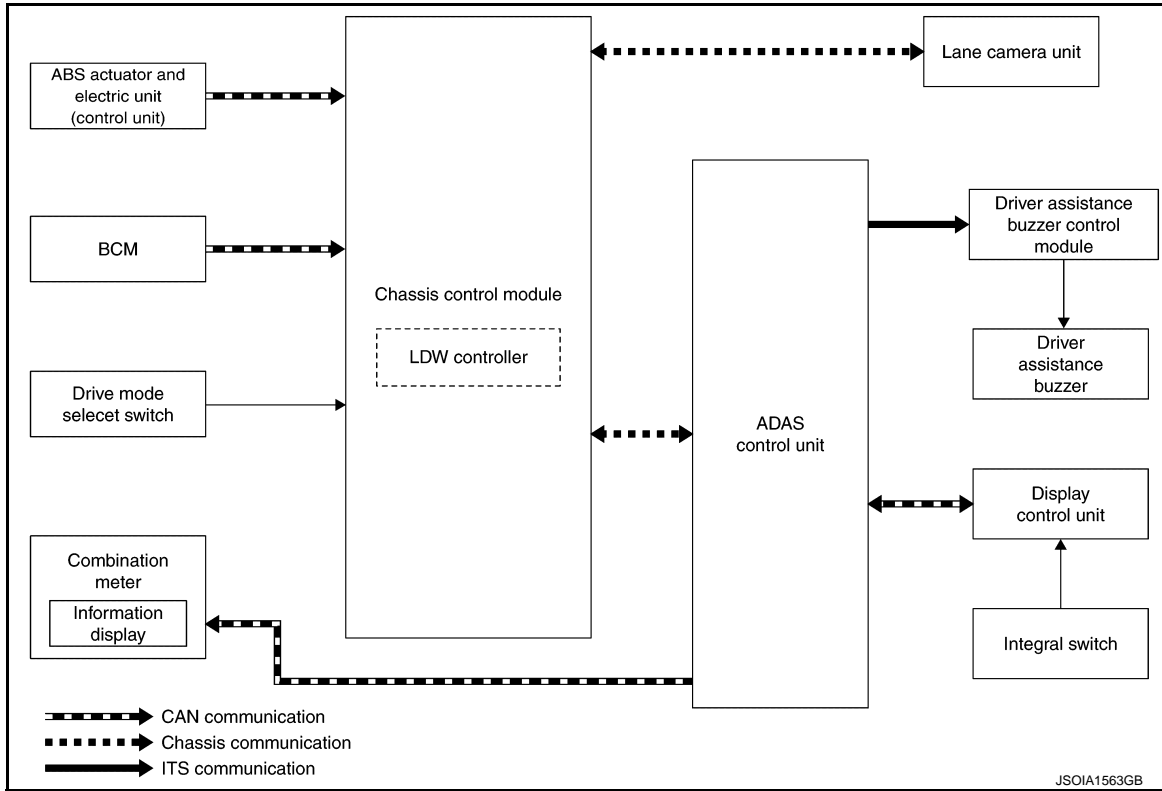
< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

LDW (WITH DIRECT ADAPTIVE STEERING SYSTEM) : System Description

INFOID:000000013403087

SYSTEM DIAGRAM



INPUT/OUTPUT SIGNAL ITEM

Reception unit	Transmit unit	Signal name		Description
Chassis control module	Lane camera unit	Chassis communication	Detected lane condition signal	Receives detection results of lane marker
			Lane camera unit condition signal	Receives lane camera unit condition
	ABS actuator and electric unit (control unit)	CAN communication	Vehicle speed signal (ABS)	Receives wheel speeds of front wheels
	BCM	CAN communication	Turn indicator signal	Receives an operational state of the turn signal lamp and the hazard lamp
			Front wiper request signal	Receives an operational state of the front wiper
	ADAS control unit	Chassis communication	LDW ON signal	Receives an ON/OFF state of LDW
Drive mode select switch	Hard wire	Drive mode select switch signal	Detects the snow mode selection.	
ADAS control unit	Display control unit	CAN communication	System selection signal	Receives a selection state of each item in "Driver Aids" selected with the integral switch.

SYSTEM

< SYSTEM DESCRIPTION >

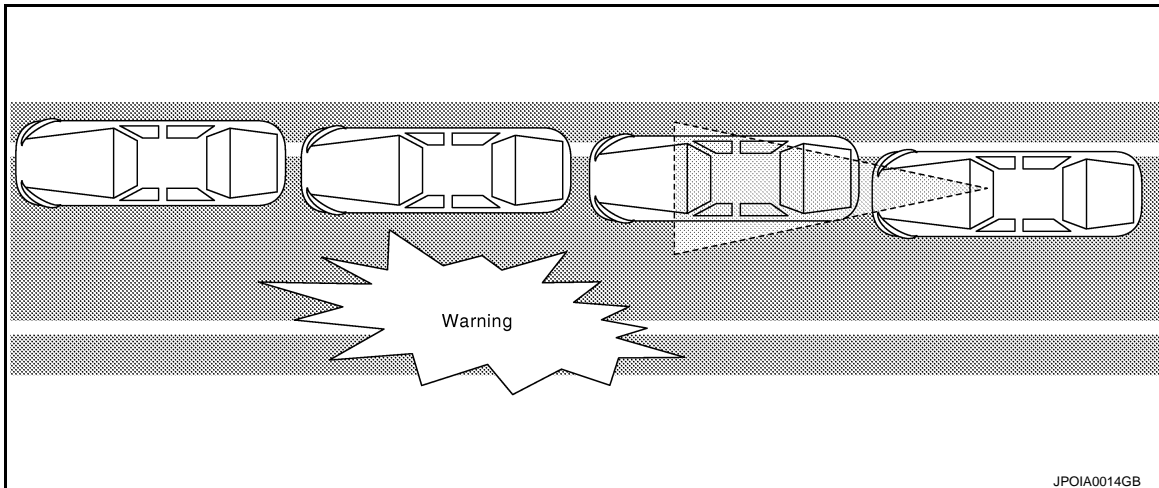
[DRIVER ASSISTANCE SYSTEM]

Reception unit	Transmit unit	Signal name		Description
Lane camera unit	Chassis control module	Chassis communication	Vehicle speed signal	Transmits a vehicle speed calculated by the chassis control module
			Turn indicator signal	Transmits a turn indicator signal received from BCM
Chassis communication		LDW system display signal	Transmits a signal to display a state of the system on the information display	
		Warning buzzer signal	Transmits warning buzzer signal to activates the warning buzzer	
Combination meter (Via ADAS control unit)				
Driver assistance buzzer control module (Via ADAS control unit)				

FUNCTION DESCRIPTION

- Lane Departure Warning (LDW) system provides a lane departure warning function when the vehicle is driven at speeds of approximately 70 km/h (45 MPH) or more.
- When the vehicle approaches either the left or the right side of the traveling lane, a warning will sound and LDW system display on the combination meter will blink to alert the driver.
- The warning does not occur during turn signal operation (Lane change side).
- The warning function will stop when the vehicle returns inside of the lane markers.

EXAMPLE



When the vehicle approaches the right lane marker, the driver is alerted by the buzzer and the blinking of LDW system display.

NOTE:

For details of LDW system indication on the combination meter, refer to [DAS-266, "PFCW/LDW/BSW : Menu Displayed by Pressing Each Switch"](#).

OPERATION DESCRIPTION

- LDW system is controlled by chassis control module and ADAS control unit.
- When the system is turned ON by operating the warning systems switch, ADAS control transmits LDW ON signal to combination meter via CAN communication.
- Lane camera unit monitors lane markers of the traveling lane and transmits the detected lane condition signal to chassis control module via chassis communication.
- When judging from a lane marker detection signal that the vehicle is approaching the lane marker, chassis control module controls the following items.
 - Transmits LDW system display signal and warning buzzer signal to ADAS control unit via chassis communication.
- ADAS control unit controls the following items according to the signals from chassis control module.
 - Transmits warning buzzer signal to warning buzzer through driver assistance buzzer control module via ITS communication.
 - Transmits LDW system display signal to combination meter via CAN communication.
- Combination meter displays LDW system display on the vehicle information display.

< SYSTEM DESCRIPTION >

OPERATING CONDITION

- LDW system display (white): ON (Speaker icon ON in “Lane” position)
- Vehicle speed: approximately 70 km/h (45 MPH) or more
- Turn indicator signal: After 2 seconds or more from turned OFF

NOTE:

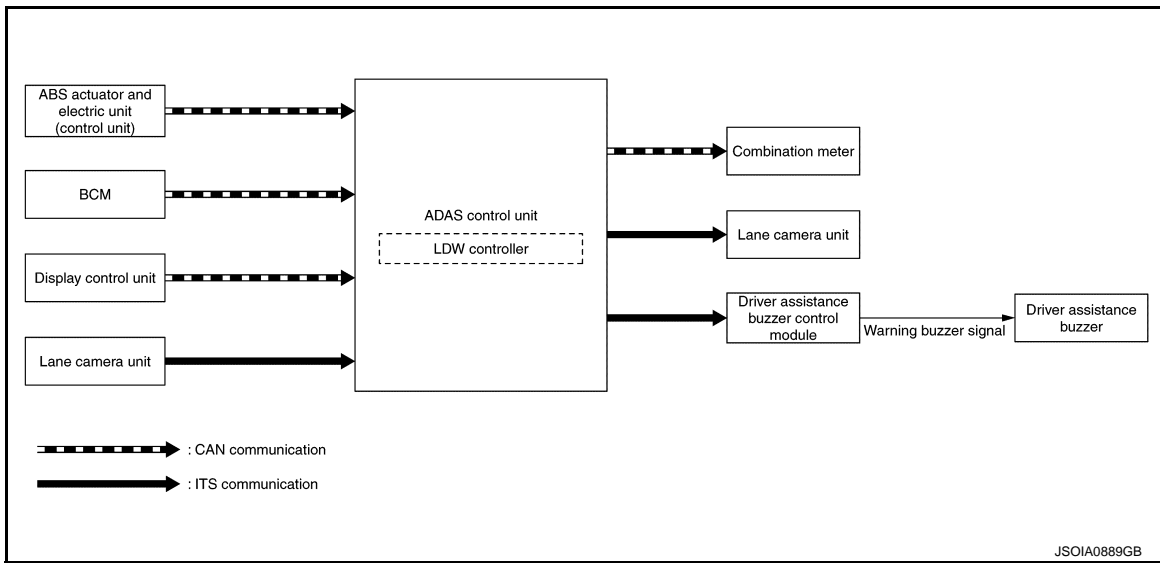
- LDW system ON/OFF can be set on the integral switch.
- After the operating conditions of warning are satisfied, the warning continues until the vehicle speed reaches approximately 60 km/h (37 MPH)
- LDP system is OFF. (Dynamic driver assistance icon OFF in “Lane” position).
- LDW system may not function properly, depending on the situation. Refer to [DAS-283, "Precautions for Lane Departure Warning/Lane Departure Prevention"](#)

LDW (WITHOUT DIRECT ADAPTIVE STEERING SYSTEM)

LDW (WITHOUT DIRECT ADAPTIVE STEERING SYSTEM) : System Description

INFOID:000000013403088

SYSTEM DIAGRAM



ADAS CONTROL UNIT INPUT/OUTPUT SIGNAL ITEM

Input Signal Item

Transmit unit	Signal name		Description
ABS actuator and electric unit (control unit)	CAN communication	Vehicle speed signal (ABS)	Receives wheel speeds of four wheels
BCM	CAN communication	Turn indicator signal	Receives an operational state of the turn signal lamp and the hazard lamp
Display control unit	CAN communication	System selection signal	Receives a selection state of each item in “Driver Aids” selected with the integral switch
Lane camera unit	ITS communication	Detected lane condition signal	Receives detection results of lane marker

Output Signal Item

SYSTEM

< SYSTEM DESCRIPTION >

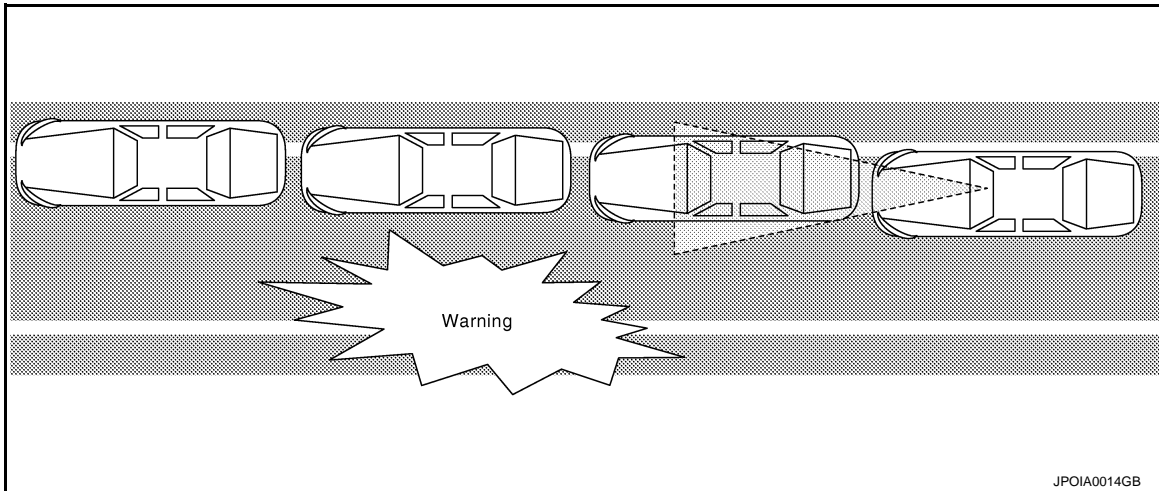
[DRIVER ASSISTANCE SYSTEM]

Reception unit	Signal name		Description
Combination meter	CAN communication	Meter display signal LDW system display signal	Transmits a meter display signal to turn ON the LDW system display
Lane camera unit	ITS communication	Vehicle speed signal	Transmits a vehicle speed calculated by the ADAS control unit
		Turn indicator signal	Transmits a turn indicator signal received from BCM
Driver assistance buzzer	Driver assistance buzzer signal		Transmits a warning buzzer signal to activates the buzzer

FUNCTION DESCRIPTION

- Lane Departure Warning (LDW) system provides a lane departure warning function when the vehicle is driven at speeds of approximately 60 km/h (37 MPH) or more.
- When the vehicle approaches either the left or the right side of the traveling lane, a warning will sound and the lane departure warning lamp (yellow) on the combination meter will blink to alert the driver.
- The warning does not occur during turn signal operation (Lane change side).
- The warning function will stop when the vehicle returns inside of the lane markers.

EXAMPLE



When the vehicle approaches the right lane marker, the driver is alerted by the buzzer and the blinking of LDW warning display (yellow).

OPERATION DESCRIPTION

- Lane camera unit monitors lane markers of the traveling lane. It transmits the detected lane condition signal to ADAS control unit via ITS communication.
- When judging from a lane marker detection signal that the vehicle is approaching the lane marker, the ADAS control unit controls the following item to alert the driver.
 - Activates warning buzzer by driver assistance buzzer control module.
 - ADAS control unit transmits a meter display signal to combination meter via CAN communication and turns ON/OFF the LDW system display.

OPERATING CONDITION

- LDW system display (white): ON (Speaker icon ON in "Lane" position)
- Vehicle speed: approximately 60 km/h (37 MPH) or more
- Turn indicator signal: After 2 seconds or more from turned OFF

NOTE:

- LDW system ON/OFF can be set on the integral switch.
- After the operating conditions of warning are satisfied, the warning continues until the vehicle speed reaches approximately 50 km/h (32 MPH)
- LDP system is OFF. (Dynamic driver assistance icon OFF in "Lane" position)
- The LDW system may not function properly, depending on the situation. Refer to [DAS-283, "Precautions for Lane Departure Warning/Lane Departure Prevention"](#)

LDP (WITH DIRECT ADAPTIVE STEERING SYSTEM)

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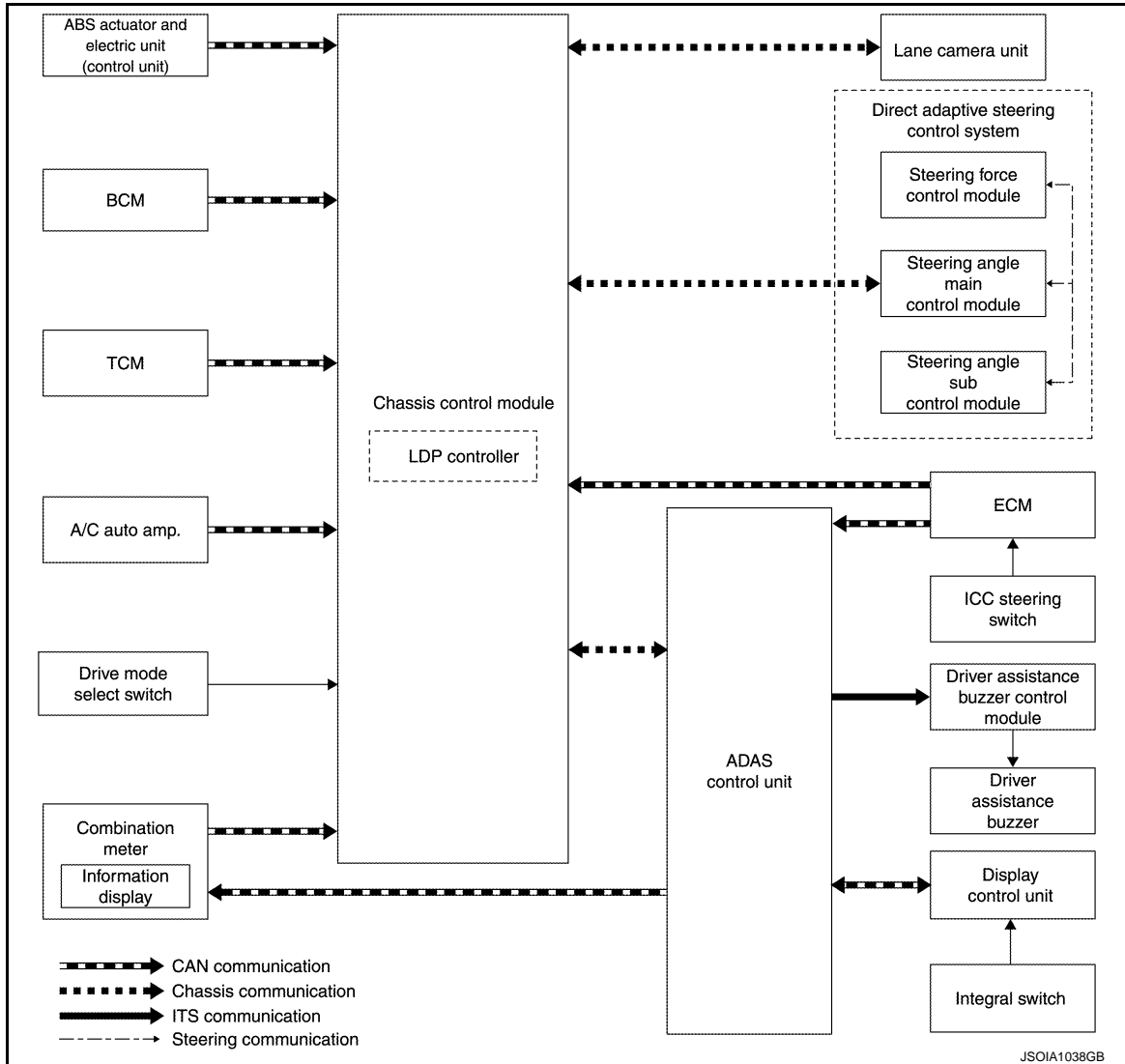
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[DRIVER ASSISTANCE SYSTEM]

LDP (WITH DIRECT ADAPTIVE STEERING SYSTEM) : System Description

INFOID:000000013403089

SYSTEM DIAGRAM



INPUT/OUTPUT SIGNAL ITEM

SYSTEM

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Reception unit	Transmit unit	Signal name		Description
Chassis control module	Lane camera unit	Chassis communication	Detected lane condition signal	Receives detection results of lane marker
			Lane camera unit condition signal	Receives lane camera unit condition
	Steering angle main control module	Chassis communication	Direct adaptive steering status signal	Receives status of Direct Adaptive Steering
			Direct adaptive steering malfunction signal	Receives a malfunction state of Direct Adaptive Steering
			Steering force actuator status signal	Receives torque state of steering force actuator.
			ALC permission signal	Receives a permission state of the ALC.
	ABS actuator and electric unit (control unit)	CAN communication	ABS malfunction signal	Receives a malfunction state of ABS
			ABS operation signal	Receives an operational state of ABS
			VDC OFF switch signal	Receives an ON/OFF state of VDC
			VDC malfunction signal	Receives a malfunction state of VDC
			VDC operation signal	Receives an operational state of VDC
			EBD operation signal	Receives an operational state of EBD
			Vehicle speed signal (ABS)	Receives wheel speeds of front wheels
			Yaw rate signal	Receives yaw rate acting on the vehicle
			Side G sensor signal	Receives lateral G acting on the vehicle
	Stop lamp switch	Receives stop lamp switch state		
	ECM	CAN communication	Accelerator pedal position signal	Receives accelerator pedal position (angle)
	BCM	CAN communication	Turn indicator signal	Receives an operational state of the turn signal lamp and the hazard lamp
			Front wiper request signal	Receives an operational state of the front wiper
	TCM	CAN communication	Current gear position signal	Receives a current gear position
Shift position signal			Receives a selector lever position	
A/C auto amp.	CAN communication	Ambient temperature signal	Receives an ambient temperature	
ADAS control unit	Chassis communication	LDP ON signal	Receives an ON/OFF state of LDP	
Combination meter	CAN communication	Parking brake switch signal	Receives an operational state of the parking brake	
Drive mode select switch	Hard wire	Drive mode select switch signal	Detects the snow mode selection.	
ADAS control unit	ICC steering switch	Hard wire	Dynamic driver assistance switch signal	Detects the operational state of the dynamic driver assistance switch.
	Display control unit	CAN communication	System selection signal	Receives a selection state of each item in "Driver Aids" selected with the integral switch.

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< SYSTEM DESCRIPTION >

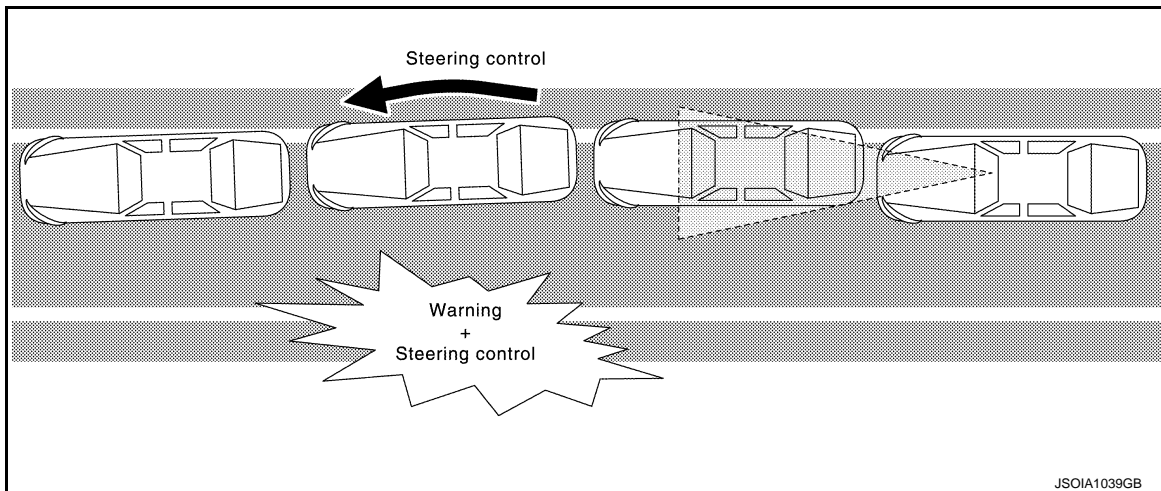
[DRIVER ASSISTANCE SYSTEM]

Reception unit	Transmit unit	Signal name		Description
Steering angle main control module	Chassis control module	Chassis communication	Steering angle request signal	Transmits steering angle request signal
Lane camera unit		Chassis communication	Vehicle speed signal	Transmits a vehicle speed calculated by the chassis control module
			Turn indicator signal	Transmits a turn indicator signal received from BCM
Combination meter (Via ADAS control unit)		Chassis communication	LDP system display signal	
Driver assistance buzzer control module (Via ADAS control unit)	Warning buzzer signal		Transmits warning buzzer signal to activates the warning buzzer	

FUNCTION DESCRIPTION

- Lane Departure Prevention (LDP) system provides a lane departure warning and steering control assistance when the vehicle is driven at speeds of approximately 70 km/h (45 MPH) or more.
- When the vehicle approaches either the left or the right side of the traveling lane, a warning sounds and the LDP system display on the combination meter blinks to alert the driver. Then, the LDP system automatically applies the steering to help assist the driver to return the vehicle to the center of the traveling lane.
- Warning and steering control are not performed during turn signal operation (lane change side).
- The warning and assist functions stop when the vehicle returns to a position inside of the lane marker.

EXAMPLE



When the vehicle approaches the right lane marker, the driver is alerted by the buzzer and the blinking of LDP system display. Simultaneously, the steering is controlled to return the vehicle to the lane.

NOTE:

For details of LDP system indication on the combination meter, refer to [DAS-272, "DCA/LDP/BLIND SPOT INTERVENTION : Menu Displayed by Pressing Each Switch"](#).

OPERATION DESCRIPTION

- LDP system is controlled by chassis control module and ADAS control unit.
- When the system is turned ON by dynamic driver assistance switch, ADAS control unit transmits LDP ON signal to chassis control module via chassis communication.
- Lane camera unit monitors lane markers of the traveling lane and transmits the detected lane condition signal to chassis control module via chassis communication.
- When judging from a lane marker detection signal that the vehicle is approaching the lane marker, chassis control module controls the following items.
 - Transmits LDP system display signal and warning buzzer signal to ADAS control unit via chassis communication.

SYSTEM

[DRIVER ASSISTANCE SYSTEM]

< SYSTEM DESCRIPTION >

- Calculates necessary steering angle to transmit steering angle signal to steering angle main control module via chassis communication. A
- ADAS control unit controls the following items according to the signals from chassis control module.
- Transmits warning buzzer signal to warning buzzer through driver assistance buzzer control module via ITS communication. B
- Transmits LDP system display signal to combination meter via CAN communication.
- Direct Adaptive Steering* controls steering angle according to the steering angle signal. C
- *: Direct Adaptive Steering is controlled by three control modules of steering force control module, steering angle main control module and steering angle sub control module.
- Combination meter displays LDP system display on the information display.

OPERATING CONDITION

- LDP system display (green): ON (Dynamic driver assistance icon ON "Lane" position and dynamic driver assistance switch ON) D
- Vehicle speed: approximately 70 km/h (45 MPH) or more
- Turn indicator signal: After 2 seconds or more from turned OFF E

NOTE:

- LDP system ON/OFF can be set on the integral switch.
- After the operating conditions are satisfied, the control continues until the vehicle speed reaches approximately 60 km/h (37 MPH). F
- LDP system may not function properly, depending on the situation. Refer to [DAS-283. "Precautions for Lane Departure Warning/Lane Departure Prevention"](#). G

LDP (WITHOUT DIRECT ADAPTIVE STEERING SYSTEM)

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SYSTEM

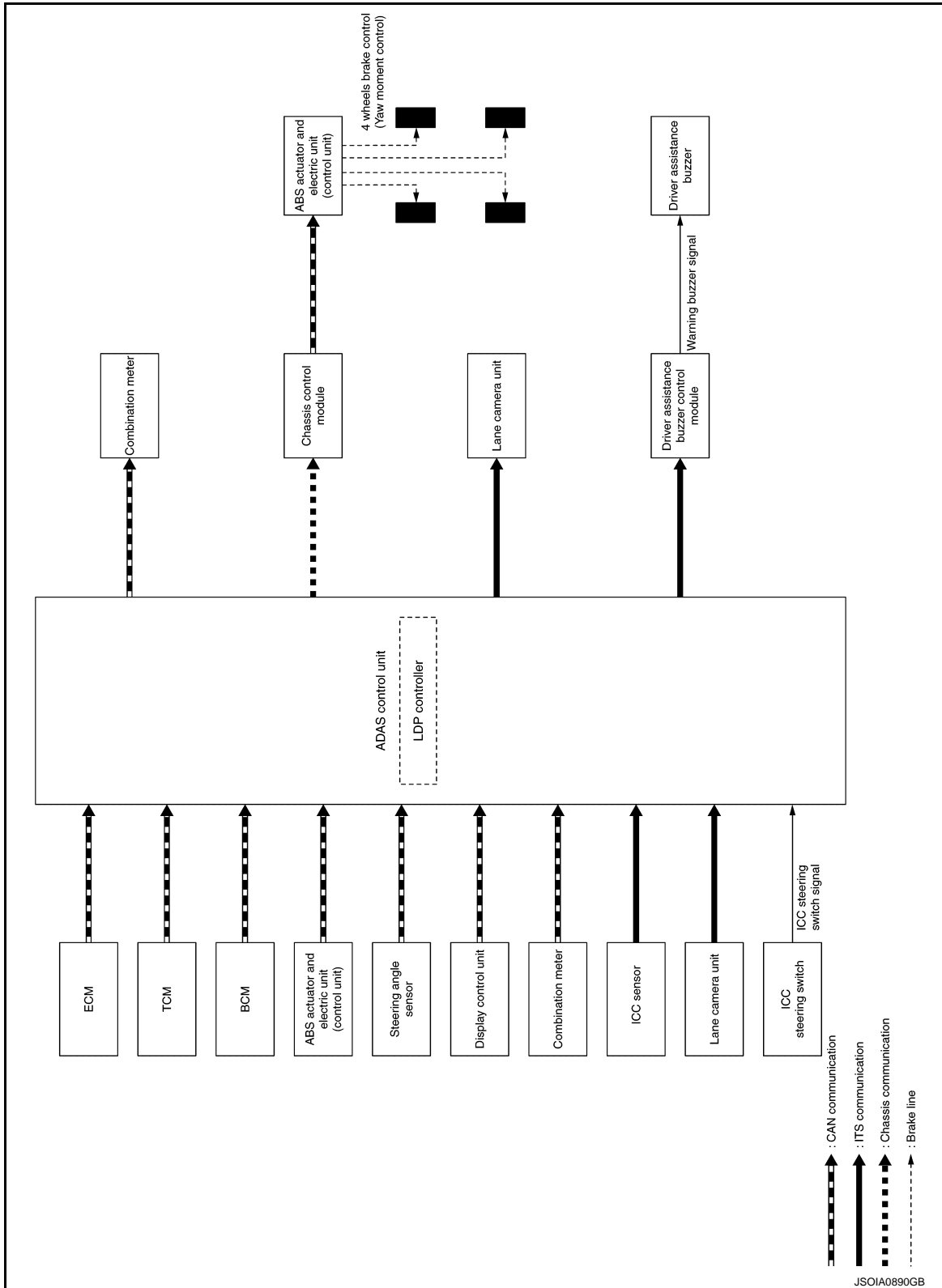
[DRIVER ASSISTANCE SYSTEM]

< SYSTEM DESCRIPTION >

LDP (WITHOUT DIRECT ADAPTIVE STEERING SYSTEM) : System Description

INFOID:000000013403090

SYSTEM DIAGRAM



NOTE:

TCM is connected to drivetrain CAN communication and transmits a CAN communication signal to ADAS control unit via ECM.

ADAS CONTROL UNIT INPUT/OUTPUT SIGNAL ITEM

SYSTEM

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Input Signal Item

Transmit unit	Signal name		Description
ECM	CAN communication	Accelerator pedal position signal	Receives accelerator pedal position (angle)
		Engine speed signal	Receives engine speed
TCM (Via ECM)	CAN communication	Input speed signal	Receives the number of revolutions of input shaft
		Current gear position signal	Receives a current gear position
		Shift position signal	Receives a selector lever position
		Output shaft revolution signal	Receives the number of revolutions of output shaft
ABS actuator and electric unit (control unit)	CAN communication	ABS malfunction signal	Receives a malfunction state of ABS
		ABS operation signal	Receives an operational state of ABS
		TCS malfunction signal	Receives a malfunction state of TCS
		TCS operation signal	Receives an operational state of TCS
		VDC OFF switch signal	Receives an ON/OFF state of VDC
		VDC malfunction signal	Receives a malfunction state of VDC
		VDC operation signal	Receives an operational state of VDC
		Vehicle speed signal (ABS)	Receives wheel speeds of four wheels
		Yaw rate signal	Receives yaw rate acting on the vehicle
		Side G sensor signal	Receives lateral G acting on the vehicle
Combination meter	CAN communication	Parking brake switch signal	Receives an operational state of the parking brake
BCM	CAN communication	Turn indicator signal	Receives an operational state of the turn signal lamp and the hazard lamp
Steering angle sensor	CAN communication	Steering angle sensor malfunction signal	Receives a malfunction state of steering angle sensor
		Steering angle sensor signal	Receives the number of revolutions, turning direction of the steering wheel
		Steering angle speed signal	Receives the turning angle speed of the steering wheel
Display control unit	CAN communication	System selection signal	Receives a selection state of each item in "Driver Aids" selected with the integral switch
ICC sensor	ITS communication	ICC sensor signal	Receives detection results, such as the presence or absence of a leading vehicle and distance from the vehicle
Lane camera unit	ITS communication	Detected lane condition signal	Receives detection results of lane marker
Steering switch RH	ICC steering switch signal	Dynamic driver assistance switch signal	Receives the operational state of the dynamic driver assistance switch

Output Signal Item

Reception unit	Signal name		Description
ABS actuator and electric unit (control unit)	CAN communication	Target yaw moment signal	Transmits a target yaw moment signal to generate yaw moment to the vehicle
Combination meter	CAN communication	Meter display signal	LDP system display
			Transmits an meter display signal to turn ON the LDP system display

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SYSTEM

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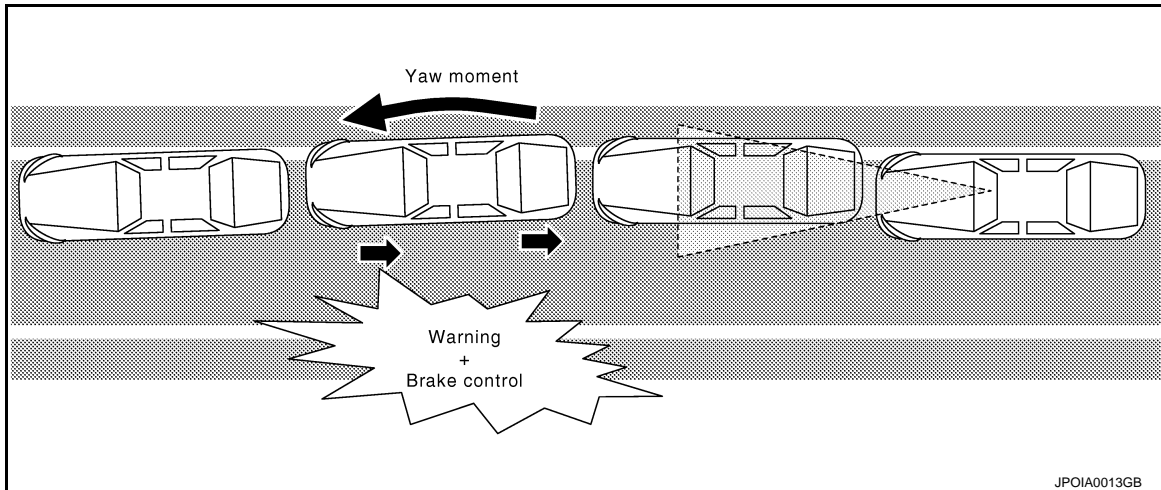
[DRIVER ASSISTANCE SYSTEM]

Reception unit	Signal name		Description
Lane camera unit	ITS communication	Vehicle speed signal	Transmits a vehicle speed calculated by the ADAS control unit
		Turn indicator signal	Transmits a turn indicator signal received from BCM
Driver assistance buzzer control module	ITS communication	Driver assistance buzzer signal	Transmits a driver assistance buzzer signal to activate the buzzer

FUNCTION DESCRIPTION

- Lane Departure Prevention (LDP) system provides a lane departure warning and brake control assistance when the vehicle is driven at speeds of approximately 60 km/h (37 MPH) or more.
- When the vehicle approaches either the left or the right side of the traveling lane, a warning sounds and the LDP warning display (Yellow) on the combination meter blinks to alert the driver. Then, the LDP system automatically applies the brakes for a short period of time to help assist the driver to return the vehicle to the center of the traveling lane.
- Warning and brake control are not performed during turn signal operation (lane change side).
- The warning and assist functions stop when the vehicle returns to a position inside of the lane marker.

EXAMPLE



When the vehicle approaches the right lane marker, the driver is alerted by the buzzer and the blinking of LDP warning display (yellow). Simultaneously, the left brake is controlled independently to generate force toward the direction to recover the vehicle from the lane departure.

OPERATION DESCRIPTION

- When the system is turned ON by dynamic driver assistance switch, ADAS control unit transmits meter display signal to combination meter via CAN communication.
- Lane camera unit monitors lane markers of the traveling lane. It transmits the detected lane condition signal to ADAS control unit via ITS communication.
- When judging from a lane marker detection signal that the vehicle is approaching the lane marker, ADAS control unit controls the following items.
 - Activates warning buzzer by driver assistance buzzer control module.
 - Transmits a meter display signal to combination meter via CAN communication.
 - Calculates necessary yaw moment to transmit a target yaw moment signal to ABS actuator and electric unit (control unit) via CAN communication.
- When receiving the target yaw moment signal, ABS actuator and electric unit (control unit) controls brake pressure of four wheels, respectively.
- When receiving the signal from ADAS control unit, combination meter turns ON/OFF the LDP system display.

OPERATING CONDITION

- LDP system display (green): ON (Dynamic driver assistance icon ON "Lane" position)
- Vehicle speed: approximately 60 km/h (37 MPH) or more
- Turn indicator signal: After 2 seconds or more from turned OFF

NOTE:

- When the LDP system setting on the integral switch is ON.

SYSTEM

[DRIVER ASSISTANCE SYSTEM]

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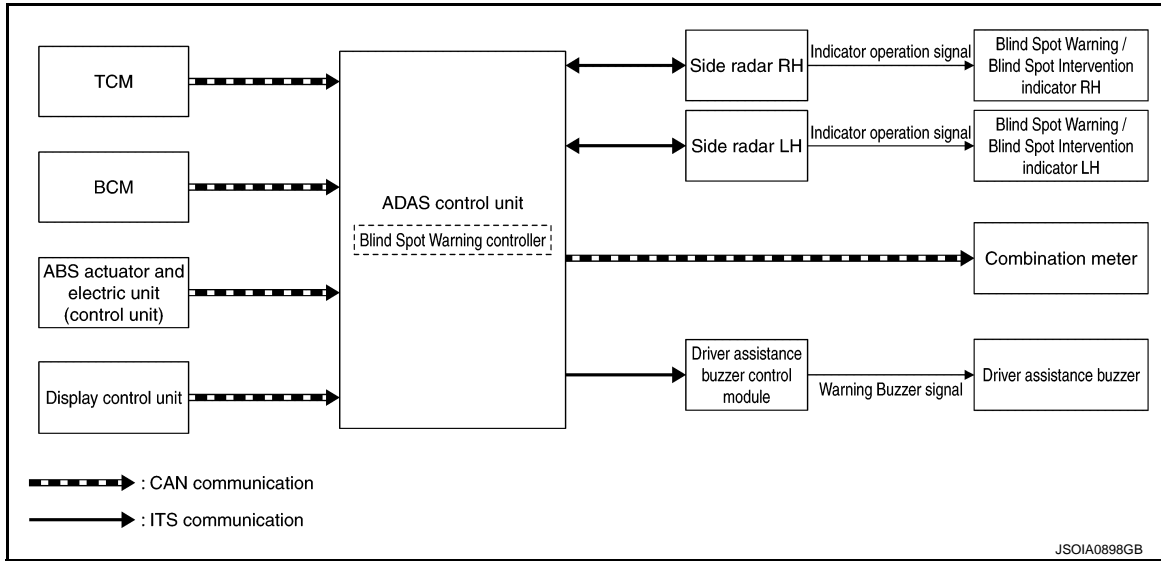
- After the operating conditions are satisfied, the control continues until the vehicle speed reaches approximately 50 km/h (32 MPH).
- The LDP system may not function properly, depending on the situation. Refer to [DAS-283. "Precautions for Lane Departure Warning/Lane Departure Prevention"](#).

BSW

BSW : System Description

INFOID:000000012796247

SYSTEM DIAGRAM



ADAS CONTROL UNIT INPUT/OUTPUT SIGNAL ITEM

ADAS control unit receives signals via CAN communication. It also detects vehicle conditions that are necessary for Blind Spot Warning control.

Input Signal Item

Transmit unit	Signal name	Description
TCM	CAN communication Shift position signal	Receives a selector lever position
ABS actuator and electric unit (control unit)	CAN communication Vehicle speed signal (ABS)	Receives wheel speeds of four wheels
BCM	CAN communication Turn indicator signal	Receives an operational state of the turn signal lamp and the hazard lamp
	Dimmer signal	Receives ON/OFF state of dimmer signal
Display control unit	CAN communication System selection signal	Receives a selection state of each item in "Driver Aids" selected with the integral switch
Side radar LH, RH	ITS communication Vehicle detection signal	Receives vehicle detection condition of detection zone.

Output Signal Item

Reception unit	Signal name	Description
Combination meter	CAN communication Meter display signal	BSW system display Transmits a meter display signal to turn ON the Blind Spot Warning system display

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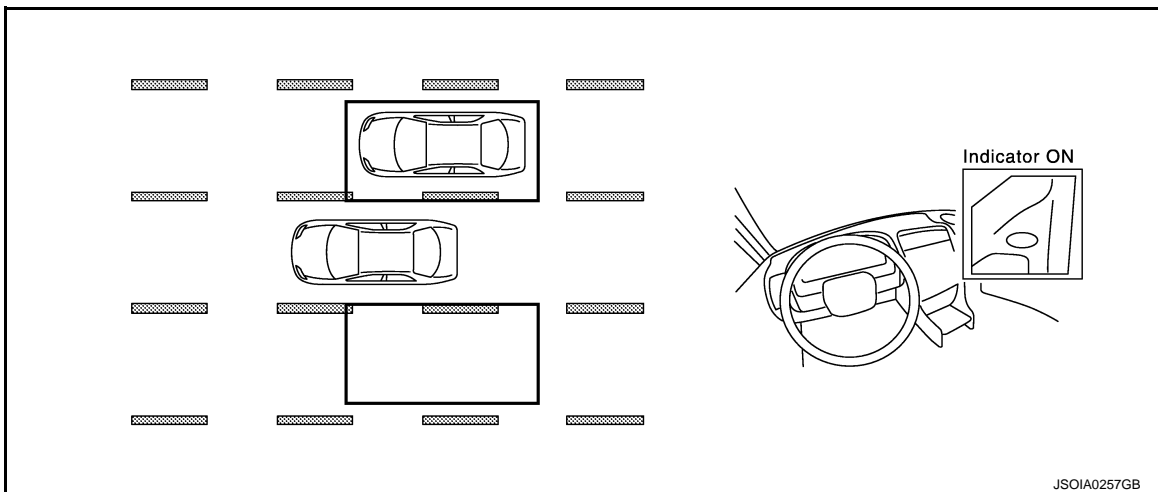
< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Reception unit	Signal name		Description
Side radar LH, RH	ITS communication	Blind Spot Warning/Blind Spot Intervention indicator signal	Transmits a Blind Spot Warning/Blind Spot Intervention indicator signal to turn ON the Blind Spot Warning/Blind Spot Intervention indicator
		Blind Spot Warning/Blind Spot Intervention indicator dimmer signal	Transmits a Blind Spot Warning/Blind Spot Intervention indicator dimmer signal to dimmer Blind Spot Warning/Blind Spot Intervention indicator
		Vehicle speed signal	Transmits a vehicle speed calculated by the ADAS control unit
Driver assistance buzzer control module	ITS communication	Driver assistance buzzer signal	Transmits a driver assistance buzzer signal to activates the buzzer

FUNCTION DESCRIPTION

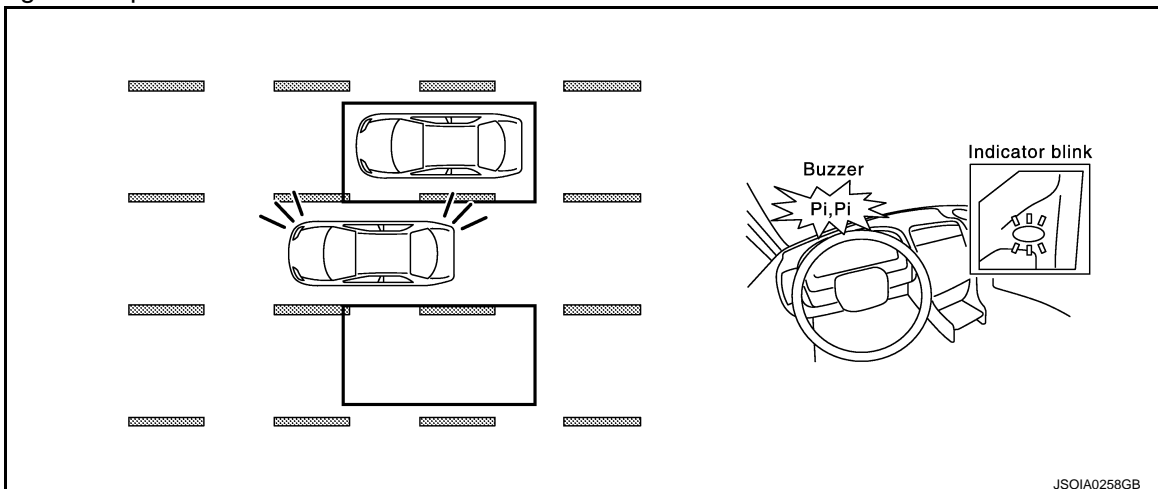
- The BSW system can help alert the driver of other vehicles in adjacent lanes when changing lanes.
- The BSW system uses side radar installed near the rear bumper to detect vehicles in an adjacent lane.
- The side radar can detect vehicles on either side of vehicle within the detection zone shown as illustrated.
- This detection zone starts from the outside mirror of vehicle and extends approximately 10 ft (3.0 m) behind the rear bumper, and approximately 10 ft (3.0 m) sideways.
- The BSW system operates above approximately 32 km/h (20 MPH).
- If the side radar detects vehicles in the detection zone, the Blind Spot Warning/Blind Spot Intervention indicator illuminates.



- If the driver then activates the turn signal, a buzzer will sound twice and the Blind Spot Warning/Blind Spot Intervention indicator will blink.

NOTE:

A buzzer sounds if the side radar have already detected vehicles when the driver activates the turn signal. If a vehicle comes into the detection zone after the driver activates the turn signal, then only the Blind Spot Warning/Blind Spot Intervention indicator blinks and no buzzer sounds.



SYSTEM

[DRIVER ASSISTANCE SYSTEM]

< SYSTEM DESCRIPTION >

BLIND SPOT WARNING SYSTEM OPERATION DESCRIPTION

- ADAS control unit enables BSW system. A
- The ADAS control unit turns on the BSW system when the turned ON by integral switch. B
- Side radar detects a vehicle in the adjacent lane, and transmits the vehicle detection signal to ADAS control unit via ITS communication. B
- ADAS control unit starts the control as follows, based on a vehicle detection signal, turn signal and dimmer signal transmitted from BCM via CAN communication: C
- Blind Spot Warning/Blind Spot Intervention indicator signal and Blind Spot Warning/Blind Spot Intervention indicator dimmer signal transmission to side radar. C
- Activates warning buzzer by driver assistance buzzer control module. D
- Side radar transmits an indicator operation signal to the Blind Spot Warning/Blind Spot Intervention indicator according to Blind Spot Warning/Blind Spot Intervention indicator signal and Blind Spot Warning/Blind Spot Intervention indicator dimmer signal. D

OPERATING CONDITION

- Blind Spot Warning system display (white): ON (Speaker icon ON in "Blind spot" position) E
- Vehicle speed: Approximately 32 km/h (20 MPH) or more. E

NOTE:

ON/OFF of Blind Spot Warning system is performed with the integral switch.

- After the operating conditions of warning are satisfied, the warning continues until the vehicle speed reaches approximately 29 km/h (18 MPH) F
- The Blind Spot Warning system may not function properly, depending on the situation. Refer to [DAS-284, "Precautions for Blind Spot Warning/Blind Spot Intervention"](#). G
- Setting of BSW is performed in synchronization with the log-in function of on-board personal assistant. For details of the log-in function, refer to [DMS-17, "LOG-IN FUNCTION : System Description"](#). H

BLIND SPOT INTERVENTION (WITH DIRECT ADAPTIVE STEERING SYSTEM)

BLIND SPOT INTERVENTION (WITH DIRECT ADAPTIVE STEERING SYSTEM) :

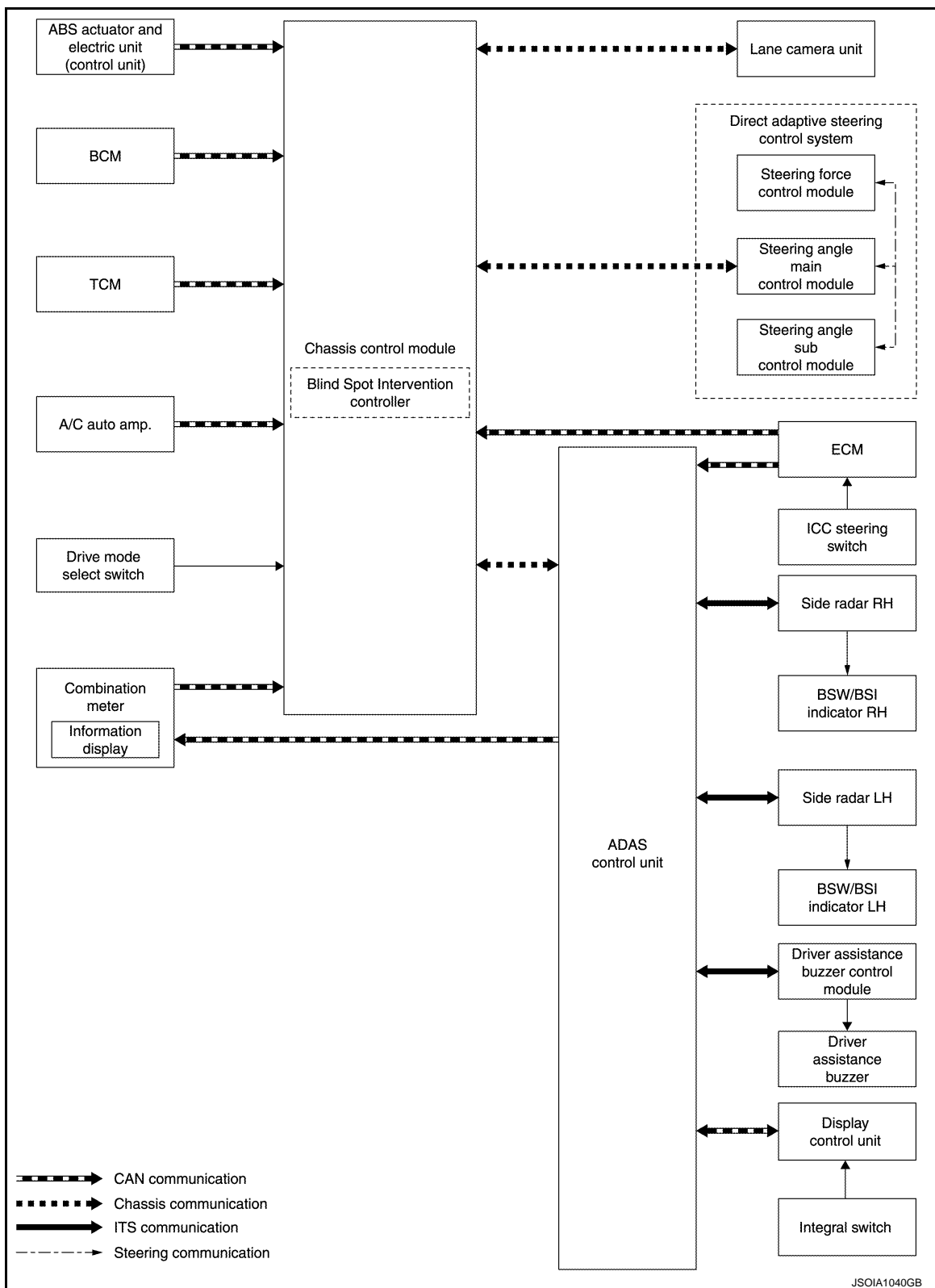
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System Description

INFOID:000000013404246

SYSTEM DIAGRAM



INPUT/OUTPUT SIGNAL ITEM

SYSTEM

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Reception unit	Transmit unit	Signal name		Description
Chassis control module	Lane camera unit	Chassis communication	Detected lane condition signal	Receives detection results of lane marker
			Lane camera unit condition signal	Receives lane camera unit condition
	Steering angle main control module	Chassis communication	Direct adaptive steering status signal	Receives status of Direct Adaptive Steering
			Direct adaptive steering malfunction signal	Receives a malfunction state of Direct Adaptive Steering
			Steering force actuator status signal	Receives torque state of steering force actuator.
			ALC permission signal	Receives a permission state of the ALC.
	ABS actuator and electric unit (control unit)	CAN communication	ABS malfunction signal	Receives a malfunction state of ABS
			ABS operation signal	Receives an operational state of ABS
			VDC OFF switch signal	Receives an ON/OFF state of VDC
			VDC malfunction signal	Receives a malfunction state of VDC
			VDC operation signal	Receives an operational state of VDC
			EBD operation signal	Receives an operational state of EBD
			Vehicle speed signal (ABS)	Receives wheel speeds of front wheels
			Yaw rate signal	Receives yaw rate acting on the vehicle
			Side G sensor signal	Receives lateral G acting on the vehicle
	Stop lamp switch	Receives stop lamp switch state		
	ECM	CAN communication	Accelerator pedal position signal	Receives accelerator pedal position (angle)
	BCM	CAN communication	Turn indicator signal	Receives an operational state of the turn signal lamp and the hazard lamp
			Front wiper request signal	Receives an operational state of the front wiper
	TCM	CAN communication	Current gear position signal	Receives a current gear position
Shift position signal			Receives a selector lever position	
A/C auto amp.	CAN communication	Ambient temperature signal	Receives an ambient temperature	
ADAS control unit	Chassis communication	BSI ON signal	Receives an ON/OFF state of BSI	
Combination meter	CAN communication	Parking brake switch signal	Receives an operational state of the parking brake	
Side radar RH/LH (Via ADAS control unit)	Chassis communication	Vehicle detection signal	Receives vehicle detection condition of detection zone.	
Drive mode select switch	Hard wire	Drive mode select switch signal	Detects the snow mode selection.	
ADAS control unit	ICC steering switch	Hard wire	Dynamic driver assistance switch signal	Detects the operational state of the dynamic driver assistance switch.
	Display control unit	CAN communication	System selection signal	Receives a selection state of each item in "Driver Aids" selected with the integral switch.

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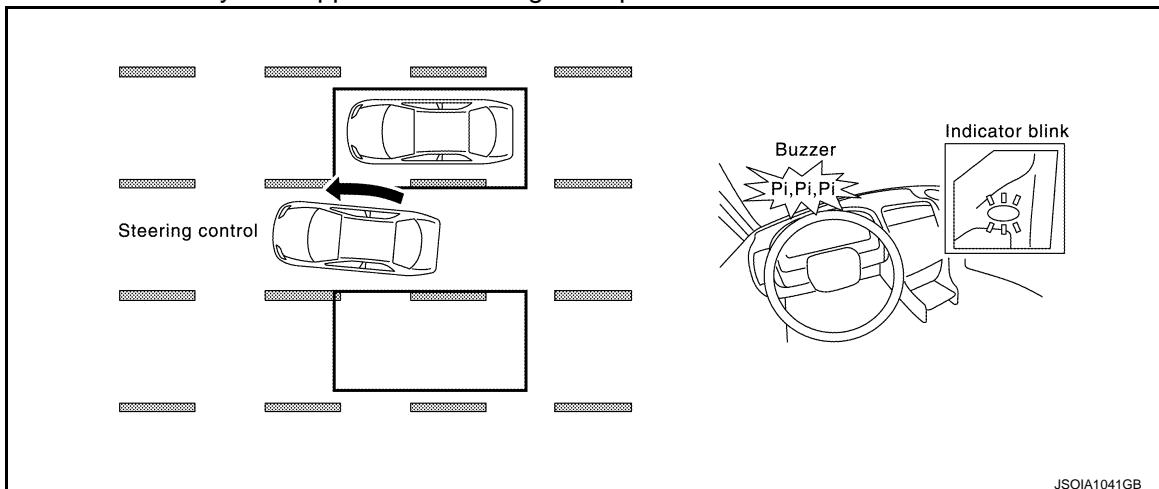
< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Reception unit	Transmit unit	Signal name		Description
Steering angle main control module	Chassis control module	Chassis communication	Steering angle request signal	Transmits steering angle request signal
			Steering reaction force request signal	Transmits steering reaction force request signal
Chassis communication		Vehicle speed signal	Transmits a vehicle speed calculated by the chassis control module	
		Turn indicator signal	Transmits a turn indicator signal received from BCM	
Combination meter (Via ADAS control unit)		Chassis communication	Blind Spot Intervention system display signal	Transmits a signal to display a state of the system on the information display
Driver assistance buzzer control module (Via ADAS control unit)			Warning buzzer signal	Transmits warning buzzer signal to activates the warning buzzer
Side radar RH/LH (Via ADAS control unit)			Blind Spot Intervention indication signal	Transmits Blind Spot Intervention indication signal to turn ON the Blind Spot Warning/ Blind Spot Intervention indicator

FUNCTION DESCRIPTION

- The Blind Spot Intervention system can help alert the driver of other vehicles in adjacent lanes when changing lanes. Blind Spot Intervention always operates together with Blind Spot Warning.
- The Blind Spot Intervention system operates above approximately 60 km/h (37 MPH).
- The Blind Spot Intervention system uses side radar installed near the rear bumper to detect other vehicles beside vehicle in an adjacent lane.
- The side radar can detect vehicles on either side of vehicle within the detection zone shown as illustrated.
- This detection zone starts from the outside mirror of vehicle and extends approximately 10 ft (3.0 m) behind the rear bumper, and approximately 10 ft (3.0 m) sideways.
- If the Blind Spot Warning/Blind Spot Intervention indicator is illuminated while vehicle is approaching a lane marker, the Blind Spot Warning/Blind Spot Intervention indicator blinks and an audible warning will sound three times. Then the system applies the steering to help return the vehicle back to the center of the lane.



- Blind Spot Intervention operates regardless of turn signal usage.
- The brightness of Blind Spot Warning/Blind Spot Intervention indicator lights is adjusted automatically depending on the brightness of the ambient light.

NOTE:

- Blind Spot Intervention is typically activated earlier than LDP when getting closer to the lane marker.
- Warning and steering control will only be activated if the Blind Spot Warning/Blind Spot Intervention indicator is already illuminated when vehicle approaches a lane marker.
- If another vehicle comes into the detection zone after vehicle has crossed a lane marker, no warning or steering control will be activated.

SYSTEM

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

- For details of Blind Spot Intervention system indication on the combination meter, refer to [DAS-272. "DCA/LDP/BLIND SPOT INTERVENTION : Menu Displayed by Pressing Each Switch"](#).

BLIND SPOT INTERVENTION SYSTEM OPERATION DESCRIPTION

- Blind Spot Intervention system is controlled by chassis control module and ADAS control unit.
- When dynamic driver assistance switch is turned ON and Blind Spot Intervention system setting ON the integral switch. Then Blind Spot Intervention ON indicator comes on.
- Combination meter displays Blind Spot Intervention system display according to the signals from ADAS control unit via CAN communication.
- Side radar detects a vehicle in the adjacent lane, and transmits the vehicle detection signal to chassis control module through ADAS control unit via chassis communication and ITS communication.
- Side radar receives vehicle speed signal from ADAS control unit and changes its detecting function.
- Lane camera unit monitors lane markers of the traveling lane and transmits the detected lane condition signal to chassis control module via chassis communication.
- Chassis control module starts the control as follows, based on a vehicle detection signal, lane condition signal, turn signal and position light request signal transmitted from each unit;
 - Calculates necessary steering angle to transmit steering angle signal to steering angle main control module via chassis communication.
 - Transmits Blind Spot Intervention indication signal and warning buzzer signal to ADAS control unit via chassis communication.
- ADAS control unit controls the following items according to the signals from chassis control module.
 - Transmits warning buzzer signal to warning buzzer through driver assistance buzzer control module via ITS communication.
 - Transmits Blind Spot Warning/Blind Spot Intervention indicator signal and Blind Spot Warning/Blind Spot Intervention indicator dimmer signal to side radar via ITS communication.
 - Transmits a Blind Spot Intervention system display signal to combination meter via CAN communication.
- Direct Adaptive Steering* controls steering angle according to the steering angle signal.
 - *: Direct Adaptive Steering is controlled by three control modules of steering force control module, steering angle main control module and steering angle sub control module.
- Side radar turns ON the Blind Spot Warning/Blind Spot Intervention indicator according to Blind Spot Warning/Blind Spot Intervention indicator operation signal and Blind Spot Warning/Blind Spot Intervention indicator dimmer signal.
- Combination meter displays the Blind Spot Intervention system display and the vehicle information display.

Operation Condition of Blind Spot Intervention System

Chassis control module performs the control when the following conditions are satisfied.

- Blind Spot Intervention system display (green): ON (Dynamic driver assistance icon ON in "Blind spot" position)
- When the vehicle drives at 60 km/h (37 MPH) or more.

NOTE:

- Blind Spot Intervention system ON/OFF can be set on the integral switch.
- The Blind Spot Intervention system may not function properly, depending on the situation. Refer to [DAS-284. "Precautions for Blind Spot Warning/Blind Spot Intervention"](#).
- Blind Spot Intervention steering will not operate or will stop operating and only a warning chime will sound under the following conditions.
 - When the brake pedal is depressed.
 - When the accelerator pedal is depressed while steering control assist is provided.
 - When steering quickly.
 - When the ICC, DCA, PFCW or FEB warnings sound.
 - When the hazard warning flashers are operated.
 - When driving on a curve at a high speed.
- Under the following conditions, the Blind Spot Intervention system will be turned off automatically, a beep will sound and the Blind Spot Intervention system display will change color to yellow. The BSW system is still available, but the Blind Spot Intervention system will not be available until the conditions no longer exist.
 - When the VDC system (except TCS function) or ABS operates.
 - When the VDC system is turned OFF.
 - When the drive mode select switch is turned to the SNOW mode.

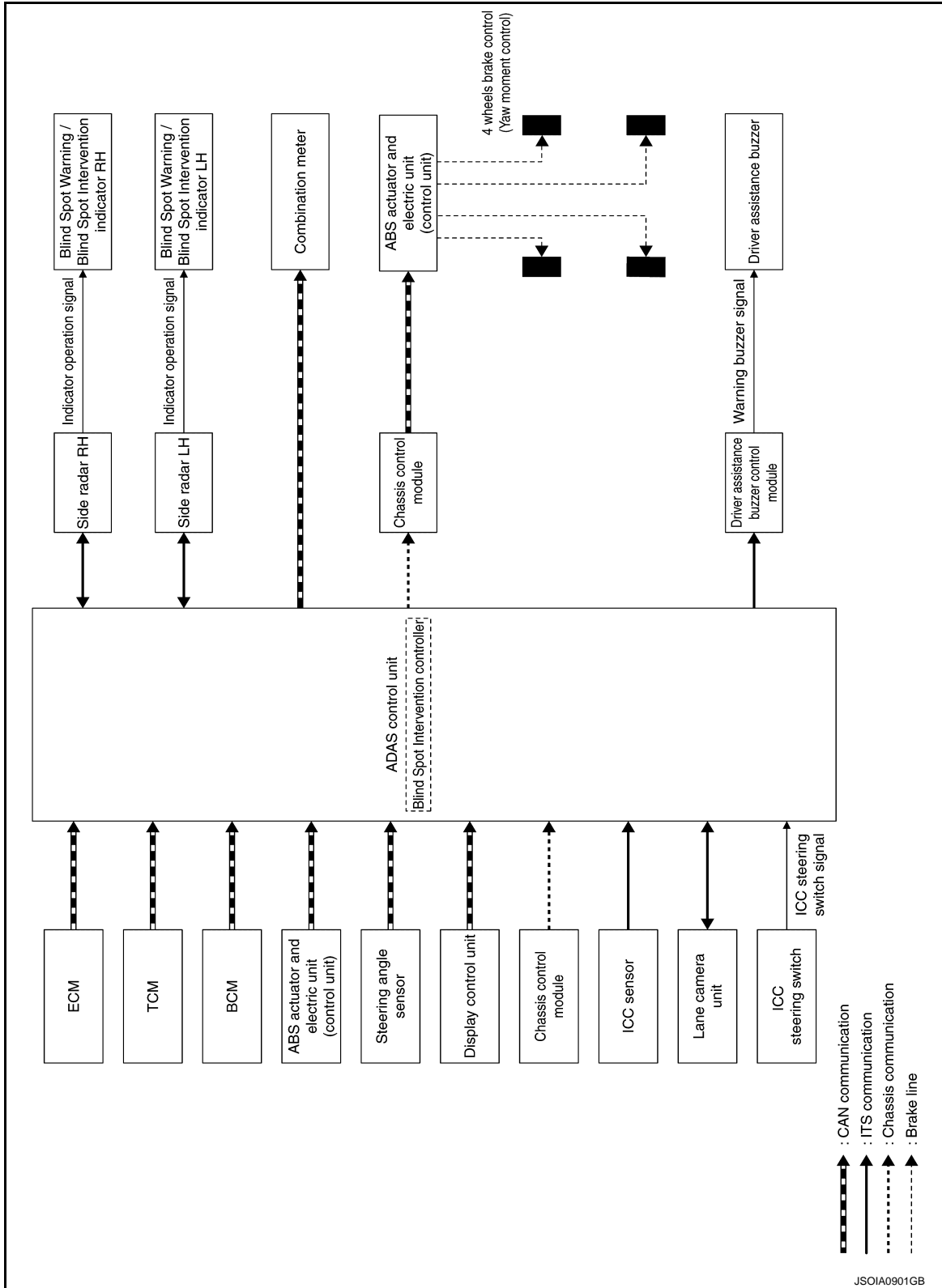
BLIND SPOT INTERVENTION (WITHOUT DIRECT ADAPTIVE STEERING SYSTEM)

BLIND SPOT INTERVENTION (WITHOUT DIRECT ADAPTIVE STEERING SYS-

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SYSTEM DIAGRAM



NOTE:

TCM is connected to drivetrain CAN communication and transmits a CAN communication signal to ADAS control unit via ECM.

ADAS CONTROL UNIT INPUT/OUTPUT SIGNAL ITEM

Input Signal Item

SYSTEM

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Transmit unit	Signal name	Description	
ECM	CAN communication	Accelerator pedal position signal	Receives accelerator pedal position (angle)
		Engine speed signal	Receives engine speed
TCM (Via ECM)	CAN communication	Input speed signal	Receives the number of revolutions of input shaft
		Current gear position signal	Receives a current gear position
		Shift position signal	Receives a select lever position
		Output shaft revolution signal	Receives the number of revolutions of output shaft
ABS actuator and electric unit (control unit)	CAN communication	ABS malfunction signal	Receives a malfunction state of ABS
		ABS operation signal	Receives an operational state of ABS
		TCS malfunction signal	Receives a malfunction state of TCS
		TCS operation signal	Receives an operational state of TCS
		VDC OFF switch signal	Receives an ON/OFF state of VDC
		VDC malfunction signal	Receives a malfunction state of VDC
		VDC operation signal	Receives an operational state of VDC
		Vehicle speed signal (ABS)	Receives wheel speeds of four wheels
		Yaw rate signal	Receives yaw rate acting on the vehicle
Side G sensor signal	Receives lateral G acting on the vehicle		
Combination meter	CAN communication	Parking brake switch signal	Receives an operational state of the parking brake
BCM	CAN communication	Turn indicator signal	Receives an operational state of the turn signal lamp and the hazard lamp
		Position light request signal	Receives an operational state of tail lamp
Steering angle sensor	CAN communication	Steering angle sensor malfunction signal	Receives a malfunction state of steering angle sensor
		Steering angle sensor signal	Receives the number of revolutions, turning direction of the steering wheel
		Steering angle speed signal	Receives the turning angle speed of the steering wheel
Display control unit	CAN communication	System selection signal	Receives a selection state of each item in "Driver Aids" selected with the integral switch
ICC sensor	ITS communication	ICC sensor signal	Receives detection results, such as the presence or absence of a leading vehicle and distance from the vehicle
Lane camera unit	ITS communication	Detection lane condition signal	Receives detection results of lane marker
Side radar LH, RH	ITS communication	Vehicle detection signal	Receives vehicle detection condition of detection zone.
ICC steering switch	ICC steering switch signal	Dynamic driver assistance switch signal	Receives the operational state of the dynamic driver assistance switch

Output Signal Item

Reception unit	Signal name	Description	
ABS actuator and electric unit (control unit)	CAN communication	Target yaw moment signal	Transmits a target yaw moment signal to generate yaw moment to the vehicle

SYSTEM

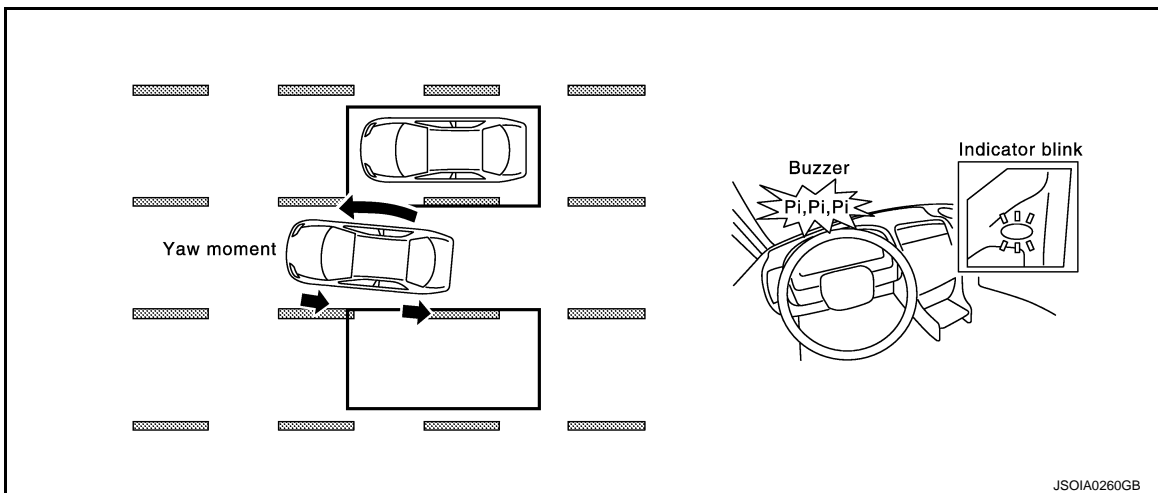
< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Reception unit	Signal name		Description
Combination meter	CAN communication	Blind Spot Warning/Blind Spot Intervention warning lamp signal	Transmits a Blind Spot Warning/Blind Spot Intervention warning lamp signal to turn ON the Blind Spot Warning/Blind Spot Intervention warning lamp
		Blind Spot Intervention ON indicator lamp signal	Transmits a Blind Spot Intervention ON indicator lamp signal to turn ON the Blind Spot Intervention ON indicator lamp
Lane camera unit	ITS communication	Vehicle speed signal	Transmits a vehicle speed calculated by the ADAS control unit
		Turn indicator signal	Transmits a turn indicator signal received from BCM
Side radar LH, RH	ITS communication	Blind Spot Warning/Blind Spot Intervention indicator signal	Transmits a Blind Spot Warning/Blind Spot Intervention indicator signal to turn ON the Blind Spot Warning/Blind Spot Intervention indicator
		Blind Spot Warning/Blind Spot Intervention indicator dimmer signal	Transmits a Blind Spot Warning/Blind Spot Intervention indicator dimmer signal to dimmer Blind Spot Warning/Blind Spot Intervention indicator
		Vehicle speed signal	Transmits a vehicle speed calculated by the ADAS control unit
Driver assistance buzzer control module	ITS communication	Driver assistance buzzer signal	Transmits a driver assistance buzzer signal to activates the buzzer

FUNCTION DESCRIPTION

- The Blind Spot Intervention system can help alert the driver of other vehicles in adjacent lanes when changing lanes. Blind Spot Intervention always operates together with Blind Spot Warning.
- The Blind Spot Intervention system operates above approximately 60 km/h (37 MPH).
- The Blind Spot Intervention system uses side radar installed near the rear bumper to detect other vehicles beside vehicle in an adjacent lane.
- The side radar can detect vehicles on either side of vehicle within the detection zone shown as illustrated.
- This detection zone starts from the outside mirror of vehicle and extends approximately 10 ft (3.0 m) behind the rear bumper, and approximately 10 ft (3.0 m) sideways.
- If the Blind Spot Warning/Blind Spot Intervention indicator is illuminated while vehicle is approaching a lane marker, the Blind Spot Warning/Blind Spot Intervention indicator blinks and an audible warning will sound three times. Then the system applies the brakes on one side of the vehicle for a short period of time to help return the vehicle back to the center of the lane.



- Blind Spot Intervention operates regardless of turn signal usage.
- The brightness of Blind Spot Warning/Blind Spot Intervention indicator lights is adjusted automatically depending on the brightness of the ambient light.

NOTE:

- Blind Spot Intervention is typically activated earlier than LDP when getting closer to the lane marker.
- Warning and brake control will only be activated if the Blind Spot Warning/Blind Spot Intervention indicator is already illuminated when vehicle approaches a lane marker.

< SYSTEM DESCRIPTION >

- If another vehicle comes into the detection zone after vehicle has crossed a lane marker, no warning or brake control will be activated.

BLIND SPOT INTERVENTION SYSTEM OPERATION DESCRIPTION

- ADAS control unit enables Blind Spot Intervention system.
- Turn ON the dynamic driver assistance switch, and Blind Spot Intervention system setting on the integral switch. Then Blind Spot Intervention ON indicator comes on.
- Combination meter turns Blind Spot Intervention system display ON/OFF according to the signals from ADAS control unit via CAN communication.
- Side radar detects a vehicle in the adjacent lane, and transmits the vehicle detection signal to ADAS control unit via ITS communication.
- Side radar receives vehicle speed signal from ADAS control unit and changes its detecting function.
- Lane camera unit monitors lane markers of the traveling lane and transmits the detected lane condition signal to ADAS control unit via ITS communication.
- ADAS control unit starts the control as follows, based on a vehicle detection signal, lane condition signal, turn signal and position light request signal transmitted from BCM via CAN communication:
 - Blind Spot Warning/Blind Spot Intervention indicator signal and Blind Spot Warning/Blind Spot Intervention indicator dimmer signal transmission to side radar.
 - Driver assistance buzzer signal transmission to driver assistance buzzer control module via ITS communication.
 - Calculation of necessary yaw moment and transmission of the target yaw moment signal to ABS actuator and electric unit (control unit).
- Side radar transmits an indicator operation signal to the Blind Spot Warning/Blind Spot Intervention indicator according to Blind Spot Warning/Blind Spot Intervention indicator operation signal and Blind Spot Warning/Blind Spot Intervention indicator dimmer signal.
- ABS actuator and electric unit (control unit) controls brake pressure of four wheels respectively according to the target yaw moment signal.

Operation Condition of Blind Spot Intervention System

- Blind Spot Intervention system display (green): ON (Dynamic driver assistance icon ON in “Blind spot” position)
- Vehicle speed: Approximately 60 km/h (37 MPH) or more

NOTE:

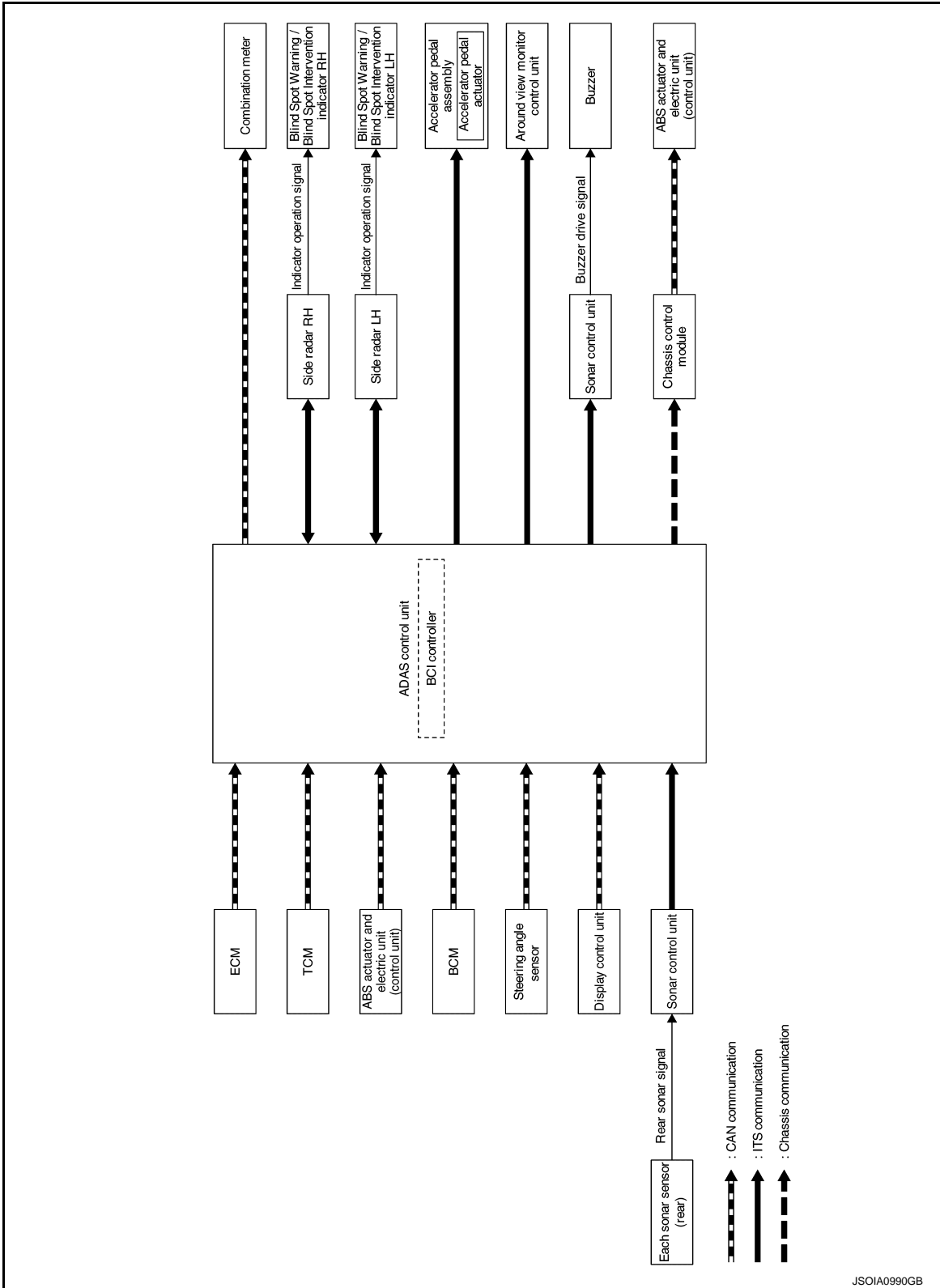
- When the Blind Spot Intervention system setting on the integral switch is ON.
- The Blind Spot Intervention system may not function properly, depending on the situation. Refer to [DAS-284, "Precautions for Blind Spot Warning/Blind Spot Intervention"](#).
- Blind Spot Intervention braking will not operate or will stop operating and only a warning chime will sound under the following conditions.
 - When the brake pedal is depressed.
 - When the accelerator pedal is depressed while brake control assist is provided.
 - When steering quickly.
 - When the ICC, DCA, PFCW or FEB warnings sound.
 - When the hazard warning flashers are operated.
 - When driving on a curve at a high speed.
- Under the following conditions, the Blind Spot Intervention system will be turned off automatically, a beep will sound and the Blind Spot Intervention system display will change color to yellow. The BSW system is still available, but the Blind Spot Intervention system will not be available until the conditions no longer exist.
 - When the VDC system (except TCS function) or ABS operates.
 - When the VDC system is turned OFF.
 - When the drive mode select switch is turned to the SNOW mode.

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SYSTEM DIAGRAM



NOTE:

Models with 2.0L turbo gasoline engine: TCM is connected to drivetrain CAN communication and transmits a CAN communication signal to ADAS control unit via ECM.

ADAS CONTROL UNIT INPUT/OUTPUT SIGNAL ITEM

Input Signal Item

SYSTEM

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Transmit unit	Signal name		Description
ECM	CAN communication	Accelerator pedal position signal	Receives accelerator pedal position (angle)
		Engine speed signal	Receives engine speed
TCM	CAN communication	Current gear position signal	Receives a current gear position
		Shift position signal	Receives a select lever position
ABS actuator and electric unit (control unit)	CAN communication	ABS malfunction signal	Receives a malfunction state of ABS
		VDC malfunction signal	Receives a malfunction state of VDC
		Vehicle speed signal (ABS)	Receives wheel speeds of four wheels
Display control unit	ITS communication	System selection signal	Receives a selection state of each item in "Camera" selected with the integral switch
Sonar control unit	ITS communication	Rear object detection signal	Receives objects detection result of rear area behind vehicle
Side radar LH, RH	ITS communication	Vehicle detection signal	Receives vehicle detection condition of detection zone.

Output Signal Item

Reception unit	Signal name		Description
ABS actuator and electric unit (control unit)	CAN communication	Brake fluid pressure control signal.	Transmits a brake fluid pressure control signal to activate the brake.
Combination meter	CAN communication	Meter display signal	BCI system display
Sonar control unit	ITS communication	Buzzer drive signal	Transmits a buzzer drive signal to activate buzzer
Around view monitor control unit	ITS communication	BCI warning signal	Transmits a BCI warning signal to indicate a yellow/red frame on the upper display
Accelerator pedal actuator	ITS communication	Accelerator pedal feedback force control signal	Transmits an accelerator pedal feedback force control signal to activate the accelerator pedal actuator
Side radar LH, RH	ITS communication	Blind Spot Warning/Blind Spot Intervention indicator signal	Transmits a Blind Spot Warning/Blind Spot Intervention indicator signal to turn ON the Blind Spot Warning/Blind Spot Intervention indicator
		Blind Spot Warning/Blind Spot Intervention indicator dimmer signal	Transmits a Blind Spot Warning/Blind Spot Intervention indicator dimmer signal to dimmer Blind Spot Warning/Blind Spot Intervention indicator
		Vehicle speed signal	Transmits a vehicle speed calculated by the ADAS control unit

FUNCTION DESCRIPTION

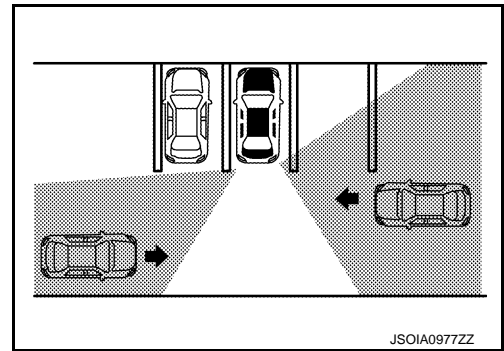
- The Back-up Collision Intervention system can help alert the driver of approaching vehicles or rear objects when the driver is backing out of a parking space.
- The BCI system comprise of to main detection systems. The side radar LH/RH, and the four sonar sensors mounted on the rear bumper.
- The BCI system operates at speeds below 8 km/h (5 MPH) whenever the vehicle is in reverse.

SYSTEM

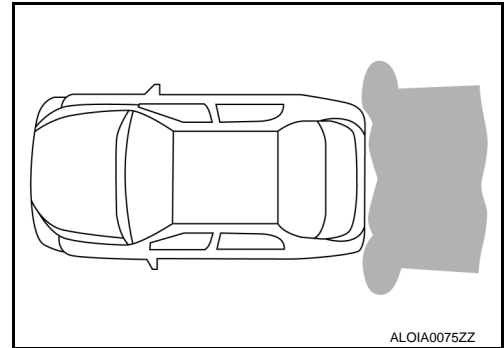
< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

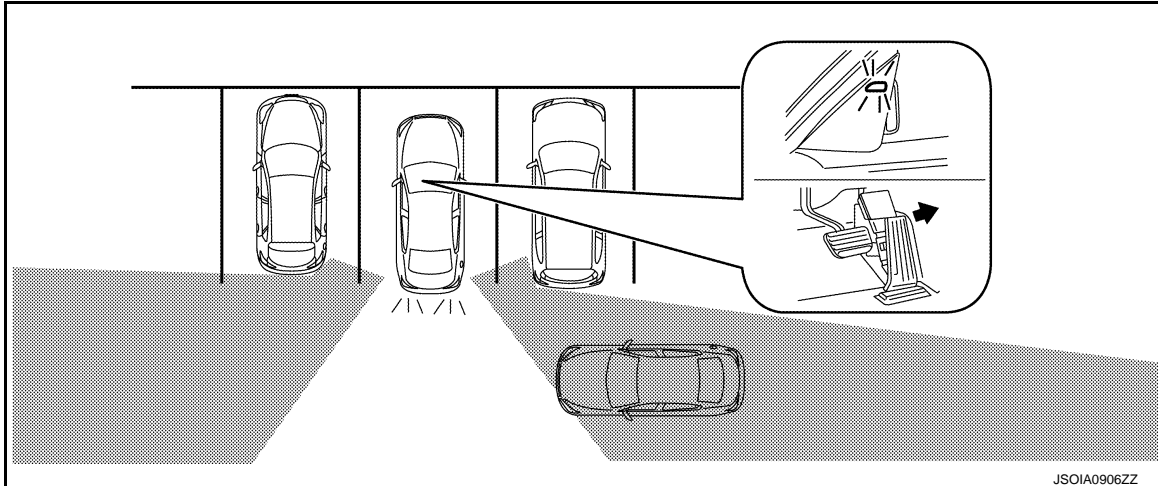
- The BCI system uses the side radar LH/RH installed near the rear bumper to detect approaching vehicles and rear obstacles.
- The side radar can detect vehicles on either side of vehicle within the detection zone shown as illustrated.
- The radar sensors detect the approaching vehicle from up to approximately 15 m (49 ft) away.



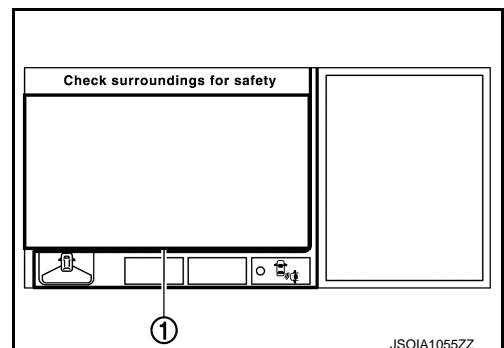
- The sonar sensors can detect rear obstacles of up to approximately 1.5 m (4.9 ft).



- If the radar detects a vehicle approaching from the side or the sonar detects close objects in the rear, the system gives visual and audible warnings, and applies the brake for a moment when the vehicle is moving backwards. If the driver's foot is on the accelerator pedal, the system pushes the accelerator upward before applying the brake. If the driver continues to press the accelerator, the system will not engage the brake.



- If the side radar detects an approaching vehicle from the side, the BCI system sounds a beep (single beep), the Blind spot warning indicator on the side of the approaching vehicle flashes and the frame of the around view monitor screen ① is shown in yellow. If the detected vehicle approaches closer and own vehicle is backing up toward the detected vehicle, the system sounds a beep (three times) and the frame of the around view monitor screen ① is shown in red.



BACK-UP COLLISION INTERVENTION SYSTEM OPERATION DESCRIPTION

SYSTEM

[DRIVER ASSISTANCE SYSTEM]

< SYSTEM DESCRIPTION >

- ADAS control unit enables Back-up Collision Intervention system.
- The BCI system is automatically turned ON every time the engine is started.
- Side radar detects a vehicle approaching, and transmits the vehicle detection signal to ADAS control unit via ITS communication.
- Side radar receives vehicle speed signal from ADAS control unit and changes its detecting function.
- ADAS control unit starts the control as follows, based on a vehicle detection signal.

Operation Condition of Back-up Collision Intervention System

ADAS control unit performs the control when the following conditions are satisfied.

- Back-up Collision Intervention: ON (Selected by integral switch)
- When the vehicle is moving in reverse at 8 km/h (5 MPH) or less.

NOTE:

- When the Back-up Collision Intervention system setting is ON in the integral switch.
- Setting of BCI is performed in synchronization with the log-in function of on-board personal assistant. For details of the log-in function, refer to [DMS-17. "LOG-IN FUNCTION : System Description"](#).

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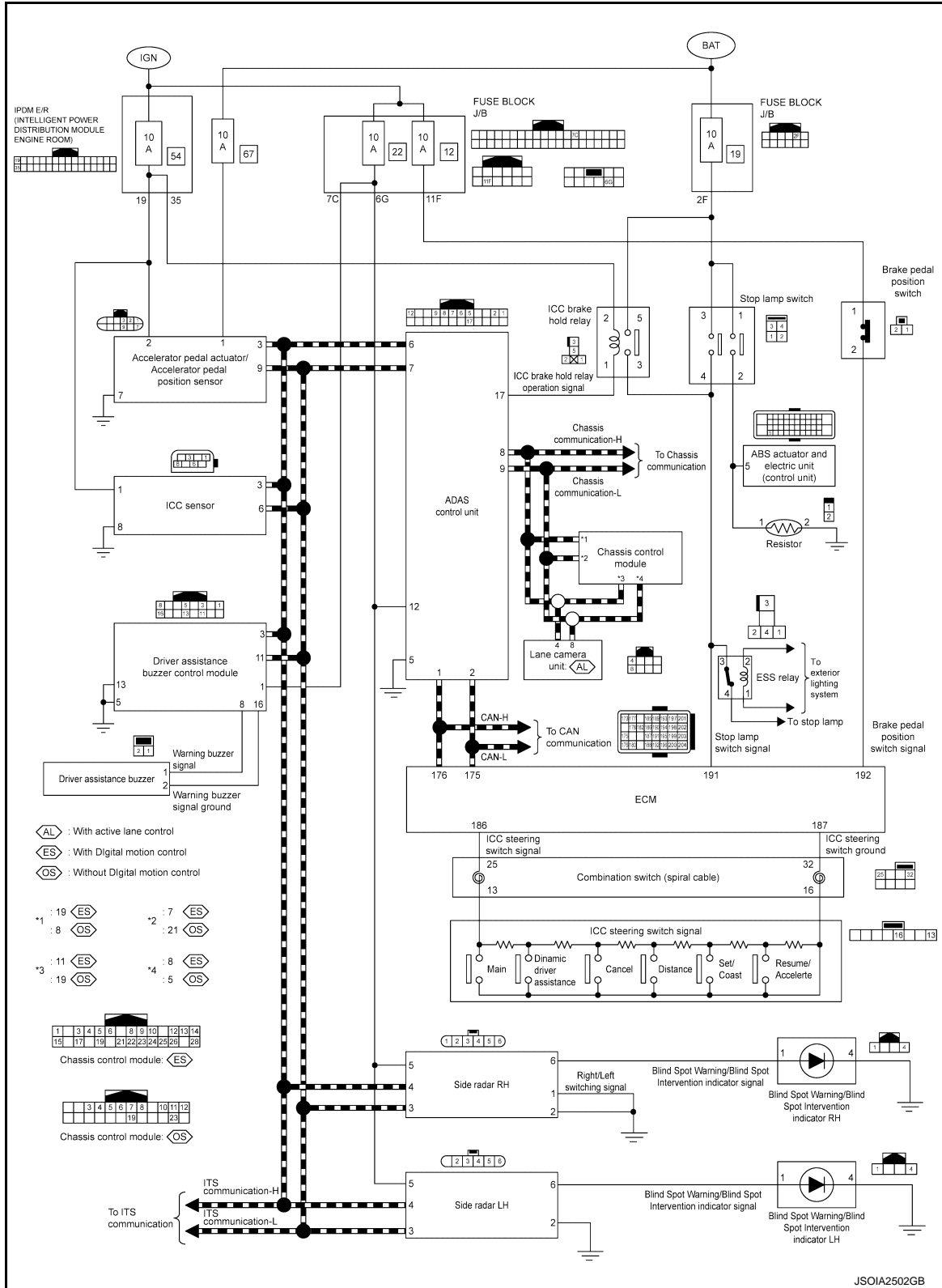
[DRIVER ASSISTANCE SYSTEM]

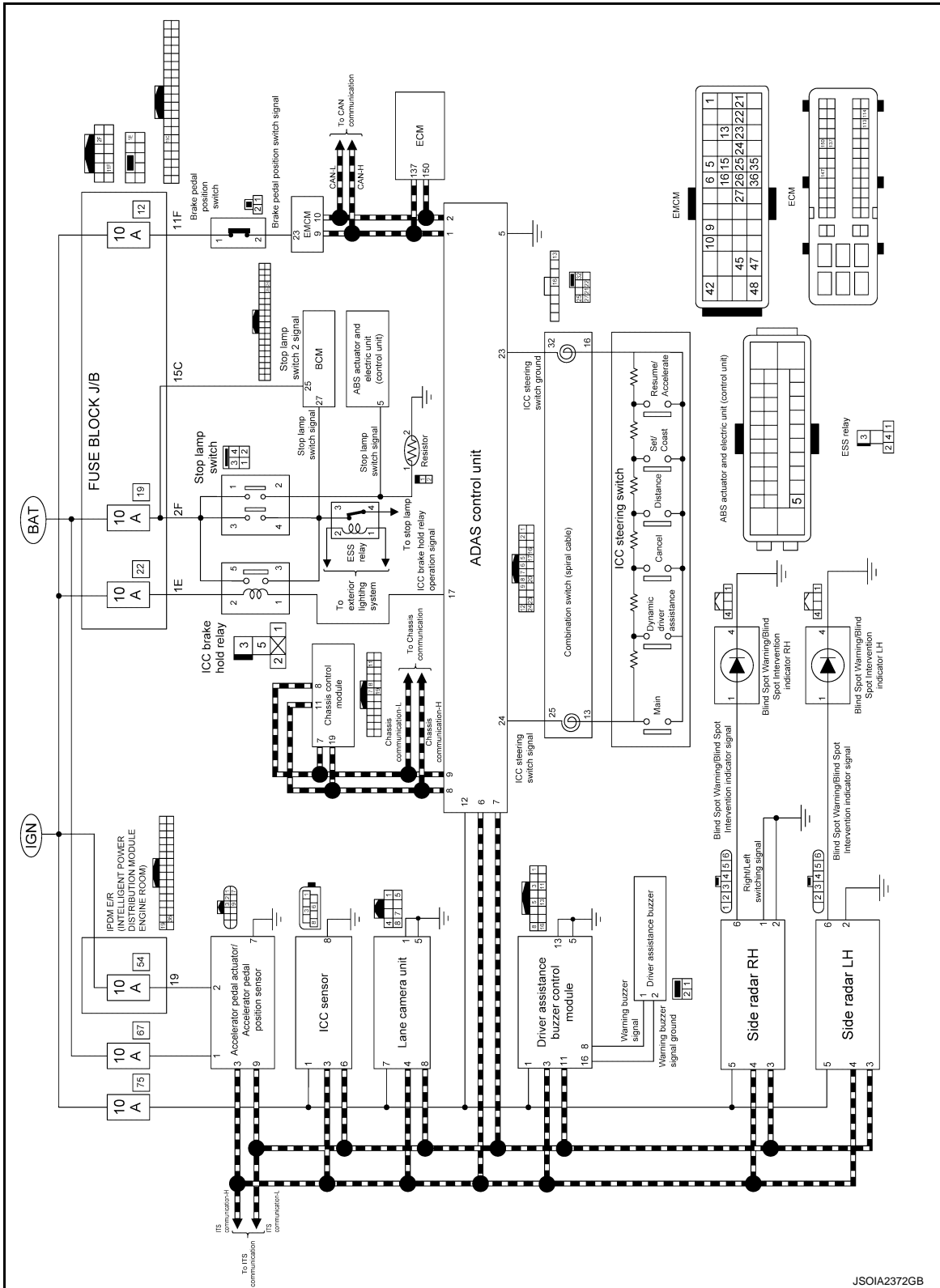
< SYSTEM DESCRIPTION >

Circuit Diagram

INFOID:000000012796250

VR30DDTT





Fail-safe (ADAS Control Unit)

INFOID:000000013404603

If a malfunction occurs in each system, ADAS control unit cancels each control, sounds a beep, and turns ON the warning or indicator lamp.

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SYSTEM

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

System	Buzzer	Warning lamp/Warning display	Description
Vehicle-to-vehicle distance control mode	High-pitched tone	ICC system warning	Cancel
Conventional (fixed speed) cruise control mode	High-pitched tone	ICC system warning	Cancel
Forward Emergency Braking (FEB)	High-pitched tone	<ul style="list-style-type: none">FEB warning lampWarning systems indicator (Forward position: Yellow)	Cancel
Predictive Forward Collision Warning (PFCW)	High-pitched tone	Warning systems indicator (Forward position: Yellow)	Cancel
Distance Control Assist (DCA)	High-pitched tone	Warning systems indicator (Forward position: Yellow)	Cancel
Lane Departure Warning (LDW)	—	Warning systems indicator (Lane position: Yellow)	Cancel
Lane Departure Prevention (LDP)	Low-pitched tone	Warning systems indicator (Lane position: Yellow)	Cancel
Blind Spot Warning (BSW)	—	Warning systems indicator (Blind spot position: Yellow)	Cancel
Blind Spot Intervention	Low-pitched tone	Warning systems indicator (Blind spot position: Yellow)	Cancel
Back-up Collision Intervention (BCI)	High-pitched tone	BCI system warning	Cancel

Fail-safe (ICC Sensor)

INFOID:000000013404609

If a malfunction occurs in the ICC sensor, ADAS control unit cancels control, sounds a beep, and turns ON the ICC system warning in the information display.

Fail-safe (Side Radar)

INFOID:000000013404691

FAIL-SAFE CONTROL BY DTC

Blind Spot Warning (BSW)

If a malfunction occurs in the side radar, ADAS control unit cancels control, and turns ON the Blind Spot Warning/Blind Spot Intervention malfunction in information display.

TEMPORARY DISABLED STATUS AT BLOCKAGE

Blind Spot Warning (BSW)

When the side radar is blocked, the operation is temporarily cancelled. Then the Blind Spot Warning malfunction in information display. Also, under the following conditions, the operation may be temporarily cancelled.

- The side radar may be blocked by temporary ambient conditions such as splashing water, mist or fog.
- The blocked condition may also be caused by objects such as ice, frost or dirt obstructing the side radar.

Blind Spot Intervention

When the side radar is blocked, the operation is temporarily cancelled. Then the buzzer sounds and then the Blind Spot Intervention malfunction in information display. Also, under the following conditions, the operation may be temporarily cancelled.

- The side radar may be blocked by temporary ambient conditions such as splashing water, mist or fog.
- The blocked condition may also be caused by objects such as ice, frost or dirt obstructing the side radar.

Back-up Collision Intervention (BCI)

SYSTEM

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

When the side radar is blocked, the operation is temporarily cancelled. Then the buzzer sounds. Also, under the following conditions, the operation may be temporarily cancelled.

- The side radar may be blocked by temporary ambient conditions such as splashing water, mist or fog.
- The blocked condition may also be caused by objects such as ice, frost or dirt obstructing the side radar.

Fail-safe (Lane Camera Unit with DAST)

INFOID:000000013404652

FAIL-SAFE CONTROL BY DTC

Active Lane Control

If a malfunction occurs in the lane camera unit, chassis control module cancels control, and turns ON the Chassis Control Module malfunction in information display.

Lane Departure Warning (LDW)

If a malfunction occurs in the lane camera unit, chassis control module cancels control, and turns ON the LDW malfunction in information display.

Lane Departure Prevention (LDP)

If a malfunction occurs in the lane camera unit, chassis control module cancels control, sounds a beep, and turns ON the LDP malfunction in information display.

Blind Spot Intervention

If a malfunction occurs in the lane camera unit, chassis control module cancels control, sounds a beep, and turns ON the Blind Spot Intervention malfunction in information display.

TEMPORARY DISABLED STATUS AT HIGH TEMPERATURE

Lane Departure Warning (LDW)

- If the vehicle is parked in direct sunlight under high temperature conditions, the system may be deactivated automatically. And the LDW malfunction in information display.
- When interior temperature is reduced, the system will resume operation automatically and the LDW malfunction in the combination meter will stop blinking.

Lane Departure Prevention (LDP)

- If the vehicle is parked in direct sunlight under high temperature conditions, the system may be deactivated automatically. And the buzzer sounds and LDP malfunction in information display.
- When interior temperature is reduced, the system will resume when dynamic driver assistance switch is turned ON.

Blind Spot Intervention

- If the vehicle is parked in direct sunlight under high temperature conditions, the system may be deactivated automatically. And the buzzer sounds and Blind Spot Intervention malfunction in information display.
- When interior temperature is reduced, the system will resume when dynamic driver assistance switch is turned ON.

Fail-safe (Lane Camera Unit Without DAST)

INFOID:000000013404653

FAIL-SAFE CONTROL BY DTC

Lane Departure Warning (LDW)

If a malfunction occurs in the lane camera unit, ADAS control unit cancels control, and turns ON the LDW malfunction in information display.

Lane Departure Prevention (LDP)

If a malfunction occurs in the lane camera unit, ADAS control unit cancels control, sounds a beep, and turns ON the LDP malfunction in information display.

Blind Spot Intervention

If a malfunction occurs in the lane camera unit, ADAS control unit cancels control, sounds a beep, and turns ON the Blind Spot Intervention malfunction in information display.

TEMPORARY DISABLED STATUS AT HIGH TEMPERATURE

Lane Departure Warning (LDW)

- If the vehicle is parked in direct sunlight under high temperature conditions, the system may be deactivated automatically. And the LDW malfunction in information display.

SYSTEM

[DRIVER ASSISTANCE SYSTEM]

< SYSTEM DESCRIPTION >

- When interior temperature is reduced, the system will resume operation automatically and the LDW malfunction in the combination meter will stop blinking.

Lane Departure Prevention (LDP)

- If the vehicle is parked in direct sunlight under high temperature conditions, the system may be deactivated automatically. And the buzzer sounds and LDP malfunction in information display.
- When interior temperature is reduced, the system will resume when dynamic driver assistance switch is turned ON.

Blind Spot Intervention

- If the vehicle is parked in direct sunlight under high temperature conditions, the system may be deactivated automatically. And the buzzer sounds and Blind Spot Intervention malfunction in information display.
- When interior temperature is reduced, the system will resume when dynamic driver assistance switch is turned ON.

Fail-Safe (Chassis Control Module)

INFOID:000000013508423

When a malfunction occurs in the chassis control module, the master warning lamp turns ON and an interrupt is displayed on the information display of the combination meter.

DTC	Vehicle condition
C1B90-00	The following functions are suspended. <ul style="list-style-type: none"> • Active lane control function • LDW function • LDP function • Blind spot intervention function
C1B91-00	
C1B92-00	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function
C1B93-00	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • LDW function • LDP function • Blind spot intervention function
C1B94-00	
C1B96-00	The following functions are suspended. <ul style="list-style-type: none"> • LDW function • LDP function • Blind spot intervention function • Intelligent cruise control function
C1B99-00	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function • Infiniti InTuition function • Digital motion control function
C1BA6-00	The following functions are suspended. <ul style="list-style-type: none"> • Infiniti InTuition function
C1BA7-00	The following functions are suspended. <ul style="list-style-type: none"> • Active lane control function
C1BA9-00	The following functions are suspended. <ul style="list-style-type: none"> • LDW function • LDP function • Blind spot intervention function
C1BAA-00	
C1BAB-00	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function

SYSTEM

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

DTC	Vehicle condition		
C1BAC-00	The following functions are suspended. • LDP function • Blind spot intervention function	A	
C1BAD-00			
C1BAE-00		B	
C1BAF-00	The following functions are suspended. • Blind spot intervention function		
C1BB0-06	Normal control	C	
C1BB2-00	The following functions are suspended. • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function • Infiniti InTuition function • Digital motion control function		
C1BB3-00		D	
C1BB4-00			
C1BB5-00		E	
C1BB6-00	The following functions are suspended. • Digital motion control function	F	
C1BB7-00	The following functions are suspended. • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function • Infiniti InTuition function • Digital motion control function		
C1BB8-00		G	
C1BB9-00			
C1BBA-00		H	
C1BBB-00			
C1BBC-00	Normal control	I	
C1BBD-00	The following functions are suspended. • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function • Infiniti InTuition function • Digital motion control function	J	
C1BBE-11		K	
C1BBE-12			
C1BBE-19		L	
C1BBE-1D			
C1BEE-39			
C1BEE-64		M	
C1BBF-11		The following functions are suspended. • Digital motion control function	
C1BBF-12			
C1BBF-19		N	
C1BBF-1D			
C1BBF-39			
C1BBF-64			
C1BC0-00	The following functions are suspended. • Active trace control function • Active lane control function	P	
C1BC1-00			

DAS

SYSTEM

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

DTC	Vehicle condition
C1BC7-11	The following functions are suspended. <ul style="list-style-type: none"> • Digital motion control function
C1BC7-12	
C1BC7-19	
C1BC7-1D	
C1BC7-39	
C1BC7-64	
C1BC8-11	
C1BC8-12	
C1BC8-19	
C1BC8-1D	
C1BC8-39	
C1BC8-64	
U1000-00	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function
U1010-49	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • Active lane control function
U1A31-00	The following functions are suspended. <ul style="list-style-type: none"> • Active lane control function • LDW function • LDP function • Blind spot intervention function
U1A35-00	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function
U1A3E-00	Normal control

WARNING/INDICATOR/CHIME LIST

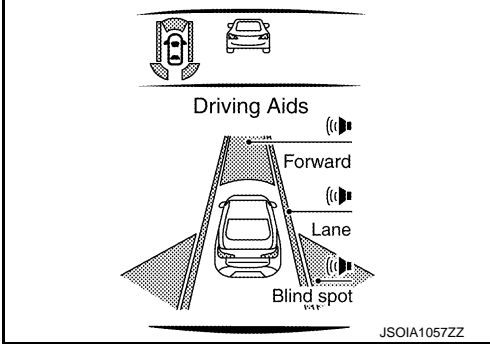
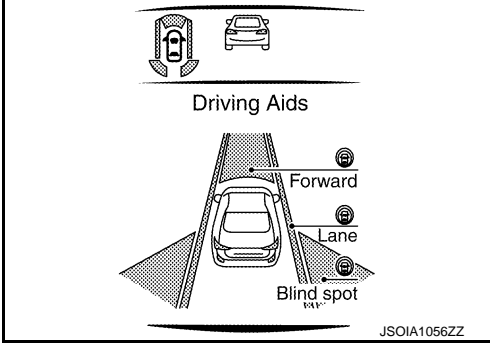
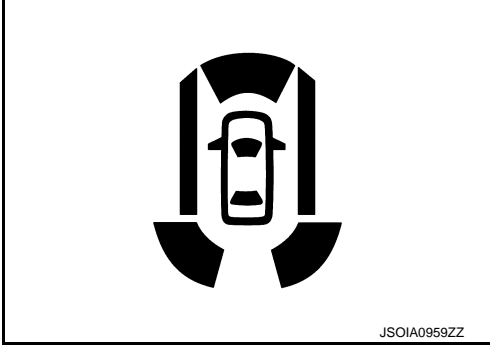
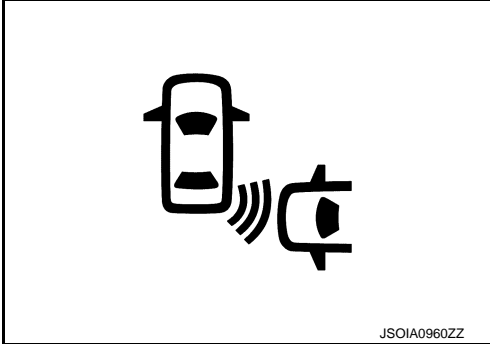
WARNING/INDICATOR/CHIME LIST : Warning/Indicator (On Information Display)

INFOID:000000012796256

SYSTEM

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Name	Design	Function
Following system display • PFCW (FEB) • LDW • BSW	 <p style="text-align: center;">Driving Aids</p> <p style="text-align: right;">Forward</p> <p style="text-align: right;">Lane</p> <p style="text-align: right;">Blind spot</p> <p style="text-align: right; font-size: small;">JSOIA1057ZZ</p>	<ul style="list-style-type: none"> • Withe: DAS-266. "PFCW/LDW/BSW : Menu Displayed by Pressing Each Switch" • Green: DAS-272. "DCA/LDP/BLIND SPOT INTERVENTION : Menu Displayed by Pressing Each Switch"
Following system display • DCA • LDP • Blind Spot Intervention	 <p style="text-align: center;">Driving Aids</p> <p style="text-align: right;">Forward</p> <p style="text-align: right;">Lane</p> <p style="text-align: right;">Blind spot</p> <p style="text-align: right; font-size: small;">JSOIA1056ZZ</p>	<ul style="list-style-type: none"> • Withe: DAS-266. "PFCW/LDW/BSW : Menu Displayed by Pressing Each Switch" • Green: DAS-272. "DCA/LDP/BLIND SPOT INTERVENTION : Menu Displayed by Pressing Each Switch"
Following system malfunction/warning • PFCW (FEB) • DCA • LDW • LDP • BSW • Blind Spot Intervention	 <p style="text-align: right; font-size: small;">JSOIA0959ZZ</p>	<ul style="list-style-type: none"> • Withe: DAS-266. "PFCW/LDW/BSW : Menu Displayed by Pressing Each Switch" • Green: DAS-272. "DCA/LDP/BLIND SPOT INTERVENTION : Menu Displayed by Pressing Each Switch"
BCI malfunction/warning	 <p style="text-align: right; font-size: small;">JSOIA0960ZZ</p>	DAS-279. "BCI : Menu Displayed by Pressing Each Switch"

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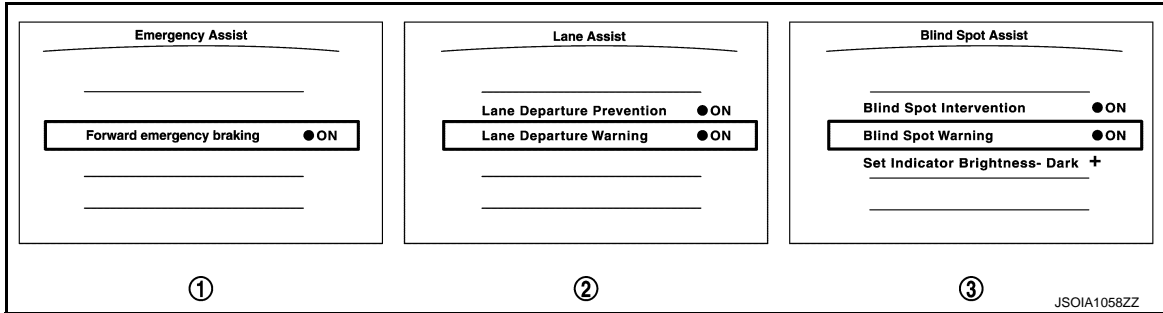
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OPERATION
PFCW/LDW/BSW

PFCW/LDW/BSW : Switch Name and Function

INFOID:000000012796257

PFCW/LDW/BSW



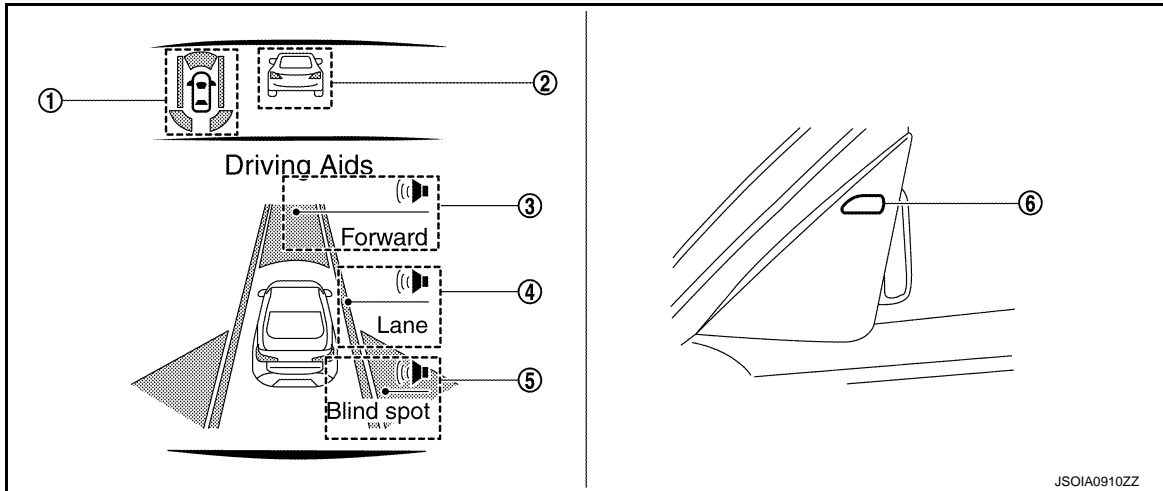
No.	Switch name	Description
①	PFCW/FEB system setting screen (Integral switch settings screen)	The setting of PFCW/FEB system can be switched between ON and OFF
②	LDW system setting screen (Integral switch settings screen)	The setting of LDW system can be switched between ON and OFF
③	BSW system setting screen (Integral switch settings screen)	The setting of BSW system can be switched between ON and OFF

PFCW/LDW/BSW : Menu Displayed by Pressing Each Switch

INFOID:000000012796258

SYSTEM DISPLAY

PFCW/LDW/BSW



No.	Switch name	Description
①	Warning systems indicator	Indicates that PFCW/FEB/LDW/BSW systems are ON
②	Vehicle ahead detection indicator	Indicates whether it detects a vehicle ahead NOTE: The vehicle ahead detection indicator turns OFF when the no operation condition is satisfied
③	Warning systems indicator "Forward" position (Speaker icon)	Indicates that PFCW/FEB system is ON

OPERATION

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

No.	Switch name	Description
④	Warning systems indicator "Lane" position (Speaker icon)	Indicates that LDW system is ON
⑤	Warning systems indicator "Blind spot" position (Speaker icon)	Indicates that BSW system is ON
⑥	Blind Spot Warning/Blind Spot Intervention indicator LH/RH	<ul style="list-style-type: none"> • Illuminates when detect other vehicles beside vehicle in an adjacent lane • Blinks when BSW system is warning to driver

DISPLAY AND WARNING (PFCW/LDW/BSW)

System Display

The PFCW/LDW/BSW systems operate when ON is selected with the integral switch.

System status	Condition	Display on combination meter	Indicator color
PFCW/LDW/BSW OFF	—	<p style="text-align: center;">Driving Aids OFF Forward OFF Lane OFF Blind spot JSOIA0911ZZ</p>	—
PFCW/LDW/BSW ON	System ON	<p style="text-align: center;">Driving Aids Forward Lane Blind spot JSOIA0912ZZ</p>	White
PFCW ON (FEB ON)	System ON	<p style="text-align: center;">Driving Aids Forward OFF Lane OFF Blind spot JSOIA0913ZZ</p>	White
LDW ON	System ON	<p style="text-align: center;">Driving Aids OFF Forward Lane OFF Blind spot JSOIA0914ZZ</p>	White
BSW ON	System ON	<p style="text-align: center;">Driving Aids OFF Forward OFF Lane Blind spot JSOIA0915ZZ</p>	White

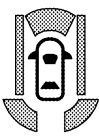
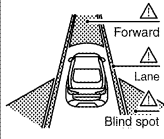

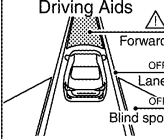


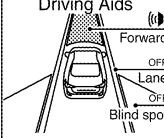

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OPERATION

< SYSTEM DESCRIPTION >

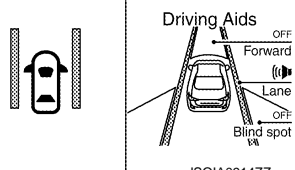

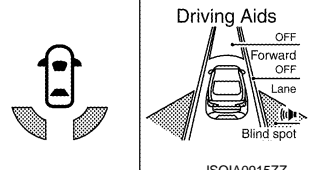

[DRIVER ASSISTANCE SYSTEM]

System status	Condition	Display on combination meter	Indicator color
PFCW/LDW/BSW are malfunction	System malfunction	  <p style="text-align: center; font-size: small;">JSOIA0916ZZ</p>	Yellow
Operation conditions not satisfied (dirt around the ICC sensor)	The PFCW/FEB system is automatically canceled.	  <p style="text-align: center; font-size: small;">JSOIA1129ZZ</p>	Yellow
		 <p style="text-align: center; font-size: small;">JSOIA0932ZZ</p>	White
Accelerator pedal high temperature	The PFCW/FEB system is automatically canceled.	  <p style="text-align: center; font-size: small;">JSOIA0913ZZ</p>	White (Blink)
		 <p style="text-align: center; font-size: small;">JSOIA0932ZZ</p>	White
		Unavailable High Accelerator Temperature	

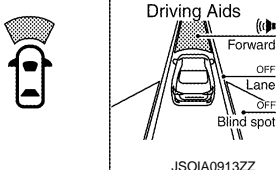
OPERATION

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

System status	Condition	Display on combination meter	Indicator color
Lane camera unit high temperature	The LDW system is automatically canceled.	 <p style="font-size: small;">Driving Aids OFF Forward Lane OFF Blind spot JSOIA0914ZZ</p>	White (Blink)
		 <p style="font-size: small;">JSOIA0931ZZ</p>	White
		Unavailable High Cabin Temperature	
Dirt around the side radar	The BSW system is automatically canceled.	 <p style="font-size: small;">Driving Aids OFF Forward OFF Lane Blind spot JSOIA0915ZZ</p>	White (Blink)
		 <p style="font-size: small;">JSOIA0936ZZ</p>	White
		Unavailable Side Radar Obstruction	

Warning Operation
• PFCW operation

Condition	Action		
	Indication on the combination meter	Indicator color	Buzzer
System ON	 <p style="font-size: small;">Driving Aids Forward OFF Lane OFF Blind spot JSOIA0913ZZ</p>	White	OFF

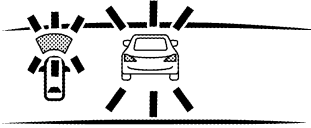
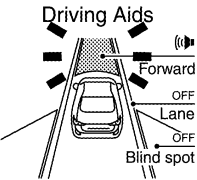

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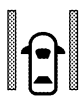
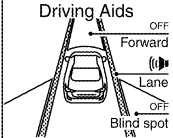

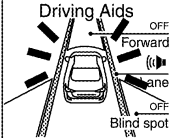

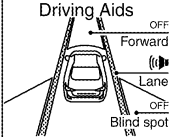
OPERATION

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Condition	Action		
	Indication on the combination meter	Indicator color	Buzzer
When judged that the distance between own vehicle and a vehicle in front of the vehicle ahead becomes closer	 JSOIA0921ZZ	Yellow (Blink)	Beep
	 JSOIA1123ZZ	Yellow (Blink)	
Operation conditions not satisfied (dirt around the ICC sensor)	 JSOIA0932ZZ	Yellow	Beep
	Unavailable Front Radar Obstruction		

• LDW operation

Vehicle condition/ Driver's operation			Action			
Vehicle speed (Approx.) [km/h (MPH)]	Turn signal condition	Status of vehicle close to lane marker	Indication on the combination meter	Indicator color	Buzzer	
Less than Approx. 60 km/h (37 MPH)	—	Close to lane marker	 JSOIA0914ZZ	 JSOIA0914ZZ	White	OFF
Approx. 70 km/h (45 MPH) or more	<ul style="list-style-type: none"> • OFF • ON (Opposite to the deviate side) 	Close to lane marker	 JSOIA1124ZZ	 JSOIA1124ZZ	Yellow (Blink)	Short continuous beeps
	ON (Deviate side)	Close to lane marker	 JSOIA0914ZZ	 JSOIA0914ZZ	White	OFF

NOTE:


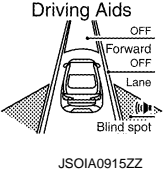

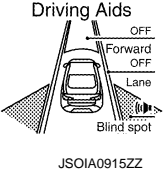

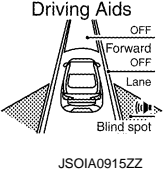
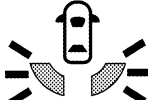

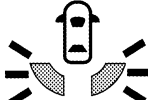

OPERATION

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

After the operating conditions of warning are satisfied, the warning continues until the vehicle speed reaches approximately 60 km/h (37 MPH). Refer to [DAS-234, "LDW \(WITHOUT DIRECT ADAPTIVE STEERING SYSTEM\) : System Description"](#).

- BSW operation

Vehicle condition/ Driver's operation			Action				
Vehicle speed (Approx.) [km/h (MPH)]	Turn signal condition	Status of vehicle detection within detection area	Indication on the Blind Spot Warning/ Blind Spot Intervention indicator	Indication on the combination meter	Indicator color	Buzzer	
Less than approx. 29 (18)	—	—	OFF			White	OFF
		Vehicle is not detected	OFF			White	OFF
Approx. 32 (20) or more	OFF	Vehicle is detected	ON			White	OFF
		Before turn signal operates Vehicle is detected	Blink			Yellow (Blink)	Short continuous beeps
	ON (vehicle detected direction)	Vehicle is detected after turn signal operates	Blink			Yellow (Blink)	OFF

NOTE:

- If vehicle speed exceeds approximately 32 km/h (20MPH), BSW function operates until the vehicle speed becomes lower than approximately 29km/h (18MPH).
- Time shown in the figure is approximate time.
- Always Blind Spot Intervention system operates together with BSW system. Whenever Blind Spot Intervention system is turned ON by pushing the dynamic driver assistance switch, BSW system also be turned on even if the BSW system is turned off.

DCA/LDP/BLIND SPOT INTERVENTION

DAS

OPERATION

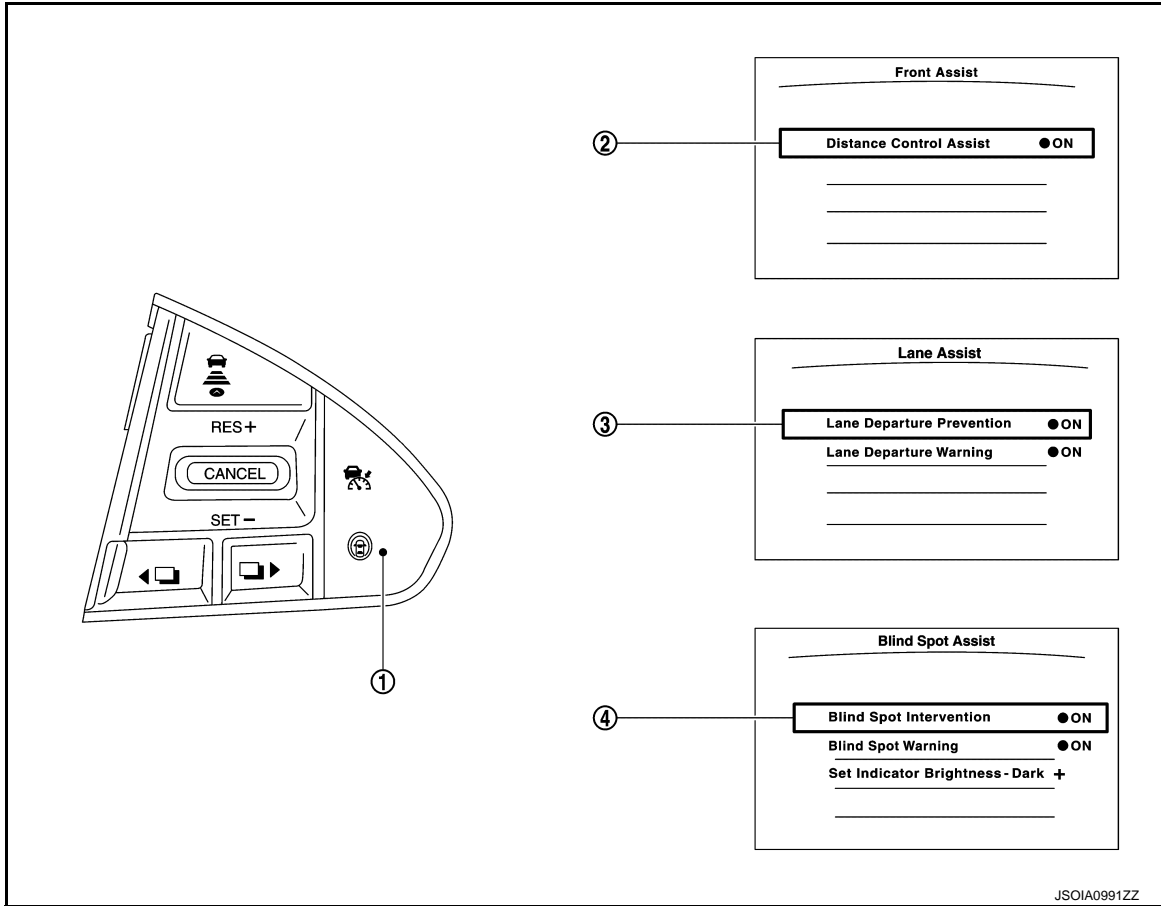
< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

DCA/LDP/BLIND SPOT INTERVENTION : Switch Name and Function

INFOID:000000012796259

DCA/LDP/Blind Spot Intervention



No.	Switch name	Description
①	Dynamic driver assistance switch	Turns DCA/LDP/Blind Spot Intervention system ON/OFF (When the setting of system on the navigation system setting screen is ON)
②	DCA system setting screen (Integral switch)	The setting of DCA system can be switched between ON and OFF
③	LDP system setting screen (Integral switch)	The setting of LDP system can be switched between ON and OFF
④	Blind Spot Intervention system setting screen (Integral switch)	The setting of Blind Spot Intervention system can be switched between ON and OFF

DCA/LDP/BLIND SPOT INTERVENTION : Menu Displayed by Pressing Each Switch

INFOID:000000012796260

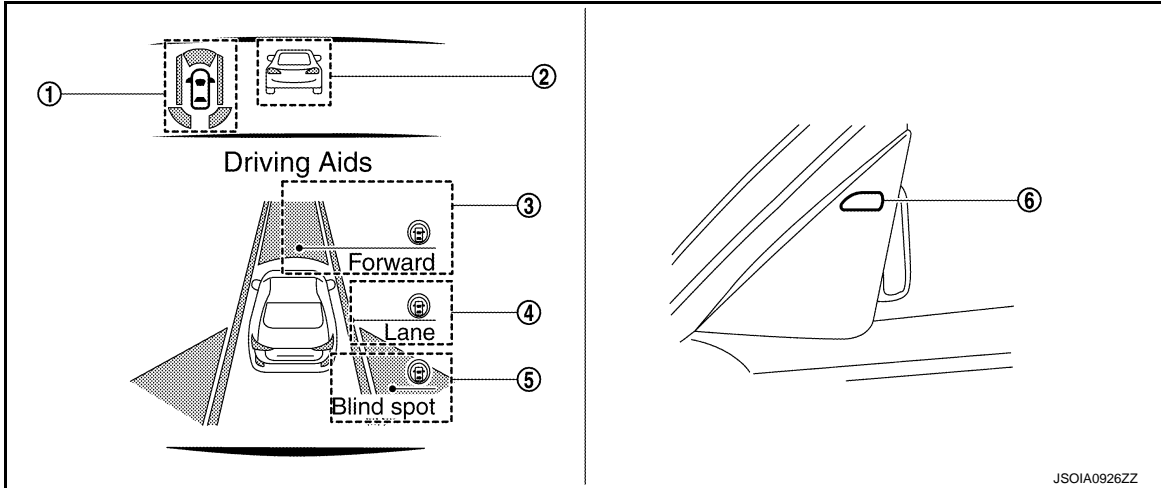
SYSTEM DISPLAY

OPERATION

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

DCA/LDP/Blind Spot Intervention




No.	Switch name	Description
①	Dynamic driver assistance systems indicator	Indicates that DCA/LDP/Blind Spot Intervention systems are ON
②	Vehicle ahead detection indicator	Indicates whether it detects a vehicle ahead NOTE: The vehicle ahead detection indicator turns OFF when the no operation condition is satisfied
③	Dynamic driver assistance systems indicator "Forward" position (Dynamic driver assistance icon)	Indicates that DCA systems are ON
④	Dynamic driver assistance systems indicator "Lane" position (Dynamic driver assistance icon)	Indicates that LDP systems are ON
⑤	Dynamic driver assistance systems indicator "Blind spot" position (Dynamic driver assistance icon)	Indicates that Blind Spot Intervention systems are ON
⑥	Blind Spot Warning/Blind Spot Intervention indicator LH/RH	<ul style="list-style-type: none"> • Illuminates when detect other vehicles beside vehicle in an adjacent lane • Blinks when Blind Spot Intervention system is warning to driver

DISPLAY AND WARNING (DCA/LDP/BLIND SPOT INTERVENTION)

System Display

When the dynamic driver assistance switch is pressed while the engine is running, the DCA/LDP/Blind Spot Intervention system operates the system for which ON is selected with the integral switch.

System status	Condition	Display on combination meter	Indicator	Buzzer
When the dynamic driver assistance switch is turned ON with settings of DCA system, LDP system and Blind Spot Intervention system OFF	—	 <small>JSOIA0920ZZ</small>	White	Beep
		Unavailable Select Driving Aids in Settings		

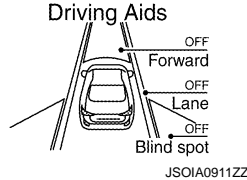



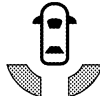
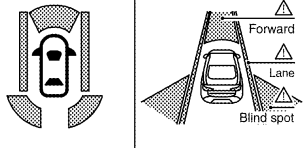

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OPERATION

< SYSTEM DESCRIPTION >




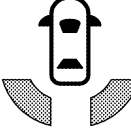

[DRIVER ASSISTANCE SYSTEM]

System status	Condition	Display on combination meter	Indicator	Buzzer
DCA/LDP/Blind Spot Intervention OFF (PFCW/LDW/BSW are OFF)	—		—	—
DCA/LDP/Blind Spot Intervention ON	System ON		Green	—
DCA ON	System ON		Green	—
LDP ON	System ON		Green	—
Blind Spot Intervention ON	System ON		Green	—
DCA/LDP/Blind Spot Intervention are malfunction	System malfunction		Yellow	Beep
				
		Malfunction See Owner's Manual		

OPERATION

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

System status	Condition	Display on combination meter	Indicator	Buzzer
Operation conditions not satisfied (dirt around the ICC sensor)	The DCA system is automatically canceled. NOTE: The system operates if the dynamic driver assistance switch is turned OFF⇒ON after the condition improves	—	OFF	Beep
		 <small>JSOIA0932ZZ</small> Unavailable Front Radar Obstruction	Green	
		Unavailable Front Radar Obstruction	Green	
Accelerator pedal high temperature	The system operates if the dynamic driver assistance switch is turned OFF⇒ON after the condition improves	—	OFF	Beep
		 <small>JSOIA0932ZZ</small> Unavailable High Accelerator Temperature	Green	
		Unavailable High Accelerator Temperature	Green	
Lane camera unit high temperature	The LDP/Blind Spot Intervention system is automatically canceled. NOTE: The system operates if the dynamic driver assistance switch is turned OFF⇒ON after the condition improves	—	OFF	Beep
		 <small>JSOIA0931ZZ</small> Unavailable High Cabin Temperature	Green	
		Unavailable High Cabin Temperature	Green	
Dirt around the side radar	The Blind Spot Intervention system is automatically canceled. NOTE: The system operates if the dynamic driver assistance switch is turned OFF⇒ON after the condition improves	—	OFF	Beep
		 <small>JSOIA0936ZZ</small> Unavailable Side Radar Obstruction	Green	
		Unavailable Side Radar Obstruction	Green	
<ul style="list-style-type: none"> • When the VDC or ABS (including the TCS) operates • When the VDC is turned OFF • When the drive mode select switch is in SNOW position 	The DCA/LDP/Blind Spot Intervention system is automatically canceled. NOTE: The system operates if the dynamic driver assistance switch is turned OFF⇒ON after the condition improves	—	OFF	Beep
		 <small>JSOIA0931ZZ</small> Unavailable High Cabin Temperature	Green	
		Currently unavailable	Green	

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Warning Operation

OPERATION

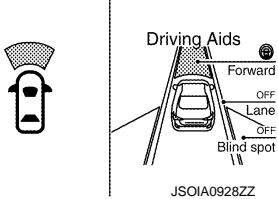
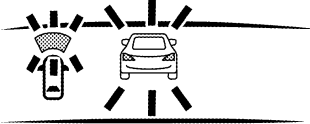
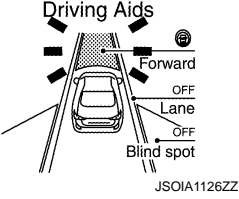
[DRIVER ASSISTANCE SYSTEM]

< SYSTEM DESCRIPTION >

- DCA operation

Approach Warning

- If own vehicle comes closer to the vehicle ahead due to rapid deceleration of that vehicle or if another vehicle cuts in, the system warns the driver with the chime and DCA system display. Decelerate by depressing the brake pedal to maintain a safe vehicle distance if:
 - The vehicle ahead detection indicator blinks.
 - The chime sounds.
- The warning chime may not sound in some cases when there is a short distance between vehicles. Some examples are:
 - When the vehicles are traveling at the same speed and the distance between vehicles is not changing
 - When the vehicle ahead is traveling faster and the distance between vehicles is increasing
 - When a vehicle cuts in near own vehicle
- The warning chime will not sound when own vehicle approaches vehicles that are parked or moving slowly.

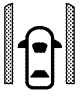
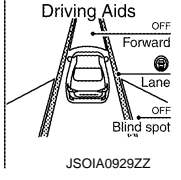
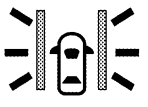
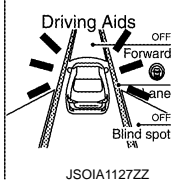
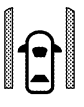
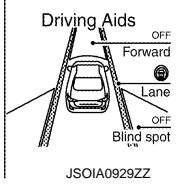
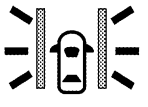
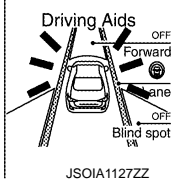
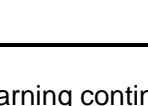
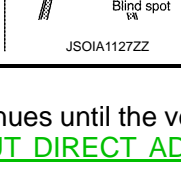
Condition	Action			
	Dynamics action	Display on combination meter	Indicator	Buzzer
System ON	—	 <p style="text-align: center; font-size: small;">JSOIA0928ZZ</p>	Green	—
<ul style="list-style-type: none"> • When the system detected vehicle ahead • When the system judges that the brake operation by the driver is necessary 	<ul style="list-style-type: none"> • Accelerator pedal actuation • Operates brake 	 <p style="text-align: center; font-size: small;">JSOIA0921ZZ</p>	Yellow (Blink)	Beep
		 <p style="text-align: center; font-size: small;">JSOIA1126ZZ</p>	Yellow (Blink)	

- LDP operation

OPERATION

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Vehicle condition/ Driver's operation			Action				
Vehicle speed (Approx.) [km/h (MPH)]	Turn signal condi- tion	Status of vehicle close to lane marker	Yawing con- trol	Indication on the combination meter	Indicator	Buzzer	
Less than Ap- prox. 60 km/h (37 MPH)	—	Close to lane marker	OFF			Green	—
Approx. 70 km/h (45 MPH) or more	<ul style="list-style-type: none"> • Turn signal OFF • Turn signal ON (Opposite to the deviate side) 	Close to lane marker	ON			Yellow (Blink)	Short con- tinuous beeps
	Turn signal ON (Deviate side)	Close to lane marker	OFF			Green	—
	<ul style="list-style-type: none"> • Turn signal OFF • Turn signal ON (Opposite to the deviate side) 	Close to lane marker with soft braking	OFF			Yellow (Blink)	Short con- tinuous beeps
	<ul style="list-style-type: none"> • Turn signal OFF • Turn signal ON (Opposite to the deviate side) 	Close to lane marker	OFF			Yellow (Blink)	Short con- tinuous beeps

NOTE:

After the operating conditions of warning are satisfied, the warning continues until the vehicle speed reaches approximately 60 km/h (37 MPH). Refer to [DAS-240, "LDP \(WITHOUT DIRECT ADAPTIVE STEERING SYSTEM\) : System Description"](#).

- Blind Spot Intervention operation


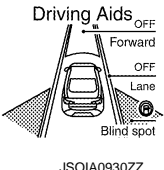

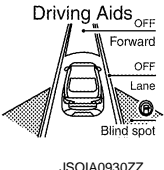
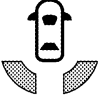
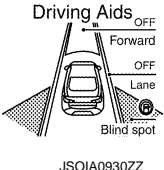


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OPERATION

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Vehicle condition/ Driver's operation			Action				
Vehicle speed (Approx.) [km/h (MPH)]	Status of vehicle detection within detection area	Status of approach to adjacent lane	Indication on the Blind Spot Intervention indicator	Yaw control	Indication on the combination meter	Indicator	Buzzer
Less than approx. 60 (37)	—	—	OFF	OFF	 <div style="display: inline-block; vertical-align: middle; text-align: center;">  <p style="font-size: 8px;">Driving Aids OFF Forward OFF Lane Blind spot JSOIA0930ZZ</p> </div>	Green	OFF
Approx. 60 (37) or more	Vehicle is not detected	—	OFF	OFF	 <div style="display: inline-block; vertical-align: middle; text-align: center;">  <p style="font-size: 8px;">Driving Aids OFF Forward OFF Lane Blind spot JSOIA0930ZZ</p> </div>	Green	OFF
	Vehicle is detected	Not approaching	ON	OFF	 <div style="display: inline-block; vertical-align: middle; text-align: center;">  <p style="font-size: 8px;">Driving Aids OFF Forward OFF Lane Blind spot JSOIA0930ZZ</p> </div>	Green	OFF
	Vehicle is detected	Approaching	Blink	ON	 <div style="display: inline-block; vertical-align: middle; text-align: center;">  <p style="font-size: 8px;">Driving Aids OFF Forward OFF Lane Blind spot JSOIA1128ZZ</p> </div>	Yellow (Blink)	Short continuous beeps

NOTE:

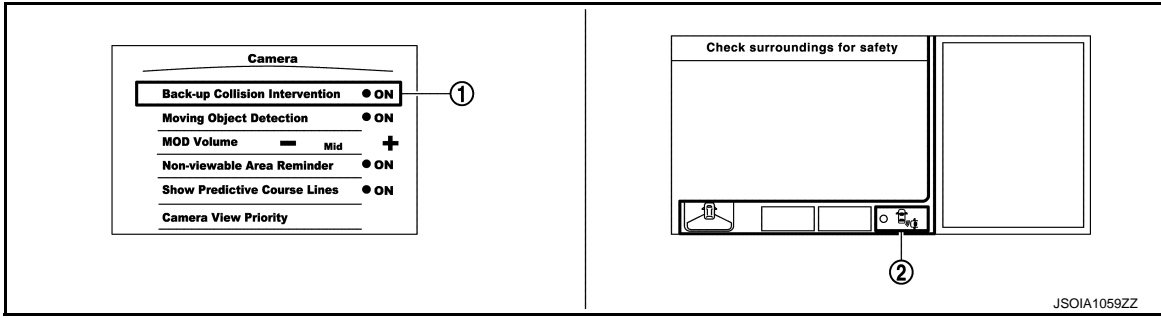
- If vehicle speed exceeds approximately 32 km/h (20MPH), BSW function operates until the vehicle speed becomes lower than approximately 29km/h (18MPH).
- Time shown in the figure is approximate time.
- Always Blind Spot Intervention system operates together with BSW system. Whenever Blind Spot Intervention system is turned ON by pushing the dynamic driver assistance switch, BSW system also be turned on even if the BSW system is turned off.

BCI

BCI : Switch Name and Function

INFOID:000000012796261

BCI

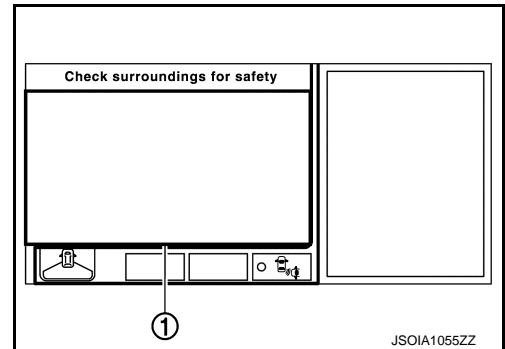


No.	Switch name	Description
①	BCI system setting screen (Integral switch)	The setting of BCI system can be switched between ON and OFF
②	BCI system temporary switch (Navigation screen)	Turns BCI system temporarily OFF

BCI : Menu Displayed by Pressing Each Switch

INFOID:000000012796262

SYSTEM DISPLAY



No.	Name	Description
①	BCI warning frame (yellow)	Blinks when BCI system is warning to driver (Detecting vehicle)
	BCI warning frame (red)	Blinks when BCI system is warning to driver (Vehicle approaching)

DISPLAY AND WARNING (BCI)

Vehicle condition/Driver's operation	Status of detection within detection area	Vehicle speed	Blind Spot Warning/ Blind Spot Intervention indicator	Action	Indication on the combination meter
<ul style="list-style-type: none"> BCI system OFF Shift lever in reverse 	—	—	OFF	—	<p>JSOIA0941ZZ</p> <p>System OFF</p>

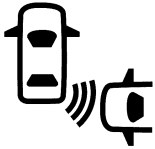
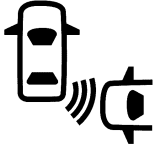

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OPERATION

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Vehicle condition/Driver's operation	Status of detection within detection area	Vehicle speed	Blind Spot Warning/ Blind Spot Intervention indicator	Action	Indication on the combination meter
	Vehicle is absent	—	OFF	—	—
<ul style="list-style-type: none"> • BCI system ON • Engine running • Shift lever in reverse 	Vehicle is detected	0 km/h (0 MPH)	Blink	<ul style="list-style-type: none"> • Buzzer sounds (single beep) • Display frame is yellow 	—
		8 km/h (5.0 MPH) or less	Blink	<ul style="list-style-type: none"> • Buzzer sounds (3 times) • Display frame is red • Accelerator pedal is pushed upward <p>NOTE: When accelerator pedal is depressed</p> <ul style="list-style-type: none"> • Brake operation <p>NOTE: When accelerator pedal is released</p>	—
BCI system malfunction	—	—	OFF	<ul style="list-style-type: none"> • Beep • Temporary switch (navigation display) is deactivated 	 <p style="text-align: right; font-size: small;">JSOIA0941ZZ</p> <hr/> Malfunction See Owner's Manual
When radar blockage is detected	—	—	OFF	<ul style="list-style-type: none"> • Beep • Temporary switch (navigation display) is deactivated 	 <p style="text-align: right; font-size: small;">JSOIA0941ZZ</p> <hr/> Unavailable Side Radar Obstruction
When the accelerator pedal actuator detects that the internal motor temperature is high.	—	—	OFF	<ul style="list-style-type: none"> • Beep • Temporary switch (navigation display) is deactivated 	 <p style="text-align: right; font-size: small;">JSOIA0941ZZ</p> <hr/> Unavailable High Accelerator Temperature

Under the following conditions, the BCI system will be turned off automatically, a beep will sound. The BCI system will not be available until the conditions no longer exist.

- When the accelerator pedal actuator detects that the internal motor temperature is high.
- When side radar blockage is detected.

HANDLING PRECAUTION

Precautions for Distance Control Assist

INFOID:000000012796263

- If the vehicle ahead comes to a stop, the vehicle decelerates to a standstill within the limitations of the system. The system will cancel once it judges that the vehicle has come to a standstill with a warning chime. To prevent the vehicle from moving, the driver must depress the brake pedal.
- The DCA system will not apply brake control while the driver's foot is on the accelerator pedal.
- This system is only an aid to assist the driver and is not a collision warning or avoidance device. It is the driver's responsibility to stay alert, drive safely and be in control of the vehicle at all times.
- This system will not adapt automatically to road conditions. Do not use the system on roads with sharp curves, or on icy roads, in heavy rain or in fog.
- The distance sensor will not detect the following object.
 - Stationary and slow moving vehicles
 - Pedestrians or objects in the roadway
 - Oncoming vehicles in the same lane
 - Motorcycles traveling offset in the travel lane
- As there is a performance limit to the distance control function, never rely solely on the DCA system. This system does not correct careless, inattentive or absent-minded driving, or overcome poor visibility in rain, fog, or other bad weather. Decelerate the vehicle speed by depressing the brake pedal, depending on the distance to the vehicle ahead and the surrounding circumstances in order to maintain a safe distance between vehicles.
- The system may not detect the vehicle in front of own vehicle in certain road or weather conditions. To avoid accidents, never use the DCA system under the following conditions.
 - On roads with sharp curves
 - On slippery road surfaces such as on ice or snow, etc.
 - During bad weather (rain, fog, snow, etc.)
 - When rain, snow or dirt adhere to the system sensor
 - On steep downhill roads (frequent braking may result in overheating the brakes)
 - On repeated uphill and downhill roads
- In some road or traffic conditions, a vehicle or object can unexpectedly come into the sensor detection zone and cause automatic braking. Driver may need to control the distance from other vehicles using the accelerator pedal. Always stay alert and avoid using the DCA system when it is not recommended in this section.
- The following are some conditions in which the sensor cannot detect the signals.
 - When the snow or road spray from traveling vehicles reduces the sensor's visibility
 - When excessively heavy baggage is loaded in the rear seat or the luggage room of own vehicle
- The DCA system is designed to automatically check the sensor's operation. When the sensor area of front bumper is covered with dirt or is obstructed, the system will automatically be canceled. If the sensor is covered with ice, a transparent or translucent vinyl bag, etc., the DCA system may not detect them. In these instances, the DCA system may not be able to decelerate the vehicle properly. Be sure to check and clean the sensor regularly.
- The DCA system is designed to help assist the driver to maintain a following distance from the vehicle ahead. The system will decelerate as necessary and if the vehicle ahead comes to a stop, the vehicle decelerates to standstill. However, the DCA system can only apply up to approximately 40% of the vehicles total braking power. If a vehicle moves into the traveling lane ahead or if a vehicle traveling ahead rapidly decelerates, the distance between vehicles may become closer because the DCA system cannot decelerate the vehicle quickly enough. If this occurs, the DCA system will sound a warning chime and blink the system display to notify the driver to take necessary action.
- The DCA system does not control vehicle speed or warn when driver approach stationary and slow moving vehicles. Driver must pay attention to vehicle operation to maintain proper distance from vehicles ahead.

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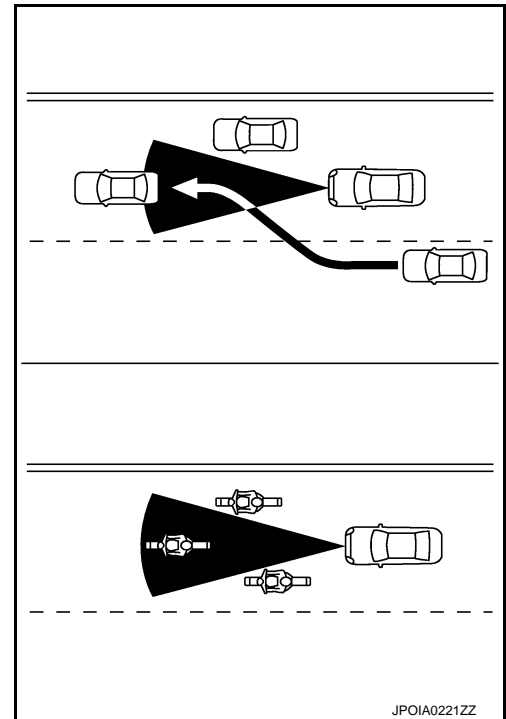
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HANDLING PRECAUTION

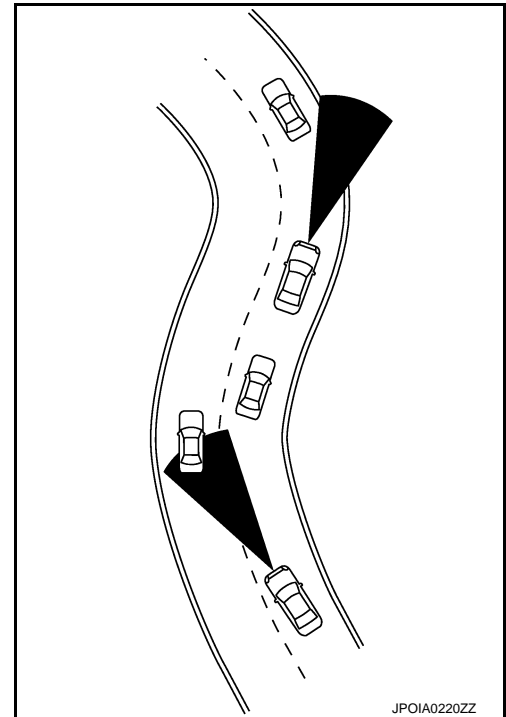
< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

- The detection zone of the sensor is limited. A vehicle ahead must be in the detection zone for the system to operate.
- A vehicle ahead may move outside of the detection zone due to its position within the same lane of travel. Motorcycles may not be detected in the same lane ahead if they are traveling offset from the center line of the lane. A vehicle that is entering the lane ahead may not be detected until the vehicle has completely moved into the lane. If this occurs, the system may warn driver by blinking the system indicator and sounding the chime. The driver may have to manually control the proper distance away from vehicle traveling ahead.



- When driving on some roads, such as winding, hilly, curved, narrow roads, or roads which are under construction, the sensor may detect vehicles in a different lane, or may temporarily not detect a vehicle traveling ahead. This may cause the system to work inappropriately. The detection of vehicles may also be affected by vehicle operation (steering maneuver or traveling position in the lane, etc.) or vehicle condition. If this occurs, the system may warn driver by blinking the system indicator and sounding the chime unexpectedly. The driver will have to manually control the proper distance away from the vehicle traveling ahead.



- The approach warning chime may sound and the driver assist system forward indicator (orange) may blink when the radar sensor detects objects on the side of the vehicle or on the side of the road. This may cause the DCA system to decelerate or accelerate the vehicle. The radar sensor may detect these objects when the vehicle is driven on winding roads, narrow roads, hilly roads or when entering or exiting a curve. In these cases driver will have to manually control the proper distance ahead of own vehicle. Also, the sensor sensitivity can be affected by vehicle operation (steering maneuver or driving position in the lane) or traffic or vehicle condition (for example, if a vehicle is being driven with some damage).
- The DCA system automatically decelerates own vehicle to help assist the driver to maintain a following distance from the vehicle ahead. Manually brake when deceleration is required to maintain a safe distance upon sudden braking by the vehicle ahead or when a vehicle suddenly appears in front of own vehicle. Always stay alert when using the DCA system.
- When the vehicle ahead detection indicator lamp is not illuminated, system will not control or warn the driver.
- Never place a foot under the brake pedal. A foot may be caught when the system controls the brake.
- Depending on the position of the accelerator pedal, the system may not be able to assist the driver to release the accelerator pedal appropriately.
- If the vehicle ahead comes to a standstill, the vehicle decelerates to a standstill within the limitations of the system. The system will release brake control with a warning chime once it judges the vehicle is at a standstill. To prevent the vehicle from moving, the driver must depress the brake pedal. [The system will resume control automatically once the system reaches 5 km/h (3 MPH)].
- When the brake operates, a noise may be heard. This is not a malfunction.

Precautions for Predictive Forward Collision Warning

INFOID:000000012796264

- The predictive forward collision warning system is designed to warn driver before a collision but will not avoid a collision. It is the driver's responsibility to stay alert, drive safely and be in control of the vehicle at all times.
- The radar sensor does not detect the following objects.
 - Pedestrians, animals, or obstacles in the roadway.
 - Oncoming vehicles
 - Crossing vehicles
- The predictive forward collision warning system does not function when a vehicle ahead is a narrow vehicle, such as a motorcycle.
- The radar sensor may not detect a second vehicle ahead in the following conditions:
 - Snow or heavy rain
 - Dirt, ice, snow or other material covering the radar sensor
 - Interference by other radar sources
 - Snow or road spray from traveling vehicles is splashed
 - Driving in a tunnel
- The radar sensor may not detect a second vehicle when the vehicle ahead is being towed.
- When the distance to the vehicle ahead is too close, the beam of the radar sensor is obstructed.
- The radar sensor may not detect a second vehicle when driving on a steep downhill slope or on roads with sharp curves.
- Excessive noise will interfere with the warning tone sound, and it may not be heard.

Precautions for Lane Departure Warning/Lane Departure Prevention

INFOID:000000012796265

LANE CAMERA UNIT HANDLING

To keep the proper operation of the LDW/LDP systems and prevent a system malfunction, be sure to observe the following:

- Always keep the windshield clean.
- Do not attach a sticker (including transparent material) or install an accessory near the lane camera unit.
- Do not place reflective materials, such as white paper or a mirror, on the instrument panel. The reflection of sunlight may adversely affect the lane camera unit capability of detecting the lane markers.
- Do not strike or damage the areas around the camera unit. Do not touch the camera lens or remove the screw located on the camera unit. If the camera unit is damaged due to an accident.

LANE DEPARTURE WARNING (LDW)

- If the LDW system malfunctions, it will cancel automatically, and the LDW malfunction message will appear in the vehicle information display.
- LDW system is only a warning device to inform the driver of a potential unintended lane departure. It will not steer the vehicle or prevent loss of control. It is the driver's responsibility to stay alert, drive safely, keep the vehicle in the traveling lane, and be in control of the vehicle at all times.
- LDW system will not operate at speeds below approximately 70 km/h (45 MPH) or if it cannot detect lane markers.
- Excessive noise will interfere with the warning chime sound, and the chime may not be heard.
- LDW system may not function properly under the following conditions:
 - On roads where there are multiple parallel lane markers; lane markers that are faded or not painted clearly; yellow painted lane markers; non-standard lane markers; or lane markers covered with water, dirt or snow, etc.
 - On roads where the discontinued lane markers are still detectable.
 - On roads where there are sharp curves.
 - On roads where there are sharply contrasting objects, such as shadows, snow, water, wheel ruts, seams or lines remaining after road repairs. (The LDW system could detect these items as lane markers.)
 - On roads where the traveling lane merges or separates.
 - When the vehicle's traveling direction does not align with the lane marker.
 - When traveling close to the vehicle in front of driver, which obstructs the lane camera unit detection range.
 - When rain, snow or dirt adheres to the windshield in front of the lane camera unit.
 - When the headlights are not bright due to dirt on the lens or if the aiming is not adjusted properly.
 - When strong light enters the lane camera unit. (For example, the light directly shines on the front of the vehicle at sunrise or sunset.)
 - When a sudden change in brightness occurs. (For example, when the vehicle enters or exits a tunnel or under a bridge.)

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HANDLING PRECAUTION

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

LANE DEPARTURE PREVENTION (LDP)

- If the LDP system malfunctions, it will cancel automatically, and the LDP malfunction message will appear in the vehicle information display.
- The LDP system will not always steer the vehicle to keep it in the lane. It is not designed to prevent loss of control. It is the driver's responsibility to stay alert, drive safely, keep the vehicle in the traveling lane, and be in control of vehicle at all times.
- LDP system is primarily intended for use on well-developed freeways or highways. It may not detect the lane markers in certain roads, weather or driving conditions.
- Using the LDP system under some conditions of road, lane marker or weather, or when driver change lanes without using the turn signal could lead to an unexpected system operation. In such conditions, driver needs to correct the vehicle's direction with driver's steering operation to avoid accidents.
- The LDP system will not operate at speeds below approximately 70 km/h (45 MPH) or if it cannot detect lane markers.
- Do not use the LDP system under the following conditions as it may not function properly:
 - During bad weather (rain, fog, snow, etc.).
 - When driving on slippery roads, such as on ice or snow, etc.
 - When driving on winding or uneven roads.
 - When there is a lane closure due to road repairs.
 - When driving in a makeshift or temporary lane.
 - When driving on roads where the lane width is too narrow.
 - When driving with a tire that is not within normal tire conditions (for example, tire wear, low tire pressure, installation of spare tire, tire chains, non-standard wheels).
 - When the vehicle is equipped with non-original brake or steering parts or suspension parts.
- Excessive noise will interfere with the warning chime sound, and the chime may not be heard.
- The functions of the LDP system (warning and, system application of the steering or brakes) may or may not operate properly under the following conditions:
 - On roads where there are multiple parallel lane markers; lane markers that are faded or not painted clearly; yellow painted lane markers; non-standard lane markers or lane markers covered with water, dirt or snow, etc.
 - On roads where discontinued lane markers are still detectable.
 - On roads where there are sharp curves.
 - On roads where there are sharply contrasting objects, such as shadows, snow, water, wheel ruts, seams or lines remaining after road repairs (The LDP system could detect these items as lane markers.).
 - On roads where the traveling lane merges or separates.
 - When the vehicle's traveling direction does not align with the lane marker.
 - When traveling close to the vehicle in front of driver, which obstructs the lane camera unit detection range.
 - When rain, snow or dirt adheres to the windshield in front of the lane camera unit.
 - When the headlights are not bright due to dirt on the lens or if the aiming is not adjusted properly.
 - When strong light enters the lane camera unit (For example, the light directly shines on the front of the vehicle at sunrise or sunset.)
 - When a sudden change in brightness occurs (For example, when the vehicle enters or exits a tunnel or under a bridge.)

Precautions for Blind Spot Warning/Blind Spot Intervention

INFOID:000000012796266

LANE CAMERA UNIT HANDLING

Refer to [DAS-283. "Precautions for Lane Departure Warning/Lane Departure Prevention"](#).

SIDE RADAR HANDLING

- Side radar for Blind Spot Warning/Blind Spot Intervention system is located inside the rear bumper.
- Always keep the rear bumper near the side radar clean.
- Do not attach a sticker (including transparent material), install an accessory or paint work near the side radar.
- Do not strike or damage the areas around the side radar.
- Do not strike, damage, and scratch the side radar, especially the vent seal (gray circular) area, under repair.

BLIND SPOT WARNING & BLIND SPOT INTERVENTION

- The Blind Spot Warning and Blind Spot Intervention systems are not a replacement for proper driving procedure and are not designed to prevent contact with vehicles or objects. When changing lanes, always use the side and rear mirrors and turn and look in the direction driver will move to ensure it is safe to change lanes. Never rely solely on the Blind Spot Warning or Blind Spot Intervention system.

HANDLING PRECAUTION

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

- Using the Blind Spot Intervention system under some road, lane marker or weather conditions could lead to improper system operation. Always rely on driver's own steering and braking operation to avoid accidents. A
- The Blind Spot Warning and Blind Spot Intervention systems may not provide the warning or the control for vehicles that pass through the detection zone quickly. B
- Excessive noise (for example, audio system volume, open vehicle window) will interfere with the chime sound, and it may not be heard. B
- The side radar may not be able to detect and activate Blind Spot Warning/Blind Spot Intervention when certain objects are present such as:
 - Pedestrians, bicycles, animals. C
 - Several types of vehicles such as motorcycles. C
 - Oncoming vehicles. C
 - Vehicles remaining in the detection zone when driver accelerate from a stop. D
 - A vehicle merging into an adjacent lane at a speed approximately the same as vehicle. D
 - A vehicle approaching rapidly from behind. D
 - A vehicle which vehicle overtakes rapidly. D
- Severe weather or road spray conditions may reduce the ability of the radar to detect other vehicles. E
- The side radar detection zone is designed based on a standard lane width. When driving in a wider lane, the side radar may not detect vehicles in an adjacent lane. When driving in a narrow lane, the side radar may detect vehicles driving two lanes away. E
- The side radar are designed to ignore most stationary objects, however objects such as guardrails, walls, foliage and parked vehicles may occasionally be detected. This is a normal operating condition. F

BLIND SPOT INTERVENTION

- Do not use the Blind Spot Intervention system under the following conditions because the system may not function properly. G
 - During bad weather (for example. rain, fog, snow, etc.) H
 - When driving on slippery roads, such as on ice or snow, etc. H
 - When driving on winding or uneven roads. H
 - When there is a lane closure due to road repairs. H
 - When driving in a makeshift or temporary lane. I
 - When driving on roads where the lane width is too narrow. I
 - When driving with a tire that is not within normal tire conditions (for example, tire wear, low tire pressure, installation of spare tire, tire chains, non-standard wheels). J
 - When the vehicle is equipped with non-original steering parts, brake parts or suspension parts. J
- The camera may not detect lane markers in the following situations and the Blind Spot Intervention system may not operate properly. K
 - On roads where there are multiple parallel lane markers; lane markers that are faded or not painted clearly; yellow painted lane markers; nonstandard lane markers; lane markers covered with water, dirt, snow, etc. K
 - On roads where discontinued lane markers are still detectable. K
 - On roads where there are sharp curves. L
 - On roads where there are sharply contrasting objects, such as shadows, snow, water, wheel ruts, seams or lines remaining after road repairs. L
 - On roads where the traveling lane merges or separates. M
 - When the vehicle is traveling direction does not align with the lane markers. M
 - When traveling close to the vehicle in front of driver, which obstructs the lane camera unit detection range. M
 - When rain, snow or dirt adheres to the windshield in front of a lane camera unit. M
 - When the headlights are not bright due to dirt on the lens or if aiming is not adjusted properly. N
 - When strong light enters a lane camera unit. (for example, light directly shines on the front of the vehicle at sunrise or sunset.) N
 - When a sudden change in brightness occurs. (for example, when the vehicle enters or exits a tunnel or under a bridge.) N
- The Blind Spot Intervention system will not operate if own vehicle is on a lane marker when another vehicle enters the detection zone. In this case only the BSW system operates. P
- Blind Spot Intervention assist will not operate or will stop operating and only a warning chime will sound under the following conditions. P
 - When the accelerator pedal is depressed while the assist is provided. P
 - When steering quickly. P
 - When the ICC, DCA, predictive forward collision warning or forward emergency braking warnings sound. P
 - When the hazard warning flashers are operated. P
 - When driving on a curve at a high speed. P

DAS

Precautions for Back-up Collision Intervention

INFOID:000000012796267

SONAR HANDLING

- Always keep the sonar sensors clean.
- Do not attach a sticker (including transparent material), install an accessory or paint work over any of the sonar sensors.
- Do not strike or scratch any of the sonar sensors causing physical damage. to a sensor or the surrounding area

SIDE RADAR HANDLING

- Always keep the rear bumper near the side radar clean.
- Do not attach a sticker (including transparent material), install an accessory or paint work near the side radar.
- Do not strike or damage the areas around the side radar.

BACK-UP COLLISION INTERVENTION

- The Back-up Collision Intervention system is not a replacement for proper driving procedure and is not designed to prevent contact with vehicles or objects. When backing out of parking space, always use the inside and outside rear view mirrors and turn and look in the direction own vehicle will move. Never rely solely on the Back-up Collision Intervention system.
- There is a limitation to the detection capability of the radar and the sonar. Using the BCI system under some road, ground, lane marker, traffic or weather conditions could lead to improper system operation. Always rely on driver operation to avoid accidents.
- In the case of several vehicles approaching in a row or in the opposite direction, a chime may not be issued to the BCI system after the first vehicle passes the sensors.
- When the sonar sounds a tone, the BCI system does not chime a sound (single beep).
- The BCI system does not operate if the object is very close to the bumper.
- The radar sensor may not be able to detect certain objects are present such as:
 - Pedestrians, bicycles or animals.
 - A vehicle that is passing at a speed greater than approximately 24 km/h (15 MPH).
- The radar sensor may not detect approaching vehicles in certain situations:
 - When the vehicle parked next to own vehicle obstructs the beam of the radar sensor.
 - When the vehicle is parked in an angled parking space.
 - When the vehicle is parked on inclined ground.
 - When the vehicle turns around into own vehicle's aisle.
 - When the angle formed by own vehicle and approaching vehicle is small.
- Severe weather or road spray conditions may reduce the ability of the radar to detect other vehicles.
- The sonar sensor system may not detect:
 - Small or moving object.
 - Wedge-shaped objects.
 - Object closer to the bumper [less than approximately 30 cm (10 in)].
 - Thin objects such as rope, wire, chain, etc...
- The brakes engaged by the BCI system is not as effective on a slope as it is on flat ground. When on a steep slope, the system may not function properly.
- Do not use the BCI system under the following conditions because the system may not function properly:
 - When driving with a tire that is not the within normal tire condition (example: tire wear, low tire pressure, installation of spare tire, tire chains, non-standard wheels).
 - When the vehicle is equipped with non-original brake parts or suspension parts.
- Excessive noise (for example, audio system volume, open vehicle window) will interfere with the chime sound, and it may not be heard.

DIAGNOSIS SYSTEM (ADAS CONTROL UNIT)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

DIAGNOSIS SYSTEM (ADAS CONTROL UNIT)

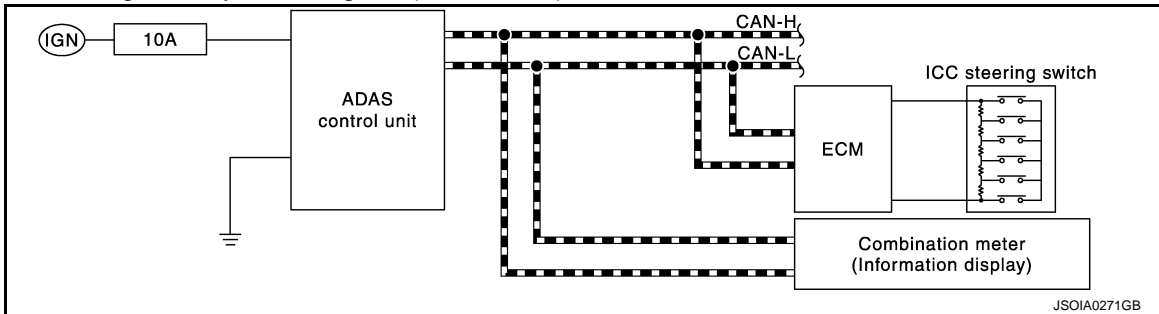
On Board Diagnosis Function (With ICC)

INFOID:000000013405018

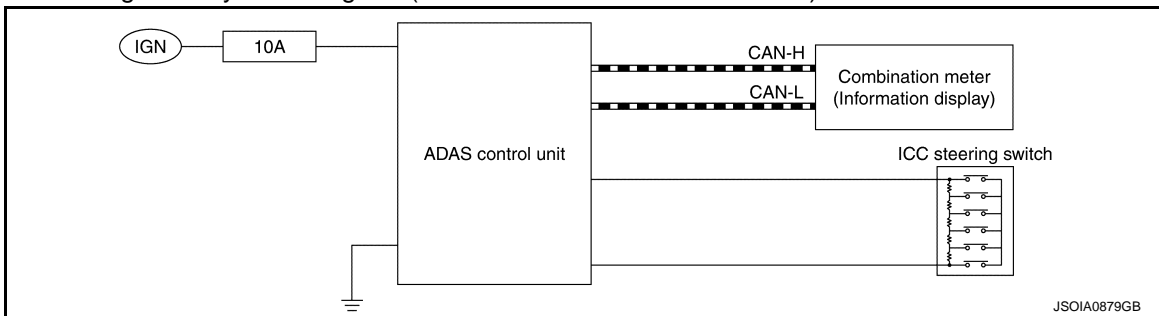
DESCRIPTION

The DTC is displayed on the information display by operating the ICC steering switch.

On Board Self-diagnosis System Diagram (VR30DDTT)



On Board Self-diagnosis System Diagram (2.0 TURBO GASOLINE ENGINE)



METHOD OF STARTING

CAUTION:

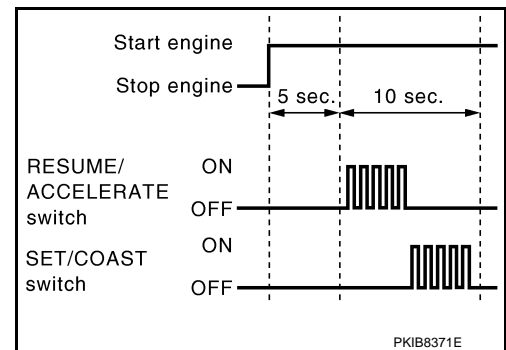
Start condition of on board self-diagnosis

- ICC system OFF
- DCA system OFF
- Vehicle speed 0 km/h (0 MPH)

1. Turn the ignition switch OFF.
2. Start the engine.
3. Wait for 5 seconds after starting the engine. Push up the RESUME/ACCELERATE switch 5 times and push down the SET/COAST switch 5 times within 10 seconds.

NOTE:

If the above operation cannot be performed within 10 seconds after waiting for 5 seconds after starting the engine, repeat the procedure from step 1.



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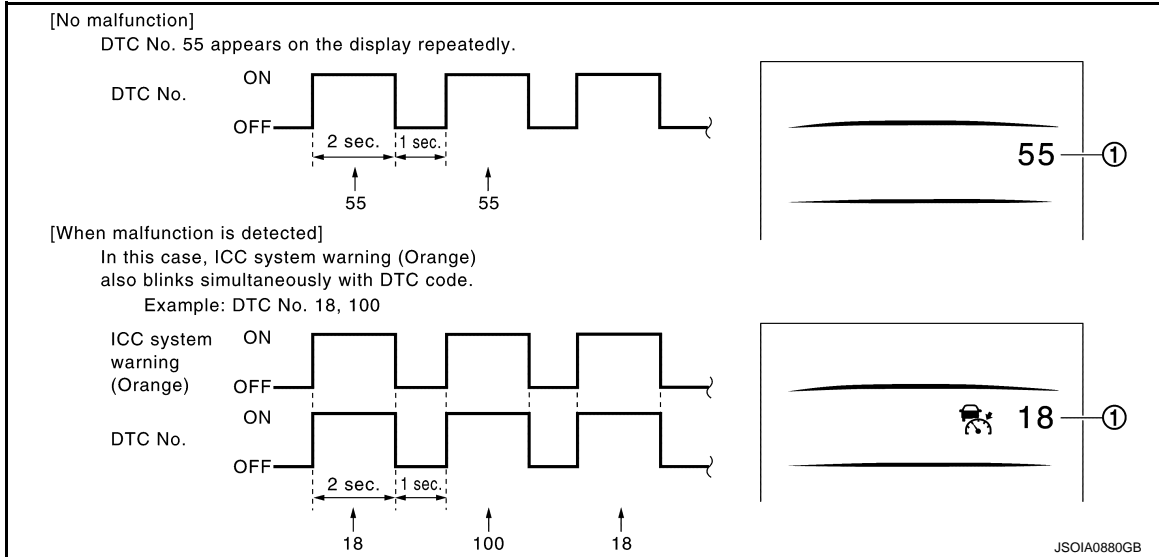
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DIAGNOSIS SYSTEM (ADAS CONTROL UNIT)

[DRIVER ASSISTANCE SYSTEM]

< SYSTEM DESCRIPTION >

4. The DTC is displayed on the set vehicle speed indicator (1) on the ICC system display on the information display when the on board self-diagnosis starts. Refer to [DAS-53, "DTC Index"](#).



NOTE:

- It displays for up to 5 minutes and then stops.
- If multiple malfunctions exist, up to 6 DTCs can be stored in memory at the most, and the most recent one is displayed first.

WHEN THE ON BOARD SELF-DIAGNOSIS DOES NOT START

If the on board self-diagnosis does not start, check the following items.

Assumed abnormal part		Inspection item
Information display	Combination meter malfunction	Check that the self-diagnosis function of the combination meter operates. Refer to MWI-68, "On Board Diagnosis Function" .
ICC/ASCD steering switch malfunction		Perform the inspection for DTC "C1A06". Refer to DAS-117, "DTC Logic" .
Harness malfunction between ICC steering switch and ECM		
Harness malfunction between ASCD steering switch and ADAS control unit		
ECM malfunction		<ul style="list-style-type: none"> • Check power supply and ground circuit of ADAS control unit. Refer to DAS-213, "Diagnosis Procedure". • Perform SELF-DIAGNOSIS for "ICC/ADAS" with CONSULT, and then check the malfunctioning parts. Refer to DAS-53, "DTC Index".
ADAS control unit malfunction		

HOW TO ERASE ON BOARD SELF-DIAGNOSIS

1. Turn the ignition switch OFF.
2. Start the engine, and then start the on board self-diagnosis.
3. Press the CANCEL switch 5 times, and then press the DISTANCE switch 5 times under the condition that the on board self-diagnosis starts.

NOTE:

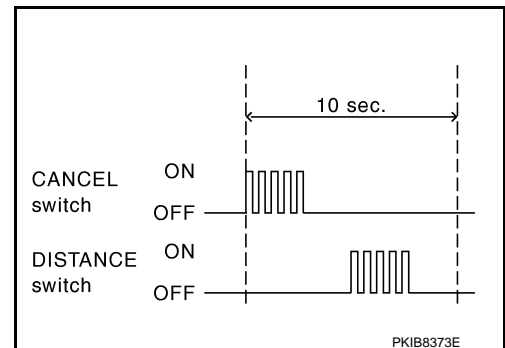
- Complete the operation within 10 seconds after pressing the CANCEL switch first.
- If the operation is not completed within 10 seconds, repeat the procedure from step 1.

4. DTC 55 is displayed after erasing.

NOTE:

DTCs for existing malfunction can not be erased.

5. Turn ignition switch OFF, and finish the diagnosis.



DIAGNOSIS SYSTEM (ADAS CONTROL UNIT)

[DRIVER ASSISTANCE SYSTEM]

< SYSTEM DESCRIPTION >

CONSULT Function (ICC/ADAS)

INFOID:000000013405019

APPLICATION ITEMS

CONSULT performs the following functions via CAN communication using ADAS control unit.

Diagnosis mode	Description
Configuration*	<ul style="list-style-type: none">The vehicle specification that is written in ADAS control unit can be displayed or storedThe vehicle specification can be written when ADAS control unit is replaced
Work Support	Displays causes of automatic system cancellation occurred during system control
Self Diagnostic Result	Displays the name of a malfunctioning system stored in the ADAS control unit
Data Monitor	Displays ADAS control unit input/output data in real time
Active Test	Enables an operational check of a load by transmitting a driving signal from the ADAS control unit to the load
ECU Identification	Displays ADAS control unit part number
CAN Diag Support Monitor	Displays a reception/transmission state of CAN communication and ITS communication

*: Models with FEB system only.

CONFIGURATION

Configuration includes functions as follows.

NOTE:

Models with FEB system only.

Function	Description
Read/Write Configuration	Before Replace ECU Allows the reading of vehicle specification written in ADAS control unit to store the specification in CONSULT.
	After Replace ECU Allows the writing of the vehicle information stored in CONSULT into the ADAS control unit.
Manual Configuration	Allows the writing of the vehicle specification into the ADAS control unit by hand.

WORK SUPPORT

Work support items	Description
CAUSE OF AUTO-CANCEL 1	Displays causes of automatic system cancellation occurred during control of the following systems <ul style="list-style-type: none">Vehicle-to-vehicle control modeConventional (fixed speed) control modeDistance Control Assist (DCA)Forward Emergency Braking (FEB)
CAUSE OF AUTO-CANCEL 2	Displays causes of automatic system cancellation occurred during control of the following systems <ul style="list-style-type: none">Lane Departure Prevention (LDP) (Without DAST)Blind Spot Intervention (Without DAST)
CAUSE OF AUTO-CANCEL 3	Displays causes of automatic system cancellation occurred during control of the Back-up Collision Intervention (BCI)

NOTE:

- Causes of the maximum five cancellations (system cancel) are displayed.
- The displayed cancellation causes display the number of the ignition switch ON/OFF up to 254. It is fixed to 254 if it is over 254. It returns to 0 when the same cancellation cause is detected again.

Display Items for The Cause of Automatic Cancellation 1

DIAGNOSIS SYSTEM (ADAS CONTROL UNIT)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Cause of cancellation	Vehicle-to-vehicle distance control mode	•Conventional (fixed speed) cruise control mode •Automatic Speed Control Device (ASCD)	Distance Control Assist	Forward Emergency Braking	Description
OPERATING ABS	×		×	×	ABS function was operated
OPERATING TCS	×	×	×		TCS function was operated
OPERATING VDC	×	×	×	×	VDC function was operated
ECM CIRCUIT	×	×			ECM did not permit ICC operation
OPE SW VOLT CIRC	×	×	×		The ICC steering switch input voltage is not within standard range
SNOW MODE SW	×		×		Shifting of the drive mode selector to SNOW position
OP SW DOUBLE TOUCH	×	×			ICC steering switches were pressed at the same time
VHCL SPD DOWN	×	×	×		Vehicle speed lower than the speed as follows <ul style="list-style-type: none"> • Vehicle-to-vehicle distance control mode is 24 km/h (15 MPH) • Conventional (fixed speed) cruise control mode is 32 km/h (20 MPH)
WHL SPD ELEC NOISE	×	×	×		Wheel speed sensor signal caught electromagnetic noise
VDC/TCS OFF SW	×		×	×	VDC OFF switch was pressed
VHCL SPD UNMATCH	×	×	×		Wheel speed became different from A/T vehicle speed
TIRE SLIP	×	×			Wheel slipped
IGN LOW VOLT	×	×	×	×	Decrease in ADAS control unit ignition voltage
PARKING BRAKE ON	×	×			The parking brake is operating
WHEEL SPD UNMATCH	×	×	×		The wheel speeds of 4 wheels are out of the specified values
INCHING LOST	×				A vehicle ahead is not detected during the following driving when the vehicle speed is approximately 24 km/h (15 MPH) or less
CAN COMM ERROR	×	×	×	×	ADAS control unit received an abnormal signal with CAN communication
ABS/TCS/VDC CIRC	×	×	×	×	An abnormal condition occurs in VDC/TCS/ABS system
ECD CIRCUIT	×	×	×	×	An abnormal condition occurs in ECD system
ENG SPEED DOWN	×	×			Engine speed became extremely low while controlling ICC system
ASCD VHCL SPD DTAC		×			Vehicle speed is detached from set vehicle speed
ASCD DOUBLE COMD		×			Cancel switch and operation switch are detected simultaneously
APA HI TEMP			×		The accelerator pedal actuator integrated motor temperature is high
ICC SENSOR CAN COMM ERR	×		×	×	Communication error between ADAS control unit and the ICC sensor
ABS WARNING LAMP	×		×		ABS warning lamp ON
FR RADAR BLOCKED	×		×	×	Inclusion of dirt or stains on the ICC sensor area of the front bumper

DIAGNOSIS SYSTEM (ADAS CONTROL UNIT)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

FEB) CURVATURE				×	Road curve was more than the specified value
FEB) YAW RATE				×	Detected yawing speed was more than the specified value
FEB) LTRL ACCELERATION				×	Detected lateral speed is the specified value or more
RADAR INTERFERENCE	×		×	×	ICC sensor receives electromagnetic interference
NO RECORD	×	×	×		—

Display Items for The Cause of Automatic Cancellation 2

Cause of cancellation	Lane departure prevention	Blind spot intervention	Description
OPE VDC/TCS/ABS 1	×		The activation of VDC, TCS, or ABS during LDP system control
Vehicle dynamics	×		Vehicle behavior exceeds specified value
Steering speed	×		Steering speed was more than the specified value in evasive direction
End by yaw angle	×		Yaw angle was the end of LDP control
Departure yaw large	×		Detected more than the specified value of yaw angle in departure direction
ICC WARNING	×		Target approach warning of ICC system, FEB system, or PFCW system was activated
CURVATURE	×		Road curve was more than the specified value
Steering angle large	×		Steering angle was more than the specified value
Brake is operated	×		Brake pedal was operated
IGN LOW VOLT	×		Decrease in ADAS control unit IGN voltage
Lateral offset	×		Distance of vehicle and lane was detached in lateral direction more than the specified value
Lane marker lost	×		Lane camera unit lost the trace of lane marker
Lane marker unclear	×		Detected lane marker was unclear
Yaw acceleration	×		Detected yawing speed was more than the specified value
Deceleration large	×		Deceleration in a longitudinal direction was more than the specified value
Accel is operated	×		Accelerator pedal was depressed
Departure steering	×		Steering wheel was steered more than the specified value in departure direction
Evasive steering	×		Steering wheel was steered more than the specified value in the evasive direction
R range	×		Selector lever was operated to R range
Parking brake drift	×		Rear wheels lock was detected
Not operating condition	×		Did not meet the operating condition (vehicle speed, turn signal operation, etc.)
SNOW MODE SW	×		Shifting of the drive mode selector to SNOW position
VDC OFF SW	×		VDC OFF switch was pressed
OPE VDC/ABS 2	×		The activation of VDC or ABS during a standby time of LDP system control
BSI WARNING	×		Blind Spot Intervention system was activated
BSI) OPE VDC/TCS/ABS 1		×	The activation of VDC, TCS, or ABS during Blind Spot Intervention system control
BSI) Vehicle dynamics		×	Vehicle behavior exceeds specified value
BSI) Steering speed		×	Steering speed was more than the specified value in evasive direction

DIAGNOSIS SYSTEM (ADAS CONTROL UNIT)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Cause of cancellation	Lane departure prevention	Blind spot intervention	Description
BSI) End by yaw angle		×	Yaw angle was the end of Blind Spot Intervention control
BSI) Departure yaw large		×	Detected more than the specified value of yaw angle in departure direction
BSI) ICC WARNING		×	Target approach warning of ICC system, FEB system or PFCW system was activated
BSI) CURVATURE		×	Road curve was more than the specified value
BSI) Steering angle large		×	Steering angle was more than the specified value
BSI) Brake is operated		×	Brake pedal was operated
BSI) IGN LOW VOLT		×	Decrease in ADAS control unit IGN voltage
BSI) Lateral offset		×	Distance of vehicle and lane was detached in lateral direction more than the specified
BSI) Lane marker lost		×	Lane camera unit lost the trace of lane marker
BSI) Lane marker unclear		×	Detected lane marker was unclear
BSI) Yaw acceleration		×	Detected yawing speed was more than the specified value
BSI) Deceleration large		×	Deceleration in a longitudinal direction was more than the specified value
BSI) Accel is operated		×	Accelerator pedal was depressed
BSI) Departure steering		×	Steering wheel was steered more than the specified value in departure direction
BSI) Evasive steering		×	Steering wheel was steered more than the specified value in the evasive direction
BSI) R range		×	Selector lever was operated to R range
BSI) Parking brake drift		×	Rear wheels lock was detected
BSI) SNOW MODE SW		×	Shifting of the drive mode selector to SNOW position
BSI) VDC OFF SW		×	VDC OFF switch was pressed
BSI) OPE VDC/ABS 2		×	The activation of VDC or ABS during a standby time of Blind Spot Intervention system control
BSI) Not operating condition		×	Did not meet the operating condition (vehicle speed, turn signal operation, etc.)
Side Radar Lost		×	Unrecognized side radar LH or RH by the ADAS control unit
NO RECORD	×	×	—

Display Items for The Cause of Automatic Cancellation 3

Cause of cancellation	Back-up Collision Intervention	Description
CAN COMM ERROR (CAN)	×	ADAS control unit received an abnormal signal with CAN communication
CAN COMM ERROR (ECD)	×	ADAS control unit received an abnormal signal with CAN communication

DIAGNOSIS SYSTEM (ADAS CONTROL UNIT)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Cause of cancellation	Back-up Collision Intervention	Description
IGN LOW VOLT	×	Decrease in ADAS control unit ignition voltage
VEHICLE SPEED UP	×	Vehicle speed higher than 8 km/h (5 MPH)
ACCEL IS OPERATED	×	Accelerator pedal was depressed
BRAKE IS OPERATED	×	Brake pedal was operated
APA HI TEMP	×	The accelerator pedal actuator integrated motor temperature is high
APA POWER	×	Decrease in accelerator pedal actuator ignition or battery voltage
NO RECORD	×	—

SELF DIAGNOSTIC RESULT

Refer to [DAS-53. "DTC Index"](#).

NOTE:

- The details of time display are as per the following.
 - CRNT: A malfunction is detected now
 - PAST: A malfunction was detected in the past
- IGN counter is displayed on FFD (Freeze Frame Data).
 - 0: The malfunctions that are detected now
CAN communication system (U1000, U1010)
 - 1 - 39: It increases like 0 → 1 → 2 ... 38 → 39 after returning to the normal condition whenever the ignition switch OFF → ON. It returns to 0 when a malfunction is detected again in the process.
 - If it is over 39, it is fixed to 39 until the self-diagnosis results are erased.
Other than CAN communication system (Other than U1000, U1010)
 - 1 - 49: It increases like 0 → 1 → 2 ... 38 → 49 after returning to the normal condition whenever the ignition switch OFF → ON. It returns to 0 when a malfunction is detected again in the process.
 - If it is over 49, it is fixed to 49 until the self-diagnosis results are erased.

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitored item [Unit]	ALL SIG (ICC)	MAIN SIG (ICC)	MAIN SIG (LDW/LDP)	MAIN SIG (BSW/BSI)	MAIN SIG (BCI)	Description
MAIN SW [On/Off]	×	×	×	×		Indicates [On/Off] status as judged from ICC steering switch
SET/COAST SW [On/Off]	×	×				Indicates [On/Off] status as judged from ICC steering switch
CANCEL SW [On/Off]	×	×				Indicates [On/Off] status as judged from ICC steering switch
RESUME/ACC SW [On/Off]	×	×				Indicates [On/Off] status as judged from ICC steering switch
DISTANCE SW [On/Off]	×					Indicates [On/Off] status as judged from ICC steering switch
CRUISE OPE [On/Off]	×	×				Indicates whether controlling or not (ON means "controlling")

DIAGNOSIS SYSTEM (ADAS CONTROL UNIT)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Monitored item [Unit]	ALL SIG (ICC)	MAIN SIG (ICC)	MAIN SIG (LDW/LDP)	MAIN SIG (BSW/BSI)	MAIN SIG (BCI)	Description
BRAKE SW [On/Off]	×	×	×	×	×	Indicates [On/Off] status as judged from ICC brake switch signal (ECM transmits ICC brake switch signal through CAN communication)
STOP LAMP SW [On/Off]	×	×	×	×	×	Indicates [On/Off] status as judged from stop lamp switch signal (ECM transmits stop lamp switch signal through CAN communication)
IDLE SW [On/Off]	×				×	Indicates [On/Off] status of idle switch read from ADAS control unit through CAN communication (ECM transmits On/Off status through CAN communication)
SET DISTANCE [Short/Mid/Long]	×	×				Indicates set distance memorized in ADAS control unit
CRUISE LAMP [On/Off]	×	×				Indicates [On/Off] status of MAIN switch indicator output
OWN VHCL [On/Off]	×					NOTE: The item is displayed, but it is not monitored
VHCL AHEAD [On/Off]	×					Indicates [On/Off] status of vehicle ahead detection indicator output
ICC WARNING [On/Off]	×					Indicates [On/Off] status of ICC system warning lamp output
VHCL SPEED SE [km/h] or [mph]	×	×	×	×	×	Indicates vehicle speed calculated from ADAS control unit through CAN communication [ABS actuator and electric unit (control unit) transmits vehicle speed signal (wheel speed) through CAN communication]
SET VHCL SPD [km/h] or [mph]	×	×				Indicates set vehicle speed memorized in ADAS control unit
BUZZER O/P [On/Off]	×				×	Indicates [On/Off] status of ICC warning chime output
THRTL SENSOR [deg]	×	×				NOTE: The item is displayed, but it is not monitored
ENGINE RPM [rpm]	×					Indicates engine speed read from ADAS control unit through CAN communication (ECM transmits engine speed signal through CAN communication)
WIPER SW [OFF/LOW/HIGH]	×					Indicates wiper [OFF/LOW/HIGH] status (BCM transmits front wiper request signal through CAN communication)
YAW RATE [deg/s]	×					NOTE: The item is displayed, but it is not monitored
BA WARNING [On/Off]	×					Indicates [On/Off] status of FEB indicator lamp output
STP LMP DRIVE [On/Off]	×	×			×	Indicates [On/Off] status of ICC brake hold relay drive output
D RANGE SW [On/Off]	×					Indicates [On/Off] status of "D" or "M" positions read from ADAS control unit through CAN communication; ON when position "D" or "M" (TCM transmits shift position signal through CAN communication).
NP RANGE SW [On/Off]	×					Indicates shift position signal read from ADAS control unit through CAN communication (TCM transmits shift position signal through CAN communication)
PKB SW [On/Off]	×					Parking brake switch status [On/Off] judged from the parking brake switch signal that ADAS control unit readout via CAN communication is displayed (combination meter transmits the parking brake switch signal via CAN communication)
PWR SUP MONI [V]	×	×				Indicates IGN voltage input by ADAS control unit
VHCL SPD AT [km/h] or [mph]	×					Indicates vehicle speed calculated from A/T vehicle speed sensor read from ADAS control unit through CAN communication (TCM transmits A/T vehicle speed sensor signal through CAN communication)

DIAGNOSIS SYSTEM (ADAS CONTROL UNIT)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Monitored item [Unit]	ALL SIG (ICC)	MAIN SIG (ICC)	MAIN SIG (LDW/LDP)	MAIN SIG (BSW/BSI)	MAIN SIG (BCI)	Description
THRTL OPENING [%]	×	×			×	Indicates throttle position read from ADAS control unit through CAN communication (ECM transmits accelerator pedal position signal through CAN communication).
GEAR [1, 2, 3, 4, 5, 6, 7]	×					Indicates A/T gear position read from ADAS control unit through CAN communication (TCM transmits current gear position signal through CAN communication)
CLUTCH SW SIG [On/Off]	×	×	×	×		NOTE: The item is displayed, but it is not monitored
NP SW SIG [On/Off]	×					Indicates [On/Off] status as judged from park/neutral position switch signal (ECM transmits park/neutral position switch signal through CAN communication).
MODE SIG [OFF, ICC, ASCD]	×					Indicates the active mode from ICC or ASCD [conventional (fixed speed) cruise control mode]
SET DISP IND [On/Off]	×					Indicates [On/Off] status of SET switch indicator output
DISTANCE [m]	×					Indicates the distance from the vehicle ahead
RELATIVE SPD [m/s]	×					Indicates the relative speed of the vehicle ahead
ON ROOT GUID-ANCE [On/Off]	×					NOTE: The item is displayed, but it is not monitored
DYNA ASIST SW [On/Off]	×	×		×		Indicates [On/Off] status as judged from ICC steering switch signal (ECM transmits ICC steering switch signal through CAN communication)
DCA ON IND [On/Off]	×					The status [ON/OFF] of DCA system switch indicator output is displayed
DCA VHL AHED [On/Off]	×					The status [ON/OFF] of vehicle ahead detection indicator output in DCA system is displayed
IBA SW [On/Off]	×	×				NOTE: The item is displayed, but it is not monitored
FCW SYSTEM ON [On/Off]	×	×				Indicates [On/Off] status of PFCW system
APA TEMP [°C]	×				×	Accelerator pedal actuator integrated motor temperature that the ADAS control unit readout via ITS communication is displayed (Accelerator pedal actuator transmits the integrated motor temperature via ITS communication)
APA PWR [V]	×				×	Accelerator pedal actuator power supply voltage that the ADAS control unit readout via ITS communication is displayed (Accelerator pedal actuator transmits the power supply voltage via ITS communication)
NAVI ICC DISP [On/Off]						NOTE: The item is displayed, but it is not monitored
LDW SYSTEM ON [On/Off]			×			Indicates [On/Off] status of LDW system
LDW ON LAMP [On/Off]			×			Indicates [On/Off] status of LDW system display output
LDP ON IND [On/Off]			×			Indicates [On/Off] status of LDP system display output
LANE DPRT W/L [On/Off]			×			Indicates [On/Off] status of LDW/LDP warning display (Yellow) output
LDW BUZER OUT-PUT [On/Off]			×			Indicates [On/Off] status of warning buzzer output

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DIAGNOSIS SYSTEM (ADAS CONTROL UNIT)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Monitored item [Unit]	ALL SIG (ICC)	MAIN SIG (ICC)	MAIN SIG (LDW/LDP)	MAIN SIG (BSW/BSI)	MAIN SIG (BCI)	Description
LDP SYSTEM ON [On/Off]			×			Indicates [On/Off] status of LDP system
WARN REQ [On/Off]			×			Indicates an ADAS control unit judged warning state (ON/OFF) of LDP system
READY signal [On/Off]			×			Indicates LDP system settings
Camera lost [Detect/Deviate/Both]			×	×		Indicates a lane marker detection state judged from a lane marker detection signal read by the ADAS control unit via ITS communication (Lane camera unit transmits a lane marker signal via ITS communication)
Lane unclear [On/Off]			×	×		Indicates an ON/OFF state of the lane marker. The ON/OFF state is judged from a detected lane condition signal read by the ADAS control unit via ITS communication (The lane camera unit transmits a detected lane condition signal via ITS communication)
STATUS signal [Stnby/Warn/Cancel/ Off]			×			Indicates a control state of LDP system
Shift position [Off, P, R, N, D, M/T1 - 7]			×	×	×	Indicates shift position read from ADAS control unit through CAN communication (TCM transmits shift position signal through CAN communication)
Turn signal [OFF/LH/RH/LH&RH]			×	×		Indicates turn signal operation status read from ADAS control unit through CAN communication (BCM transmits turn indicator signal through CAN communication)
SIDE G [G]			×	×		Indicates lateral G acting on the vehicle. This lateral G is judged from a side G sensor signal read by ADAS control unit via CAN communication (The ABS actuator and electric unit (control unit) transmits a side G sensor signal via CAN communication)
STATUS signal [Stnby/Warn/Cancel/ Off]			×			Indicates a control state of LDP system
Lane unclear [On/Off]			×	×		Indicates an ON/OFF state of the lane marker. The ON/OFF state is judged from a detected lane condition signal read by the ADAS control unit via ITS communication (The lane camera unit transmits a detected lane condition signal via ITS communication)
FUNC ITEM (FCW) [On/Off]	×	×	×	×		Indicates systems which can be set to ON/OFF by selecting "Driver Aids" ⇒ "Emergency Assist" of the integral switch Forward Emergency Braking
FUNC ITEM (LDW) [On/Off]	×	×	×	×		Indicates systems which can be set to ON/OFF by selecting "Driver Aids" ⇒ "Lane" of the integral switch Lane Departure Warning
FUNC ITEM (BSW) [On/Off]	×	×	×	×		Indicates systems which can be set to ON/OFF by selecting "Driver Aids" ⇒ "Blind spot" of the integral switch Blind Spot Warning
FUNC ITEM (NV-ICC) [Off]	×	×	×	×		NOTE: The item is displayed, but it is not monitored
FUNC ITEM (NV-DCA) [Off]	×	×	×	×		NOTE: The item is displayed, but it is not monitored
DCA SELECT [On/Off]	×	×	×	×		Indicates an ON/OFF state of the DCA system. The DCA system can be set to ON/OFF by selecting "Driving Aids" ⇒ "Front assist" of the integral switch
LDP SELECT [On/Off]	×	×	×	×		Indicates an ON/OFF state of LDP system. LDP system can be set to ON/OFF by selecting "Driving Aids" ⇒ "Lane" of the integral switch

DIAGNOSIS SYSTEM (ADAS CONTROL UNIT)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Monitored item [Unit]	ALL SIG (ICC)	MAIN SIG (ICC)	MAIN SIG (LDW/LDP)	MAIN SIG (BSW/BSI)	MAIN SIG (BCI)	Description
BSI SELECT [On/Off]	×	×	×	×		Indicates an ON/OFF state of Blind Spot Intervention system. Blind Spot Intervention system can be set to ON/OFF by selecting “Driving Aids” ⇒ “Blind Spot” of the integral switch
FCW SELECT [On/Off]	×	×	×	×		Indicates an ON/OFF state of the PFCW system. The PFCW system can be set to ON/OFF by selecting “Driving Aids” ⇒ “Emergency Assist” of the integral switch
LDW SELECT [On/Off]	×	×	×	×		Indicates an ON/OFF state of the LDW system. The LDW system can be set to ON/OFF by selecting “Driving Aids” ⇒ “Lane” of the integral switch
BSW SELECT [On/Off]	×	×	×	×		Indicates an ON/OFF state of the BSW system. The BSW system can be set to ON/OFF by selecting “Driving Aids” ⇒ “Blind spot” of the integral switch
NAVI ICC SELECT [Off]	×	×	×	×		NOTE: The item is displayed, but it is not monitored
NAVI DCA SELECT [Off]	×	×	×	×		NOTE: The item is displayed, but it is not monitored
SYS SELECTABILITY [On/Off]	×	×	×	×		Indicates the availability of ON/OFF switching for “Driving Aids” items received from the integral switch via CAN communication
DRIVE MODE STATS [STD/SPORT/ECO/ SNOW/MID/ERROR]	×	×	×	×		Indicates a drive mode selector select position judged from a drive mode select switch position signal read by the ADAS control unit via CAN communication (The chassis control module transmits a switch position signal of the drive mode select switch signal via CAN communication)
WARN SYS SW [On/Off]	×	×	×	×		NOTE: The item is displayed, but it is not monitored
BSW/BSI WARN LMP [On/Off]				×		Indicates [On/Off] status of Blind Spot warning malfunction
BSI ON IND [On/Off]				×		Indicates [On/Off] status of Blind Spot Intervention system display
BSW SYSTEM ON [On/Off]				×		Indicates [On/Off] status of BSW system
BSI SYSTEM ON [On/Off]				×		Indicates [On/Off] status of Blind Spot Intervention system
FCW SYSTEM ON [On/Off]	×	×				Indicates [On/Off] status of PFCW system
BCI SYSTEM ON [On/Off]					×	Indicates [On/Off] status of BCI system
BCI SWITCH [On/Off]					×	NOTE: The item is displayed, but it is not monitored
BATTERY CIRCUIT OFF [On/Off]	×					NOTE: The item is displayed, but it is not used
LDP WARNING INDI- CATOR [On/Off]			×			Indicates [On/Off] status of LDP warning display (Yellow) output
LDW ON INDICATOR [On/Off]			×			Indicates [On/Off] status of LDW system ON display output
LDW WARNING INDI- CATOR [On/Off]			×			Indicates [On/Off] status of LDW system warning display output

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DIAGNOSIS SYSTEM (ADAS CONTROL UNIT)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Monitored item [Unit]	ALL SIG (ICC)	MAIN SIG (ICC)	MAIN SIG (LDW/LDP)	MAIN SIG (BSW/BSI)	MAIN SIG (BCI)	Description
SYSTEM CANCEL MESSAGE [NOREQ/SLIP/ SNOW/VDC OFF]	×	×	×	×		Indicates status of system cancel display output
CAMERA HI TEMP MSG [On/Off]			×	×		Indicates [On/Off] status of lane camera unit high temperature warning display output
ITS SETTING ITEM(DCA) [On/Off]	×	×	×	×		Indicates the presence or absence of DCA system.
ITS SETTING ITEM(LDP) [On/Off]	×	×	×	×		Indicates the presence or absence of LDP system.
ITS SETTING ITEM(BSI) [On/Off]	×	×	×	×		Indicates the presence or absence of Blind Spot Intervention system.
BSI WARNING INDICATOR [On/Off]				×		Indicates [On/Off] status of Blind Spot Intervention warning display output
BSW ON INDICATOR [On/Off]				×		Indicates [On/Off] status of BSW system ON display output
SIDE RADAR BLOCK COND [On/Off]				×		Indicates [On/Off] status of side radar with dirt or foreign materials
LDW WARNING ALERT TIMING [Nothing/Early/Late]			×			NOTE: The item is displayed, but it is not monitored
BSW IND BRIGHTNESS [Nothing/Bright/Nor- mal/Dark]				×		Indicates status of brightness of Blind Spot Warning/Blind Spot Intervention indicator
SL MAIN SW [On/Off]		×				Indicates [On/Off] status as judged from steering switch
FUNC ITEM(FEB) [On/Off]	×					Indicates systems which can be set to ON/OFF by selecting "Driver Aids" ⇒ "Emergency Assist" of the integral switch Forward Emergency Braking
FEB SELECT [On/Off]	×					Indicates an ON/OFF state of the FEB system. The FEB system can be set to ON/OFF by selecting "Driving Aids" ⇒ "Emergency Assist" of the integral switch
FEB SW [On/Off]	×					Indicates [On/Off] status of FEB system
SL TARGET VEHICLE SPEED [km/h]	×					Indicates set vehicle speed memorized in ADAS control unit
SL SET LAMP [On/Off]	×					Indicates [On/Off] status of speed limiter SET display output
SL LIMIT LAMP [On/Off]	×					Indicates [On/Off] status of speed limiter MAIN switch display output
ASCD CANCEL (LOW SPEED) [NON/CUT]	×					Indicates the vehicle cruise condition. <ul style="list-style-type: none"> • NON: Vehicle speed is maintained at the ASCD set speed. • CUT: Vehicle speed decreased to excessively low, and ASCD operation is cut off.

DIAGNOSIS SYSTEM (ADAS CONTROL UNIT)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Monitored item [Unit]	ALL SIG (ICC)	MAIN SIG (ICC)	MAIN SIG (LDW/LDP)	MAIN SIG (BSW/BSI)	MAIN SIG (BCI)	Description
ASCD CANCEL (SPEED DIFF) [NON/CUT]	×					Indicates the vehicle cruise condition. <ul style="list-style-type: none"> • NON: Vehicle speed is maintained at the ASCD set speed. • CUT: Vehicle speed decreased to excessively low compared with the ASCD set speed, and ASCD operation is cut off.
KICK DOWN [On/Off]	×					Display Kick Down decision state. <ul style="list-style-type: none"> • On: Accelerator pedal is depressed • Off: Accelerator pedal is fully released

ACTIVE TEST

CAUTION:

- **Never perform “Active Test” while driving the vehicle.**
- **The “Active Test” cannot be performed when the following systems malfunction is displayed.**
 - ICC system
 - DCA
 - LDW
 - LDP
 - Blind Spot Warning
 - Blind Spot Intervention
 - BCI
- **The “Active Test” cannot be performed when the FEB warning lamp is illuminated.**
- **Shift the selector lever to “P” position, and then perform the test.**

Test item	Description
METER LAMP	The MAIN switch indicator and FEB warning lamp can be illuminated by ON/OFF operations as necessary
STOP LAMP	The ICC brake hold relay can be operated by ON/OFF operations as necessary, and the stop lamp can be illuminated
ICC BUZZER	Sounds a buzzer used for following systems by arbitrarily operating ON/OFF <ul style="list-style-type: none"> • Intelligent Cruise Control (ICC) • Distance Control Assist (DCA) • Predictive Forward Collision Warning (PFCW) • Forward Emergency Brake (FEB)
BRAKE ACTUATOR	Activates the brake by an arbitrary operation
ACTIVE PEDAL	The accelerator pedal actuator can be operated as necessary
DCA INDICATOR	The DCA system display can be illuminated by ON/OFF operations as necessary
LDP BUZZER	Sounds a buzzer used for following systems by arbitrarily operating ON/OFF <ul style="list-style-type: none"> • Lane Departure Warning (LDW) • Lane Departure Prevention (LDP) • Blind Spot Warning (BSW) • Blind Spot Intervention
LDP ON IND	The LDP system display can be illuminated by ON/OFF operations as necessary
LANE DEPARTURE W/L	The LDW/LDP warning can be illuminated by ON/OFF operations as necessary
BSW ON INDICATOR	The Blind Spot Warning system display can be illuminated by ON/OFF operations as necessary
BSI ON INDICATOR	The Blind Spot Intervention system display can be illuminated by ON/OFF operations as necessary
LDW ON INDICATOR	The LDW system display can be illuminated by ON/OFF operations as necessary
LDP WARNING INDICATOR	The LDP malfunction can be illuminated by ON/OFF operations as necessary
LDW WARNING INDICATOR	The LDW malfunction can be illuminated by ON/OFF operations as necessary
BSW WARNING INDICATOR	The BSW malfunction can be illuminated by ON/OFF operations as necessary
BSI WARNING INDICATOR	The Blind Spot Intervention malfunction can be illuminated by ON/OFF operations as necessary

METER LAMP

NOTE:

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DIAGNOSIS SYSTEM (ADAS CONTROL UNIT)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

The test can be performed only when the engine is running.

Test item	Operation	Description	<ul style="list-style-type: none"> • MAIN switch indicator • ICC system warning • FEB warning lamp
METER LAMP	Off	Stops sending the following signals to exit from the test <ul style="list-style-type: none"> • Meter display signal • FEB warning lamp signal 	OFF
	On	Transmits the following signals to the combination meter via CAN communication <ul style="list-style-type: none"> • Meter display signal • FEB warning lamp signal 	ON

STOP LAMP

Test item	Operation	Description	Stop lamp
STOP LAMP	Off	Stops transmitting the ICC brake hold relay drive signal below to end the test	OFF
	On	Transmits the ICC brake hold relay drive signal	ON

ICC BUZZER

Test item	Operation	Description	Operation sound
ICC BUZZER	MODE1	Transmits the buzzer output signals to the driver assistance buzzer control module via ITS communication	Intermittent beep sound
	Test start	Starts the tests of "MODE1"	—
	Reset	Stops transmitting the buzzer output signal below to end the test	—
	End	Returns to the "SELECT TEST ITEM" screen	—

BRAKE ACTUATOR

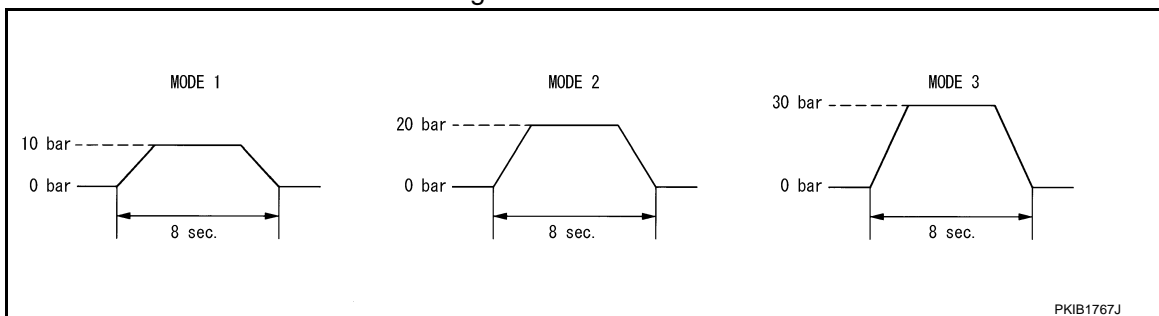
NOTE:

The test can be performed only when the engine is running.

Test item	Operation	Description	"PRESS SENS" value
BRAKE ACTUATOR	MODE1	Transmits the brake fluid pressure control signal to the ABS actuator and electric unit (control unit) via chassis control module	10 bar
	MODE2		20 bar
	MODE3		30 bar
	Test start	Starts the tests of "MODE1", "MODE2" and "MODE3"	—
	Reset	Stops transmitting the brake fluid pressure control signal below to end the test	—
	End	Returns to the "SELECT TEST ITEM" screen	—

NOTE:

The test is finished in 10 seconds after starting



Active Pedal

DIAGNOSIS SYSTEM (ADAS CONTROL UNIT)

[DRIVER ASSISTANCE SYSTEM]

< SYSTEM DESCRIPTION >

CAUTION:

- Shift the selector lever to “P” position, and then perform the test.
- Never depress the accelerator pedal excessively. (The engine speed may rise unexpectedly when finishing the test.)

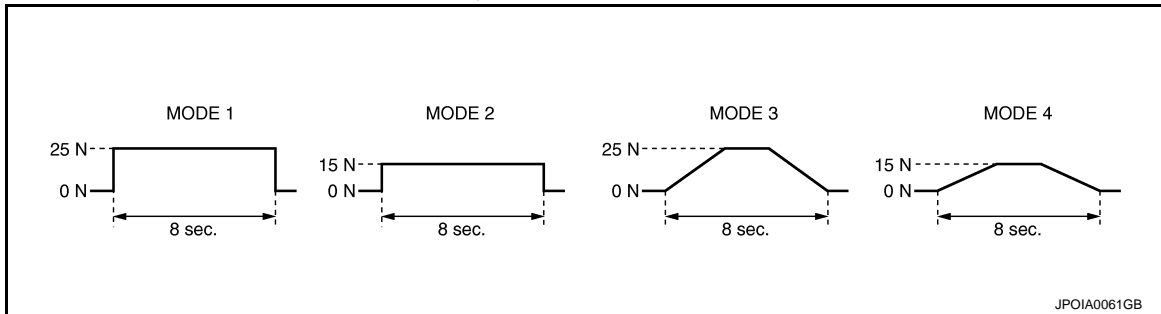
NOTE:

- Depress the accelerator pedal to check when performing the test.
- The test can be performed only when the engine is running.

Test item	Operation	Description	Accelerator pedal operation
ACTIVE PEDAL	MODE1	Transmit the accelerator pedal feedback force control signal to the accelerator pedal actuator via ITS communication.	Constant with a force of 25 N for 8 seconds
	MODE2		Constant with a force of 15 N for 8 seconds
	MODE3		Change up to a force of 25 N for 8 seconds
	MODE4		Change up to a force of 15 N for 8 seconds
	Test start	Starts the tests of “MODE1”, “MODE2”, “MODE3” and “MODE4”	—
	Reset	Stops transmitting the accelerator pedal feedback force control signal below to end the test.	—
	End	Returns to the “SELECT TEST ITEM” screen	—

NOTE:

The test is finished in 10 seconds after starting



DCA INDICATOR

NOTE:

The test can be performed only when the engine is running.

Test item	Operation	Description	DCA system display
DCA INDICATOR	Off	Stops transmitting the meter display signal below to end the test	—
	On	Transmits the meter display signal to the combination meter via CAN communication	ON

LDP BUZZER

Test item	Operation	Description	Warning buzzer
LDP BUZZER	Off	Stops transmitting the warning buzzer signal below to end the test	—
	On	Transmits the warning buzzer signal to the warning buzzer	ON

LDP ON IND

DAS

DIAGNOSIS SYSTEM (ADAS CONTROL UNIT)

[DRIVER ASSISTANCE SYSTEM]

< SYSTEM DESCRIPTION >

Test item	Operation	Description	LDP system display (Green)
LDP ON IND	Off	Stops transmitting the meter display signal below to end the test	—
	On	Transmits the meter display signal to the combination meter via CAN communication	ON

LANE DEPARTURE W/L

Test item	Operation	Description	Lane departure system display (Yellow)
LANE DEPARTURE W/L	Off	Stops transmitting the meter display signal below to end the test	—
	On	Transmits the meter display signal to the combination meter via CAN communication	ON

BSW ON INDICATOR

Test item	Operation	Description	Blind Spot Warning system display (Yellow)
BSW ON INDICATOR	Off	Stops transmitting the meter display signal below to end the test	—
	On	Transmits the meter display signal to the combination meter via CAN communication	ON

BSI ON INDICATOR

Test item	Operation	Description	Blind Spot Intervention system display (Green)
BSI ON INDICATOR	Off	Stops transmitting the meter display signal below to end the test	—
	On	Transmits the meter display signal to the combination meter via CAN communication	ON

LDW ON INDICATOR

Test item	Operation	Description	LDW system display (White)
LDW ON INDICATOR	Off	Stops transmitting the meter display signal below to end the test	—
	On	Transmits the meter display signal to the combination meter via CAN communication	ON

LDP WARNING INDICATOR

Test item	Operation	Description	LDP malfunction (Yellow)
LDP WARNING INDICATOR	Off	Stops transmitting the meter display signal below to end the test	—
	On	Transmits the meter display signal to the combination meter via CAN communication	ON

LDW WARNING INDICATOR

DIAGNOSIS SYSTEM (ADAS CONTROL UNIT)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Test item	Operation	Description	LDW malfunction (Yellow)
LDW WARNING INDICATOR	Off	Stops transmitting the meter display signal below to end the test	—
	On	Transmits the meter display signal to the combination meter via CAN communication	ON

BSW WARNING INDICATOR

Test item	Operation	Description	BSW malfunction (Yellow)
BSW WARNING INDICATOR	Off	Stops transmitting the meter display signal below to end the test	—
	On	Transmits the meter display signal to the combination meter via CAN communication	ON

BSI WARNING INDICATOR

Test item	Operation	Description	Blind Spot Intervention malfunction (Yellow)
BSI WARNING INDICATOR	Off	Stops transmitting the meter display signal below to end the test	—
	On	Transmits the meter display signal to the combination meter via CAN communication	ON

ECU IDENTIFICATION

Displays ADAS control unit parts number.

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DAS

DIAGNOSIS SYSTEM (ICC SENSOR)

[DRIVER ASSISTANCE SYSTEM]

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (ICC SENSOR)

CONSULT Function (LASER/RADAR)

INFOID:000000013405020

APPLICATION ITEMS

CONSULT performs the following functions via CAN communication with ADAS control unit and the communication with ICC sensor.

Diagnosis mode	Description
Work Support	It can monitor the adjustment direction indication in order to perform the radar alignment operation smoothly
Self Diagnostic Result	Displays malfunctioning system memorized in ICC sensor
Data Monitor	Displays real-time input/output data of ICC sensor
ECU Identification	Displays ICC sensor part number
CAN Diag Support Monitor	The results of transmit/receive diagnosis of ITS communication can be read

WORK SUPPORT

Work support items	Description
MILLIWAVE RADAR ADJUST	Outputs millimeter waves, calculates dislocation of the millimeter waves, and indicates adjustment direction

Radar Alignment

Refer to [CCS-114, "Application Notice"](#).

SELF DIAGNOSTIC RESULT

Refer to [CCS-71, "DTC Index"](#).

NOTE:

- The details of time display are as per the following.
- 0: The malfunctions that are detected now
CAN communication system (U1000, U1010)
- 1 - 39: It increases like 0 → 1 → 2 ... 38 → 39 after returning to the normal condition whenever the ignition switch OFF → ON. It returns to 0 when a malfunction is detected again in the process.
- If it is over 39, it is fixed to 39 until the self-diagnosis results are erased.
Other than CAN communication system (Other than U1000, U1010)
- 1 - 49: It increases like 0 → 1 → 2 ... 38 → 49 after returning to the normal condition whenever the ignition switch OFF → ON. It returns to 0 when a malfunction is detected again in the process.
- If it is over 49, it is fixed to 49 until the self-diagnosis results are erased.

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitored item [Unit]	Description
VHCL SPEED SE [km/h] or [mph]	Vehicle speed judged from a vehicle speed signal read by the ICC sensor via ITS communication is displayed [ADAS control unit receives a vehicle speed signal from ABS actuator and electric unit (control unit) via CAN communication and transmits the calculated vehicle speed to ICC sensor via ITS communication]
YAW RATE [deg/s]	Indicates yaw rate read from ADAS control unit through ITS communication (ADAS control unit receives yaw rate signal from ABS actuator and electric unit (control unit) via CAN communication and transmits yaw rate calculated by the ADAS control unit) Yaw rate judged from a yaw rate signal read by ICC sensor via ITS communication is displayed [ADAS control unit receives a yaw rate signal from ABS actuator and electric unit (control unit) via CAN communication and transmits the calculated yaw rate to ICC sensor via ITS communication]
PWR SUP MONI [V]	Indicates IGN voltage input by ICC sensor

DIAGNOSIS SYSTEM (ICC SENSOR)

[DRIVER ASSISTANCE SYSTEM]

< SYSTEM DESCRIPTION >

Monitored item [Unit]	Description
DISTANCE [m]	Indicates the distance from the vehicle ahead
RELATIVE SPD [m/s]	Indicates the relative speed of the vehicle ahead
RADAR OFFSET [m]	NOTE: The item is indicated, but not used
RADAR HEIGHT [m]	NOTE: The item is indicated, but not used
STEERING ANGLE [deg]	The steering angle is displayed
STRG ANGLE SPEED [deg/s]	The steering angle speed is displayed
L/R ADJUST	The horizontal correction value of the radar is displayed
U/D ADJUST	The vertical correction value of the radar is displayed

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DAS

DIAGNOSIS SYSTEM (ACCELERATOR PEDAL ACTUATOR)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

DIAGNOSIS SYSTEM (ACCELERATOR PEDAL ACTUATOR)

CONSULT Function (ACCELERATOR PEDAL ACT)

INFOID:000000012796271

DESCRIPTION

CONSULT performs the following functions via CAN communication with ADAS control unit and the communication with accelerator pedal actuator.

Test mode	Function
Self Diagnostic Result	<ul style="list-style-type: none">• Displays malfunctioning system memorized in accelerator pedal actuator• Displays the Freeze Frame Data when the malfunction is detected
DATA MONITOR	Displays real-time input/output data of accelerator pedal actuator
ACTIVE TEST	Enables operation check of electrical loads by sending driving signal to them
ECU Identification	Displays accelerator pedal actuator parts number
CAN Diag Support Monitor	The results of transmit/receive diagnosis of ITS communication can be read

SELF DIAGNOSTIC RESULT

Self Diagnostic Result

Refer to [DAS-345, "DTC Index"](#).

FFD (Freeze Frame Data)

The accelerator pedal actuator records the following data when the malfunction is detected.

Freeze Frame Data item [Unit]	Description
TGT FBK FRC [N]	It displays the target accelerator pedal actuation force that the accelerator pedal actuator read out from the accelerator pedal feedback force control signal received via ITS communication at the time when the malfunction is detected
TGT MOT POSI [%]	It displays the target motor position that the accelerator pedal actuator read out from the accelerator pedal feedback force control signal received via ITS communication at the time when the malfunction is detected
ACT MOT POSI [%]	It displays the integrated motor position that the accelerator pedal actuator read out at the time when the malfunction is detected
AP OPEN [%]	It displays the accelerator pedal position signal that the accelerator pedal actuator read out via ITS communication at the time when the malfunction is detected
APA TEMP [°C]	It displays the integrated motor temperature that the accelerator pedal actuator read out at the time when the malfunction is detected
APA CURRENT [A]	It displays the integrated motor consumption current that the accelerator pedal actuator read out at the time when the malfunction is detected
APA PWR [V]	It displays the power supply voltage that the accelerator pedal actuator read out at the time when the malfunction is detected
APA OPE STATS [On/Off]	It displays the activation permission status of accelerator pedal actuator at the time when the malfunction is detected
APA STATS [READY/NG/TP NG/INIT]	It displays the condition of accelerator pedal actuator at the time when the malfunction is detected
ODO/TRIP METER	Total mileage (Odometer value) of the moment a particular.

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

DIAGNOSIS SYSTEM (ACCELERATOR PEDAL ACTUATOR)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Monitor item [Unit]	FUNCTION DESCRIPTION
TGT FBK FRC [N]	It displays the target accelerator pedal actuation force that the accelerator pedal actuator read out from the accelerator pedal feedback force control signal received via ITS communication (The ADAS control unit transmits the accelerator pedal feedback force control signal via ITS communication)
TGT MOT POSI [%]	It displays the target motor position that the accelerator pedal actuator read out from the accelerator pedal feedback force control signal received via ITS communication (The ADAS control unit transmits the accelerator pedal feedback force control signal via ITS communication)
ACT MOT POSI [%]	It displays the integrated motor position that the accelerator pedal actuator read out
AP OPEN [%]	It displays the accelerator pedal position signal that the accelerator pedal actuator read out via ITS communication (The ADAS control unit transmits with ITS communication the accelerator pedal position signal that is received from ECM via CAN communication)
APA TEMP [°C]	It displays the accelerator pedal actuator integrated motor temperature
APA CURRENT [A]	It displays the accelerator pedal actuator integrated motor consumption current
APA PWR [V]	It displays the power supply voltage that the accelerator pedal actuator read out
APA OPE STATS [On/Off]	It displays the activation permission status of accelerator pedal actuator
APA STATS [READY/NG/TP NG/INIT]	It displays the condition of accelerator pedal actuator

ACTIVE TEST

CAUTION:

Never perform ACTIVE TEST while driving the vehicle.

NOTE:

The active test cannot be performed when the ICC system warning lamp is illuminated.

Item list

Active test item	Description
ACCELERATOR PEDAL ACTUATOR TEST1	Drive the accelerator pedal actuator and generate the constant accelerator pedal actuation force
ACCELERATOR PEDAL ACTUATOR TEST2	Drive the accelerator pedal actuator and generate the vibration

ACCELERATOR PEDAL ACTUATOR TEST 1

NOTE:

Check the accelerator pedal by depressing when performing the test.

Active test item	Operation	Description
ACCELERATOR PEDAL ACTUATOR TEST1	STOP	Finish the test
	START	Generate the constant accelerator pedal actuation force for accelerator pedal

ACCELERATOR PEDAL ACTUATOR TEST 2

NOTE:

Check the accelerator pedal by depressing when performing the test.

Active test item	Operation	Description
ACCELERATOR PEDAL ACTUATOR TEST 2	STOP	Finish the test
	START	Generate the vibration for accelerator pedal

ECU IDENTIFICATION

Displays accelerator pedal assembly parts number.

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DAS

DIAGNOSIS SYSTEM (SIDE RADAR LH)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

DIAGNOSIS SYSTEM (SIDE RADAR LH)

CONSULT Function (SIDE RADAR LEFT)

INFOID:000000012796272

DESCRIPTION

CONSULT performs the following functions by communicating with the side radar LH.

Select diag mode	Function
Self Diagnostic Result	Displays memorized DTC in the side radar.
Data Monitor	Displays real-time data of side radar.
Active Test	Enables operation check of electrical loads by sending driving signal to them.
ECU Identification	Displays part number of side radar.

SELF DIAGNOSTIC RESULT

Self Diagnostic Result

Displays memorized DTC in side radar LH. Refer to [DAS-347. "DTC Index"](#).

FFD (Freeze Frame Data)

The side radar records the following data when the malfunction is detected.

Freeze Frame Data item	Description
VHCL SP from ADAS	The vehicle speed (from ADAS control unit) at the moment a malfunction is detected is displayed
TURN SIG STATUS	Turn signal status at the moment a malfunction is detected is displayed

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitored Item [unit]	Description
BEAM DISTANCE	— The item is displayed, but it is not used.
BEAM POSITION	— The item is displayed, but it is not used.
SIDE RADAR MALF	Off Side radar is normal.
	On Side radar is malfunctioning.
BLOCKAGE COND	Off Side radar is not blocked.
	On Side radar is blocked.
ACTIVATE OPE	— The item is displayed, but it is not used.
VEHICLE DETECT	Off Does not detect a vehicle within detection area.
	On Detects a vehicle within detection area.

ACTIVE TEST

CAUTION:

- Never perform the active test while driving.
- Active test cannot be started while the Blind Spot Warning/Blind Spot Intervention indicator is illuminated.

Active test item	Operation	Description
BSW/BSI INDICATOR DRIVE	On	Outputs the voltage to illuminate the Blind Spot Warning/Blind Spot Intervention indicator.
	Off	Stops the voltage to illuminate the Blind Spot Warning/Blind Spot Intervention indicator.

DIAGNOSIS SYSTEM (SIDE RADAR RH)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

DIAGNOSIS SYSTEM (SIDE RADAR RH)

CONSULT Function (SIDE RADAR RIGHT)

INFOID:000000012796273

DESCRIPTION

CONSULT performs the following functions by communicating with the side radar RH.

Select diag mode	Function
Self Diagnostic Result	Displays memorized DTC in the side radar.
Data Monitor	Displays real-time data of side radar.
Active Test	Enables operation check of electrical loads by sending driving signal to them.
ECU Identification	Displays part number of side radar.

SELF DIAGNOSTIC RESULT

Self Diagnostic Result

Displays memorized DTC in side radar RH. Refer to [DAS-349, "DTC Index"](#).

FFD (Freeze Frame Data)

The side radar records the following data when the malfunction is detected.

Freeze Frame Data item	Description
VHCL SP from ADAS	The vehicle speed (from ADAS control unit) at the moment a malfunction is detected is displayed
TURN SIG STATUS	Turn signal status at the moment a malfunction is detected is displayed

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitored Item [unit]		Description
BEAM DISTANCE	—	The item is displayed, but it is not used.
BEAM POSITION	—	The item is displayed, but it is not used.
SIDE RADAR MALF	Off	Side radar is normal.
	On	Side radar is malfunctioning.
BLOCKAGE COND	Off	Side radar is not blocked.
	On	Side radar is blocked.
ACTIVATE OPE	—	The item is displayed, but it is not used.
VEHICLE DETECT	Off	Does not detect a vehicle within detection area.
	On	Detects a vehicle within detection area.

ACTIVE TEST

CAUTION:

- Never perform the active test while driving.
- Active test cannot be started while the Blind Spot Warning/Blind Spot Intervention indicator is illuminated.

Active test item	Operation	Description
BSW/BSI INDICATOR DRIVE	On	Outputs the voltage to illuminate the Blind Spot Warning/Blind Spot Intervention indicator.
	Off	Stops the voltage to illuminate the Blind Spot Warning/Blind Spot Intervention indicator.

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DAS

DIAGNOSIS SYSTEM (DRIVER ASSISTANCE BUZZER CONTROL MODULE)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

DIAGNOSIS SYSTEM (DRIVER ASSISTANCE BUZZER CONTROL MODULE)

CONSULT Function (BSW/BUZZER)

INFOID:000000012796274

DESCRIPTION

CONSULT performs the following functions via CAN communication with ADAS control unit and the communication with driver assistance buzzer control module.

Test mode	Function
Self Diagnostic Result	<ul style="list-style-type: none">• Displays malfunctioning system memorized in driver assistance buzzer control module• Displays the Freeze Frame Data when the malfunction is detected
DATA MONITOR	Displays real-time input/output data of driver assistance buzzer control module
ACTIVE TEST	Enables operation check of electrical loads by sending driving signal to them
ECU Identification	Displays driver assistance buzzer control module parts number

SELF DIAGNOSTIC RESULT

Self Diagnostic Result

Refer to [DAS-353, "DTC Index"](#).

FFD (Freeze Frame Data)

The drive assistance buzzer control module records the following data when the malfunction is detected.

Freeze Frame Data item [Unit]	Description
IGN Counter ^{Note}	It displays number of ignition switch OFF → ON after the malfunction is detected

NOTE:

- The number is 0 when is detected now.
- The number increases like 1 → 2 ... 38 → 39 after returning to the normal condition whenever IGN OFF → ON.
- The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor item [Unit]	FUNCTION DESCRIPTION
Buzzer 1 request (ADAS) [Off/TYPE 1 - 3/Cancel]	Indicates buzzer request type status as judged from ADAS control unit through ITS communication (The ADAS control unit transmits the driver assistance buzzer signal via ITS communication)
Buzzer 1 volume (ADAS) [Vol. 1- 16]	Indicates buzzer volume status as judged from ADAS control unit through ITS communication (The ADAS control unit transmits the driver assistance buzzer signal via ITS communication)
Buzzer 1 stop (ADAS) [CYCLE/IMEDIAT]	Indicates buzzer stop status as judged from ADAS control unit through ITS communication (The ADAS control unit transmits the driver assistance buzzer signal via ITS communication)
Buzzer 2 request (ADAS) [Off/TYPE 1 - 3/Cancel]	Indicates buzzer request type status as judged from ADAS control unit through ITS communication (The ADAS control unit transmits the driver assistance buzzer signal via ITS communication)
Buzzer 2 volume (ADAS) [Vol. 1- 16]	Indicates buzzer volume status as judged from ADAS control unit through ITS communication (The ADAS control unit transmits the driver assistance buzzer signal via ITS communication)
Buzzer 2 stop (ADAS) [CYCLE/IMEDIAT]	Indicates buzzer stop status as judged from ADAS control unit through ITS communication (The ADAS control unit transmits the driver assistance buzzer signal via ITS communication)
Buzzer 3 request (ADAS) [Off/TYPE 1/Cancel]	Indicates buzzer request type status as judged from ADAS control unit through ITS communication (The ADAS control unit transmits the driver assistance buzzer signal via ITS communication)
Buzzer 3 volume (ADAS) [Vol. 1- 16]	Indicates buzzer volume status as judged from ADAS control unit through ITS communication (The ADAS control unit transmits the driver assistance buzzer signal via ITS communication)

DIAGNOSIS SYSTEM (DRIVER ASSISTANCE BUZZER CONTROL MODULE)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Monitor item [Unit]	FUNCTION DESCRIPTION
Buzzer 3 stop (ADAS) [CYCLE/IMEDIAT]	Indicates buzzer stop status as judged from ADAS control unit through ITS communication (The ADAS control unit transmits the driver assistance buzzer signal via ITS communication)
Buzzer 4 request (ADAS) [Off/TYPE 1 - 7/Cancel]	Indicates buzzer request type status as judged from ADAS control unit through ITS communication (The ADAS control unit transmits the driver assistance buzzer signal via ITS communication)
Buzzer 4 volume (ADAS) [Vol. 1- 16]	Indicates buzzer volume status as judged from ADAS control unit through ITS communication (The ADAS control unit transmits the driver assistance buzzer signal via ITS communication)
Buzzer 4 stop (ADAS) [CYCLE/IMEDIAT]	Indicates buzzer stop status as judged from ADAS control unit through ITS communication (The ADAS control unit transmits the driver assistance buzzer signal via ITS communication)
Buzzer 1 request (CCM) [Off/TYPE 1 - 3/Cancel]	Indicates buzzer request type status as judged from chassis control module through chassis communication (The ADAS control unit transmits the driver assistance buzzer signal via chassis communication)
Buzzer 1 volume (CCM) [Vol. 1- 16]	Indicates buzzer volume status as judged from chassis control module through chassis communication (The ADAS control unit transmits the driver assistance buzzer signal via chassis communication)
Buzzer 1 stop (CCM) [CYCLE/IMEDIAT]	Indicates buzzer stop status as judged from chassis control module through chassis communication (The ADAS control unit transmits the driver assistance buzzer signal via chassis communication)
Buzzer 2 request (CCM) [Off/TYPE 1 - 3/Cancel]	Indicates buzzer request type status as judged from chassis control module through chassis communication (The ADAS control unit transmits the driver assistance buzzer signal via chassis communication)
Buzzer 2 volume (CCM) [Vol. 1- 16]	Indicates buzzer volume status as judged from chassis control module through chassis communication (The ADAS control unit transmits the driver assistance buzzer signal via chassis communication)
Buzzer 2 stop (CCM) [CYCLE/IMEDIAT]	Indicates buzzer stop status as judged from chassis control module through chassis communication (The ADAS control unit transmits the driver assistance buzzer signal via chassis communication)
Buzzer 3 request (CCM) [Off/TYPE 1/Cancel]	Indicates buzzer request type status as judged from chassis control module through chassis communication (The ADAS control unit transmits the driver assistance buzzer signal via chassis communication)
Buzzer 3 volume (CCM) [Vol. 1- 16]	Indicates buzzer volume status as judged from chassis control module through chassis communication (The ADAS control unit transmits the driver assistance buzzer signal via chassis communication)
Buzzer 3 stop (CCM) [CYCLE/IMEDIAT]	Indicates buzzer stop status as judged from chassis control module through chassis communication (The ADAS control unit transmits the driver assistance buzzer signal via chassis communication)
Buzzer 4 request (CCM) [Off/TYPE 1 - 7/Cancel]	Indicates buzzer request type status as judged from chassis control module through chassis communication (The ADAS control unit transmits the driver assistance buzzer signal via chassis communication)
Buzzer 4 volume (CCM) [Vol. 1- 16]	Indicates buzzer volume status as judged from chassis control module through chassis communication (The ADAS control unit transmits the driver assistance buzzer signal via chassis communication)
Buzzer 4 stop (CCM) [CYCLE/IMEDIAT]	Indicates buzzer stop status as judged from chassis control module through chassis communication (The ADAS control unit transmits the driver assistance buzzer signal via chassis communication)
ADAS MALFUNCTION [Off/On]	Indicates ADAS control unit status
CCM MALFUNCTION [Off/On]	Indicates chassis control module status
DR ASSIST BUZZ MALF [Off/On]	Indicates driver assistance control buzzer module status
DR ASSIST BUZZ STATUS [1/2/3/1, 2/2, 4/1, 4/4]	Indicates driver assistance control buzzer sound status

ACTIVE TEST

CAUTION:

Never perform ACTIVE TEST while driving the vehicle.

Item list

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DAS

DIAGNOSIS SYSTEM (DRIVER ASSISTANCE BUZZER CONTROL MODULE)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Active test item	Description
BUZZER 1 (ADAS)	Sounds a buzzer used for following systems by arbitrarily operating ON/OFF <ul style="list-style-type: none">• Lane Departure Warning (LDW)• Blind Spot Warning (BSW)• Blind Spot Intervention
BUZZER 2 (ADAS)	Sounds a buzzer used for following systems by arbitrarily operating ON/OFF <ul style="list-style-type: none">• Intelligent Cruise Control (ICC)• Predictive Forward Collision Warning (PFCW)• Distance Control Assist (DCA)
BUZZER 3 (ADAS)	Sounds a buzzer used for following systems by arbitrarily operating ON/OFF <ul style="list-style-type: none">• Forward Emergency Braking (FEB)
BUZZER 4 (ADAS)	Sounds a buzzer used for following systems by arbitrarily operating ON/OFF <ul style="list-style-type: none">• Predictive Forward Collision Warning (PFCW)
BUZZER 1 (CCM)	Sounds a buzzer used for following systems by arbitrarily operating ON/OFF <ul style="list-style-type: none">• Lane Departure Warning (LDW)• Blind Spot Warning (BSW)• Blind Spot Intervention
BUZZER 2 (CCM)	Sounds a buzzer used for following systems by arbitrarily operating ON/OFF <ul style="list-style-type: none">• Intelligent Cruise Control (ICC)• Predictive Forward Collision Warning (PFCW)• Distance Control Assist (DCA)
BUZZER 3 (CCM)	Sounds a buzzer used for following systems by arbitrarily operating ON/OFF <ul style="list-style-type: none">• Forward Emergency Braking (FEB)
BUZZER 4 (CCM)	Sounds a buzzer used for following systems by arbitrarily operating ON/OFF <ul style="list-style-type: none">• Predictive Forward Collision Warning (PFCW)

BUZZER 1 (ADAS)

Active test item	Operation	Description
BUZZER 1 (ADAS)	Off	Stops transmitting the warning buzzer signal below to end of the test
	On	Transmits the warning buzzer signal to the warning buzzer

BUZZER 2 (ADAS)

Active test item	Operation	Description
BUZZER 2 (ADAS)	Off	Stops transmitting the warning buzzer signal below to end of the test
	On	Transmits the warning buzzer signal to the warning buzzer

BUZZER 3 (ADAS)

Active test item	Operation	Description
BUZZER 3 (ADAS)	Off	Stops transmitting the warning buzzer signal below to end of the test
	On	Transmits the warning buzzer signal to the warning buzzer

BUZZER 4 (ADAS)

Active test item	Operation	Description
BUZZER 4 (ADAS)	Off	Stops transmitting the warning buzzer signal below to end of the test
	On	Transmits the warning buzzer signal to the warning buzzer

BUZZER 1 (CCM)

Active test item	Operation	Description
BUZZER 1 (CCM)	Off	Stops transmitting the warning buzzer signal below to end of the test
	On	Transmits the warning buzzer signal to the warning buzzer

DIAGNOSIS SYSTEM (DRIVER ASSISTANCE BUZZER CONTROL MODULE)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

BUZZER 2 (CCM)

Active test item	Operation	Description
BUZZER 2 (CCM)	Off	Stops transmitting the warning buzzer signal below to end of the test
	On	Transmits the warning buzzer signal to the warning buzzer

BUZZER 3 (CCM)

Active test item	Operation	Description
BUZZER 3 (CCM)	Off	Stops transmitting the warning buzzer signal below to end of the test
	On	Transmits the warning buzzer signal to the warning buzzer

BUZZER 4 (CCM)

Active test item	Operation	Description
BUZZER 4 (CCM)	Off	Stops transmitting the warning buzzer signal below to end of the test
	On	Transmits the warning buzzer signal to the warning buzzer

ECU IDENTIFICATION

Displays driver assistance buzzer control module parts number.

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DIAGNOSIS SYSTEM (LANE CAMERA UNIT)

[DRIVER ASSISTANCE SYSTEM]

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (LANE CAMERA UNIT) WITH DIRECT ADAPTIVE STEERING SYSTEM

WITH DIRECT ADAPTIVE STEERING SYSTEM : CONSULT Function (LANE CAMERA)

INFOID:000000013404560

APPLICATION ITEMS

CONSULT performs the following functions by communicating with the lane camera unit.

Diagnosis mode	Description
Work Support	Performs the camera aiming.
Self Diagnostic Result	Displays the name of a malfunctioning system stored in the lane camera unit
Data Monitor	Displays lane camera unit input/output data in real time
Ecu Identification	Displays lane camera unit part number
CAN Diag Support Monitor	Displays a reception/transmission state of chassis communication

WORK SUPPORT

Work support items	Description
AUTO AIM	Outputs camera unit, calculates dislocation of the camera, and displays adjustment direction.

SELF DIAGNOSTIC RESULT

Refer to [DAS-746, "DTC Index"](#).

FREEZE FRAME DATA (FFD)

Lane camera unit records the following vehicle condition at the time a particular DTC is detected, and displays on CONSULT.

CONSULT screen item	Indication/Unit	Description
Detailed Code	—	NOTE: The item is indicated, but not used.
Vehicle Speed	km/h	Vehicle speed of the moment a particular DTC is detected.
Steering Pinion Angle	deg	Steering pinion angle of the moment a particular DTC is detected.
Market Information & Camera Height	—	NOTE: The item is indicated, but not used.
Ambient Temperature & Snow Mode	—	NOTE: The item is indicated, but not used.
Image Processing Time	m/s	Image processing time of the moment a particular DTC is detected
Shutter Speed	—	Camera shutter speed of the moment a particular DTC is detected

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitored item [Unit]	Description
LDW SW PORT [On/Off]	NOTE: The item is indicated, but not used.
LDP ON IND [On/Off]	NOTE: The item is indicated, but not used.
LANE DPRT W/L [On/Off]	NOTE: The item is indicated, but not used.
CAM HIGH TEMP [NORMAL/HIGH]	Displays status of lane camera unit high temperature judgment

DIAGNOSIS SYSTEM (LANE CAMERA UNIT)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Monitored item [Unit]	Description
VHCL SPD SE [km/h] or [mph]	Displays vehicle speed received from chassis control module via chassis communication
TURN SIGNAL [Off, LH, RH, LH/RH]	Displays status of "Turn signal" determined from chassis control module via chassis communication
LANE DETCT LH [On/Off]	Displays left side lane marker detection
LANE DETCT RH [On/Off]	Displays right side lane marker detection
CROSS LANE LH [On/Off]	Displays condition that the vehicle is crossing left lane marker
CROSS LANE RH [On/Off]	Displays condition that the vehicle is crossing right lane marker
WARN LANE LH [On/Off]	Displays warning for left lane marker
WARN LANE RH [On/Off]	Displays warning for right lane marker
VALID POS LH [VLD/INVLD]	Displays lateral position for left lane marker is valid
VALID POS RH [VLD/INVLD]	Displays lateral position for right lane marker is valid
LATERL POS LH [m]	Displays the distance from a lane camera to the left lane marker.
LATERL POS RH [m]	Displays the distance from a lane camera to the right lane marker.
CURVATURE [1/m]	Displays the road curvature that a lane camera detected.
LATERAL SPEED [m/s]	Displays lateral speed for the lane of the vehicle.
YAW ANGLE [deg]	Displays yaw angle for the lane of the vehicle.
CAM DTC CODE [—]	NOTE: The item is indicated, but not used.
AIMING DONE [OK/NG]	Displays status that camera aiming is done
AIMING RESULT [OK/NOK]	Displays result of camera aiming
AIM NG REASON [TARGET / YAW / ROLL / PITCH / IMAGE / LIGHT / 1-SIDE / OTHERS]	Displays the reason that can not complete the camera aiming.
RUNTIME AIM [On/Off]	NOTE: The item is indicated, but not used.
INITIALIZE [On/Off]	Displays an initialization state of lane camera.
RUNTIME AIM OFFSET (YAW) [deg]	NOTE: The item is indicated, but not used.
RUNTIME AIM WORK COND [NO-WRK/ GOOD]	NOTE: The item is indicated, but not used.
RUNTIME AIM MEMORIZING [NO-WRIT/ WRITING]	NOTE: The item is indicated, but not used.
XOFFSET [mm]	NOTE: The item is indicated, but not used.
RUNTIME AIM OFF-SET(PITCH) [deg]	NOTE: The item is indicated, but not used.
AIM CHECK YAW [deg]	NOTE: The item is indicated, but not used.
AIM CHECK ROLL [deg]	NOTE: The item is indicated, but not used.
AIM CHECK PITCH [deg]	NOTE: The item is indicated, but not used.
FOE X [deg]	NOTE: The item is indicated, but not used.
FOE Y [deg]	NOTE: The item is indicated, but not used.
RUNTIME FOE X [deg]	NOTE: The item is indicated, but not used.

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DIAGNOSIS SYSTEM (LANE CAMERA UNIT)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Monitored item [Unit]	Description
RUNTIME FOE Y [deg]	NOTE: The item is indicated, but not used.
FCTRY AIM YAW [deg]	Displays check result of camera aiming
FCTRY AIM ROL [deg]	Displays check result of camera aiming
FCTRY AIM PIT [deg]	Displays check result of camera aiming
RUNTIME AIM COUNT [—]	NOTE: The item is indicated, but not used.
ROM WRITING COUNT [—]	NOTE: The item is indicated, but not used.
CAMERA START [START/COMP]	Displays a start state of the lane camera.
GIVE UP [OK/NG]	Displays a detection state of the lane marker.
READY [NOT/ COMP]	Displays a controllable state.
MARK TYPE LH [NONE / SOLID / DASHED / BOTT's / FORK / SLOW/ TAR / IRGLTY]	Displays the type of left side lane marker.
MARK TYPE RH [NONE / SOLID / DASHED / BOTT's / FORK / SLOW/ TAR / IRGLTY]	Displays the type of right side lane marker.
CAMERA OFFSET HEIGHT (Dh) [mm]	Displays camera height correction value (Dh).
TARGET HEIGHT (Ht) [mm]	Displays height (Ht) of the aiming target.
TARGET DISTANCE (Dt) [mm]	Displays the distance (Dt) from front axle to a target.

WITHOUT DIRECT ADAPTIVE STEERING SYSTEM

WITHOUT DIRECT ADAPTIVE STEERING SYSTEM : CONSULT Function (LANE CAMERA)

INFOID:000000013404557

APPLICATION ITEMS

CONSULT performs the following functions by communicating with the lane camera unit.

Diagnosis mode	Description
Work Support	Performs the camera aiming.
Self Diagnostic Result	Displays the name of a malfunctioning system stored in the lane camera unit
Data Monitor	Displays lane camera unit input/output data in real time
Ecu Identification	Displays lane camera unit part number
CAN Diag Support Monitor	Displays a reception/transmission state of ITS communication

WORK SUPPORT

Work support items	Description
AUTO AIM	Outputs camera unit, calculates dislocation of the camera, and displays adjustment direction.
AIM CHECK	NOTE: The item is indicated, but not used

SELF DIAGNOSTIC RESULT

Refer to [DAS-362. "WITHOUT DIRECT ADAPTIVE STEERING SYSTEM : DTC Index"](#).

DATA MONITOR

NOTE:

DIAGNOSIS SYSTEM (LANE CAMERA UNIT)

[DRIVER ASSISTANCE SYSTEM]

< SYSTEM DESCRIPTION >

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitored item [Unit]	Description
LC INACCURAT [On/Off]	Lane camera unit status
AIMING DONE [OK/NG]	Status that camera aiming is done
AIMING RESULT [OK/NOK]	Result of camera aiming
CAM HIGH TEMP [NORMAL/High]	Status of lane camera unit high temperature judgment
VHCL SPD SE [km/h] or [mph]	Vehicle speed received from ADAS control unit via ITS communication
TURN SIGNAL [Off, LH, RH, LH/RH]	Status of "Turn signal" determined from ADAS control unit via ITS communication
LANE DETCT LH [On/Off]	Left side lane marker detection
LANE DETCT RH [On/Off]	Right side lane marker detection
CROSS LANE LH [On/Off]	Condition that the vehicle is crossing left lane marker
CROSS LANE RH [On/Off]	Condition that the vehicle is crossing right lane marker
WARN LANE LH [On/Off]	Warning for left lane marker
WARN LANE RH [On/Off]	Warning for right lane marker
VALID POS LH [VLD/INVLD]	Lateral position for left lane marker is valid
VALID POS RH [VLD/INVLD]	Lateral position for right lane marker is valid
XOFFSET [pixel]	Lane camera unit installation condition
AIM CHECK YAW [deg]	Check result of camera aiming
AIM CHECK ROLL [deg]	Check result of camera aiming
AIM CHECK PITCH [deg]	Check result of camera aiming
FCTRY AIM YAW [deg]	Lane camera unit installation condition
FCTRY AIM ROL [deg]	Lane camera unit installation condition
FCTRY AIM PIT [deg]	Lane camera unit installation condition
ADAS MALF [On/Off]	ADAS control unit status

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DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

CONSULT Function

INFOID:000000013508418

APPLICATION ITEM

CONSULT can display each diagnostic item using the diagnostic test modes as follows.

Mode	Function description
ECU identification	Parts number of chassis control module can be read.
Self Diagnostic Results	Self-diagnostic results and freeze frame data can be read and erased quickly.*1
DATA MONITOR	Input/Output data in chassis control module can be read.
ACTIVE TEST	Send the drive signal from CONSULT to the actuator. The operation check can be performed.
Work Support	Components can be quickly and accurately adjusted.
Re/programming, Configuration	<ul style="list-style-type: none">• Read and save the vehicle specification (TYPE ID).• Write the vehicle specification (TYPE ID) when replacing chassis control module.

*1: The following diagnosis information is erased by erasing.

- DTC
- Freeze frame data (FFD)

ECU IDENTIFICATION

Chassis control module part number can be read.

SELF DIAGNOSTIC RESULT

Refer to [DAS-377, "DTC Index"](#).

When "CRNT" is displayed on self-diagnosis result

- The system is presently malfunctioning.

When "PAST" is displayed on self-diagnosis result

- System malfunction in the past is detected, but the system is presently normal.

Freeze frame data (FFD)

When DTC is detected, a vehicle state shown below is recorded and displayed on CONSULT.

Item name	Indication/Unit	Display item
Odometer/Trip meter	km	Total mileage (Odometer value) of the moment a particular.
DTC LOCAL CODE	—	DTC code is displayed but not used.
CAN DIAG PERMIS CONDITION	Off / On	Displays CAN network diagnosis status.
BRAKE SWITCH 1	Off / On	Displays brake pedal operating status.
BRAKE SWITCH 2	Off / On	Displays brake pedal operating status.
ABS	NORMAL / ABNOR	Displays ABS function status.
TCS	NORMAL / ABNOR	Displays TCS function status.
VDC	NORMAL / ABNOR	Displays VDC function status.
VEHICLE SPEED	km	Displays the vehicle speed.
FR WHEEL SPEED	rpm	Displays the rotational speed of front RH tire.
FL WHEEL SPEED	rpm	Displays the rotational speed of front LH tire.
RR WHEEL SPEED	rpm	Displays the rotational speed of rear RH tire.
RL WHEEL SPEED	rpm	Displays the rotational speed of rear LH tire.
STEERING ANG SENSOR	deg	Displays the steering angle from the steering angle sensor.
SIDE G SENSOR	G	Displays the side G.
DECEL G SENSOR	G	Displays the decel G.
YAW RATE SENSOR	deg/s	Displays the yaw rate.
THRTL OPENING	%	Displays the electric throttle position.

DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Item name	Indication/Unit	Display item	
SHIFT POSITION	Off / P / R / N / D (A) / S / L / B / 1 – 6 / M 1 – M 8 / A 1 – A 6	Displays the shift position.	A
PRESS SENSOR	bar	Displays the brake fluid pressure.	B
DRIVE MODE SELECTOR	STD / SPORT / ECO / SNOW / PERSO	Displays the drive mode select switch selection status.	C
LANE MARKER (LH) ^{*1}	NOT / DETECT	Displays the lane marker (LH) detection status.	D
LANE MARKER (RH) ^{*1}	NOT / DETECT	Displays the lane marker (RH) detection status.	D
TURN SIGNAL (LH) ^{*1}	Off / On	Displays the turn signal switch (LH) operating status.	E
TURN SIGNAL (RH) ^{*1}	Off / On	Displays the turn signal switch (RH) operating status.	E
TURN SIGNAL SWITCH ^{*1}	Off / LEFT / RIGHT / MALF	Displays the turn signal switch operating status.	E
DAST ^{*1}	Off / On	Displays the operation request status to Direct Adaptive Steering.	F
ROAD DISTORTION ^{*1}	1/m	Displays the road distortion rate radius.	F
ALC COMMAND ST ANG ^{*1}	rad	Displays the steering command value to Direct Adaptive Steering.	G
ST WHL FORCE TORQUE ^{*1}	Nm	Displays the estimated value for the steering wheel force torque.	G
ALC COMMAND ST WHL FORCE ^{*1}	N	Displays the steering reaction force command value to Direct Adaptive Steering.	H
ADAS COND ^{*1}	NORMAL / ABNOR	Displays the ADAS control unit function status.	H
WIPER STATUS ^{*1}	Off / LOW / HIGH / MALF	Displays the wiper operating status.	I
DDS operating condition ^{*2}	Off / On	Displays the dynamic digital suspension condition.	I
Engine rpm ^{*2}	rpm	Displays the engine speed.	J
DMC) CAN signal not receive ^{*2}	Non detection / De- tection	Displays the CAN signal not receive of digital motion control.	J
DMC) CAN signal irregularity 1 ^{*2}	Non detection / De- tection	Displays the CAN signal irregularity (message counter) of digital motion control.	K
DMC) CAN signal irregularity 2 ^{*2}	Non detection / De- tection	Displays the CAN signal irregularity (checksum) of digital motion control.	K
DMC) CAN signal invalid ^{*2}	Non detection / De- tection	Displays the CAN signal invalid of digital motion control.	L
Stop/Start ^{*2}	A	Displays the Stop/Start status.	M
FR shock ab command current ^{*2}	A	Displays the dynamic digital suspension (FR) command current.	M
FL shock ab command current ^{*2}	A	Displays the dynamic digital suspension (FL) command current.	N
RR shock ab command current ^{*2}	A	Displays the dynamic digital suspension (RR) command current.	N
RL shock ab command current ^{*2}	A	Displays the dynamic digital suspension (RL) command current.	N
DMC status ^{*2}	Inactive / Active 1 / Active 2 / Active 3 / Active 4 /Not connect current line / Active test 1 /Active test 2 / Other control unit / CAN communication / Control unit	Displays the digital motion control status.	P

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*1: Models with Active Lane Control

*2: Models with Digital motion control

DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

[DRIVER ASSISTANCE SYSTEM]

< SYSTEM DESCRIPTION >

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Item [Unit]	Description
IGN VOLT [V]	Displays the ignition power supply voltage.
CONTROL MODULE MALF [Off / On]	Displays chassis control module malfunction.
CAN DIAG STATUS [Off / On]	Displays CAN network diagnosis status.
STP LAMP OFF RELAY 1 [Off / On]	Displayed but not used.
STP LAMP OFF RELAY 2 [Off / On]	Displayed but not used.
ESS RELAY [Off / On]	Displayed but not used.
VEHICLE SPEED [km/m]	Displays the vehicle speed.
FR WHEEL SPEED [rpm]	Displays the rotational speed of front RH tire.
FL WHEEL SPEED [rpm]	Displays the rotational speed of front LH tire.
RR WHEEL SPEED [rpm]	Displays the rotational speed of rear RH tire.
RL WHEEL SPEED [rpm]	Displays the rotational speed of rear LH tire.
STEERING ANG SENSOR [deg]	Displays the steering angle from the steering angle sensor.
DECEL G SENSOR [G]	Displays the decel G.
SIDE G SENSOR [G]	Displays the side G.
YAW RATE SENSOR [deg/s]	Displays the yaw rate.
ACCELE PEDAL POSITION [%]	Displays the accelerator pedal position.
THROTTLE CONTROL [NORMAL / INCORR / PREV / INPOSS]	Displays the electric throttle status.
SHIFT POSITION [Off / P / R / N / D (A) / S / L / B / 1-6 / M 1 -M 8 / A 1 - A 6]	Displays the shift position.
BRAKE SWITCH 2 [Off / On]	Displays brake pedal operating status.
BRAKE SWITCH 1 [Off / On]	Displays brake pedal operating status.
PRESS SENSOR [bar]	Displays the brake fluid pressure.
ABS [NORMAL / ABNOR]	Displays ABS function status.
ABS MALF [NORMAL / ABNOR]	Displays ABS function status.
EBD [NORMAL / ABNOR]	Displays EBD function status.
TCS [NORMAL / ABNOR]	Displays TCS function status.
TCS MALF [NORMAL / ABNOR]	Displays TCS function status.
VDC [NORMAL / ABNOR]	Displays VDC function status.
VDC MALF [NORMAL / ABNOR]	Displays VDC function status.
VDC OFF SWITCH [Off / On]	Displays VDC OFF switch status.
PARKING BRAKE [Off / On]	Displays the parking brake operating status.
ACCELE PEDAL MALF [NORMAL / ABNOR]	Displays the accelerator pedal status.
DRV TRQ CTRL MODE [INITIAL / NORMAL / STOP 1 / STOP 2 / LIMIT 1 / PROHIB]	Displays the status of correction to slightly increase/decrease the drive torque.
DRV TRQ CTRL PERMIS 1 [NO PER / PERMIS]	Displays the permission status (basic requirement) of correction to slightly increase/decrease drive torque.
DRV TRQ CTRL PERMIS 2 [NO PER / PERMIS]	Displays the permission status (system requirement) of correction to slightly increase/decrease drive torque.
DRV TRQ CTRL STOP [REQ / NO REQ]	Displays the stop request status of correction to slightly increase/decrease drive torque.

DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Item [Unit]	Description
DRV TRQ CTRL PROHIBIT [REQ / NO REQ]	Displays the prohibition request status of correction to slightly increase/decrease drive torque.
DRIVE MODE SELECTOR [STD / SPORT / SNOW / ECO / SPORT+ / PERSO / NOT / NOT SET]	Displays the drive mode select switch selection status.
LOG-IN PERMIS [NO PER / PERMIS]	Displays the login authority status of Infiniti InTuition function.
I-KEY LINK [Off / On]	Displays the Intelligent Key linking status of Infiniti InTuition function.
USER [USER A / USER B / USER C / GUEST]	Displays the current user status of Infiniti InTuition function.
ENGINE/TM SETTING [SPORT / STD / ECO / SNOW]	Displays the engine/transmission setting status with Infiniti drive mode selector function.
ALC SETTING [Off / LOW / HIGH]	Displays Active Lane Control setting status with Infiniti drive mode selector function.
ATC SETTING [Off / On]	Displays active trace control function setting status with Infiniti drive mode selector function.
COMBI METER [STD / SPORT / SNOW / ECO / PERSO]	Displays the combination meter function setting status with Infiniti drive mode selector function.
ATC 1 [Off / On]	Displays active trace control function operating status.
ATC 2 [Off / On]	Displays active trace control function operating status.
ATC 4 [Off / On]	Displays active trace control function operating status.
FL TIRE DISP [DEF / 1]	Displays the status of front LH tire displayed on the information display in the combination meter.
FR TIRE DISP [DEF / 1]	Displays the status of front RH tire displayed on the information display in the combination meter.
RL TIRE DISP [DEF / 1]	Displays the status of rear LH tire displayed on the information display in the combination meter.
RR TIRE DISP [DEF / 1]	Displays the status of rear RH tire displayed on the information display in the combination meter.
TURN DISP [N STEER / LEFT / RIGHT]	Displays the turning direction of active trace control function on the information display in the combination meter.
ALC LEVEL [0 – 4]	Displays active/inactive status of Active Lane Control.
ALC STATUS [INACT / ACT]	Display Active Lane Control operating status.
ATC DISP [Off / On]	Displays the operating status of active trace control function on the information display in the combination meter.
ALC DISP [Off / On]	Displays the operating status of Active Lane Control on the information display in the combination meter.
ALC SYSTEM [Off / On]	Display Active Lane Control activation status.
LANE MARKER (LH) [NOT / DETECT]	Displays the lane marker (LH) detection status.
LANE MARKER (RH) [NOT / DETECT]	Displays the lane marker (RH) detection status.
TURN SIGNAL (LH) [Off / On]	Displays the turn signal switch (LH) operating status.
TURN SIGNAL (RH) [Off / On]	Displays the turn signal switch (RH) operating status.
TURN SIGNAL SWITCH [Off / LEFT / RIGHT / MALF]	Displays the turn signal switch operating status.
DAST [Off / On]	Displays Direct Adaptive Steering operating status.
ROAD DISTORTION [1/m]	Displays the road curvature.
COMMAND ST ANG [rad]	Displays the steering command value to Direct Adaptive Steering.
ST PINION ANG [rad]	Displays the steering pinion angle.
ST WHL FORCE TORQUE [Nm]	Displays the steering wheel force torque.
COMMAND ST WHL FORCE [N]	Displays the reaction force command value to Direct Adaptive Steering.

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DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Item [Unit]	Description
LDW DISP	[On / MALF] Displays LDW status received from ADAS control unit.
LDP DISP	[On / MALF] Displays LDP status received from ADAS control unit.
BSI DISP	[On / MALF] Displays Blind spot intervention function status received from ADAS control unit.
ST SWITCH COND	[OK / NG 1 / NG 2] Displays the steering switch status received from ADAS control unit.
BSW COND	[NORMAL / ABNOR] Displays BSW status received from ADAS control unit.
ADAS COND	[NORMAL / ABNOR] Displays ADAS status received from ADAS control unit.
COLLISION WARN	[Off / On] Displays collision warning status received from ADAS control unit.
ICC ACTIVE	[Off / On] Displays ICC operating status received from ADAS control unit.
IBA ACTIVE	[Off / On] Displays intelligent brake assist operating status received from ADAS control unit.
DR BUZZER STATUS	[NO / 1 / 2 / 3 / 1, 2 / 2, 3 / 1, 3 / 4] Displayed but not used.
LDW COND	[On / MALF] Displays LDW status transmitted to ADAS control unit.
LDP COND	[On / MALF] Displays LDP status transmitted to ADAS control unit.
BSI COND	[On / MALF] Displays blind spot intervention function status transmitted to ADAS control unit.
LDP BRAKE CANCEL	[NONE / SLIP / SNOW / VDC OF] Displays LDP cancel cause transmitted to ADAS control unit.
BSI BRAKE CANCEL	[NONE / SLIP / SNOW / VDC OF] Displays blind spot intervention function cancel cause transmitted to ADAS control unit.
CAMERA COND	[NORMAL / ABNOR] Displays the lane camera unit status.
CAMERA TEMP COND	[NORMAL / ABNOR] Displays the lane camera unit status by temperature.
CAMERA COMM COND	[NORMAL / ABNOR] Displays the communication status with the lane camera unit status.
CAMERA AIMING	[INCOMP / COMP] Displays the lane camera unit aiming status.
CAMERA HIGH TEMP (LDW)	[NORMAL / ABNOR] Displays the lane camera unit system cancel request due to high temperature (LDW).
CAMERA HIGH TEMP (LDP)	[NORMAL / ABNOR] Displays the lane camera unit system cancel request due to high temperature (LDP)
CAMERA HIGH TEMP (BSI)	[NORMAL / ABNOR] Displays the lane camera unit system cancel request due to high temperature (Blind spot intervention)
SIDE RADAR BLOCK CANCEL	[NORMAL / BLOCK] Displays the side radar status.
BSI LAMP REQ (LH)	[Off / On] Displays blind spot intervention indicator blink request at blind spot intervention operation (LH).
BSI LAMP REQ (RH)	[Off / On] Displays blind spot intervention indicator blink request at blind spot intervention operation (RH).
LANE DEPARTURE DISP (LH)	[NO DISP / DEVIAT] Displays the deviating status on the LH side lane.
LANE DEPARTURE DISP (RH)	[NO DISP / DEVIAT] Displays the deviating status on the RH side lane.
LDP/BSI ACTIVE	[Off / On] Displays LDP/blind spot intervention function operation status.
ADAS COND	[NORMAL / ABNOR] Displayed, but not used
DR BUZZER COND	[NORMAL / ABNOR] Displayed, but not used
OUTSIDE TEMP	[°C] Displays the ambient temperature.
WIPER STATUS	[Off / LOW / HIGH / MALF] Displays the front wiper operating status.
Engine rpm	[rpm] Displays the engine speed.
FR shock ab drive current	[A] Displays the dynamic digital suspension (FR) drive current.
FL shock ab drive current	[A] Displays the dynamic digital suspension (FL) drive current.

DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Item [Unit]	Description
RR shock ab drive current [A]	Displays the dynamic digital suspension (RR) drive current.
RL shock ab drive current [A]	Displays the dynamic digital suspension (RL) drive current.
Shock absorber control 1 [Off / On]	Displays the dynamic digital suspension control condition.
Shock absorber control 2 [Off / On]	Displays the dynamic digital suspension control condition.
Shock absorber control 3 [Off / On]	Displays the dynamic digital suspension control condition.
FR shock ab command current [A]	Displays the dynamic digital suspension (FR) command current.
FL shock ab command current [A]	Displays the dynamic digital suspension (FL) command current.
RR shock ab command current [A]	Displays the dynamic digital suspension (RR) command current.
RL shock ab command current [A]	Displays the dynamic digital suspension (RL) command current.

ACTIVE TEST

The active test is used to determine and identify details of a malfunction, based on self-diagnosis test results and data obtained in the DATA MONITOR. In response to instructions from CONSULT, instead of those from chassis control module on the vehicle, a drive signal is sent to the actuator to check its operation.

CAUTION:

- **Never perform ACTIVE TEST while driving the vehicle.**
- **Always bleed air from brake system before active test.**
- **Never perform active test when system is malfunctioning.**

NOTE:

- When active test is performed while depressing the brake pedal, the brake pedal depressing stroke may change. This is not a malfunction.
- During an active test, sometimes a chassis control warning is displayed and the master warning lamp illuminates on the information display in the combination meter; however, this is not a malfunction.

Test item	Operation	Description
BRAKE ACTUATOR 1 MODE 1	Start	Controls brake fluid pressure.
BRAKE ACTUATOR 1 MODE 2	Start	Controls brake fluid pressure.
BRAKE ACTUATOR 1 MODE 3	Start	Controls brake fluid pressure.
BRAKE ACTUATOR 2 MODE 1	Start	Controls brake fluid pressure.
BRAKE ACTUATOR 2 MODE 2	Start	Controls brake fluid pressure.
BRAKE ACTUATOR 2 MODE 3	Start	Controls brake fluid pressure.
BRAKE ACTUATOR 3 MODE 1	Start	Controls brake fluid pressure.
BRAKE ACTUATOR 3 MODE 2	Start	Controls brake fluid pressure.
BRAKE ACTUATOR 3 MODE 3	Start	Controls brake fluid pressure.
COMMAND STEERING ANGLE	Start	Transmits the steering command value 0 deg → 0.00349 deg (hold it for approximately 2 seconds) → 0 deg (hold it for approximately 2 seconds) → 0.00349 deg (hold it for approximately 2 seconds) → 0 deg to the steering force control module.
COMMAND ST WHL FORCE	Start	Transmits the steering reaction force command value 0 N → 0.6 N (hold it for approximately 2 seconds) → 0 N (hold it for approximately 2 seconds) → 0.6 N (hold it for approximately 2 seconds) → 0 N to the steering force control module.
MASTER WARNING ACTIVE	On	If touching "On" with the master warning lamp not illuminated, the master warning lamp illuminates. Stops in approximately 1 minute.
	Off	The master warning lamp turns OFF. (vehicle in normal state)
ALC DISP	On	Displays Active Lane Control active status on the information display in the combination meter.
	Off	Displays Active Lane Control inactive status on the information display in the combination meter.

DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Test item	Operation	Description
FL TIRE DISP	On	Displays the front LH tire on the information display in the combination meter.
	Off	Does not display the front LH tire on the information display in the combination meter.
FR TIRE DISP	On	Displays the front RH tire on the information display in the combination meter.
	Off	Does not display the front RH tire on the information display in the combination meter.
RL TIRE DISP	On	Displays the rear LH tire on the information display in the combination meter.
	Off	Does not display the rear LH tire on the information display in the combination meter.
RR TIRE DISP	On	Displays the rear RH tire on the information display in the combination meter.
	Off	Does not display the rear RH tire on the information display in the combination meter.
TURN DISP	NO DISP	Does not display the turning status on the information display in the combination meter.
	LH	Displays the LH turning status on the information display in the combination meter.
	RH	Displays the RH turning status on the information display in the combination meter.
ALC LEVEL	LEVEL 1	Displays Active Lane Control corresponding to the selected level on the information display in the combination meter.
	LEVEL 2	
	LEVEL 3	
	LEVEL 4	
ALC SETTING	On	Displays Active Lane Control active status on the information display in the combination meter.
	Off	Displays Active Lane Control inactive status on the information display in the combination meter.
ATC 1 DISP	On	Displays active trace control function active status on the information display in the combination meter.
	Off	Displays active trace control function inactive status on the information display in the combination meter.
ATC 2 DISP	On	Displays active trace control function active status on the information display in the combination meter.
	Off	Displays active trace control function inactive status on the information display in the combination meter.
ATC 4 DISP	On	Displays active trace control function active status on the information display in the combination meter.
	Off	Displays active trace control function inactive status on the information display in the combination meter.
FR shock absorber*	Soft	Controls dynamic digital suspension (FR).
	Medium	
	Hard	
FL shock absorber*	Soft	Controls dynamic digital suspension (FL).
	Medium	
	Hard	

DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Test item	Operation	Description
RR shock absorber*	Soft	Controls dynamic digital suspension (RR).
	Medium	
	Hard	
RL shock absorber*	Soft	Controls dynamic digital suspension (RL).
	Medium	
	Hard	
All shock absorber*	Soft	Controls all dynamic digital suspension.
	Medium	
	Hard	

*: Models with digital motion control

WORK SUPPORT

Work support items	Description
ERASE LAST DRIVER INFORMATION	Erases the information for the previous driver.
ERASE KEY ALLOTMENT USER	Erases all user information.
ERASE PERSONAL SETTINGS	Erases all user information (personal settings only).
CAUSE OF AUTO-CANCEL 1	Displays causes of automatic system cancellation occurred during control of the following systems <ul style="list-style-type: none"> • Lane Departure Prevention (LDP) • Blind Spot Intervention

NOTE:

- Causes of the maximum five cancellations (system cancel) are displayed.
- The displayed cancellation causes display the number of the ignition switch ON/OFF up to 254. It is fixed to 254 if it is over 254. It returns to 0 when the same cancellation cause is detected again.

Display Items for The Cause of Automatic Cancellation 1

Cause of cancellation	Lane departure prevention	Blind spot intervention	Description
OPE VDC/TCS/ABS 1	×		The activation of VDC, TCS, or ABS during LDP system control
Vehicle dynamics	×		Vehicle behavior exceeds specified value
Steering speed	×		Steering speed was more than the specified value in evasive direction
End by yaw angle	×		Yaw angle was the end of LDP control
Departure yaw large	×		Detected more than the specified value of yaw angle in departure direction
ICC WARNING	×		Target approach warning of ICC system, IBA system, or FCW system was activated
CURVATURE	×		Road curve was more than the specified value
Steering angle large	×		Steering angle was more than the specified value
Brake is operated	×		Brake pedal was operated
IGN LOW VOLT	×		Decrease in ADAS control unit IGN voltage
Lateral offset	×		Distance of vehicle and lane was detached in lateral direction more than the specified value
Lane marker lost	×		Lane camera unit lost the trace of lane marker
Lane marker unclear	×		Detected lane marker was unclear

DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Cause of cancellation	Lane departure prevention	Blind spot intervention	Description
Yaw acceleration	×		Detected yawing speed was more than the specified value
Deceleration large	×		Deceleration in a longitudinal direction was more than the specified value
Accel is operated	×		Accelerator pedal was depressed
Departure steering	×		Steering wheel was steered more than the specified value in departure direction
Evasive steering	×		Steering wheel was steered more than the specified value in the evasive direction
R range	×		Selector lever was operated to R range
Parking brake drift	×		Rear wheels lock was detected
Not operating condition	×		Did not meet the operating condition (vehicle speed, turn signal operation, etc.)
SNOW MODE SW	×		Shifting of the drive mode selector to SNOW position
VDC OFF SW	×		VDC OFF switch was pressed
OPE VDC/ABS 2	×		The activation of VDC or ABS during a standby time of LDP or blind spot intervention system control
BSI) OPE VDC/TCS/ABS 1		×	The activation of VDC, TCS, or ABS during blind spot intervention system control
BSI) Vehicle dynamics		×	Vehicle behavior exceeds specified value
BSI) Steering speed		×	Steering speed was more than the specified value in evasive direction
BSI) End by yaw angle		×	Yaw angle was the end of blind spot intervention control
BSI) Departure yaw large		×	Detected more than the specified value of yaw angle in departure direction
BSI) ICC WARNING		×	Target approach warning of ICC system, FEB system or FCW system was activated
BSI) CURVATURE		×	Road curve was more than the specified value
BSI) Steering angle large		×	Steering angle was more than the specified value
BSI) Brake is operated		×	Brake pedal was operated
BSI) IGN LOW VOLT		×	Decrease in chassis control module IGN voltage
BSI) Lateral offset		×	Distance of vehicle and lane was detached in lateral direction more than the specified
BSI) Lane marker lost		×	Lane camera unit lost the trace of lane marker
BSI) Lane marker unclear		×	Detected lane marker was unclear
BSI) Yaw acceleration		×	Detected yawing speed was more than the specified value
BSI) Deceleration large		×	Deceleration in a longitudinal direction was more than the specified value
BSI) Accel is operated		×	Accelerator pedal was depressed
BSI) Departure steering		×	Steering wheel was steered more than the specified value in departure direction
BSI) Evasive steering		×	Steering wheel was steered more than the specified value in the evasive direction
BSI) R range		×	Selector lever was operated to R range
BSI) Parking brake drift		×	Rear wheels lock was detected
BSI) SNOW MODE SW		×	Shifting of the drive mode selector to SNOW position
BSI) VDC OFF SW		×	VDC OFF switch was pressed
BSI) OPE VDC/ABS 2		×	The activation of VDC or ABS during a standby time of blind spot intervention system control

DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Cause of cancellation	Lane departure prevention	Blind spot intervention	Description
BSI) Not operating condition		×	Did not meet the operating condition (vehicle speed, turn signal operation, etc.)
Side Radar Lost		×	Unrecognized side radar LH or RH by the ADAS control unit
NO RECORD	×	×	—

RE/PROGRAMMING, CONFIGURATION

Configuration includes the following functions.

Function	Description
Read/Write Configuration	Before replacing ECU Allows the reading of vehicle specification (Type ID) written in chassis control module to store the specification in CONSULT.
	After replacing ECU Allows the writing of vehicle information (Type ID) stored in CONSULT into the chassis control module.
Manual Configuration	Allows the writing of vehicle specification (Type ID) into the chassis control module by hand.

CAUTION:

Use “Manual Configuration” only when “TYPE ID” of chassis control module cannot be read.

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ADAS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

ECU DIAGNOSIS INFORMATION

ADAS CONTROL UNIT

Reference Value

INFOID:0000000013405029

VALUES ON THE DIAGNOSIS TOOL

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor item	Condition	Value/Status	
MAIN SW	Ignition switch ON	When MAIN switch is pressed	On
		When MAIN switch is not pressed	Off
SET/COAST SW	Ignition switch ON	When SET/COAST switch is pressed	On
		When SET/COAST switch is not pressed	Off
CANCEL SW	Ignition switch ON	When CANCEL switch is pressed	On
		When CANCEL switch is not pressed	Off
RESUME/ACC SW	Ignition switch ON	When RESUME/ACCELERATE switch is pressed	On
		When RESUME/ACCELERATE switch is not pressed	Off
DISTANCE SW	Ignition switch ON	When DISTANCE switch is pressed	On
		When DISTANCE switch is not pressed	Off
CRUISE OPE	Drive the vehicle and activate the vehicle-to-vehicle distance control mode	When ICC system is controlling	On
		When ICC system is not controlling	Off
BRAKE SW	Ignition switch ON	When brake or clutch pedal is depressed	Off
		When brake or clutch pedal is not depressed	On
STOP LAMP SW	Ignition switch ON	When brake pedal is depressed	On
		When brake pedal is not depressed	Off
IDLE SW	Engine running	Idling	On
		Except idling (depress accelerator pedal)	Off
SET DISTANCE	<ul style="list-style-type: none"> • Start the engine and turn the ICC system ON • Press the DISTANCE switch to change the vehicle-to-vehicle distance setting 	When set to "long"	Long
		When set to "middle"	Mid
		When set to "short"	Short
CRUISE LAMP	Start the engine and press MAIN switch	ICC system ON (MAIN switch indicator ON)	On
		ICC system OFF (MAIN switch indicator OFF)	Off
OWN VHCL	NOTE: The item is indicated, but not monitored		Off
VHCL AHEAD	Drive the vehicle and activate the vehicle-to-vehicle distance control mode	When a vehicle ahead is detected (vehicle ahead detection indicator ON)	On
		When a vehicle ahead is not detected (vehicle ahead detection indicator OFF)	Off
ICC WARNING	Start the engine and press MAIN switch	When ICC system is malfunctioning (ICC system malfunction ON)	On
		When ICC system is normal (ICC system malfunction OFF)	Off

ADAS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

Monitor item	Condition		Value/Status
VHCL SPEED SE	While driving		Displays the vehicle speed calculated by ADAS control unit
SET VHCL SPD	While driving	When vehicle speed is set	Displays the set vehicle speed
BUZZER O/P	Engine running	When the buzzer of the following system operates <ul style="list-style-type: none"> • Vehicle-to-vehicle distance control mode • DCA system • PFCW system • FEB system 	On
		When the buzzer of the following system not operates <ul style="list-style-type: none"> • Vehicle-to-vehicle distance control mode • DCA system • PFCW system • FEB system 	Off
THRTL SENSOR	NOTE: The item is indicated, but not monitored		0.0
ENGINE RPM	Engine running		Equivalent to tachometer reading
WIPER SW	Ignition switch ON	Wiper not operating	Off
		Wiper LO operation	Low
		Wiper HI operation	High
YAW RATE	NOTE: The item is indicated, but not monitored		0.0
BA WARNING	Engine running	FEB OFF indicator lamp ON <ul style="list-style-type: none"> • When FEB system is malfunctioning • When FEB system is turned to OFF 	On
		FEB OFF indicator lamp OFF <ul style="list-style-type: none"> • When FEB system is normal • When FEB system is turned to ON 	Off
STP LMP DRIVE	Drive the vehicle and activate the vehicle-to-vehicle distance control mode	When ICC brake hold relay is activated	On
		When ICC brake hold relay is not activated	Off
D RANGE SW	Engine running	When the selector lever is in "D" position or manual mode	On
		When the selector lever is in any position other than "D" or manual mode	Off
NP RANGE SW	Engine running	When the selector lever is in "N", "P" position	On
		When the selector lever is in any position other than "N", "P"	Off
PKB SW	Ignition switch ON	When the parking brake is applied	On
		When the parking brake is released	Off
PWR SUP MONI	Engine running		Power supply voltage value of ADAS control unit
VHCL SPD AT	While driving		Value of A/T vehicle speed sensor signal
THRTL OPENING	Engine running	Depress accelerator pedal	Displays the throttle position

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ADAS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

Monitor item	Condition		Value/Status
GEAR	While driving		Displays the gear position
CLUTCH SW SIG	Ignition switch ON	NOTE: The item is indicated, but not monitored.	Off
NP SW SIG	Ignition switch ON	When the shift lever is in neutral position	On
		When the shift lever is in any position other than neutral	Off
MODE SIG	Start the engine and press MAIN switch	When ICC system is deactivated	Off
		When vehicle-to-vehicle distance control mode is activated	ICC
		When conventional (fixed speed) cruise control mode is activated	ASCD
SET DISP IND	<ul style="list-style-type: none"> • Drive the vehicle and activate the conventional (fixed speed) cruise control mode • Press SET/COAST switch 	SET switch indicator ON	On
		SET switch indicator OFF	Off
DISTANCE	Drive the vehicle and activate the vehicle-to-vehicle distance control mode	When a vehicle ahead is detected	Displays the distance from the preceding vehicle
		When a vehicle ahead is not detected	0.0
RELATIVE SPD	Drive the vehicle and activate the vehicle-to-vehicle distance control mode	When a vehicle ahead is detected	Displays the relative speed.
		When a vehicle ahead is not detected	0.0
ON ROOT GUIDANCE	NOTE: The item is indicated, but not monitored		Off
DYNA ASIST SW	Ignition switch ON	When dynamic driver assistance switch is pressed	On
		When dynamic driver assistance switch is not pressed	Off
DCA ON IND	Start the engine and press dynamic driver assistance switch (When DCA setting is ON)	DCA system OFF	Off
		DCA system ON	On
DCA VHL AHED	Drive the vehicle and activate the DCA system	When a vehicle ahead is not detected (vehicle ahead detection indicator OFF)	Off
		When a vehicle ahead is detected (vehicle ahead detection indicator ON)	On
IBA SW	NOTE: The item is indicated, but not monitored		Off
FCW SYSTEM ON	Ignition switch ON	When the PFCW system is ON	On
		When the PFCW system is OFF	Off
APA TEMP	Engine running		Display the accelerator pedal actuator integrated motor temperature
APA PWR	Ignition switch ON		Power supply voltage value of accelerator pedal actuator
NAVI-ICC DISP	NOTE: The item is indicated, but not monitored		Off
LDW SYSTEM ON	Ignition switch ON	When the LDW system is ON	On
		When the LDW system is OFF	Off

ADAS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

Monitor item	Condition		Value/Status
LDW ON LAMP	Ignition switch ON	When the LDW system is ON	On
		When the LDW system is OFF	Off
LDP ON IND	Start the engine and press dynamic driver assistance switch (When LDP system setting is ON)	When the LDW system is ON	On
		When the LDW system is OFF	Off
LANE DPRT W/L	Drive the vehicle and activate the LDW system or LDP system	Lane departure warning lamp ON	On
		Lane departure warning lamp OFF	Off
LDW BUZER OUTPUT	Drive the vehicle and activate the LDW/LDP system or Blind Spot Warning/Blind Spot Intervention system	When the buzzer of the following system operates • LDW/LDP system • Blind Spot Warning/Blind Spot Intervention system	On
		When the buzzer of the following system does not operate • LDW/LDP system • Blind Spot Warning/Blind Spot Intervention system	Off
LDP SYSTEM ON	Start the engine and press dynamic driver assistance switch (When LDP system setting is ON)	When the LDP system is ON	On
		When the LDP system is OFF	Off
WARN REQ	Drive the vehicle and activate the LDP system	Lane departure warning is operating	On
		Lane departure warning is not operating	Off
READY signal	Start the engine and press dynamic driver assistance switch (When LDP system setting is ON)	When the LDP system is ON	On
		When the LDP system is OFF	Off
Camera lost	Drive the vehicle and activate the LDW system, LDP system or Blind Spot Intervention system	Both side lane markers are detected	Detect
		Deviated side lane marker is lost	Deviated
		Both side lane markers are lost	Both
Lane unclear	While driving	Lane marker is unclear	On
		Lane marker is clear	Off
STATUS signal	Drive the vehicle and activate the LDP system	When the LDP system is ON	Stnby
		When the LDP system is operating	Warn
		When the LDP system is canceled	Cancel
		When the LDP system is OFF	Off
Shift position	<ul style="list-style-type: none"> • Engine running • While driving 		Displays the shift position
Turn signal		Turn signal lamps OFF	Off
		Turn signal lamp LH blinking	LH
		Turn signal lamp RH blinking	RH
		Turn signal lamp LH and RH blinking	LH&RH
SIDE G	While driving	Vehicle turning right	Negative value
		Vehicle turning left	Positive value
STATUS signal	Drive the vehicle and activate the LDP system	When the LDP system is ON	Stnby
		When the LDP system is operating	Warn
		When the LDP system is canceled	Cancel
		When the LDP system is OFF	Off
Lane unclear	While driving	Lane marker is unclear	On
		Lane marker is clear	Off
FUNC ITEM	Ignition switch ON		FUNC3

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ADAS CONTROL UNIT

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[DRIVER ASSISTANCE SYSTEM]

Monitor item	Condition		Value/Status
FUNC ITEM (FCW)	Engine running	"Forward Emergency Braking" set with the integral switch is ON	On
		"Forward Emergency Braking" set with the integral switch is OFF	Off
FUNC ITEM (LDW)	Engine running	"Lane Departure Warning" set with the integral switch is ON	On
		"Lane Departure Warning" set with the integral switch is OFF	Off
FUNC ITEM (BSW)	Engine running	"Blind Spot Warning" set with the integral switch is ON	On
		"Blind Spot Warning" set with the integral switch is OFF	Off
FUNC ITEM (NV-ICC)	NOTE: The item is indicated, but not monitored		Off
FUNC ITEM (NV-DCA)	NOTE: The item is indicated, but not monitored		Off
DCA SELECT	Ignition switch ON	"Distance Control Assist" set with the integral switch is ON	On
		"Distance Control Assist" set with the integral switch is OFF	Off
LDP SELECT	Ignition switch ON	"Lane Departure Intervention" set with the integral switch is ON	On
		"Lane Departure Intervention" set with the integral switch is OFF	Off
BSI SELECT	Ignition switch ON	"Blind Spot Intervention" set with the integral switch is ON	On
		"Blind Spot Intervention" set with the integral switch is OFF	Off
FCW SELECT	Ignition switch ON	"Forward Emergency Braking" set with the integral switch is ON	On
		"Forward Emergency Braking" set with the integral switch is OFF	Off
LDW SELECT	Ignition switch ON	"Lane Departure Warning" set with the integral switch is ON	On
		"Lane Departure Warning" set with the integral switch is OFF	Off
BSW SELECT	Ignition switch ON	"Blind Spot Warning" set with the integral switch is ON	On
		"Blind Spot Warning" set with the integral switch is OFF	Off
NAVI ICC SELECT	NOTE: The item is indicated, but not monitored		Off
NAVI DCA SELECT	NOTE: The item is indicated, but not monitored		Off
SYS SELECTABILITY	Ignition switch ON	Items set with the integral switch can be switched normally	On
		Items set with the integral switch cannot be switched normally	Off
DRIVE MODE STATS	Ignition switch ON	When drive mode select switch position is STANDARD	STD
		When drive mode select switch position is in SPORT	SPORT
		When drive mode select switch position is in ECO	ECO
		When drive mode select switch position is in SNOW	SNOW
		When drive mode select switch position is in PERSONAL	STD
		A signal other than those above is input	ERROR

ADAS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

Monitor item	Condition		Value/Status
WARN SYS SW	NOTE: The item is indicated, but not monitored		Off
BSW/BSI WARN LMP	Ignition switch ON	When the BSW system is malfunctioning	On
		When the BSW system is normal	Off
BSI ON IND	Ignition switch ON	Blind Spot Intervention warning ON	On
		Blind Spot Intervention warning OFF	Off
BSW SYSTEM ON	Ignition switch ON	When the BSW system is ON	On
		When the BSW system is OFF	Off
BSI SYSTEM ON	Start the engine and press dynamic driver assistance switch (When Blind Spot Intervention system setting is ON)	When the Blind Spot Intervention system is ON	On
		When the Blind Spot Intervention system is OFF	Off
FCW SYSTEM ON	Engine running	When the FEB/PFCW system is ON	On
		When the FEB/PFCW system is OFF	Off
BCI SYSTEM ON	Engine running	When the BCI system is ON	On
		When the BCI system is OFF	Off
BCI SWITCH	NOTE: The item is indicated, but not monitored		Off
BATTERY CIRCUIT OFF	NOTE: The item is indicated, but not used		Off
LDP WARNING INDICATOR	Engine running	When the LDP system is malfunctioning	On
		When the LDP system is normal	Off
LDW ON INDICATOR	Ignition switch ON	LDW system display ON	On
		LDW system display OFF	Off
LDW WARNING INDICATOR	Ignition switch ON	When the LDW system is malfunctioning	On
		When the LDW system is normal	Off
SYSTEM CANCEL MESSAGE	Ignition switch ON	When the vehicle is normal	NOREQ
		When the wheel is slipping	SLIP
		When the drive mode selector is SNOW mode	SNOW
		When the VDC is OFF	VDC OFF
CAMERA HI TEMP MSG	Ignition switch ON	Lane camera unit high temperature warning display ON	On
		Lane camera unit high temperature warning display OFF	Off
ITS SETTING ITEM(DCA)	Ignition switch ON		On
ITS SETTING ITEM(LDP)	Ignition switch ON		On
ITS SETTING ITEM(BSI)	Ignition switch ON		On
BSI WARNING INDICATOR	Engine running	When the Blind Spot Intervention is malfunctioning	On
		When the Blind Spot Intervention is normal	Off
BSW ON INDICATOR	Ignition switch ON	BSW system display ON	On
		BSW system display OFF	Off
SIDE RADAR BLOCK COND	Ignition switch ON	Front bumper or side radar is dirty	On
		Front bumper and side radar is clean	Off
LDW WARNING ALERT TIMING	Ignition switch ON	LDW system OFF	Nothing
		Lane departure warning timing is early setting	Early
		Lane departure warning timing is late setting	Late

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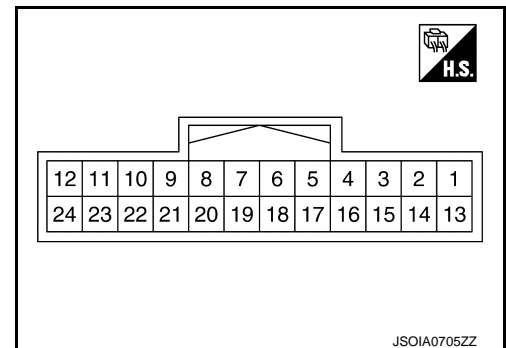
ADAS CONTROL UNIT

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[DRIVER ASSISTANCE SYSTEM]

Monitor item		Condition	Value/Status
BSW IND BRIGHTNESS	Ignition switch ON	BSW system OFF	Nothing
		Blind Spot Warning/Blind Spot Intervention indicator brightness bright	Bright
		Blind Spot Warning/Blind Spot Intervention indicator brightness normal	Normal
		Blind Spot Warning/Blind Spot Intervention indicator brightness dark	Dark
SL MAIN SW	Engine running	When speed limiter MAIN switch is pressed	On
		When speed limiter MAIN switch is not pressed	Off
FUNC ITEM (FEB)	Engine running	"Forward Emergency Braking" set with the integral switch is ON	On
		"Forward Emergency Braking" set with the integral switch is OFF	Off
FEB SELECT	Ignition switch ON	"Forward Emergency Braking" set with the integral switch is ON	On
		"Forward Emergency Braking" set with the integral switch is OFF	Off
FEB SW	Engine running	FEB system ON	On
		FEB system OFF	Off
SL TARGET VEHICLE SPEED	While driving	When vehicle speed is set	Displays the set vehicle speed
SL SET LAMP	<ul style="list-style-type: none"> • Drive the vehicle and activate the speed limiter • Press speed limiter MAIN switch 	Speed limiter SET indicator ON	On
		Speed limiter SET indicator OFF	Off
SL LIMIT LAMP	<ul style="list-style-type: none"> • Drive the vehicle and activate the speed limiter • Press speed limiter MAIN switch 	Speed limiter system ON	On
		Speed limiter system OFF	Off
ASCDCANCEL (LOW SPEED)	Drive the vehicle and activate the ASCD	ASCDCancelled by low vehicle speed	On
		Other than above	Off
ASCDCANCEL (SPEED DIFF)	Drive the vehicle and activate the ASCD	ASCDCancelled by difference between set speed and vehicle speed	On
		Other than above	Off
KICK DOWN	Drive the vehicle and activate the speed limiter	When accelerator pedal is full depressed	On
		Other than above	Off

TERMINAL LAYOUT
PHYSICAL VALUES



ADAS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

Terminal No. (Wire color)		Description		Condition		Standard value	Reference value
+	-	Signal name	Input/ Output				
1 (L)	—	CAN -H	—	—	—	—	—
2 (R)	—	CAN -L	—	—	—	—	—
5 (B)	Ground	Ground	—	Ignition switch ON		0 - 0.1 V	Approx. 0 V
6 (L)	—	ITS communication-H	—	—	—	—	—
7 (Y)		ITS communication-L	—	—	—	—	—
8 (L)		Chassis communica- tion-H	—	—	—	—	—
9 (R)		Chassis communica- tion-L	—	—	—	—	—
12 (GR) ^{*1} (G) ^{*2}	5 (B)	Ignition power supply	Input	Ignition switch ON	—	10 - 16 V	Battery voltage
17 (V)		ICC brake hold relay drive signal	Output	Ignition switch ON	— At "STOP LAMP" test of "Active test"	10 - 16 V 0 - 0.1 V	Approx. 12 V Approx. 0 V
23 (Y)	—	ICC/ASCD steering switch signal ground	—	Ignition switch ON		0 - 0.1 V	Approx. 0 V
24 ^{*3} (SB)	23 ^{*3} (Y)	ICC steering switch sig- nal	Input	Ignition switch ON	ICC steering switch: OFF	4.1 - 4.3 V	Approx. 4.3 V
					CANCEL switch: Pressed	1.1 - 1.6	Approx. 1.3 V
					RESUME/ACCELER- ATE switch: Pressed	3.5 - 3.7 V	Approx. 3.7 V
					SET/COAST switch: Pressed	2.8 - 3.1 V	Approx. 3.0 V
					DISTANCE switch: Pressed	2.0 - 2.4 V	Approx. 2.2 V
24 ^{*4} (SB)	23 ^{*4} (Y)	ASCD steering switch signal	Input	Ignition switch ON	ASCD steering switch: OFF	3.8 - 4.3 V	Approx. 4.0 V
					CANCEL switch: Pressed	0.8 - 1.3 V	Approx. 1.0 V
					SET/COAST switch: Pressed	1.8 - 2.2 V	Approx. 2.0 V
					RESUME/ACCELER- ATE switch: Pressed	2.8 - 3.1 V	Approx. 3.0 V

NOTE:

- *1: VR30DDTT
- *2: 2.0 TURBO GASOLINE ENGINE
- *3: Used only in with ICC.
- *4: Used only in without ICC.

Fail-safe (ADAS Control Unit)

INFOID:000000013405030

If a malfunction occurs in each system, ADAS control unit cancels each control, sounds a beep, and turns ON the warning or indicator lamp.

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ADAS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

System	Buzzer	Warning lamp/Warning display	Description
Vehicle-to-vehicle distance control mode	High-pitched tone	ICC system warning	Cancel
Conventional (fixed speed) cruise control mode	High-pitched tone	ICC system warning	Cancel
Forward Emergency Braking (FEB)	High-pitched tone	<ul style="list-style-type: none"> • FEB warning lamp • Warning systems indicator (Forward position: Yellow) 	Cancel
Predictive Forward Collision Warning (PFCW)	High-pitched tone	Warning systems indicator (Forward position: Yellow)	Cancel
Distance Control Assist (DCA)	High-pitched tone	Warning systems indicator (Forward position: Yellow)	Cancel
Lane Departure Warning (LDW)	—	Warning systems indicator (Lane position: Yellow)	Cancel
Lane Departure Prevention (LDP)	Low-pitched tone	Warning systems indicator (Lane position: Yellow)	Cancel
Blind Spot Warning (BSW)	—	Warning systems indicator (Blind spot position: Yellow)	Cancel
Blind Spot Intervention	Low-pitched tone	Warning systems indicator (Blind spot position: Yellow)	Cancel
Back-up Collision Intervention (BCI)	High-pitched tone	BCI system warning	Cancel

DTC Inspection Priority Chart

INFOID:000000013405031

If multiple DTCs are detected simultaneously, check them one by one depending on the following DTC inspection priority chart.

Priority	Detected items (DTC)
1	<ul style="list-style-type: none"> • U1507: LOST COMM (SIDE RDR R) • U1508: LOST COMM (SIDE RDR L)
2	<ul style="list-style-type: none"> • 1CA0A: CONFIG UNFINISHED • U1000: CAN COMM CIRCUIT • U1010: CONTROL UNIT (CAN)
3	<ul style="list-style-type: none"> • C1B00: CAMERA UNIT MALF • C1F02: APA C/U MALF • C1B53: SIDE RDR R MALF • C1B54: SIDE RDR L MALF • C1B84: DIST SEN MALFUNCTION

ADAS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

Priority	Detected items (DTC)		
4	<ul style="list-style-type: none"> • C1A01: POWER SUPPLY CIR • C1A02: POWER SUPPLY CIR 2 • C1A04: ABS/TCS/VDC CIRC • C1A05: BRAKE SW/STOP L SW • C1A06: OPERATION SW CIRC • C1A13: STOP LAMP RLY FIX • C1A14: ECM CIRCUIT • C1A24: NP RANGE • C1A26: ECD MODE MALF • C1A27: ECD PWR SUPPLY CIR • C1A33: CAN TRANSMISSION ERR • C1A34: COMMAND ERROR • C1A35: APA CIR • C1A36: APA CAN COMM CIR • C1A37: APA CAN CIR 2 • C1A38: APA CAN CIR 1 • C1A39: STRG SEN CIR • C1B01: CAM AIMING INCOMP • C1B03: CAM ABNRML TMP DETCT • C1B5D: FEB OPE COUNT LIMIT • C1B56: SONAR CIRCUIT • C1B57: AVM CIRCUIT • C1B59: CCM CIRCUIT • C1B82: DIST SEN OFF-CENTER • C1B85: DIST SEN ABNORMAL TEMP • C1B86: DIST SEN PWR SUP CIR • C1F01: APA MOTOR MALF • C1F05: APA PWR SUPPLY CIR 	<ul style="list-style-type: none"> • U0121: VDC CAN CIR 2 • U0126: STRG SEN CAN CIR 1 • U0235: ICC SENSOR CAN CIRC 1 • U0401: ECM CAN CIR 1 • U0402: TCM CAN CIR 1 • U0415: VDC CAN CIR 1 • U0424: HVAC CAN CIR 1 • U0428: STRG SEN CAN CIR 2 • U1500: CAM CAN CIR 2 • U1501: CAM CAN CIR 1 • U1502: ICC SEN CAN COMM CIR • U1503: SIDE RDR L CAN CIR 2 • U1504: SIDE RDR L CAN CIR 1 • U1505: SIDE RDR R CAN CIR 2 • U1506: SIDE RDR R CAN CIR 1 • U150B: ECM CAN CIRC 3 • U150C: VDC CAN CIRC 3 • U150D: TCM CAN CIRC 3 • U150E: BCM CAN CIRC 3 • U150F: AV CAN CIRC 3 • U1512: HVAC CAN CIRC3 • U1513: METER CAN CIRC 3 • U1514: STRG SEN CAN CIRC 3 • U1515: ICC SENSOR CAN CIRC 3 • U1516: CAM CAN CIRC 3 • U1517: APA CAN CIRC 3 • U1518: SIDE RDR L CAN CIRC 3 • U1519: SIDE RDR R CAN CIRC 3 • U1521: SONAR CAN COMMUNICATION 2 • U1522: SONAR CAN COMMUNICATION 1 • U1523: SONAR CAN COMMUNICATION 3 • U1524: AVM CAN COMMUNICATION 1 • U1525: AVM CAN COMMUNICATION 3 • U1527: CCM CAN CIR 1 • U153F: CCM CAN CIR 2 • U1530: DR ASSIST BUZZER CAN CIR 1 • U1538: EMCM CAN CIRCUIT 3 • U1540: DAST 3 CAN CIR 1 • U1541: DAST 3 CAN CIR 2 	A B C D E F G H I J K
5	<ul style="list-style-type: none"> • C1A03: VHCL SPEED SE CIRC 		
6	<ul style="list-style-type: none"> • C1A15: GEAR POSITION 		L
7	<ul style="list-style-type: none"> • C1A00: CONTROL UNIT 		M N

DAS

P

ADAS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

DTC Index

INFOID:000000013405032

Systems for fail-safe

- A: Vehicle-to-vehicle distance control mode
- B: Conventional (fixed speed) cruise control mode
- C: Distance Control Assist (DCA)
- D: Forward Emergency Braking (FEB)
- E: Predictive Forward Collision Warning (PFCW)
- F: Blind Spot Warning (BSW)/Blind Spot Intervention (Without Active Lane control)
- G: Back-up Collision Intervention (BCI)
- H: Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- I: Automatic Speed Control Device (ASCD) (Without ICC)

DTC		CONSULT display	Fail-safe	Reference
CONSULT	On board display		System	
NO DTC IS DETECTED. FURTHER TESTING MAY BE REQUIRED	55	NO DTC IS DETECTED. FURTHER TESTING MAY BE REQUIRED	—	—
C1A0A	41	CONFIG UNFINISHED	A, B, C, D, E, F, G, H, I	DAS-103
C1A00	0	CONTROL UNIT	A, B, C, D, E, F, G, H, I	DAS-104
C1A01	1	POWER SUPPLY CIR	A, B, C, D, E, F, G, H, I	DAS-105
C1A02	2	POWER SUPPLY CIR 2	A, B, C, D, E, F, G, H, I	DAS-105
C1A03	3	VHCL SPEED SE CIRC	A, B, C, D, E, F, G, H, I	DAS-106
C1A04	4	ABS/TCS/VDC CIRC	A, B, C, D, E, F, G, H, I	DAS-108
C1A05	5	BRAKE SW/STOP L SW	A, B, C, D, G, H	DAS-109
C1A06	6	OPERATION SW CIRC	A, B, C, D, E, H, I	DAS-117
C1A13	13	STOP LAMP RLY FIX	A, B, C, D, E, G	DAS-121
C1A14	14	ECM CIRCUIT	A, B, C, D, E, I	DAS-132
C1A15	15	GEAR POSITION	A, B, C, D, E, I	DAS-134
C1A24	24	NP RANGE	A, B, C, D, E, F, G	DAS-136
C1A26	26	ECD MODE MALF	A, B, C, D, G	DAS-138
C1A27	27	ECD PWR SUPPLY CIR	A, B, C, D, G	DAS-140
C1A33	33	CAN TRANSMISSION ERR	A, B, C, D, E, I	DAS-142
C1A34	34	COMMAND ERROR	A, B, C, D, E, I	DAS-143
C1A35	35	APA CIR	A, C, D, E	DAS-144
C1A36	36	APA CAN COMM CIR	A, C, D, E	DAS-145
C1A37	133	APA CAN CIR 2	A, C, D, E	DAS-146
C1A38	132	APA CAN CIR 1	A, C, D, E	DAS-147
C1A39	39	STRG SEN CIR	A, B, C, D, E, F, G	DAS-148
C1B00	81	CAMERA UNIT MALF	F, H	DAS-149
C1B01	82	CAM AIMING INCMP	F, H	DAS-150
C1B03	83	CAN ABNRML TMP DETCT	F, H	DAS-151
C1B5D	198	FEB OPE COUNT LIMIT	C, D, E	DAS-152
C1B53	84	SIDE RDR R MALF	F, G	DAS-153
C1B54	85	SIDE RDR L MALF	F, G	DAS-154
C1B56	86	SONAR CIRCUIT	G	DAS-155
C1B57	87	AVM CIRCUIT	G	DAS-156
C1B59	184	CCM CIRCUIT	A, B, C, F, G	DAS-157

ADAS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

Systems for fail-safe

- A: Vehicle-to-vehicle distance control mode
- B: Conventional (fixed speed) cruise control mode
- C: Distance Control Assist (DCA)
- D: Forward Emergency Braking (FEB)
- E: Predictive Forward Collision Warning (PFCW)
- F: Blind Spot Warning (BSW)/Blind Spot Intervention (Without Active Lane control)
- G: Back-up Collision Intervention (BCI)
- H: Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- I: Automatic Speed Control Device (ASCD) (Without ICC)

DTC		CONSULT display	Fail-safe	Reference
CONSULT	On board display		System	
C1B82	12	DIST SEN OFF-CENTER	A, C, D, E	DAS-158
C1B84	17	DIST SEN MALFUNCTION	A, C, D, E	DAS-159
C1B85	21	DIST SEN ABNORMAL TEMP	A, C, D, E	DAS-160
C1B86	80	DIST SEN PWR SUP CIR	A, C, D, E	DAS-161
C1F01	91	APA MOTOR MALF	A, C, D, E	DAS-163
C1F02	92	APA C/U MALF	A, C, D, E	DAS-164
C1F05	95	APA PWR SUPPLY CIR	A, C, D, E	DAS-165
U0121	127	VDC CAN CIR 2	A, B, C, D, E, F, G, H, I	DAS-166
U0126	130	STRG SEN CAN CIR 1	A, B, C, D, E, F, G	DAS-167
U0235	144	ICC SENSOR CAN CIRC 1	A, C, D, E	DAS-168
U0401	120	ECM CAN CIR 1	A, B, C, D, E, F, G, I	DAS-169
U0402	122	TCM CAN CIR 1	A, B, C, D, E, F, G, H	DAS-171
U0415	126	VDC CAN CIR 1	A, B, C, D, E, F, G, H, I	DAS-172
U0424	156	HVAC CAN CIR 1		DAS-173
U0428	131	STRG SEN CAN CIR 2	A, B, C, D, E, F, G	DAS-174
U1000 ^{NOTE}	100	CAN COMM CIRCUIT	A, B, C, D, E, F, G, H, I	DAS-175
U1010	110	CONTROL UNIT (CAN)	A, B, C, D, E, F, G, H, I	DAS-177
U150B	157	ECM CAN CIRC 3	A, B, C, D, E, F, G, H, I	DAS-178
U150C	158	VDC CAN CIRC 3	A, B, C, D, E, F, G, H, I	DAS-180
U150D	159	TCM CAN CIRC 3	A, B, C, D, E, F, G, H	DAS-181
U150E	160	BCM CAN CIRC 3	A, B, C, D, F, G, H	DAS-182
U150F	161	AV CAN CIRC 3		DAS-183
U1500	145	CAM CAN CIR2	F, H	DAS-184
U1501	146	CAM CAN CIR 1	F, H	DAS-185
U1502	147	ICC SEN CAN COMM CIR	A, C, D, E	DAS-186
U1503	150	SIDE RDR L CAN CIR 2	F, G	DAS-187
U1504	151	SIDE RDR L CAN CIR 1	F, G	DAS-188
U1505	152	SIDE RDR R CAN CIR 2	F, G	DAS-189
U1506	153	SIDE RDR R CAN CIR 1	F, G	DAS-190
U1507	154	LOST COMM (SIDE RDR R)	F, G	DAS-191
U1508	155	LOST COMM (SIDE RDR L)	F, G	DAS-192
U1512	162	HVAC CAN CIRC3		DAS-193
U1513	163	METER CAN CIRC 3	A, B, C, D, E, F, G, H, I	DAS-194
U1514	164	STRG SEN CAN CIRC 3	A, B, C, D, E, F, G	DAS-195
U1515	165	ICC SENSOR CAN CIRC 3	A, C, D, E	DAS-196

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ADAS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

Systems for fail-safe

- A: Vehicle-to-vehicle distance control mode
- B: Conventional (fixed speed) cruise control mode
- C: Distance Control Assist (DCA)
- D: Forward Emergency Braking (FEB)
- E: Predictive Forward Collision Warning (PFCW)
- F: Blind Spot Warning (BSW)/Blind Spot Intervention (Without Active Lane control)
- G: Back-up Collision Intervention (BCI)
- H: Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- I: Automatic Speed Control Device (ASCD) (Without ICC)

DTC		CONSULT display	Fail-safe	Reference
CONSULT	On board display		System	
U1516	166	CAM CAN CIRC 3	F, G, H	DAS-197
U1517	167	APA CAN CIRC 3	A, C, D, E	DAS-198
U1518	168	SIDE RDR L CAN CIRC 3	F, G	DAS-199
U1519	169	SIDE RDR R CAN CIRC 3	F, G	DAS-200
U1521	177	SONAR CAN COMMUNICATION 2	G	DAS-201
U1522	178	SONAR CAN COMMUNICATION 1	G	DAS-202
U1523	179	SONAR CAN COMMUNICATION 3	G	DAS-203
U1524	180	AVM CAN COMMUNICATION 1	G	DAS-204
U1525	181	AVM CAN COMMUNICATION 3	G	DAS-205
U1527	185	CCM CAN CIR1	A, B, C, F, G	DAS-206
U153F	186	CCM CAN CIR2	A, B, C, F, G	DAS-207
U1530	183	DR ASSIST BUZZER CAN CIR1		DAS-208
U1538	197	EMCM CAN CIRCUIT 3	A, B, C, D, E, F, G, H, I	DAS-209
U1540	200	DAST CAN CIR 1	C, D, E	DAS-211
U1541	201	DAST CAN CIR 2	C, D, E	DAS-212

NOTE:

With the detection of "U1000" some systems do not perform the fail-safe operation.

A system controlling based on a signal received from the control unit performs fail-safe operation when the communication with the ADAS control unit becomes inoperable.

ICC SENSOR

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

ICC SENSOR

Reference Value

INFOID:000000013405035

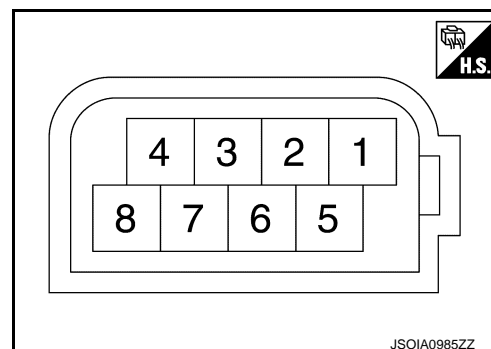
VALUES ON THE DIAGNOSIS TOOL

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor item	Condition		Value/Status
VHCL SPEED SE	While driving		Value of vehicle speed signal (wheel speed)
YAW RATE	While driving	Vehicle stopped	0.0
		Vehicle turning right	Positive value
		Vehicle turning left	Negative value
PWR SUP MONI	Ignition switch ON		Power supply voltage value of ICC sensor
DISTANCE	Drive the vehicle and activate the vehicle-to-vehicle distance control mode	When a vehicle ahead is detected	Displays the distance from the preceding vehicle
		When a vehicle ahead is not detected	0.0
RELATIVE SPD	Drive the vehicle and activate the vehicle-to-vehicle distance control mode	When a vehicle ahead is detected	Displays the relative speed
		When a vehicle ahead is not detected	0.0
RADAR OFFSET	NOTE: The item is indicated, but not used		—
RADAR HEIGHT	NOTE: The item is indicated, but not used		—
STEERING ANGLE	Ignition switch ON	When setting the steering wheel in straight-ahead position	0.0
		When turning the steering wheel 90° rightward	+90
		When turning the steering wheel 90° leftward	-90
STRG ANGLE SPEED	Ignition switch ON	At the time of turning the steering wheel	Steering wheel turning speed is displayed
L/R ADJUST	Ignition switch ON	At the completion of radar alignment adjustment	Horizontal correction value is displayed
U/D ADJUST	Ignition switch ON	At the completion of radar alignment adjustment	Vertical correction value is displayed

TERMINAL LAYOUT



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ICC SENSOR

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition	Standard value	Reference value
+	-	Signal name	Input/ Output			
1 (R)	8 (B)	Ignition power supply	Input	Ignition switch ON	10 - 16 V	Battery voltage
3 (L)		ITS communication-H	—	—	—	—
6 (Y)		ITS communication-L	—	—	—	—
8 (B)	Ground	Ground	—	Ignition switch ON	0 - 0.1 V	Approx. 0 V

Fail-safe (ICC Sensor)

INFOID:000000013405036

If a malfunction occurs in the ICC sensor, ADAS control unit cancels control, sounds a beep, and turns ON the ICC system warning in the information display.

DTC Inspection Priority Chart

INFOID:000000013405037

If multiple DTCs are detected simultaneously, check them one by one depending on the following DTC inspection priority chart.

Priority	Detected items (DTC)
1	<ul style="list-style-type: none"> U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN)
2	<ul style="list-style-type: none"> C1A50: ADAS MALFUNCTION
3	<ul style="list-style-type: none"> C1A01: POWER SUPPLY CIR C1A02: POWER SUPPLY CIR 2 C1A12: RADAR OFF-CENTER C1A16: RADAR BLOCKED C1A21: UNIT HIGH TEMP C1A23: UNIT LOW TEMP C1A39: STRG SEN CIR U0104: ADAS CAN CIR1 U0121: VDC CAN CIR2 U0126: STRG SEN CAN CIR1 U0405: ADAS CAN CIR2 U0415: VDC CAN CIR1 U0428: STRG SEN CAN CIR2
4	<ul style="list-style-type: none"> C1A00: CONTROL UNIT

DTC Index

INFOID:000000013405038

×: Applicable

ICC SENSOR

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

DTC	CONSULT display	Fail-safe				Reference
		Vehicle-to-vehicle distance control mode	Conventional (fixed speed) cruise control mode	Distance Control Assist (DCA)	Forward Emergency Braking (FEB) / Predictive Forward Collision Warning (PFCW)	
C1A00	CONTROL UNIT	×	×	×	×	CCS-132
C1A01	POWER SUPPLY CIR	×	×	×	×	CCS-133
C1A02	POWER SUPPLY CIR2	×	×	×	×	CCS-133
C1A12	RADAR OFF-CENTER	×		×	×	CCS-134
C1A16	RADAR BLOCKED	×		×	×	CCS-135
C1A21	UNIT HIGH TEMP	×	×	×	×	CCS-137
C1A23	UNIT LOW TEMP	×	×	×	×	CCS-138
C1A39	STRG SEN CIR	×	×	×	×	CCS-139
C1A50	ADAS MALFUNCTION	×	×	×	×	CCS-140
U0104	ADAS CAN CIR1	×	×	×	×	CCS-141
U0121	VDC CAN CIR2	×	×	×	×	CCS-142
U0126	STRG SEN CAN CIR1	×	×	×	×	CCS-143
U0405	ADAS CAN CIR2	×	×	×	×	CCS-144
U0415	VDC CAN CIR1	×	×	×	×	CCS-145
U0428	STRG SEN CAN CIR2	×	×	×	×	CCS-146
U1000	CAN COMM CIRCUIT	×	×	×	×	CCS-147
U1010	CONTROL UNIT (CAN)	×	×	×	×	CCS-148

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ACCELERATOR PEDAL ACTUATOR

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

ACCELERATOR PEDAL ACTUATOR

Reference Value

INFOID:000000012796285

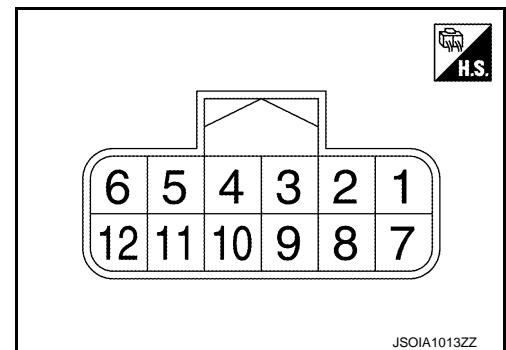
VALUES ON THE DIAGNOSIS TOOL

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor item	Condition		Value/Status
TGT FBK FRC	Drive the vehicle and operate the DCA system	When the ADAS control unit is controlling the accelerator pedal actuator	It changes with the demand from the ADAS control unit
TGT MOT POSI	NOTE: The item is indicated, but not used.		—
ACT MOT POSI	Engine running	Depress accelerator pedal	It changes according to the depressed amount of accelerator pedal
AP OPEN	Engine running	Depress accelerator pedal	It changes according to the depressed amount of accelerator pedal
APA TEMP	Engine running		Display the accelerator pedal actuator integrated motor temperature
APA CURRENT	Drive the vehicle and operate the DCA system	When the ADAS control unit is controlling the accelerator pedal actuator	Display the accelerator pedal actuator motor operation consumption current
APA PWR	Ignition switch ON		Battery voltage
APA OPE STATS	Engine running	When the accelerator pedal actuator control is permitted	On
		When the accelerator pedal actuator control is invalid	Off
APA STATS	Engine running	When the accelerator pedal actuator is normal	Ready
		When the accelerator pedal actuator is temporarily malfunctioning	TP NG
		When the accelerator pedal actuator is malfunctioning	NG
		During the accelerator pedal actuator operation preparations	Init

TERMINAL LAYOUT



PHYSICAL VALUES

ACCELERATOR PEDAL ACTUATOR

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

Terminal No. (Wire color)		Description		Condition	Standard value	Reference value
+	-	Signal name	Input/ Output			
1 (BR)	7 (B)	Battery power supply	Input	Ignition switch OFF	8 - 16 V	Battery voltage
2 (G)		Ignition power supply	Input	Ignition switch ON	8 - 16 V	Battery voltage
3 (L)		ITS communication-H	—	—	—	—
7 (B)	Ground	Ground	—	Ignition switch ON	0 - 0.1 V	Approx. 0 V
9 (Y)	7 (B)	ITS communication-L	—	—	—	—

DTC Inspection Priority Chart

INFOID:000000012796286

If multiple DTCs are detected simultaneously, check them one by one depending on the following DTC inspection priority chart.

Priority	Detected items (DTC)
1	<ul style="list-style-type: none"> U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN)
2	<ul style="list-style-type: none"> C1F02: APA C/U MALF
3	<ul style="list-style-type: none"> C1F01: APA MOTOR MALF C1F03: APA HI TEMP C1F05: APA PWR SUPPLY CIR C1F06: CAN CIR2 C1F07: CAN CIR1

DTC Index

INFOID:000000012796287

NOTE:

- The details of time display are as per the following.
 - CRNT: A malfunction is detected now
 - PAST: A malfunction was detected in the past
- IGN counter is displayed in FFD (Freeze Frame Data).
 - 0: The malfunctions that are detected now
 - 1 - 39: It increases like 0 → 1 → 2 ... 38 → 39 after returning to the normal condition whenever the ignition switch OFF → ON. It returns to 0 when a malfunction is detected again in the process.
 - If it is over 39, it is fixed to 39 until the self-diagnosis results are erased.

×: Applicable

CONSULT display	Fail-safe function	Reference
C1F01: APA MOTOR MALF	×	DAS-456
C1F02: APA C/U MALF	×	DAS-457
C1F03: APA HI TEMP	—	DAS-458
C1F05: APA PWR SUPPLY CIR	×	DAS-459
C1F06: CAN CIR2	×	DAS-460
C1F07: CAN CIR1	×	DAS-461
U1000: CAN COMM CIRCUIT	×	DAS-469
U1010: CONTROL UNIT (CAN)	×	DAS-474

SIDE RADAR LH

Reference Value

INFOID:000000012796288

VALUES ON THE DIAGNOSIS TOOL

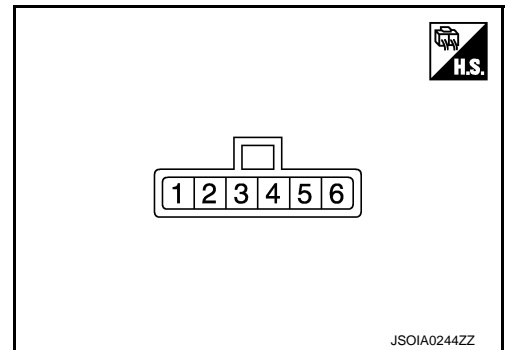
NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

CONSULT MONITOR ITEM

Monitor Item	Condition	Value/Status
BEAM DISTANCE	NOTE: The item is displayed, but it is not used.	—
BEAM POSITION	NOTE: The item is displayed, but it is not used.	—
SIDE RADAR MALF	Side radar is normal.	Off
	Side radar is malfunctioning.	On
BLOCKAGE COND	Side radar is not blocked.	Off
	Side radar is blocked.	On
ACTIVATE OPE	NOTE: The item is displayed, but it is not used.	—
VEHICLE DETECT	Radar does not detect a vehicle.	Off
	Radar detects a vehicle.	On

TERMINAL LAYOUT



PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition	Standard value	Reference value
+	-	Signal name	Input/Output			
2 (B)	Ground	Ground	—	—	0 - 0.1 V	0 V
3 (R)	—	ITS communication-L	—	—	—	—
4 (L)	—	ITS communication-H	—	—	—	—
5 (GR)	2 (B)	Ignition power supply	Input	Ignition switch ON	10 - 16 V	Approx. 12 V
6 (BR)	2 (B)	Blind Spot Warning/Blind Spot Intervention indicator	Output	Approx. 2 sec. after ignition switch OFF ⇒ ON (bulb check)	5.5 - 16 V	Approx. 6 V

Fail-safe (Side Radar)

INFOID:0000000012796289

FAIL-SAFE CONTROL BY DTC

Blind Spot Warning (BSW)

If a malfunction occurs in the side radar, ADAS control unit cancels control, and turns ON the Blind Spot Warning/Blind Spot Intervention malfunction in information display.

TEMPORARY DISABLED STATUS AT BLOCKAGE

Blind Spot Warning (BSW)

When the side radar is blocked, the operation is temporarily cancelled. Then the Blind Spot Warning malfunction in information display. Also, under the following conditions, the operation may be temporarily cancelled.

- The side radar may be blocked by temporary ambient conditions such as splashing water, mist or fog.
- The blocked condition may also be caused by objects such as ice, frost or dirt obstructing the side radar.

Blind Spot Intervention

When the side radar is blocked, the operation is temporarily cancelled. Then the buzzer sounds and then the Blind Spot Intervention malfunction in information display. Also, under the following conditions, the operation may be temporarily cancelled.

- The side radar may be blocked by temporary ambient conditions such as splashing water, mist or fog.
- The blocked condition may also be caused by objects such as ice, frost or dirt obstructing the side radar.

Back-up Collision Intervention (BCI)

When the side radar is blocked, the operation is temporarily cancelled. Then the buzzer sounds. Also, under the following conditions, the operation may be temporarily cancelled.

- The side radar may be blocked by temporary ambient conditions such as splashing water, mist or fog.
- The blocked condition may also be caused by objects such as ice, frost or dirt obstructing the side radar.

DTC Inspection Priority Chart

INFOID:0000000012796290

If some DTCs are displayed at the same time, perform inspections one by one based on the following priority chart.

Priority	Detected items (DTC)
1	<ul style="list-style-type: none"> • U1000: CAN COMM CIRCUIT • U1010: CONTROL UNIT (CAN)
2	<ul style="list-style-type: none"> • U0104: ADAS CAN CIR 1 • U0405: ADAS CAN CIR 2
3	C1B50: SIDE RDR MALFUNCTION
4	<ul style="list-style-type: none"> • C1B51: BSW/BSI IND SHORT CIR • C1B52: BSW/BSI IND OPEN CIR • C1B55: RADAR BLOCKAGE

DTC Index

INFOID:0000000012796291

×: Applicable

DTC	DTC	Fail-safe		Reference page
		Blind Spot Warning/ Blind Spot Intervention	BCI	
C1B50	SIDE RDR MALFUNCTION	×	×	DAS-449
C1B51	BSW/BSI IND SHORT CIR	×	×	DAS-450
C1B52	BSW/BSI IND OPEN CIR	×	×	DAS-452
C1B55	RADAR BLOCKAGE	×	×	DAS-454
U1000	CAN COMM CIRCUIT	×	×	DAS-471
U1010	CONTROL UNIT (CAN)	×	×	DAS-475
U0104	ADAS CAN CIR1	×	×	DAS-462
U0405	ADAS CAN CIR2	×	×	DAS-466

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SIDE RADAR RH

Reference Value

INFOID:000000012796292

VALUES ON THE DIAGNOSIS TOOL

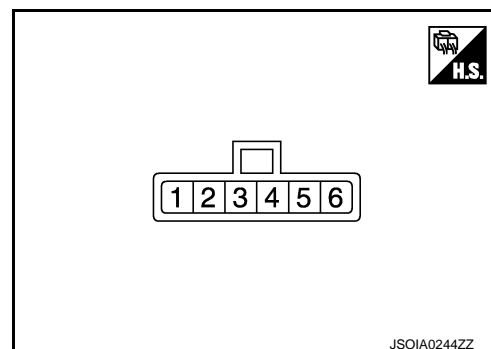
NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

CONSULT MONITOR ITEM

Monitor Item	Condition	Value/Status
BEAM DISTANCE	NOTE: The item is displayed, but it is not used.	—
BEAM POSITION	NOTE: The item is displayed, but it is not used.	—
SIDE RADAR MALF	Side radar is normal.	Off
	Side radar is malfunctioning.	On
BLOCKAGE COND	Side radar is not blocked.	Off
	Side radar is blocked.	On
ACTIVATE OPE	NOTE: The item is displayed, but it is not used.	—
VEHICLE DETECT	Radar does not detect a vehicle.	Off
	Radar detects a vehicle.	On

TERMINAL LAYOUT



PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition	Standard value	Reference value
+	-	Signal name	Input/ Output			
1 (B)	2 (B)	Right/Left switching signal	Input	—	0 - 0.1 V	0 V
2 (B)	Ground	Ground	—	—	0 - 0.1 V	0 V
3 (P)	—	ITS communication-L	—	—	—	—
4 (L)	—	ITS communication-H	—	—	—	—
5 (GR)	2 (B)	Ignition power supply	Input	Ignition switch ON	10 - 16 V	—
6 (SB)	2 (B)	Blind Spot Warning/Blind Spot Intervention indicator	Output	Approx. 2 sec. after ignition switch OFF ⇒ ON (bulb check)	5.5 - 16 V	6 V

Fail-safe (Side Radar)

INFOID:000000013404690

FAIL-SAFE CONTROL BY DTC

Blind Spot Warning (BSW)

If a malfunction occurs in the side radar, ADAS control unit cancels control, and turns ON the Blind Spot Warning/Blind Spot Intervention malfunction in information display.

TEMPORARY DISABLED STATUS AT BLOCKAGE

Blind Spot Warning (BSW)

When the side radar is blocked, the operation is temporarily cancelled. Then the Blind Spot Warning malfunction in information display. Also, under the following conditions, the operation may be temporarily cancelled.

- The side radar may be blocked by temporary ambient conditions such as splashing water, mist or fog.
- The blocked condition may also be caused by objects such as ice, frost or dirt obstructing the side radar.

Blind Spot Intervention

When the side radar is blocked, the operation is temporarily cancelled. Then the buzzer sounds and then the Blind Spot Intervention malfunction in information display. Also, under the following conditions, the operation may be temporarily cancelled.

- The side radar may be blocked by temporary ambient conditions such as splashing water, mist or fog.
- The blocked condition may also be caused by objects such as ice, frost or dirt obstructing the side radar.

Back-up Collision Intervention (BCI)

When the side radar is blocked, the operation is temporarily cancelled. Then the buzzer sounds. Also, under the following conditions, the operation may be temporarily cancelled.

- The side radar may be blocked by temporary ambient conditions such as splashing water, mist or fog.
- The blocked condition may also be caused by objects such as ice, frost or dirt obstructing the side radar.

DTC Inspection Priority Chart

INFOID:000000012796294

If some DTCs are displayed at the same time, perform inspections one by one based on the following priority chart.

Priority	Detected items (DTC)
1	<ul style="list-style-type: none"> • U1000: CAN COMM CIRCUIT • U1010: CONTROL UNIT (CAN)
2	<ul style="list-style-type: none"> • U0104: ADAS CAN CIR 1 • U0405: ADAS CAN CIR 2
3	C1B50: SIDE RDR MALFUNCTION
4	<ul style="list-style-type: none"> • C1B51: BSW/BSI IND SHORT CIR • C1B52: BSW/BSI IND OPEN CIR • C1B55: RADAR BLOCKAGE

DTC Index

INFOID:000000012796295

×: Applicable

DTC	DTC	Fail-safe		Reference page
		Blind Spot Warning/Blind Spot Intervention warning	BCI	
C1B50	SIDE RDR MALFUNCTION	×	×	DAS-449
C1B51	BSW/BSI IND SHORT CIR	×	×	DAS-450
C1B52	BSW/BSI IND OPEN CIR	×	×	DAS-452
C1B55	RADAR BLOCKAGE	×	×	DAS-454
U1000	CAN COMM CIRCUIT	×	×	DAS-472
U1010	CONTROL UNIT (CAN)	×	×	DAS-476
U0104	ADAS CAN CIR1	×	×	DAS-462
U0405	ADAS CAN CIR2	×	×	DAS-466

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DRIVER ASSISTANCE BUZZER CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

DRIVER ASSISTANCE BUZZER CONTROL MODULE

Reference Value

INFOID:000000012796296

VALUES ON THE DIAGNOSIS TOOL

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor item	Condition		Value/Status
Buzzer 1 request (ADAS)	Drive the vehicle and operate each system	Except for the LDW/LDP/Blind Spot Warning/Blind Spot Intervention warning condition	Off
		When the LDW warning condition	TYPE 1
		When the BSW warning condition	TYPE 2
		When the Blind Spot Intervention warning condition	TYPE 3
		When the warning condition cancel	Cancel
Buzzer 1 volume (ADAS)	Ignition switch ON	When the buzzer sound	It changes according to the sound volume of buzzer
Buzzer 1 stop (ADAS)	Ignition switch ON	When the buzzer cancel immediate	IMEDIAT
		When the buzzer cancel other than above	CYCLE
Buzzer 2 request (ADAS)	Drive the vehicle and operate each system	Except for the ICC/PFCW/DCA warning condition	Off
		When the approach warning condition	TYPE 1
		When the PFCW warning condition	TYPE 2
		When the DCA condition	TYPE 3
		When the warning condition cancel	Cancel
Buzzer 2 volume (ADAS)	Ignition switch ON	When the buzzer sound	It changes according to the sound volume of buzzer
Buzzer 2 stop (ADAS)	Ignition switch ON	When the buzzer cancel immediate	IMEDIAT
		When the buzzer cancel other than above	CYCLE
Buzzer 3 request (ADAS)	Drive the vehicle and operate each system	Except for the FEB warning condition	Off
		When the FEB warning condition	TYPE 1
		When the warning condition cancel	Cancel
Buzzer 3 volume (ADAS)	Ignition switch ON	When the buzzer sound	It changes according to the sound volume of buzzer
Buzzer 3 stop (ADAS)	Ignition switch ON	When the buzzer cancel immediate	IMEDIAT
		When the buzzer cancel other than above	CYCLE
Buzzer 4 request (ADAS)	Drive the vehicle and operate each system	Except for the PFCW warning condition	Off
		When the PFCW warning condition	TYPE 1
		When the warning condition cancel	Cancel
Buzzer 4 volume (ADAS)	Ignition switch ON	When the buzzer sound	It changes according to the sound volume of buzzer
Buzzer 4 stop (ADAS)	Ignition switch ON	When the buzzer cancel immediate	IMEDIAT
		When the buzzer cancel other than above	CYCLE

DRIVER ASSISTANCE BUZZER CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

Monitor item	Condition		Value/Status
Buzzer 1 request (CCM)	Drive the vehicle and operate each system	Except for the LDW/LDP/Blind Spot Warning/Blind Spot Intervention warning condition	Off
		When the LDW warning condition	TYPE 1
		When the BSW warning condition	TYPE 2
		When the Blind Spot Intervention warning condition	TYPE 3
		When the warning condition cancel	Cancel
Buzzer 1 volume (CCM)	Ignition switch ON	When the buzzer sound	It changes according to the sound volume of buzzer
Buzzer 1 stop (CCM)	Ignition switch ON	When the buzzer cancel immediate	IMEDIAT
		When the buzzer cancel other than above	CYCLE
Buzzer 2 request (CCM)	Drive the vehicle and operate each system	Except for the ICC/PFCW/DCA warning condition	Off
		When the approach warning condition	TYPE 1
		When the PFCW warning condition	TYPE 2
		When the DCA condition	TYPE 3
		When the warning condition cancel	Cancel
Buzzer 2 volume (CCM)	Ignition switch ON	When the buzzer sound	It changes according to the sound volume of buzzer
Buzzer 2 stop (CCM)	Ignition switch ON	When the buzzer cancel immediate	IMEDIAT
		When the buzzer cancel other than above	CYCLE
Buzzer 3 request (CCM)	Drive the vehicle and operate each system	Except for the FEB warning condition	Off
		When the FEB warning condition	TYPE 1
		When the warning condition cancel	Cancel
Buzzer 3 volume (CCM)	Ignition switch ON	When the buzzer sound	It changes according to the sound volume of buzzer
Buzzer 3 stop (CCM)	Ignition switch ON	When the buzzer cancel immediate	IMEDIAT
		When the buzzer cancel other than above	CYCLE
Buzzer 4 request (CCM)	Drive the vehicle and operate each system	Except for the PFCW warning condition	Off
		When the PFCW warning condition	TYPE 1
		When the warning condition cancel	Cancel
Buzzer 4 volume (CCM)	Ignition switch ON	When the buzzer sound	It changes according to the sound volume of buzzer
Buzzer 4 stop (CCM)	Ignition switch ON	When the buzzer cancel immediate	IMEDIAT
		When the buzzer cancel other than above	CYCLE
ADAS MALFUNCTION	Ignition switch ON	When the ADAS control unit malfunction	On
		When the ADAS control unit normal	Off
CCM MALFUNCTION	Ignition switch ON	When the chassis control module malfunction	On
		When the chassis control module normal	Off
DR ASSIST BUZZ MALF	Ignition switch ON	When the driver assistance control module malfunction	On
		When the driver assistance control module normal	Off

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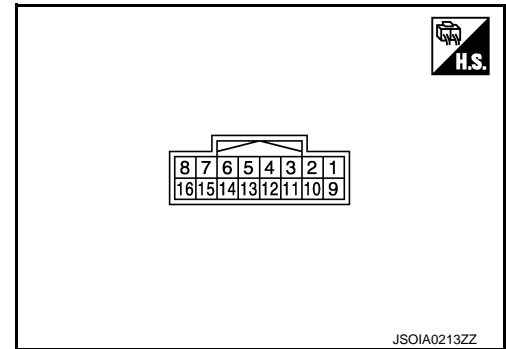
DRIVER ASSISTANCE BUZZER CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

Monitor item	Condition	Value/Status
DR ASSIST BUZZ STATUS	Except for the warning condition	Off
	LDW/LDP//Blind Spot Warning/Blind Spot Intervention system warning in progress	1
	ICC/PFCW/DCA system warning in progress	2
	FEB system warning in progress	3
	LDW/LDP//Blind Spot Warning/Blind Spot Intervention/ICC/PFCW/DCA system warning in progress	1, 2
	ICC/PFCW/DCA system warning in progress.	2, 4
	LDW/LDP//Blind Spot Warning/Blind Spot Intervention/PFCW system warning in progress	1, 4
	PFCW system	4

TERMINAL LAYOUT



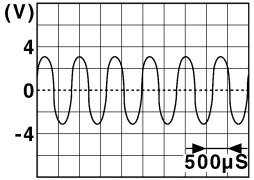
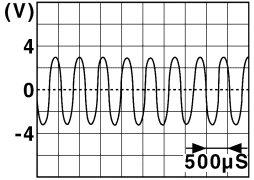
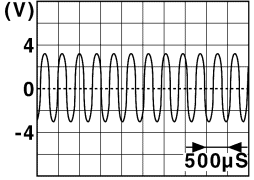
PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition		Standard value	Reference value
+	-	Signal name	Input/Output				
1 (G)	5 (B)	Ignition power supply	Input	Ignition switch ON	—	10 - 16 V	Battery voltage
3 (L)	—	ITS communication-H	—	—	—		—
5 (B)	Ground	Ground	—	Ignition switch ON	—	0 - 0.1 V	Approx. 0 V

DRIVER ASSISTANCE BUZZER CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

Terminal No. (Wire color)		Description		Condition	Standard value	Reference value
+	-	Signal name	Input/Output			
8 (R)	16 (G)	Warning buzzer signal	Output	Ignition switch OFF	0 - 0.1 V	Approx. 0 V
				At "BUZZER 1" test of "Active test"	 <small>JSOIA0949ZZ</small>	
				At "BUZZER 2" test of "Active test"	 <small>JSOIA0950ZZ</small>	
				At "BUZZER 3" test of "Active test"	 <small>JSOIA0951ZZ</small>	
11 (Y)	—	ITS communication-L	—	—	—	—
13 (B)	Ground	Ground	—	Ignition switch ON	0 - 0.1 V	Approx. 0 V
16 (G)	5 (B)	Warning buzzer signal ground	Output	Ignition switch ON	0 - 0.1 V	Approx. 0 V

DTC Inspection Priority Chart

INFOID:000000012796297

If multiple DTCs are detected simultaneously, check them one by one depending on the following DTC inspection priority chart.

Priority	Detected items (DTC)
1	<ul style="list-style-type: none"> • U1000: CAN COMM CIRCUIT • U1010: CONTROL UNIT (CAN)
2	<ul style="list-style-type: none"> • U0104: ADAS CAN CIR2 • U1527: CCM CAN CIRCUIT 1
3	<ul style="list-style-type: none"> • C1B20: CONTROL MODULE

DAS

DTC Index

INFOID:000000012796298

NOTE:

- The details of time display are as per the following.
- CRNT: A malfunction is detected now
- PAST: A malfunction was detected in the past
- IGN counter is displayed in FFD (Freeze Frame Data).
- 0: The malfunctions that are detected now

DRIVER ASSISTANCE BUZZER CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

- 1 - 39: It increases like 0 → 1 → 2 ... 38 → 39 after returning to the normal condition whenever the ignition switch OFF → ON. It returns to 0 when a malfunction is detected again in the process.
- If it is over 39, it is fixed to 39 until the self-diagnosis results are erased.

×: Applicable

DTC		Reference
C1B20	CONTROL MODULE	DAS-447
U0104	ADAS CAN CIR2	DAS-463
U1527	CCM CAN CIRCUIT 1	DAS-478
U1000	CAN COMM CIRCUIT	DAS-472
U1010	CONTROL UNIT (CAN)	DAS-477

LANE CAMERA UNIT

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

LANE CAMERA UNIT WITH DIRECT ADAPTIVE STEERING SYSTEM

WITH DIRECT ADAPTIVE STEERING SYSTEM : Reference Value

INFOID:0000000013530348

VALUES ON THE DIAGNOSIS TOOL

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor Item	Condition	Value/Status
LDW SW PORT	NOTE: The item is indicated, but not used.	—
LDP ON IND	NOTE: The item is indicated, but not used.	—
LANE DPRT W/L	NOTE: The item is indicated, but not used.	—
CAM HIGH TEMP	When the temperature around lane camera unit is adequate.	NORMAL
	When the temperature around the lane camera unit is high.	High
VHCL SPD SE	While driving	Approximately equivalent to speedometer reading
TURN SIGNAL	Turn signal lamp LH and RH blinking	LH/RH
	Turn signal lamp LH blinking	LH
	Turn signal lamp RH blinking	RH
	Turn signal lamps OFF	Off
LANE DETCT LH	Left side lane marker is detected.	On
	Left side lane marker is not detected.	Off
LANE DETCT RH	Right side lane marker is detected.	On
	Right side lane marker is not detected.	Off
CROSS LANE LH	The vehicle is crossing left side lane marker.	On
	The vehicle is not crossing left side lane marker.	Off
CROSS LANE RH	The vehicle is crossing right side lane marker.	On
	The vehicle is not crossing right side lane marker.	Off
WARN LANE LH	The vehicle is traveling on the left side lane marker.	On
	The vehicle is traveling the center of traffic lane.	Off
WARN LANE RH	The vehicle is traveling on the right side lane marker.	On
	The vehicle is traveling the center of traffic lane.	Off
VALID POS LH	Lateral position for left side lane marker is valid	VLD
	Lateral position for left side lane marker is invalid.	INVLD
VALID POS RH	Lateral position for right side lane marker is valid.	VLD
	Lateral position for right side lane marker is invalid.	INVLD
LATERL POS LH	Left side lane marker is detecting.	Displays the distance from a lane camera to the left lane marker.
LATERL POS RH	Right side lane marker is detecting.	Displays the distance from a lane camera to the right lane marker.
CURVATURE	Lane marker is detecting.	Displays the road curvature that a lane camera detected.

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LANE CAMERA UNIT

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

Monitor Item	Condition	Value/Status
LATERAL SPEED	Lane marker is detecting.	Displays lateral speed for the lane of the vehicle.
YAW ANGLE	Lane marker is detecting.	Displays yaw angle for the lane of the vehicle.
CAM DTC CODE	NOTE: The item is indicated, but not used.	
AIMING DONE	Camera aiming is completed.	OK
	Camera aiming is not adjusted.	NG
AIMING RESULT	Camera aiming is completed.	OK
	Camera aiming is not completed.	NOK
AIM NG REASON	No target is detected.	TARGET
	Yaw angle beyond the allowable range is detected.	YAW
	Roll angle beyond the allowable range is detected.	ROLL
	Pitch angle beyond the allowable range is detected.	PITCH
	The target is unclear.	IMAGE
	Lighting is insufficient.	LIGHT
	One side target is not detected.	1-SIDE
	Other NG is detected.	OTHERS
RUNTIME AIM	NOTE: The item is indicated, but not used.	—
INITIALIZE	NOTE: The item is indicated, but not used.	—
RUNTIME AIM OFFSET (YAW)	NOTE: The item is indicated, but not used.	—
RUNTIME AIM WORK COND	NOTE: The item is indicated, but not used.	—
RUNTIME AIM MEMORIZING	NOTE: The item is indicated, but not used.	—
XOFFSET	NOTE: The item is indicated, but not used.	—
RUNTIME AIM OFFSET(PITCH)	NOTE: The item is indicated, but not used.	—
AIM CHECK YAW	NOTE: The item is indicated, but not used.	—
AIM CHECK ROLL	NOTE: The item is indicated, but not used.	—
AIM CHECK PITCH	NOTE: The item is indicated, but not used.	—
FOE X	NOTE: The item is indicated, but not used.	—
FOE Y	NOTE: The item is indicated, but not used.	—
RUNTIME FOE X	NOTE: The item is indicated, but not used.	—
RUNTIME FOE Y	NOTE: The item is indicated, but not used.	—
FCTRY AIM YAW	Camera aiming is completed.	0 ± 2.0 deg
FCTRY AIM ROL	Camera aiming is completed.	0 ± 2.0 deg
FCTRY AIM PIT	Camera aiming is completed.	0 ± 2.0 deg

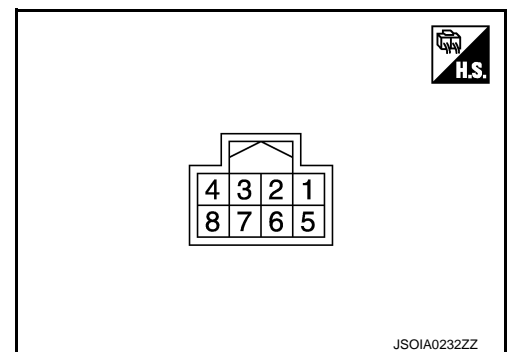
LANE CAMERA UNIT

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

Monitor Item	Condition	Value/Status
RUNTIME AIM COUNT	NOTE: The item is indicated, but not used.	—
ROM WRITING COUNT	NOTE: The item is indicated, but not used.	—
CAMERA START	Lane camera unit is starting.	START
	Lane camera unit starting is completed.	COMP
GIVE UP	Lane marker can be detected.	OK
	Lane marker can not be detected.	NG
READY	Operating conditions are not satisfied.	NOT
	Operating conditions are satisfied.	COMP
MARK TYPE LH	Lane marker is not detected.	NONE
	Solid line is detected.	SOLID
	Dashed line is detected.	DASHED
	Bott's dots is detected.	BOTT's
	Fork road (bifurcation) is detected.	FORK
	Slow down area is detected.	SLOW
	Tar strips is detected.	TAR
	Irregularity road is detected.	IRGLTY
MARK TYPE RH	Lane marker is not detected	NONE
	Solid line is detected.	SOLID
	Dashed line is detected.	DASHED
	Bott's dots is detected.	BOTT's
	Fork road (bifurcation) is detected.	FORK
	Slow down area is detected.	SLOW
	Tar strips is detected.	TAR
	Irregularity road is detected.	IRGLTY
CAMERA OFFSET HEIGHT (Dh)	Camera aiming is completed.	Displays camera height correction value (Dh).
TARGET HEIGHT (Ht)	Camera aiming is completed.	Displays height (Ht) of the aiming target.
TARGET DISTANCE (Dt)	Camera aiming is completed.	Displays the distance (Dt) from front axle to a target.

TERMINAL LAYOUT



PHYSICAL VALUES

LANE CAMERA UNIT

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

Terminal No. (Wire color)		Description		Condition	Standard value	Reference value
+	-	Signal name	Input/ Output			
1 (B)	Ground	Ground	—	—	0 - 0.1 V	Approx. 0 V
4 (L)		CAN-H	—	—	—	—
5 (B)		Ground	—	—	0 - 0.1 V	Approx. 0 V
7 (V)		Ignition power supply	Input	Ignition switch	10 - 16 V	Battery voltage
8 (W)		CAN-L	—	—	—	—

WITH DIRECT ADAPTIVE STEERING SYSTEM : Fail-safe (Lane Camera Unit with DAST)

INFOID:000000013404266

FAIL-SAFE CONTROL BY DTC

Active Lane Control

If a malfunction occurs in the lane camera unit, chassis control module cancels control, and turns ON the Chassis Control Module malfunction in information display.

Lane Departure Warning (LDW)

If a malfunction occurs in the lane camera unit, chassis control module cancels control, and turns ON the LDW malfunction in information display.

Lane Departure Prevention (LDP)

If a malfunction occurs in the lane camera unit, chassis control module cancels control, sounds a beep, and turns ON the LDP malfunction in information display.

Blind Spot Intervention

If a malfunction occurs in the lane camera unit, chassis control module cancels control, sounds a beep, and turns ON the Blind Spot Intervention malfunction in information display.

TEMPORARY DISABLED STATUS AT HIGH TEMPERATURE

Lane Departure Warning (LDW)

- If the vehicle is parked in direct sunlight under high temperature conditions, the system may be deactivated automatically. And the LDW malfunction in information display.
- When interior temperature is reduced, the system will resume operation automatically and the LDW malfunction in the combination meter will stop blinking.

Lane Departure Prevention (LDP)

- If the vehicle is parked in direct sunlight under high temperature conditions, the system may be deactivated automatically. And the buzzer sounds and LDP malfunction in information display.
- When interior temperature is reduced, the system will resume when dynamic driver assistance switch is turned ON.

Blind Spot Intervention

- If the vehicle is parked in direct sunlight under high temperature conditions, the system may be deactivated automatically. And the buzzer sounds and Blind Spot Intervention malfunction in information display.
- When interior temperature is reduced, the system will resume when dynamic driver assistance switch is turned ON.

WITH DIRECT ADAPTIVE STEERING SYSTEM : DTC Inspection Priority Chart

INFOID:000000013404267

If multiple DTCs are detected simultaneously, check them one by one depending on the following DTC inspection priority chart.

LANE CAMERA UNIT

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

Priority	Detected items (DTC)
1	<ul style="list-style-type: none"> • U1000: CAN COMM CIRCUIT • U1010: CONTROL UNIT (CAN)
2	<ul style="list-style-type: none"> • C1B01: CAM AIMING INCMP • C1B03: ABNRML TEMP DETECT
3	C1B00: CAMERA UNIT MALF

WITH DIRECT ADAPTIVE STEERING SYSTEM : DTC Index

INFOID:000000013404268

×: Applicable

DTC		Warning display				Fail-safe			Reference
		Chassis control warning message	LDW system warning	LDP system warning	Blind Spot Intervention system warning	Active Lane Control	LDW/LDP	Blind Spot Intervention	
C1B00	CAMERA UNIT MALF	ON	ON	ON	ON	×	×	×	DAS-801
C1B01	CAM AIMING INCMP	ON	ON	ON	ON	×	×	×	DAS-802
C1B03	ABNRML TEMP DETECT	—	Message ↓ Blink	Message ↓ OFF	Message ↓ OFF	×	×	×	DAS-803
U1000	CAN COMM CIRCUIT	ON	ON	ON	ON	×	×	×	DAS-799
U1010	CONTROL UNIT (CAN)	ON	ON	ON	ON	×	×	×	DAS-800

WITHOUT DIRECT ADAPTIVE STEERING SYSTEM

WITHOUT DIRECT ADAPTIVE STEERING SYSTEM : Reference Value

INFOID:000000013404269

VALUES ON THE DIAGNOSIS TOOL

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor Item	Condition	Value/Status
LC INACCURAT	Lane camera unit malfunction	On
	Lane camera unit normal	Off
AIMING DONE	Camera aiming is completed	OK
	Camera aiming is not adjusted	NG
AIMING RESULT	Camera aiming is completed	OK
	Camera aiming is not completed	NOK
CAM HIGH TEMP	When the temperature around the lane camera unit is adequate	NORMAL
	When the temperature around the lane camera unit is high	High
VHCL SPD SE	While driving	Approximately equivalent to speedometer reading
TURN SIGNAL	Turn signal lamp LH and RH blinking	LH/RH
	Turn signal lamp LH blinking	LH
	Turn signal lamp RH blinking	RH
	Turn signal lamps OFF	Off

DAS

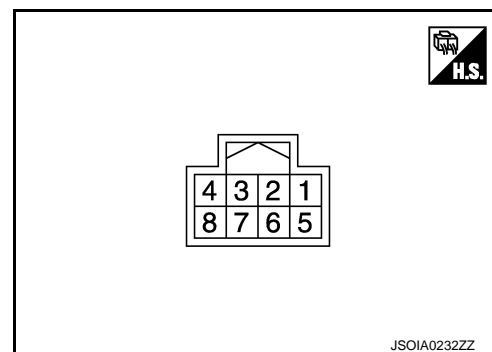
LANE CAMERA UNIT

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

Monitor Item	Condition	Value/Status
LANE DETCT LH	Left side lane marker is detected	On
	Left side lane marker is not detected	Off
LANE DETCT RH	Right side lane marker is detected	On
	Right side lane marker is not detected	Off
CROSS LANE LH	The vehicle is crossing left side lane marker	On
	The vehicle is not crossing left side lane marker	Off
CROSS LANE RH	The vehicle is crossing right side lane marker	On
	The vehicle is not crossing right side lane marker	Off
WARN LANE LH	Warning for left side lane	On
	Not warning for left side lane	Off
WARN LANE RH	Warning for right side lane	On
	Not warning for right side lane	Off
VALID POS LH	Lateral position for left side lane marker is valid	VLD
	Lateral position for left side lane marker is invalid	INVLD
VALID POS RH	Lateral position for right side lane marker is valid	VLD
	Lateral position for right side lane marker is invalid	INVLD
XOFFSET	Camera aiming is completed	Approx. 180 pixel
AIM CHECK YAW	NOTE: The item is indicated, but not used	—
AIM CHECK ROLL	NOTE: The item is indicated, but not used	—
AIM CHECK PITCH	NOTE: The item is indicated, but not used	—
FCTRY AIM YAW	Camera aiming is not completed	0.0 deg
	Camera aiming is completed	0 ± 5.0 deg
FCTRY AIM ROL	Camera aiming is not completed	0.0 deg
	Camera aiming is completed	0 ± 5.0 deg
FCTRY AIM PIT	Camera aiming is not completed	0.0 deg
	Camera aiming is completed	0 ± 5.0 deg
ADAS MALF	ADAS control unit malfunction	On
	ADAS control unit normal	Off

TERMINAL LAYOUT



PHYSICAL VALUES

LANE CAMERA UNIT

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

Terminal No. (Wire color)		Description		Condition	Standard value	Reference value
+	-	Signal name	Input/ Output			
1 (B)	Ground	Ground	—	—	0 - 0.1 V	Approx. 0 V
4 (L)		ITS communication-H	—	—	—	—
5 (B)		Ground	—	—	0 - 0.1 V	Approx. 0 V
7 (G)		Ignition power supply	Input	Ignition switch	10 - 16 V	Battery voltage
8 (Y)		ITS communication-L	—	—	—	—

WITHOUT DIRECT ADAPTIVE STEERING SYSTEM : Fail-safe (Lane Camera Unit Without DAST)

INFOID:000000013404270

FAIL-SAFE CONTROL BY DTC

Lane Departure Warning (LDW)

If a malfunction occurs in the lane camera unit, ADAS control unit cancels control, and turns ON the LDW malfunction in information display.

Lane Departure Prevention (LDP)

If a malfunction occurs in the lane camera unit, ADAS control unit cancels control, sounds a beep, and turns ON the LDP malfunction in information display.

Blind Spot Intervention

If a malfunction occurs in the lane camera unit, ADAS control unit cancels control, sounds a beep, and turns ON the Blind Spot Intervention malfunction in information display.

TEMPORARY DISABLED STATUS AT HIGH TEMPERATURE

Lane Departure Warning (LDW)

- If the vehicle is parked in direct sunlight under high temperature conditions, the system may be deactivated automatically. And the LDW malfunction in information display.
- When interior temperature is reduced, the system will resume operation automatically and the LDW malfunction in the combination meter will stop blinking.

Lane Departure Prevention (LDP)

- If the vehicle is parked in direct sunlight under high temperature conditions, the system may be deactivated automatically. And the buzzer sounds and LDP malfunction in information display.
- When interior temperature is reduced, the system will resume when dynamic driver assistance switch is turned ON.

Blind Spot Intervention

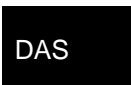
- If the vehicle is parked in direct sunlight under high temperature conditions, the system may be deactivated automatically. And the buzzer sounds and Blind Spot Intervention malfunction in information display.
- When interior temperature is reduced, the system will resume when dynamic driver assistance switch is turned ON.

WITHOUT DIRECT ADAPTIVE STEERING SYSTEM : DTC Inspection Priority Chart

INFOID:000000013404271

If multiple DTCs are detected simultaneously, check them one by one depending on the following DTC inspection priority chart.

A
B
C
D
E
F
G
H
I
J
K
L
M
N
P



LANE CAMERA UNIT

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

Priority	Detected items (DTC)
1	<ul style="list-style-type: none"> • U1000: CAN COMM CIRCUIT • U1010: CONTROL UNIT (CAN)
2	C1A50: ADAS MALFUNCTION
3	<ul style="list-style-type: none"> • C1B01: CAM AIMING INCMP • C1B03: ABNRML TEMP DETECT • U0104: ADAS CAN CIR1 • U0126: STRG SEN CAN CIR1 • U0405: ADAS CAN CIR2 • U0428: STRG SEN CAN CIR2
4	C1B00: CAMERA UNIT MALF

WITHOUT DIRECT ADAPTIVE STEERING SYSTEM : DTC Index

INFOID:000000013404272

×: Applicable

DTC		Fail-safe		Reference
		Lane Departure Warning/Lane Departure Prevention	Blind Spot Warning/Blind Spot Intervention	
C1A50	ADAS MALFUNCTION	—	—	DAS-443
C1B00	CAMERA UNIT MALF	×	×	DAS-444
C1B01	CAM AIMING INCMP	×	×	DAS-445
C1B03	ABNRML TEMP DETECT	×	×	DAS-446
U0104	ADAS CAN CIR1	×	×	DAS-462
U0126	STRG SEN CAN CIR1	×	×	DAS-465
U0405	ADAS CAN CIR2	×	×	DAS-466
U0428	STRG SEN CAN CIR2	×	×	DAS-468
U1000	CAN COMM CIRCUIT	×	×	DAS-470
U1010	CONTROL UNIT (CAN)	×	×	DAS-474

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

CHASSIS CONTROL MODULE

Reference Value

INFOID:000000013508419

CONSULT DATA MONITOR STANDARD VALUE

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor item	Condition	Reference values in normal operation
IGN VOLT	Ignition switch ON	10 – 16 V
CONTROL MODULE MALF	When chassis control module is normal	Off
	When chassis control module malfunction is detected	On
CAN DIAG STATUS	When diagnosis of CAN communication malfunction is detected	Off
	When diagnosis of CAN communication is normal	On
STP LAMP OFF RELAY 1	Displayed but not used.	—
STP LAMP OFF RELAY 2	Displayed but not used.	—
ESS RELAY	Displayed but not used.	—
VEHICLE SPEED	Vehicle Stopped	0 km/h (0 MPH)
	Driving*	Almost same reading as speedometer (within ±10%)
FR WHEEL SPEED	Vehicle stopped	0 rpm
	Driving*	Increases according to vehicle speed
FL WHEEL SPEED	Vehicle stopped	0 rpm
	Driving*	Increases according to vehicle speed
RR WHEEL SPEED	Vehicle stopped	0 rpm
	Driving*	Increases according to vehicle speed
RL WHEEL SPEED	Vehicle stopped	0 rpm
	Driving*	Increases according to vehicle speed
STEERING ANG SENSOR	When driving straight	0±3.5 deg
	When steering wheel is steered to RH by 90°	Approx. +90 deg
	When steering wheel is steered to LH by 90°	Approx. -90 deg
DECEL G SENSOR	Vehicle stopped	Approx. 0 G
	When during acceleration	Positive value
	When during deceleration	Negative value
SIDE G SENSOR	Vehicle stopped	Approx. 0 G
	When right turn	Negative value
	When left turn	Positive value
YAW RATE SENSOR	Vehicle stopped	Approx. 0 deg/s
	When right turn	Negative value
	When left turn	Positive value
ACCELE PEDAL POSITION	When accelerator pedal is released	0%
	When accelerator pedal is depressed	0 – 100%

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

Monitor item	Condition	Reference values in normal operation
THROTTLE CONTROL	When electric throttle control actuator is normal	NORMAL
	When the electric throttle control actuator does not achieve the requirement (measured value is inaccurate)	INCORR
	When the electric throttle control actuator does not achieve the requirement (temporary prevention)	PREV
	When the electric throttle control actuator does not achieve the requirement (impossible)	INPOSSI
SHIFT POSITION	Selector lever in any position	Indicates selected selector lever position
BRAKE SWITCH 2	When brake pedal is not depressed	Off
	When brake pedal is depressed	On
BRAKE SWITCH 1	When brake pedal is not depressed	Off
	When brake pedal is depressed	On
PRESS SENSOR	When brake pedal is not depressed	Approx. 0 bar
	when brake pedal is depressed	0 – 255 bar
ABS	When ABS function is normal	NORMAL
	When ABS function malfunction is detected	ABNOR
ABS MALF	When ABS function is normal	NORMAL
	When ABS function malfunction is detected	ABNOR
EBD	When EBD function is normal	NORMAL
	When EBD function malfunction is detected	ABNOR
ACCELE PEDAL MALF	When accelerator pedal is normal	NORMAL
	When accelerator pedal malfunction is detected	ABNOR
TCS	When TCS function is normal	NORMAL
	When TCS function malfunction is detected	ABNOR
TCS MALF	When TCS function is normal	NORMAL
	When TCS function malfunction is detected	ABNOR
VDC	When VDC function is normal	NORMAL
	When VDC function malfunction is detected	ABNOR
VDC MALF	When VDC function is normal	NORMAL
	When VDC function malfunction is detected	ABNOR
VDC OFF SWITCH	When VDC OFF switch is OFF	Off
	When VDC OFF switch is ON	On
PARKING BRAKE	When parking brake is inactive	Off
	When parking brake is active	On
DRV TRQ CTRL MODE	When correction coefficients are initialized	INITIAL
	When correction is executed	NORMAL
	When correction is stopped (computing is impossible)	STOP 1
	When correction is stopped (computing is possible)	STOP 2
	When correction is limited	LIMIT 1
	When correction is prohibited	PROHIBI

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

Monitor item	Condition	Reference values in normal operation	
DRV TRQ CTRL PERMIS 1	When correction is permitted (basic requirement)	PERMIS	A
	When correction is not permitted (basic requirement)	NO PER	B
DRV TRQ CTRL PERMIS 2	When correction is permitted (system requirement)	PERMIS	C
	When correction is not permitted (system requirement)	NO PER	
DRV TRQ CTRL STOP	When correction is requested to stop	REQ	D
	When correction is not requested to stop	NO REQ	
DRV TRQ CTRL PROHIBIT	When prohibition of correction is requested	REQ	E
	When prohibition of correction is not requested	NO REQ	
DRIVE MODE SELECTOR	When drive mode select switch is "STANDARD" mode	STD	F
	When drive mode select switch is "SPORT" mode	SPORT	G
	When drive mode select switch is "SNOW" mode	SNOW	H
	When drive mode select switch is "ECO" mode	ECO	I
	When drive mode select switch is "SPORT+" mode	SPORT+	J
	When drive mode select switch is "PERSONAL" mode	PERSO	K
	When drive mode select switch is not use	NOT	L
	When drive mode select switch is not select	NOT SET	M
LOG-IN PERMIS	When log-in is possible	NO PER	N
	When log-in is not possible	PERMIS	
I-KEY LINK	When Intelligent Key is not linked	Off	
	When Intelligent Key is linked	On	
USER	When logged in with "USER A" Intelligent Key	USER A	
	When logged in with "USER B" Intelligent Key	USER B	
	When logged in with "USER C" Intelligent Key	USER C	
	When logged in with an Intelligent Key without user registration	GUEST	
ENGINE/TM SETTING	When the engine/transmission setting with drive mode select switch is in "SPORT" mode	SPORT	
	When the engine/transmission setting with drive mode select switch is in "STANDARD" mode	STD	
	When the engine/transmission setting with drive mode select switch is in "ECO" mode	ECO	DAS
	When the engine/transmission setting with drive mode select switch is in "SNOW" mode	SNOW	
ALC SETTING	When Active Lane Control setting with drive mode select switch is "OFF"	Off	P
	When Active Lane Control setting with drive mode select switch is "LOW"	LOW	
	When Active Lane Control setting with drive mode select switch is "HIGH"	HIGH	

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

Monitor item	Condition	Reference values in normal operation
ATC SETTING	When active trace control function setting with drive mode select switch is "OFF"	Off
	When active trace control function setting with drive mode select switch is "ON"	On
COMBI METER	When drive mode select switch is "STANDARD" mode	STD
	When drive mode select switch is "SNOW" mode	SNOW
	When drive mode select switch is "PERSONAL" mode	PERSO
	When drive mode select switch is "SPORT" mode	SPORT
	When drive mode select switch is "ECO" mode	ECO
ATC 1	When active trace control function is inactive	Off
	When active trace control function is active	On
ATC 2	When active trace control function is inactive	Off
	When active trace control function is active	On
ATC 4	When active trace control function is inactive	Off
	When active trace control function is active	On
FL TIRE DISP	When the front LH tire is not displayed on the information display in the combination meter	DEF
	When the front LH tire is displayed on the information display in the combination meter	1
FR TIRE DISP	When the front RH tire is not displayed on the information display in the combination meter	DEF
	When the front RH tire is displayed on the information display in the combination meter	1
RL TIRE DISP	When the rear LH tire is not displayed on the information display in the combination meter	DEF
	When the rear LH tire is displayed on the information display in the combination meter	1
RR TIRE DISP	When the rear RH tire is not displayed on the information display in the combination meter	DEF
	When the rear RH tire is displayed on the information display in the combination meter	1
TURN DISP	When the straight-ahead status is displayed on the information display in the combination meter	N STEER
	When the left turning status is displayed on the information display in the combination meter	LEFT
	When the right turning status is displayed on the information display in the combination meter	RIGHT
ALC LEVEL	When Active Lane Control is turned ON.	0
	When Active Lane Control is operational or is operating.	1 – 4
ALC STATUS	When Active Lane Control is OFF	INACT
	When Active Lane Control is ON	ACT

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

Monitor item	Condition	Reference values in normal operation	
ATC DISP	When the activation of active trace control function is not displayed on the information display in the combination meter	Off	A
	When the activation of active trace control function is displayed on the information display in the combination meter	On	B
ALC DISP	When the activation of Active Lane Control is not displayed on the information display in the combination meter	Off	C
	When the activation of Active Lane Control is displayed on the information display in the combination meter	On	D
ALC SYSTEM	When Active Lane Control is OFF	Off	E
	When Active Lane Control is ON	On	
LANE MARKER (LH)	When left side lane marker is not detected.	NOT	F
	when left side lane marker is detected.	DETECT	
LANE MARKER (RH)	When right side lane marker is not detected.	NOT	G
	When right side lane marker is detected.	DETECT	
TURN SIGNAL (LH)	When turn signal lamps is OFF	Off	H
	When turn signal lamp LH is blinking	On	
TURN SIGNAL (RH)	When turn signal lamps is OFF	Off	I
	When turn signal lamp RH is blinking	On	
TURN SIGNAL SWITCH	When turn signal lamps is OFF	Off	J
	When turn signal lamp LH is blinking	LEFT	
	When turn signal lamp RH is blinking	RIGHT	
	When turn signal lamp system malfunction is detected.	MALF	
DAST	When the Active Lane Control request to transmit to the steering force control module is OFF	Off	K
	When the Active Lane Control request to transmit to the steering force control module is ON	On	
ROAD DISTORTION	Driving	Depends on the radius of curve	L
COMMAND ST ANG	When the Active Lane Control is inactive or when the Active Lane Control is active and the vehicle is driving straight around the center of the lane	Approx. 0 rad	M
	Active Lane Control is active with yaw angle formed on the left of the lane.	Max 0.05 rad	N
	Active Lane Control is active with yaw angle formed on the right of the lane.	Max -0.05 rad	
ST PINION ANG	When driving straight	Approx. 0 rad	DAS
	when steering wheel is steered to LH by 90°	Approx. -1.6 rad	
	when steering wheel is steered to RH by 90°	Approx. 1.6 rad	
ST WHL FORCE TORQUE	When driving straight	0 N·m	P
	When steering wheel is steered	MAX ± 32 N·m	

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

Monitor item	Condition	Reference values in normal operation
COMMAND ST WHL FORCE	When the Active Lane Control is inactive or when the Active Lane Control is active and the vehicle is driving straight around the center of the lane	0 N·m
	When the Active Lane Control is active and the vehicle is drifting to the left end of the lane	Approx. -6 N
	When the Active Lane Control is active and the vehicle is drifting to the right end of the lane	Approx. 6 N
LDW DISP	When LDW function is ON	On
	When LDW function malfunction is detected	MALF
LDP DISP	When LDP function is ON	On
	When LDP function malfunction is detected	MALF
BSI DISP	When blind spot intervention function is ON	On
	When blind spot intervention function malfunction is detected	MALF
ST SWITCH COND	When steering switch is normal	OK
	ADAS control unit sends malfunction information of the steering switch to the chassis control module. (During the judgment of malfunction.)	NG 1
	ADAS control unit sends malfunction information of the steering switch to the chassis control module. (Malfunction confirmed)	NG 2
BSW COND	When BSW function is normal	NORMAL
	When BSW function malfunction is detected	ABNOR
ADAS COND	When ADAS control unit is normal	NORMAL
	When ADAS control malfunction is detected	ABNOR
COLLISION WARN	When the collision warning is OFF	Off
	When the collision warning is ON	On
ICC ACTIVE	When ICC function is inactive	Off
	When ICC function is active	On
IBA ACTIVE	When forward emergency brake function is inactive	Off
	When forward emergency brake function is active	On
DR BUZZER STATUS	Displayed but not used	—
LDW COND	When LDW function is ON	On
	When LDW function malfunction is detected	MALF
LDP COND	When LDP function is ON	On
	When LDP function malfunction is detected	MALF
BSI COND	When blind spot intervention function is ON	On
	When blind spot intervention function malfunction is detected	MALF
LDP BRAKE CANCEL	When not cancel	NONE
	When slippery road	SLIP
	When drive mode select switch is "SNOW" mode	SNOW
	When VDC OFF switch is OFF	VDC OF

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

Monitor item	Condition	Reference values in normal operation	
BSI BRAKE CANCEL	When not cancel	NONE	A
	When slippery road	SLIP	
	When drive mode select switch is "SNOW" mode	SNOW	B
	When VDC OFF switch is OFF	VDC OF	
CAMERA COND	When Lane camera unit is normal	NORMAL	C
	When Lane camera unit malfunction is detected.	ABNOR	
CAMERA TEMP COND	When the temperature around lane camera unit is normal	NORMAL	D
	When the temperature around the lane camera unit is high	ABNOR	E
CAMERA COMM COND	When communication between chassis control module and lane camera unit is normal	NORMAL	
	When communication between chassis control module and lane camera unit malfunction is detected	ABNOR	F
CAMERA AIMING	When lane camera aiming is completed	COMP	G
	When lane camera aiming is not completed	INCOMP	
CAMERA HIGH TEMP (LDW)	When the temperature around lane camera unit is normal. (LDW ON)	NORMAL	H
	When the temperature around the lane camera unit is high. (LDW ON)	ABNOR	
CAMERA HIGH TEMP (LDP)	When the temperature around lane camera unit is normal. (LDP ON)	NORMAL	I
	When the temperature around the lane camera unit is high. (LDP ON)	ABNOR	J
CAMERA HIGH TEMP (BSI)	When the temperature around lane camera unit is normal. (Blind spot intervention ON)	NORMAL	
	When the temperature around the lane camera unit is high. (Blind spot intervention ON)	ABNOR	K
SIDE RADAR BLOCK CANCEL	When the side radar is normal	NORMAL	
	Side radar is blocked and temporarily deactivated.	BLOCK	L
BSI LAMP REQ (LH)	When blind spot intervention function (LH) is inactive	Off	M
	When blind spot intervention function (LH) is active	On	
BSI LAMP REQ (RH)	When blind spot intervention function (RH) is inactive	Off	N
	When blind spot intervention function (RH) is active	On	
LANE DEPARTURE DISP (LH)	When not deviating the LH side lane	NO DISP	
	When deviating the LH side lane	DEVIAT	
LANE DEPARTURE DISP (RH)	When not deviating the RH side lane	NO DISP	P
	When deviating the RH side lane	DEVIAT	
LDP/BSI ACTIVE	When LDP function and blind spot intervention function are inactive	Off	
	When LDP function or blind spot intervention function are active	On	

DAS

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

Monitor item	Condition	Reference values in normal operation
ADAS COND	When diagnosis of ADAS control unit is normal	NORMAL
	When diagnosis of ADAS control unit malfunction is detected	ABNOR
DR BUZZER COND	When driver assistance buzzer is normal	NORMAL
	When driver assistance buzzer malfunction is detected	ABNOR
OUTSIDE TEMP	Ignition switch ON	(-40°C) – (+72°C)
WIPER STATUS	When front wiper is inactive	Off
	When front wiper is active (low and intermittent)	LOW
	When front wiper is active (high)	HIGH
	When front wiper malfunction is detected	MALF
Engine rpm	Engine stopped	0 rpm
	Engine running	Almost same reading as tachometer
FR shock ab drive current	When select the "Soft" in "FR shock absorber" of "ACTIVE TEST"	Approx. 0.38 A
	When select the "Medium" "FR shock absorber" in of "ACTIVE TEST"	Approx. 0.85 A
	When select the "Hard" in "FR shock absorber" of "ACTIVE TEST"	Approx. 1.15 A
FL shock ab drive current	When select the "Soft" in "FL shock absorber" of "ACTIVE TEST"	Approx. 0.38 A
	When select the "Medium" in "FL shock absorber" of "ACTIVE TEST"	Approx. 0.85 A
	When select the "Hard" in "FL shock absorber" of "ACTIVE TEST"	Approx. 1.15 A
RR shock ab drive current	When select the "Soft" in "RR shock absorber" of "ACTIVE TEST"	Approx. 0.38 A
	When select the "Medium" in "RR shock absorber" of "ACTIVE TEST"	Approx. 0.85 A
	When select the "Hard" in "RR shock absorber" of "ACTIVE TEST"	Approx. 1.15 A
RL shock ab drive current	When select the "Soft" in "RL shock absorber" of "ACTIVE TEST"	Approx. 0.38 A
	When select the "Medium" in "RL shock absorber" of "ACTIVE TEST"	Approx. 0.85 A
	When select the "Hard" in "RL shock absorber" of "ACTIVE TEST"	Approx. 1.15 A
Shock absorber control 1	When vehicle estimation (control 1) is normal	Off
	When vehicle estimation (control 1) is canceled	On
Shock absorber control 2	When vehicle estimation (control 2) is normal	Off
	When vehicle estimation (control 2) is canceled	On
Shock absorber control 3	When vehicle estimation (control 3) is normal	Off
	When vehicle estimation (control 3) is canceled	On

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

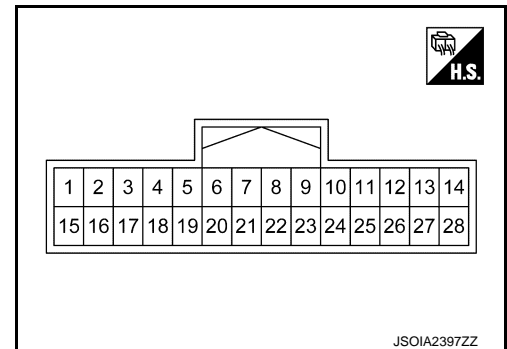
[DRIVER ASSISTANCE SYSTEM]

Monitor item	Condition	Reference values in normal operation
FR shock ab command current	When select the "Soft" in "FR shock absorber" of "ACTIVE TEST"	Approx. 0.38 A
	When select the "Medium" in "FR shock absorber" of "ACTIVE TEST"	Approx. 0.85 A
	When select the "Hard" in "FR shock absorber" of "ACTIVE TEST"	Approx. 1.15 A
FL shock ab command current	When select the "Soft" in "FL shock absorber" of "ACTIVE TEST"	Approx. 0.38 A
	When select the "Medium" in "FL shock absorber" of "ACTIVE TEST"	Approx. 0.85 A
	When select the "Hard" in "FL shock absorber" of "ACTIVE TEST"	Approx. 1.15 A
RR shock ab command current	When select the "Soft" in "RR shock absorber" of "ACTIVE TEST"	Approx. 0.38 A
	When select the "Medium" in "RR shock absorber" of "ACTIVE TEST"	Approx. 0.85 A
	When select the "Hard" in "RR shock absorber" of "ACTIVE TEST"	Approx. 1.15 A
RL shock ab command current	When select the "Soft" in "RL shock absorber" of "ACTIVE TEST"	Approx. 0.38 A
	When select the "Medium" in "RL shock absorber" of "ACTIVE TEST"	Approx. 0.85 A
	When select the "Hard" in "RL shock absorber" of "ACTIVE TEST"	Approx. 1.15 A

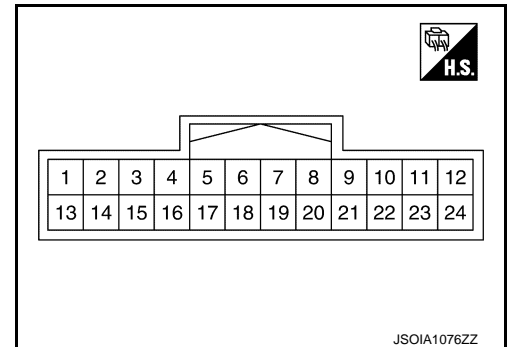
*: Check tire pressure under normal conditions.

TERMINAL LAYOUT

Models with Digital Motion Control



Models without Digital Motion Control



PHYSICAL VALUES

Models with Digital Motion Control

A
B
C
D
E
F
G
H
I
J
K
L
M
N
P

DAS

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
1 (LG)	—	ACTUATOR (FL)-L	—	—	—	—
3 (BR)	—	ACTUATOR (RR)-H	—	—	—	—
4 (BG)	Ground	IGNITION POWER SUPPLY	Input	Ignition switch ON		6.4 – 16 V
5 (W)	Ground	CHASSIS COMM-L	—	—	—	—
6 (B)	Ground	GROUND	—	Ignition switch ON	—	0 V
8 (BR) ^{*1} (L) ^{*1}	Ground	CHASSIS COMM-H	—	—	—	—
9 (G) ^{*1} (Y) ^{*1}	Ground	DRIVE MODE SELECT SWITCH (DOWN)	Input	Ignition switch ON	Down switch is not pressed	6.4 – 16 V
					Down switch is pressed	0 V
10 (L)	Ground	CAN-H	—	—	—	—
12 (G)	—	ACTUATOR (FR)-H	—	—	—	—
13 ^{*2} (G)	Ground	ESS RELAY	Output	Ignition switch ON		6.4 – 16 V
14 (L)	—	ACTUATOR (RL)-L	—	—	—	—
15 (Y)	—	ACTUATOR (RR)-L	—	—	—	—
17 (V)	—	ACTUATOR (FL)-H	—	—	—	—
19 (L)	Ground	CHASSIS COMM-H	—	—	—	—
21 (W)	Ground	CHASSIS COMM-L	—	—	—	—
22 (V)	Ground	DRIVE MODE SELECT SWITCH (UP)	Input	Ignition switch ON	Up switch is not pressed	6.4 – 16 V
					Up switch is pressed	0 V
23 (B)	Ground	GROUND	—	Ignition switch ON	—	0 V
24 (R) ^{*3} (P) ^{*4}	Ground	CAN-L	—	—	—	—
25 (G)	Ground	IGNITION POWER SUPPLY	Input	Ignition switch ON		6.4 – 16 V
26 (V)	—	ACTUATOR (RL)-H	—	—	—	—
28 (R)	—	ACTUATOR (FR)-L	—	—	—	—

*1: Color of wire differs depending on production.

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

*2: Although the harness is connected, it is not functioning.

*3: With Gateway

*4: Without Gateway

Models without Digital Motion Control

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
3 (R) ^{*1} (P) ^{*2}	Ground	CAN-L	—	—	—	—
4 (L)	Ground	CAN-H	—	—	—	—
5 (V) ^{*3} (Y) ^{*4}	Ground	DRIVE MODE SELECT SWITCH (UP)	Input	Ignition switch ON	Up switch is not pressed	6.4 – 16 V
					Up switch is pressed	0 V
6 (Y) ^{*3} (G) ^{*4}	Ground	DRIVE MODE SELECT SWITCH (DOWN)	Input	Ignition switch ON	Down switch is not pressed	6.4 – 16 V
					Down switch is pressed	0 V
7 (W)	Ground	CHASSIS COMM-L	—	—	—	—
8 (W)	Ground	CHASSIS COMM-L	—	—	—	—
10 (G) ^{*3} (BG) ^{*4}	Ground	IGNITION POWER SUPPLY	Input	Ignition switch ON		6.4 – 16 V
11 (L)	Ground	CHASSIS COMM-H	—	—	—	—
12 (B) ^{*3} (B/W) ^{*4}	Ground	GROUND	—	Ignition switch ON	—	0 V
19 (BR) ^{*3} (L) ^{*4}	Ground	CHASSIS COMM-H	—	—	—	—
23 ^{*5} (G) ^{*3} (R) ^{*4}	Ground	ESS RELAY	Output	Ignition switch ON		6.4 – 16 V

*1: With Gateway

*2: Without Gateway

*3: VR30DDTT engine models

*4: 2.0L turbo gasoline engine models

*5: Although the harness is connected, it is not functioning.

Fail-Safe (Chassis Control Module)

INFOID:000000013508420

When a malfunction occurs in the chassis control module, the master warning lamp turns ON and an interrupt is displayed on the information display of the combination meter.

DTC	Vehicle condition
C1B90-00	The following functions are suspended. <ul style="list-style-type: none"> • Active lane control function • LDW function • LDP function • Blind spot intervention function
C1B91-00	

A
B
C
D
E
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G
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L
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N
P

DAS

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

DTC	Vehicle condition
C1B92-00	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function
C1B93-00	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • LDW function • LDP function • Blind spot intervention function
C1B94-00	The following functions are suspended. <ul style="list-style-type: none"> • LDW function • LDP function • Blind spot intervention function
C1B96-00	The following functions are suspended. <ul style="list-style-type: none"> • LDW function • LDP function • Blind spot intervention function • Intelligent cruise control function
C1B99-00	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function • Infiniti InTuition function • Digital motion control function
C1BA6-00	The following functions are suspended. <ul style="list-style-type: none"> • Infiniti InTuition function
C1BA7-00	The following functions are suspended. <ul style="list-style-type: none"> • Active lane control function
C1BA9-00	The following functions are suspended. <ul style="list-style-type: none"> • LDW function • LDP function • Blind spot intervention function
C1BAA-00	The following functions are suspended. <ul style="list-style-type: none"> • LDW function • LDP function • Blind spot intervention function
C1BAB-00	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function
C1BAC-00	The following functions are suspended. <ul style="list-style-type: none"> • LDP function • Blind spot intervention function
C1BAD-00	
C1BAE-00	
C1BAF-00	The following functions are suspended. <ul style="list-style-type: none"> • Blind spot intervention function
C1BB0-06	Normal control
C1BB2-00	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function • Infiniti InTuition function • Digital motion control function
C1BB3-00	
C1BB4-00	
C1BB5-00	
C1BB6-00	The following functions are suspended. <ul style="list-style-type: none"> • Digital motion control function
C1BB7-00	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function • Infiniti InTuition function • Digital motion control function
C1BB8-00	
C1BB9-00	
C1BBA-00	
C1BBB-00	

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

DTC	Vehicle condition	
C1BBC-00	Normal control	A
C1BBD-00	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function • Infiniti InTuition function • Digital motion control function 	B C
C1BBE-11	The following functions are suspended. <ul style="list-style-type: none"> • Digital motion control function 	D
C1BBE-12		
C1BBE-19		
C1BBE-1D		E
C1BEE-39		
C1BEE-64		
C1BBF-11		F
C1BBF-12		
C1BBF-19		G
C1BBF-1D		
C1BBF-39		
C1BBF-64	H	
C1BC0-00	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • Active lane control function 	I
C1BC1-00		
C1BC7-11	The following functions are suspended. <ul style="list-style-type: none"> • Digital motion control function 	J
C1BC7-12		
C1BC7-19		
C1BC7-1D		
C1BC7-39		
C1BC7-64		K
C1BC8-11		
C1BC8-12		L
C1BC8-19		
C1BC8-1D		M
C1BC8-39		
C1BC8-64	N	
U1000-00	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function 	DAS
U1010-49	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • Active lane control function 	P
U1A31-00	The following functions are suspended. <ul style="list-style-type: none"> • Active lane control function • LDW function • LDP function • Blind spot intervention function 	

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

DTC	Vehicle condition
U1A35-00	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function
U1A3E-00	Normal control

DTC Inspection Priority Chart

INFOID:0000000013508421

When multiple DTCs are displayed simultaneously, check them one by one according to the following priority list.

Priority	Detected item (DTC)
1	<ul style="list-style-type: none"> • U1000-00 CAN COMM CIRCUIT • U1010-49 CONTROL UNIT (CAN)
2	<ul style="list-style-type: none"> • U1A31-00 DAST COMM • U1A35-00 BRAKE CONTROL COMM • U1A3E-00 ADAS COMM
3	<ul style="list-style-type: none"> • C1BBD-00 VARIANT CODING
4	<ul style="list-style-type: none"> • C1B90-00 DAST SYSTEM • C1B91-00 CAMERA SYSTEM • C1B92-00 BRAKE CONTROL SYSTEM • C1B93-00 ENGINE/HEV SYSTEM • C1B94-00 TM SYSTEM • C1B96-00 ADAS SYSTEM • C1BA6-00 AV SYSTEM • C1BA7-00 ALC SYSTEM • C1BA9-00 NP RANGE • C1BAA-00 GEAR POSITION • C1BAB-00 STOP LAMP SW • C1BAC-00 OPERATION SW CIRC • C1BAD-00 ACCELERATER PEDAL • C1BAE-00 ACCELERATER PEDAL • C1BAF-00 BSW SYSTEM • C1BB0-06 DR BUZZER SYSTEM • C1BBE-11 Front right shock absorber circuit • C1BBE-12 Front right shock absorber circuit • C1BBE-19 Front right shock absorber circuit • C1BBE-1D Front right shock absorber circuit • C1BBE-39 Front right shock absorber circuit • C1BBE-64 Front right shock absorber circuit • C1BBF-11 Front left shock absorber circuit • C1BBF-12 Front left shock absorber circuit • C1BBF-19 Front left shock absorber circuit • C1BBF-1DFront left shock absorber circuit • C1BBF-39 Front left shock absorber circuit • C1BBF-64 Front left shock absorber circuit • C1BC0-00 FR WHEEL SENSOR • C1BC1-00 FL WHEEL SENSOR • C1BC7-11 Rear right shock absorber circuit • C1BC7-12 Rear right shock absorber circuit • C1BC7-19 Rear right shock absorber circuit • C1BC7-1D Rear right shock absorber circuit • C1BC7-39 Rear right shock absorber circuit • C1BC7-64 Rear right shock absorber circuit • C1BC8-11 Rear left shock absorber circuit • C1BC8-12 Rear left shock absorber circuit • C1BC8-19 Rear left shock absorber circuit • C1BC8-1D Rear left shock absorber circuit • C1BC8-39 Rear left shock absorber circuit • C1BC8-64 Rear left shock absorber circuit

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

Priority	Detected item (DTC)
5	<ul style="list-style-type: none"> • C1BB5-00 IGN POWER SUPPLY • C1BB6-00 IGN POWER SUPPLY
6	<ul style="list-style-type: none"> • C1B99-00 CONTROL MODULE • C1BB2-00 CONTROL MODULE • C1BB3-00 CONTROL MODULE • C1BB4-00 CONTROL MODULE • C1BB7-00 CONTROL MODULE • C1BB8-00 CONTROL MODULE • C1BB9-00 CONTROL MODULE • C1BBA-00 CONTROL MODULE • C1BBB-00 CONTROL MODULE • C1BBC-00 CONTROL MODULE

DTC Index

INFOID:000000013508422

DTC	Display item	Refer to
C1B90-00	DAST SYSTEM	DAS-580, "DTC Description"
C1B91-00	CAMERA SYSTEM	DAS-582, "DTC Description"
C1B92-00	BRAKE CONTROL SYSTEM	DAS-584, "DTC Description"
C1B93-00	ENGINE/HEV SYSTEM	DAS-586, "DTC Description"
C1B94-00	TM SYSTEM	DAS-588, "DTC Description"
C1B96-00	ADAS SYSTEM	DAS-590, "DTC Description"
C1B99-00	CONTROL NODULE	DAS-592, "DTC Description"
C1BA6-00	AV SYSTEM	DAS-593, "DTC Description"
C1BA7-00	ALC SYSTEM	DAS-595, "DTC Description"
C1BA9-00	NP RANGE	DAS-597, "DTC Description"
C1BAA-00	GEAR POSITION	DAS-599, "DTC Description"
C1BAB-00	STOP LAMP SW	DAS-601, "DTC Description"
C1BAC-00	OPERATION SW CIRC	DAS-603, "DTC Description"
C1BAD-00	ACCELERATER PEDAL	DAS-605, "DTC Description"
C1BAE-00	ACCELERATER PEDAL	DAS-607, "DTC Description"
C1BAF-00	BSW SYSTEM	DAS-609, "DTC Description"
C1BB0-06	DR BUZZER SYSTEM	DAS-611, "DTC Description"
C1BB2-00	CONTROL MODULE	DAS-612, "DTC Description"
C1BB3-00	CONTROL MODULE	DAS-613, "DTC Description"
C1BB4-00	CONTROL MODULE	DAS-614, "DTC Description"
C1BB5-00	IGN POWER SUPPLY	DAS-615, "DTC Description"
C1BB6-00	IGN POWER SUPPLY	DAS-620, "DTC Description"
C1BB7-00	CONTROL MODULE	DAS-623, "DTC Description"
C1BB8-00	CONTROL MODULE	DAS-624, "DTC Description"
C1BB9-00	CONTROL MODULE	DAS-625, "DTC Description"
C1BBA-00	CONTROL MODULE	DAS-626, "DTC Description"
C1BBB-00	CONTROL MODULE	DAS-627, "DTC Description"
C1BBC-00	CONTROL MODULE	DAS-628, "DTC Description"
C1BBD-00	VARIANT CODING	DAS-629, "DTC Description"
C1BBE-11	Front right shock absorber circuit	DAS-630, "DTC Description"
C1BBE-12	Front right shock absorber circuit	DAS-633, "DTC Description"
C1BBE-19	Front right shock absorber circuit	DAS-636, "DTC Description"

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

DTC	Display item	Refer to
C1BBE-1D	Front right shock absorber circuit	DAS-639, "DTC Description"
C1BBE-39	Front right shock absorber circuit	DAS-642, "DTC Description"
C1BBE-64	Front right shock absorber circuit	DAS-644, "DTC Description"
C1BBF-11	Front left shock absorber circuit	DAS-647, "DTC Description"
C1BBF-12	Front left shock absorber circuit	DAS-650, "DTC Description"
C1BBF-19	Front left shock absorber circuit	DAS-653, "DTC Description"
C1BBF-1D	Front left shock absorber circuit	DAS-656, "DTC Description"
C1BBF-39	Front left shock absorber circuit	DAS-659, "DTC Description"
C1BBF-64	Front left shock absorber circuit	DAS-661, "DTC Description"
C1BC0-00	FR WHEEL SENSOR	DAS-664, "DTC Description"
C1BC1-00	FL WHEEL SENSOR	DAS-666, "DTC Description"
C1BC7-11	Rear right shock absorber circuit	DAS-668, "DTC Description"
C1BC7-12	Rear right shock absorber circuit	DAS-671, "DTC Description"
C1BC7-19	Rear right shock absorber circuit	DAS-674, "DTC Description"
C1BC7-1D	Rear right shock absorber circuit	DAS-677, "DTC Description"
C1BC7-39	Rear right shock absorber circuit	DAS-680, "DTC Description"
C1BC7-64	Rear right shock absorber circuit	DAS-682, "DTC Description"
C1BC8-11	Rear left shock absorber circuit	DAS-685, "DTC Description"
C1BC8-12	Rear left shock absorber circuit	DAS-688, "DTC Description"
C1BC8-19	Rear left shock absorber circuit	DAS-691, "DTC Description"
C1BC8-1D	Rear left shock absorber circuit	DAS-694, "DTC Description"
C1BC8-39	Rear left shock absorber circuit	DAS-697, "DTC Description"
C1BC8-64	Rear left shock absorber circuit	DAS-699, "DTC Description"
U1000-00	CAN COMM CIRCUIT	DAS-702, "DTC Description"
U1010-49	CONTROL UNIT (CAN)	DAS-703, "DTC Description"
U1A31-00	DAST COMM	DAS-704, "DTC Description"
U1A35-00	BRAKE CONTROL COMM	DAS-706, "DTC Description"
U1A3E-00	ADAS COMM	DAS-708, "DTC Description"

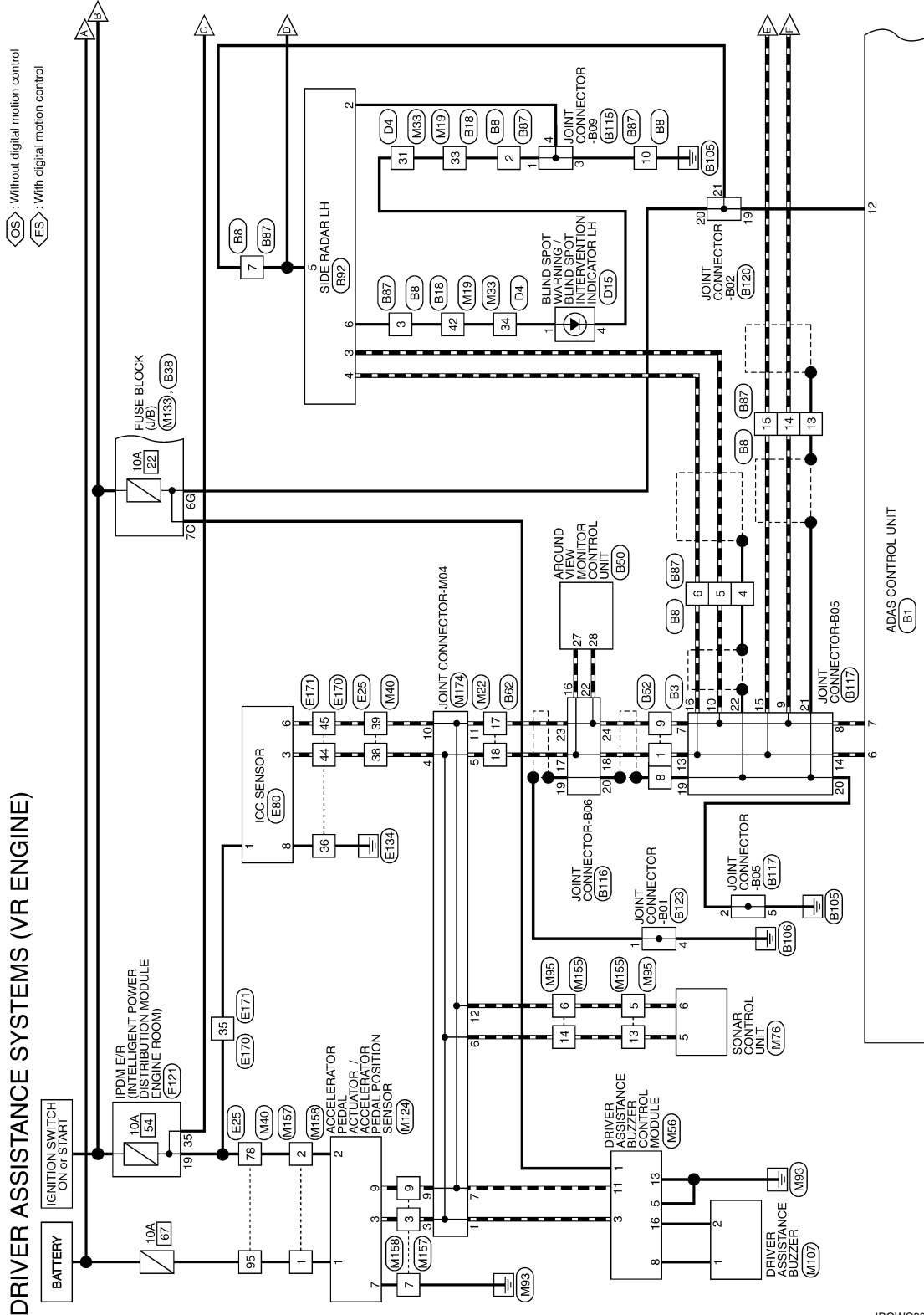
WIRING DIAGRAM

DRIVER ASSISTANCE SYSTEMS

Wiring Diagram

VR ENGINE

INFOID:000000013531140



DRIVER ASSISTANCE SYSTEMS (VR ENGINE)

: Without digital motion control
 : With digital motion control

*: This connector is not shown in "Harness Layout".

2016/02/15

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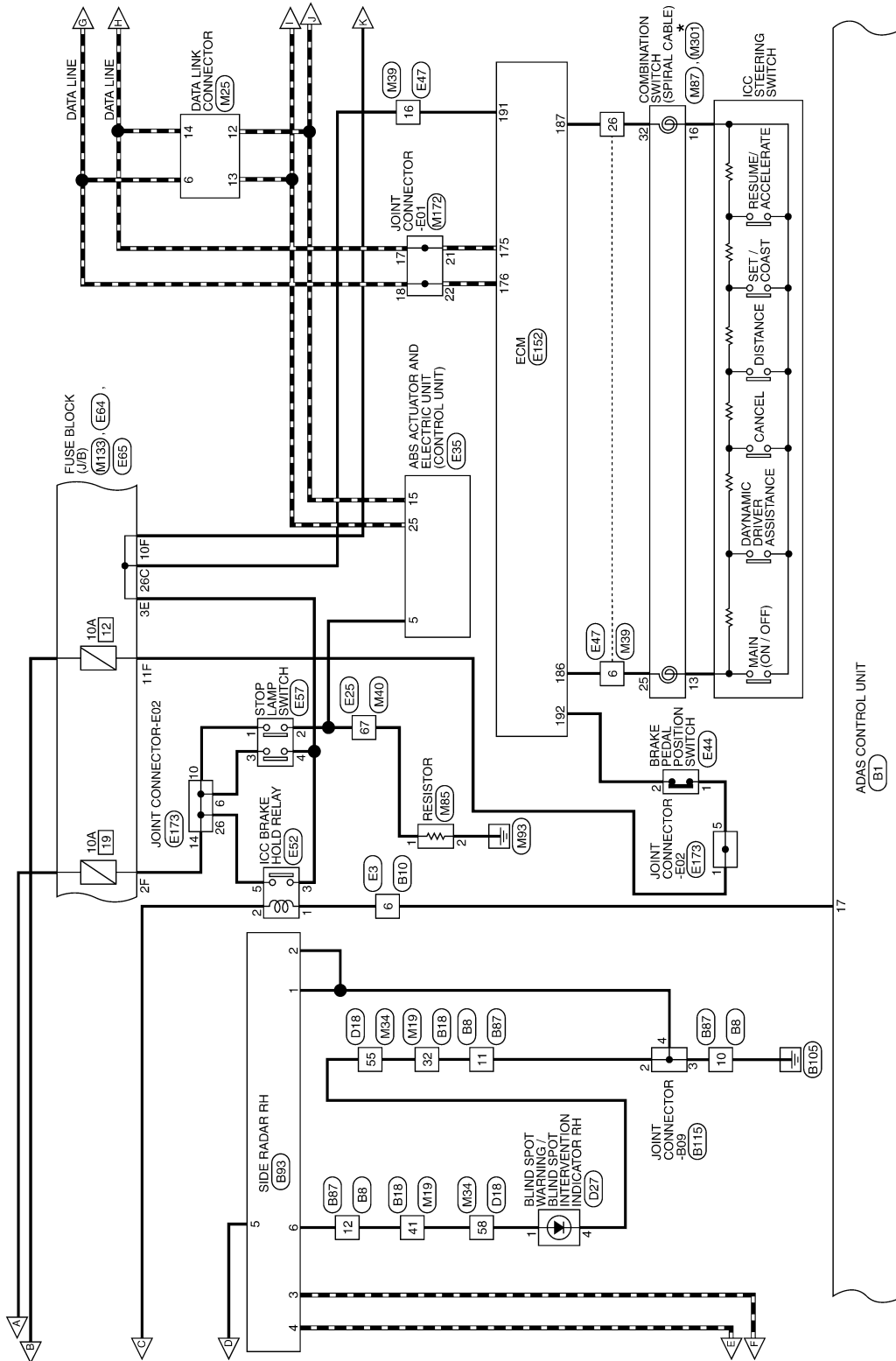
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DRIVER ASSISTANCE SYSTEMS

< WIRING DIAGRAM >

[DRIVER ASSISTANCE SYSTEM]

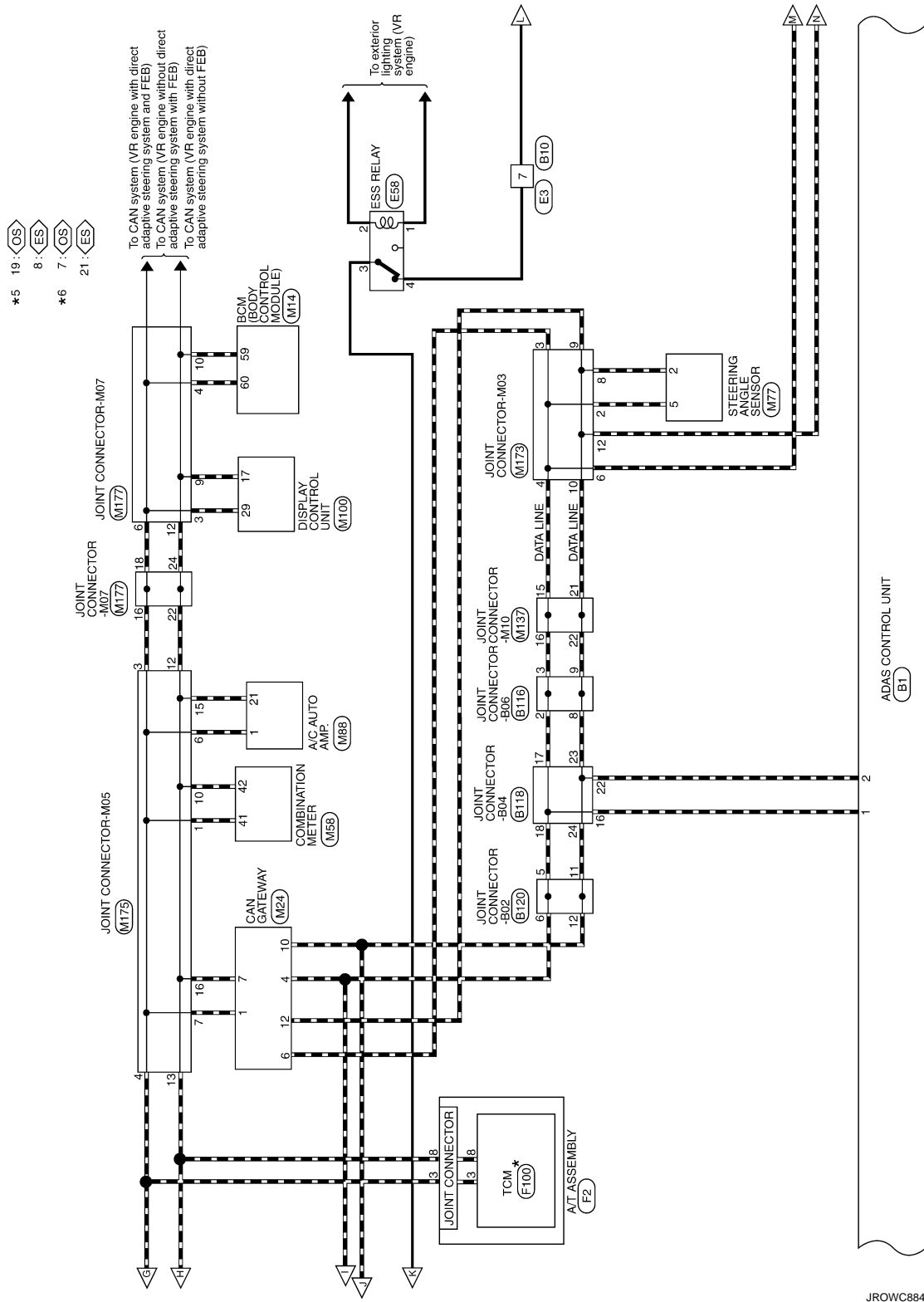


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DRIVER ASSISTANCE SYSTEMS

[DRIVER ASSISTANCE SYSTEM]

< WIRING DIAGRAM >



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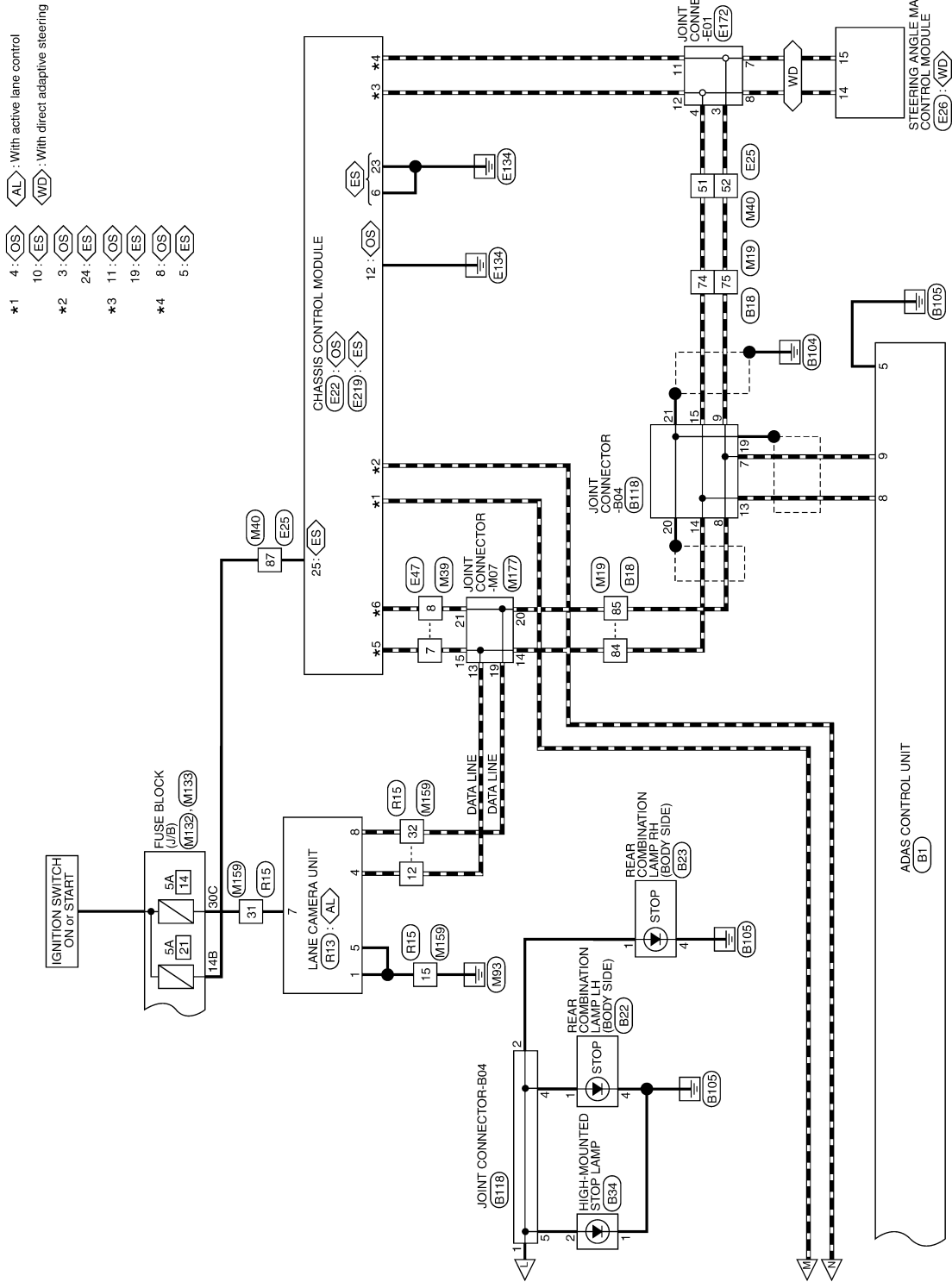
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DRIVER ASSISTANCE SYSTEMS

[DRIVER ASSISTANCE SYSTEM]

< WIRING DIAGRAM >



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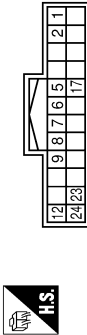
DRIVER ASSISTANCE SYSTEMS

[DRIVER ASSISTANCE SYSTEM]

< WIRING DIAGRAM >

DRIVER ASSISTANCE SYSTEMS (VR ENGINE)

Connector No.	B1
Connector Name	ADAS CONTROL UNIT
Connector Type	TH24FW-AH

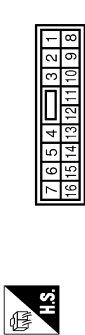


Connector No.	BB
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	CAN-H
2	R	CAN-L
5	B	GROUND
6	L	ITS COMM-H
7	Y	ITS COMM-L
8	L	CHASSIS COMM-H
9	R	CHASSIS COMM-L
12	G	IGNITION [Except with VR30 engine and without BS]
17	V	IGNITION [VR30 engine and without BS]
23	Y	BRAKE HOLD RLY DRIVE SIGNAL
24	SB	STEERING SW SIGNAL GROUND
		STEERING SW SIGNAL

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



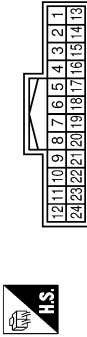
Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
4	B	-
5	BR	- [With BOSE system]
		- [Without BOSE system]
7	R	-
8	B	-
9	Y	-

Connector No.	B
Connector Name	-
Connector Type	-



Terminal No.	Color Of Wire	Signal Name [Specification]
2	B	-
3	BR	-
4	SHIELD	-
5	P	-
6	L	-
7	G	- [With 2.0L turbo gasoline engine]
		- [With VR30 engine]
10	B	-
11	B	-
12	SB	-
13	SHIELD	-
14	P	-
15	L	-

Connector No.	B10
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	- [With 2.0L turbo gasoline engine]
		- [With VR30 engine]
2	W	-
3	LG	-
4	P	- [With VR30 engine]
		- [With 2.0L turbo gasoline engine]
5	L	-
6	V	-
7	LG	-
8	R	-
9	W	-
10	B	-
11	G	-
12	R	-
13	GR	-
14	BG	-
15	BR	-
16	LG	-
17	V	-
18	BR	-
19	LG	- [With 2.0L turbo gasoline engine]
		- [With VR30 engine]
20	V	-
21	R	- [With 2.0L turbo gasoline engine]
		- [With VR30 engine]
22	L	-
23	V	-
24	B	- [With VR30 engine]
		- [With 2.0L turbo gasoline engine]

Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	G	-
3	L	-
4	LG	-
5	Y	-
6	R	-
7	V	-
8	LG	-
10	BG	-
11	BG	-
12	LG	-
13	GR	-
14	R	-
15	L	-
16	V	-
18	W	-
19	BR	-
20	W	-
22	R	-
23	V	-
24	R	- [With 2.0L turbo gasoline engine]
		- [With VR30 engine]
25	P	- [With 2.0L turbo gasoline engine (without gateway)]
		- [With VR30 engine]
26	V	- [With 2.0L turbo gasoline engine and with gateway]
		- [With VR30 engine]
28	R	-
29	R	-
31	B	- [With VR30 engine]
		- [With 2.0L turbo gasoline engine]
32	B	-
33	B	-
34	LG	-
35	P	-
36	W	-

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DRIVER ASSISTANCE SYSTEMS

[DRIVER ASSISTANCE SYSTEM]

< WIRING DIAGRAM >

DRIVER ASSISTANCE SYSTEMS (VR ENGINE)

37	SB	-	-	-	-
38	LG	-	-	-	-
40	P	-	-	-	-
41	SB	-	-	-	-
42	BR	-	-	-	-
43	BG	-	-	-	-
44	BG	-	-	-	-
46	R	-	-	-	-
50	W	-	-	-	-
51	SB	-	-	-	-
52	V	-	-	-	-
53	LG	-	-	-	-
54	R	-	-	-	-
55	R	-	-	-	-
57	W	-	-	-	-
58	V	-	-	-	-
59	GR	-	-	-	-
60	G	-	-	-	-
61	G	-	-	-	-
62	BG	-	-	-	-
63	BR	-	-	-	-
64	Y	-	-	-	-
66	R	-	-	-	-
70	R	-	-	-	-
71	W	-	-	-	-
72	B	-	-	-	-
73	W	-	-	-	-
74	L	-	-	-	-
75	R	-	-	-	-
75	V	-	-	-	-
76	BR	-	-	-	-
77	B	-	-	-	-
78	SB	-	-	-	-
79	V	-	-	-	-
79	W	-	-	-	-
81	B	-	-	-	-
82	R	-	-	-	-
83	BG	-	-	-	-
84	L	-	-	-	-
85	R	-	-	-	-
85	V	-	-	-	-
86	B	-	-	-	-
88	G	-	-	-	-
89	V	-	-	-	-
89	W	-	-	-	-
91	GR	-	-	-	-
94	GR	-	-	-	-
96	Y	-	-	-	-
97	V	-	-	-	-
98	BR	-	-	-	-

98 Y - [Except with VR30 engine and with BOSE system]

Connector No.	B32
Connector Name	REAR COMBINATION LAMP (L/BODY SIDE)
Connector Type	NS04MW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	-
2	P	-
3	SB	-
4	B	-

Connector No.	B23
Connector Name	REAR COMBINATION LAMP (RH/BODY SIDE)
Connector Type	NS04MW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	-
2	R	-
3	V	-
4	B	-

Connector No.	B34
Connector Name	HIGH-MOUNTED STOP LAMP
Connector Type	TK02MBR-P



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	LG	-

Connector No.	B38
Connector Name	FUSE BLOCK (L/R)
Connector Type	NS10PW-CS



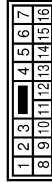
Terminal No.	Color Of Wire	Signal Name [Specification]
1G	GR	-
2G	W	-
3G	BR	-
5G	W	-
6G	GR	-

Connector No.	B50
Connector Name	ROUND VIEW MONITOR CONTROL UNIT
Connector Type	TH40FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GND
2	Y	BAT
3	LG	IGN
4	P	ACC
19	P	AV COMM [H]
20	LG	AV COMM [L]
23	SHIELD	AV COMM GND
25	BG	REVERSE SIGNAL
27	L	CAN-H
28	P	CAN-L [Without ADAS] [For VR30 engine]
28	R	CAN-L [With ADAS]
28	Y	CAN-L [Without ADAS] [For 2.0L turbo gasoline engine]
29	B	CAN GND
30	W	RETRACT MOTOR OPERATING SIGNAL (OPEN)
32	G	RETRACT MOTOR OPERATING SIGNAL (CLOSE)

Connector No.	B52
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
4	B	-
5	BR	- [With BOSE system]
7	R	- [Without BOSE system]

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DRIVER ASSISTANCE SYSTEMS

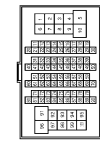
[DRIVER ASSISTANCE SYSTEM]

< WIRING DIAGRAM >

DRIVER ASSISTANCE SYSTEMS (VR ENGINE)

8	SHIELD	-	-	-	-
9	P	-	-	-	-
11	B	-	-	-	-
12	GR	-	-	-	-
13	G	-	-	-	-
14	B	-	-	-	-
15	W	-	-	-	-
16	BR	-	-	-	-

Connector No.	882
Connector Name	WIRE TO WIRE
Connector Type	TH8PW-C516-TM4



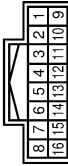
Terminal No.	Color Of Wire	Signal Name (Specification)
1	BR	- [With 2.0L turbo gasoline engine and without BOSE system]
1	LG	- [With VR30 engine]
1	W	- [With 2.0L turbo gasoline engine and with BOSE system]
2	L	- [With VR30 engine]
2	SHIELD	- [With 2.0L turbo gasoline engine]
3	BR	- [With 2.0L turbo gasoline engine]
3	R	- [With VR30 engine and with BOSE system]
3	W	- [With VR30 engine and without BOSE system]
4	SHIELD	- [With VR30 engine]
4	Y	- [With 2.0L turbo gasoline engine]
5	G	- [With VR30 engine]
5	V	- [With 2.0L turbo gasoline engine]
6	BG	- [With VR30 engine]
7	BR	- [With 2.0L turbo gasoline engine]
7	B	- [With 2.0L turbo gasoline engine and with BOSE system]
7	W	- [With VR30 engine and without BOSE system]
7	Y	- [With VR30 engine and with BOSE system]
8	B	- [With VR30 engine and without BOSE system]
8	G	- [With VR30 engine and with BOSE system]
8	Y	- [With 2.0L turbo gasoline engine]
9	LG	- [With 2.0L turbo gasoline engine]
10	V	- [With VR30 engine]
11	GR	-
12	Y	-

13	R	-	-	-	-
14	BG	-	-	-	-
15	BG	-	-	-	-
16	GR	-	-	-	-
17	P	-	-	-	-
18	L	-	-	-	-
19	R	-	-	-	-
20	GR	-	-	-	-
21	R	-	-	-	-
22	W	-	-	-	-
23	W	-	-	-	-
24	BG	-	-	-	-
24	V	-	-	-	-
25	L	-	-	-	-
25	SB	-	-	-	-
26	G	-	-	-	-
26	W	-	-	-	-
27	R	-	-	-	-
29	LG	-	-	-	-
30	LG	-	-	-	-
30	P	-	-	-	-
31	SHIELD	-	-	-	-
32	L	-	-	-	-
33	B	-	-	-	-
33	LG	-	-	-	-
34	SHIELD	-	-	-	-
35	LG	-	-	-	-
35	W	-	-	-	-
36	R	-	-	-	-
36	W	-	-	-	-
37	P	-	-	-	-
37	R	-	-	-	-
37	W	-	-	-	-
38	W	-	-	-	-
39	P	-	-	-	-
39	R	-	-	-	-
39	W	-	-	-	-
40	G	-	-	-	-
41	L	-	-	-	-
42	R	-	-	-	-
43	SHIELD	-	-	-	-
44	P	-	-	-	-
45	B	-	-	-	-
45	G	-	-	-	-
46	SHIELD	-	-	-	-
47	G	-	-	-	-
48	BG	-	-	-	-
49	G	-	-	-	-
50	V	-	-	-	-

51	GR	-	-	-	-
52	W	-	-	-	-
52	Y	-	-	-	-
53	R	-	-	-	-
54	GR	-	-	-	-
55	L	-	-	-	-
56	V	-	-	-	-
57	R	-	-	-	-
58	LG	-	-	-	-
59	P	-	-	-	-
61	L	-	-	-	-
62	P	-	-	-	-
62	V	-	-	-	-
63	L	-	-	-	-
64	W	-	-	-	-
64	LG	-	-	-	-
66	L	-	-	-	-
69	P	-	-	-	-
71	GR	-	-	-	-
71	R	-	-	-	-
72	G	-	-	-	-
72	Y	-	-	-	-
73	R	-	-	-	-
73	SHIELD	-	-	-	-
74	BG	-	-	-	-
74	L	-	-	-	-
75	GR	-	-	-	-
75	V	-	-	-	-
76	GR	-	-	-	-
76	V	-	-	-	-
77	P	-	-	-	-
78	L	-	-	-	-
79	R	-	-	-	-
80	GR	-	-	-	-
80	W	-	-	-	-
81	B	-	-	-	-
81	R	-	-	-	-
82	G	-	-	-	-
82	SHIELD	-	-	-	-
83	R	-	-	-	-
84	BR	-	-	-	-
84	W	-	-	-	-
84	SHIELD	-	-	-	-
85	BG	-	-	-	-
85	G	-	-	-	-
86	R	-	-	-	-
86	W	-	-	-	-
87	LG	-	-	-	-
87	SHIELD	-	-	-	-
89	LG	-	-	-	-

90	P	-	-	-	-
90	V	-	-	-	-
92	L	-	-	-	-
92	W	-	-	-	-
93	R	-	-	-	-
93	SHIELD	-	-	-	-
94	R	-	-	-	-
95	L	-	-	-	-
95	Y	-	-	-	-
96	R	-	-	-	-
96	W	-	-	-	-
97	L	-	-	-	-
97	R	-	-	-	-
97	W	-	-	-	-
98	LG	-	-	-	-
99	BR	-	-	-	-
99	P	-	-	-	-
99	Y	-	-	-	-
100	BR	-	-	-	-
100	W	-	-	-	-

Connector No.	887
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



Terminal No.	Color Of Wire	Signal Name (Specification)
2	B	-
3	BR	-
4	SHIELD	-
5	R	-
6	L	-
7	GR	-
10	B	-
11	B	-
12	SB	-
13	SHIELD	-
14	P	-
15	L	-

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DRIVER ASSISTANCE SYSTEMS

< WIRING DIAGRAM >

[DRIVER ASSISTANCE SYSTEM]

DRIVER ASSISTANCE SYSTEMS (VR ENGINE)

Connector No.	B82
Connector Name	SIDE RADAR LH
Connector Type	AACDFB-WP-5P



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GROUND
2	R	ITS COM1-L
3	L	ITS COM1-H
4	GR	IGNITION
5	BR	BULB SPOT LIGHT/SPOT INTERVENTION INDICATOR

Connector No.	B83
Connector Name	SIDE RADAR RH
Connector Type	AACDFB-WP



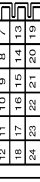
Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	RIGHT/LEFT SWITCHING SIGNAL
2	B	GROUND
3	P	ITS COM2-L
4	L	ITS COM2-H
5	GR	IGNITION
6	SB	BULB SPOT LIGHT/SPOT INTERVENTION INDICATOR

Connector No.	B115
Connector Name	JOINT CONNECTOR-B09
Connector Type	TK04FW-J



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	B	-
3	B	-
4	B	-

Connector No.	B116
Connector Name	JOINT CONNECTOR-B06
Connector Type	24342_4GAZA



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	L	-
3	L	-
4	L	-
5	L	-
6	L	-
7	R	-
8	R	- [With Gateway]
9	R	- [Without Gateway]
10	R	- [With Gateway]
11	V	- [Without Gateway]
12	P	- [With VR50 engine]
13	V	- [Without Gateway]
14	V	- [With VR50 engine]
15	V	- [Without Gateway]
16	V	- [With VR50 engine]
17	V	- [Without Gateway]
18	V	- [With VR50 engine]
19	V	- [Without Gateway]
20	V	- [With VR50 engine]
21	V	- [Without Gateway]
22	P	-
23	P	-
24	P	-

13	SHIELD	-
14	SHIELD	-
15	B	- [With 2.0L turbo gasoline engine]
16	SHIELD	- [With VR30 engine]
17	L	- [With 2.0L turbo gasoline engine]
18	SHIELD	- [With VR30 engine]
19	L	- [With 2.0L turbo gasoline engine]
20	SHIELD	- [With VR30 engine]
21	L	- [With 2.0L turbo gasoline engine]
22	P	-
23	P	-
24	P	- [With VR30 engine]

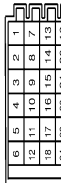
Connector No.	B117
Connector Name	JOINT CONNECTOR-B05
Connector Type	24342_4GAZA



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	- [With 2.0L turbo gasoline engine]
2	SHIELD	- [With VR30 engine]
3	B	- [With VR30 engine]
4	B	- [With 2.0L turbo gasoline engine]
5	SHIELD	- [With VR30 engine]
6	B	-
7	B	-
8	Y	-
9	P	- [With VR30 engine]
10	P	- [With VR30 engine]
11	P	-
12	Y	- [With 2.0L turbo gasoline engine]
13	P	-

12	P	-
13	L	-
14	L	-
15	L	-
16	L	-
17	L	-
18	L	-
19	B	-
20	B	- [With 2.0L turbo gasoline engine]
21	B	- [With VR30 engine]
22	B	- [With 2.0L turbo gasoline engine]
23	SHIELD	- [With VR30 engine]
24	SHIELD	-

Connector No.	B118
Connector Name	JOINT CONNECTOR-B04
Connector Type	24342_4GAZA



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	- [With VR30 engine]
2	SHIELD	- [With 2.0L turbo gasoline engine]
3	SHIELD	- [With VR30 engine]
4	LG	- [With 2.0L turbo gasoline engine]
5	LG	- [With VR30 engine]
6	LG	- [With 2.0L turbo gasoline engine]
7	R	- [With 2.0L turbo gasoline engine]
8	R	- [Color of wire differs depending on production]
9	R	- [With VR30 engine and without paddle shift]
10	V	- [With VR30 engine and with paddle shift]
11	V	- [With 2.0L turbo gasoline engine]
12	V	- [With VR30 engine and with paddle shift]
13	V	- [With 2.0L turbo gasoline engine]
14	V	- [With VR30 engine and with paddle shift]
15	V	- [With 2.0L turbo gasoline engine]
16	V	- [With VR30 engine and with paddle shift]
17	V	- [With 2.0L turbo gasoline engine]
18	V	- [With VR30 engine and with paddle shift]
19	V	- [With 2.0L turbo gasoline engine]
20	V	- [With VR30 engine and with paddle shift]
21	V	- [With 2.0L turbo gasoline engine]
22	V	- [With VR30 engine and with paddle shift]
23	V	- [With 2.0L turbo gasoline engine]
24	V	- [With VR30 engine and with paddle shift]

DRIVER ASSISTANCE SYSTEMS

[DRIVER ASSISTANCE SYSTEM]

< WIRING DIAGRAM >

DRIVER ASSISTANCE SYSTEMS (VR ENGINE)

10	LG	- [With 2.0L turbo gasoline engine]
10	SHIELD	- [With VR30 engine]
11	LG	- [With 2.0L turbo gasoline engine]
11	SHIELD	- [With VR30 engine]
12	LG	- [With 2.0L turbo gasoline engine]
12	SHIELD	- [With VR30 engine]
13	P	- [With 2.0L turbo gasoline engine and without gateway]
13	R	- [With 2.0L turbo gasoline engine and with gateway]
14	P	- [With VR30 engine]
14	R	- [With 2.0L turbo gasoline engine and without gateway]
14	R	- [With 2.0L turbo gasoline engine and with gateway]
15	R	- [With VR30 engine]
16	L	-
17	L	-
18	L	-
19	L	- [With 2.0L turbo gasoline engine]
19	SHIELD	- [With VR30 engine]
20	L	- [With 2.0L turbo gasoline engine]
20	SHIELD	- [With VR30 engine]
21	L	- [With 2.0L turbo gasoline engine]
21	SHIELD	- [With VR30 engine]
22	R	-
23	R	-
24	R	-

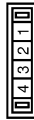
Connector No.	B120
Connector Name	JOINT CONNECTOR-B02
Connector Type	24342_4GAZA



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	R	-
3	L	- [With VR30 engine]
3	R	- [With 2.0L turbo gasoline engine]
4	L	- [With VR30 engine]
4	R	- [With 2.0L turbo gasoline engine]
5	L	-
6	L	-

7	L	-
8	L	- [With 2.0L turbo gasoline engine]
9	R	- [With VR30 engine]
10	L	- [With 2.0L turbo gasoline engine]
10	R	- [With VR30 engine]
11	R	-
12	R	-
12	W	-
14	W	-
15	W	-
17	SHIELD	-
18	B	-
19	B	- [With 2.0L turbo gasoline engine]
19	GR	- [With VR30 engine]
20	GR	- [With 2.0L turbo gasoline engine]
20	SHIELD	- [With VR30 engine]
21	B	- [With 2.0L turbo gasoline engine]
21	GR	- [With VR30 engine]
22	W	-
23	W	-
24	W	-

Connector No.	B123
Connector Name	JOINT CONNECTOR-B01
Connector Type	TK04FWJ



Terminal No.	Color Of Wire	Signal Name [Specification]
1	SHIELD	-
2	SHIELD	-
3	B	- [With 2.0L turbo gasoline engine]
3	SHIELD	- [With VR30 engine]
4	B	-

Connector No.	D4
Connector Name	WIRE TO WIRE
Connector Type	NH60FW-1S12



Terminal No.	Color Of Wire	Signal Name [Specification]
2	SB	-
4	BG	-
5	R	-
6	V	-
7	LG	-
8	G	-
9	GR	-
10	Y	-
11	SHIELD	-
12	BG	-
13	L	-
14	B	-
15	Y	-
16	GR	-
17	R	-
18	GR	-
19	R	-
20	W	-
21	LG	-
22	W	-
23	L	-
24	G	-
25	BR	-
26	R	-
27	BR	-
28	V	-
29	B	-
30	W	-
31	P	-
32	Y	-
33	BR	-
34	L	-
35	R	-
36	GR	-
37	G	-
40	LG	- [Color of wire differs depending on production]

40	P	- [Color of wire differs depending on production]
41	L	-
43	BG	-
44	Y	-
46	W	-
47	R	-
49	BR	-
50	B	-
52	V	-
53	GR	-
53	GR	- [Color of wire differs depending on production]
55	SB	- [Color of wire differs depending on production]
56	BR	-
57	R	-
58	L	-
59	V	-
60	G	-
61	BG	-
62	Y	-
63	SB	-
64	B	-
65	Y	-
66	BR	-
68	Y	-
69	L	-
70	W	-
71	LG	-
72	P	-

Connector No.	D15
Connector Name	FLUO SPOT MARKING/BLIND SPOT INTERVENTION INDICATOR LH
Connector Type	TH04MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
4	P	-

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DAS

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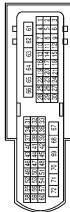
DRIVER ASSISTANCE SYSTEMS

[DRIVER ASSISTANCE SYSTEM]

< WIRING DIAGRAM >

DRIVER ASSISTANCE SYSTEMS (VR ENGINE)

Connector No.	D18
Connector Name	WIRE TO WIRE
Connector Type	NH60FW-TS12



Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	-
2	P	-
4	SB	-
5	BR	-
6	Y	-
7	LG	-
8	W	-
9	L	-
10	L	-
11	GR	-
13	Y	-
14	R	-
16	R	-
17	B	-
18	W	-
19	B	-
20	G	-
21	SHIELD	-
22	GR	-
23	BG	-
24	B	-
25	BR	-
26	V	-
27	G	-
28	V	-
29	Y	-
30	R	-
49	LG	-
52	P	-
55	L	-
56	Y	-
57	R	-
58	SB	-
59	R	-
60	G	-
63	B	-

64	Y	-
65	BR	-
66	GR	-
69	W	-
70	L	-
71	BG	-
72	Y	-

Connector No.	D27
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-AH



Terminal No.	1	4
Color Of Wire	SB	L
Signal Name [Specification]	-	-

Connector No.	E3
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	-
2	W	-
3	LG	-
4	P	-
4	SB	-
5	L	-
6	Y	-
7	LG	-
8	P	-
10	BG	-
10	G	-
11	L	-
6	Y	-
7	LG	-

8	BG	-
9	W	-
10	B	-
11	G	-
12	R	-
13	GR	-
14	G	-
15	LG	-
15	V	-
16	Y	-
17	P	-
18	BR	-
19	LG	-
19	Y	-
20	GR	-
21	R	-
21	V	-
22	L	-
23	P	-
24	B	-
24	BR	-

Connector No.	E22
Connector Name	CHASSIS CONTROL MODULE
Connector Type	TH24FW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
3	P	-
4	L	-
5	Y	-
6	G	-
6	Y	-
7	W	-
8	W	-
10	BG	-
10	G	-
11	L	-
12	B	-

12	B/W	GROUND [With 2.0L turbo gasoline engine]
19	BR	CHASSIS COMM-H [With VR30 engine]
19	L	CHASSIS COMM-H [With 2.0L turbo gasoline engine]
23	G	ESS RELAY [With VR30 engine]
23	R	ESS RELAY [With 2.0L turbo gasoline engine]

Connector No.	E25
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	BG	-
6	V	-
7	L	-
8	BG	-
8	BR	-
9	B	-
9	GR	-
9	LG	-
10	BR	-
11	L	-
12	GR	-
12	P	-
13	SHIELD	-
13	W	-
14	B	-
15	GR	-
15	SB	-
16	BR	-
16	Y	-
17	BR	-
17	GR	-
18	G	-
18	P	-
19	Y	-
31	W	-
31	Y	-
32	G	-
32	GR	-
33	L	-

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DRIVER ASSISTANCE SYSTEMS

[DRIVER ASSISTANCE SYSTEM]

< WIRING DIAGRAM >

DRIVER ASSISTANCE SYSTEMS (VR ENGINE)

Connector No.	E44
Connector Name	BRAKE PEDAL POSITION SWITCH
Connector Type	S02FL



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	- [Color of wire differs depending on production]
1	V	- [Color of wire differs depending on production]
2	BG	- [With VR30 engine]
2	BR	- [With 2.0L turbo gasoline engine]

Connector No.	E47
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	- [Color of wire differs depending on production]
1	Y	- [Color of wire differs depending on production]
2	V	-
3	L	-
4	P	- [Without Gateway]
4	R	- [With Gateway]
5	W	-
6	SB	-
7	BR	- [Color of wire differs depending on production]
7	L	- [Color of wire differs depending on production]
8	W	-
9	BG	- [Without BOSE system]
9	V	- [With BOSE system]
10	V	-
11	SB	-
12	G	-

13	G	-
15	BR	-
16	P	-
17	SHELD	-
18	L	-
19	W	-
20	W	-
21	G	-
22	R	-
23	BR	-
24	R	-
25	L	-
26	BG	-
27	LG	-
28	BR	-
29	W	-
30	Y	-
31	G	-
32	GR	-

Connector No.	E52
Connector Name	ICC BRAKE HOLD RELAY
Connector Type	M502FL-M2-LC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	G	-
3	V	-
5	BR	- [With 2.0L turbo gasoline engine]
5	L	- [With VR30 engine]

Connector No.	E57
Connector Name	STOP LAMP SWITCH
Connector Type	M04FW-LC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	- [With ASCD]
1	L	- [With ADAS]
2	GR	- [With ASCD]
2	LG	- [With ADAS]
3	BR	-
4	V	-

Connector No.	E58
Connector Name	ESS RELAY
Connector Type	M503FB-M2-LC



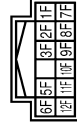
Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	- [With VR30 engine]
1	R	- [With 2.0L turbo gasoline engine]
2	G	-
3	W	-
4	LG	-

Connector No.	E64
Connector Name	FUSE BLOCK (I/B)
Connector Type	NS08FW-C5



Terminal No.	Color Of Wire	Signal Name [Specification]
1E	G	-
2E	P	-
3E	V	-
4E	GR	-
6E	L	-
7E	BG	-

Connector No.	E65
Connector Name	FUSE BLOCK (I/B)
Connector Type	TH12FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
10E	W	-
11E	G	- [Color of wire differs depending on production]
11E	R	- [Color of wire differs depending on production]
12E	W	- [With VR30 engine]
12E	Y	- [With 2.0L turbo gasoline engine]
1E	R	-
2E	BR	-
3E	P	-
5E	P	-
6E	L	-
7E	R	-
8E	L	-
9E	L	-

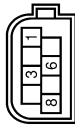
DRIVER ASSISTANCE SYSTEMS

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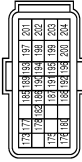
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DRIVER ASSISTANCE SYSTEMS (VR ENGINE)

Connector No.	E80
Connector Name	ICC SENSOR
Connector Type	AZ08FB



Connector No.	E152
Connector Name	ECM
Connector Type	RH24FB-R2B-L-RH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	IGNITION
3	L	ITS COMM-H
6	Y	ITS COMM-L
8	B	GROUND

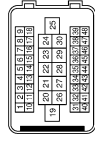
Connector No.	E121
Connector Name	IPV6-6R INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	TH32FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
19	L	- [With 2.0L turbo gasoline engine]
21	P	- [With VR30 engine]
22	BG	- [With VR30 engine]
23	GR	- [With VR30 engine]
24	G	- [With 2.0L turbo gasoline engine and without anti-theft device]
25	P	- [With 2.0L turbo gasoline engine and with anti-theft device]
27	GR	-
28	P	-
29	L	-
31	G	-
32	SB	-
33	SB	-
34	Y	-
35	G	-
36	SB	- [With VR30 engine]
36	W	- [With 2.0L turbo gasoline engine]

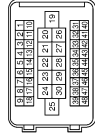
37	GR	-
38	BR	-
41	GR	-
43	V	-

Connector No.	E170
Connector Name	WIRE TO WIRE
Connector Type	SAA36MB-R310-S122



Terminal No.	Color Of Wire	Signal Name [Specification]
173	SB	FUEL TANK PRESSURE SENSOR
175	P	CAN-L
176	L	CAN-H
177	G	SENSOR POWER SUPPLY (FUEL TANK PRESSURE SENSOR)
178	V	TACHO METER SIGNAL
180	P	FUEL TANK TEMPERATURE SENSOR
182	W	FUEL PUMP CONTROL MODULE (FPCM) CHECK
185	SB	IGNITION SWITCH
186	SB	ASC2 STEERING SWITCH
187	BG	SENSOR GROUND (ASC2 STEERING SWITCH)
188	Y	FUEL PUMP CONTROL MODULE (FPCM)
189	Y	ENGINE COMMUNICATION LINE L
190	L	ENGINE COMMUNICATION LINE H
191	P	STOP LAMP SWITCH
192	BG	BRAKE PEDAL POSITION SWITCH
193	GR	STOP LAMP SWITCH (With 2.0L turbo gasoline engine and without anti-theft device)
193	LG	STOP LAMP SWITCH (With 2.0L turbo gasoline engine and with anti-theft device)
194	W	SENSOR POWER SUPPLY
195	BR	ACCELERATOR PEDAL POSITION SENSOR 2
196	R	SENSOR GROUND (ACCELERATOR PEDAL POSITION SENSOR 2)
197	R	ECM POWER SUPPLY
198	L	SENSOR POWER SUPPLY
199	B	ECM GROUND
200	V	SENSOR GROUND
201	B	ECM GROUND
202	Y	ACCELERATOR PEDAL POSITION SENSOR 1
203	G	SENSOR GROUND
204	B	ECM GROUND

Connector No.	E171
Connector Name	WIRE TO WIRE
Connector Type	SAA36FB-R310-S122



Terminal No.	Color Of Wire	Signal Name [Specification]
10	V	-
11	GR	-
19	V	-
20	SB	-
22	B	-
24	B	-
26	L	-
27	P	-
28	SHIELD	-
29	B	-
30	B	-
31	P	-
32	B	-
33	V	-
34	G	-
35	R	-
36	B	-
37	BG	-
38	LG	-
39	Y	-
40	P	-
41	L	-
42	W	-
43	B	-
44	L	-
45	V	-
47	BG	-
48	GR	-

Terminal No.	Color Of Wire	Signal Name [Specification]
10	V	-
11	GR	-
19	V	-
20	SB	-
22	B	-
24	B	-
26	L	-
27	P	-
28	SHIELD	-
29	B	-
30	B	-
31	P	-
32	B	-
33	V	-
34	GR	-
35	P	-
36	B	-
37	R	-
38	V	-
39	Y	-
40	P	-
41	L	-
42	W	-
43	B	-
44	L	-
45	V	-
47	BG	-
48	GR	-

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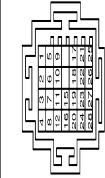
DRIVER ASSISTANCE SYSTEMS

[DRIVER ASSISTANCE SYSTEM]

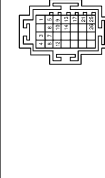
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DRIVER ASSISTANCE SYSTEMS (VR ENGINE)

Connector No.	E172
Connector Name	JOINT CONNECTOR-E01
Connector Type	SGA28FLBR-J



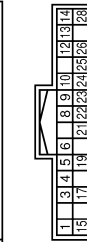
Connector No.	E173
Connector Name	JOINT CONNECTOR-E02
Connector Type	SGA28FDG-J



Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	-
2	Y	-
3	W	-
4	L	-
5	GR	-
6	Y	-
7	W	-
8	L	-
9	GR	-
10	Y	-
11	W	-
12	L	-
15	W	-
16	BG	-
17	P	-
18	L	-
19	W	-
20	BG	-
21	P	-
22	L	-
23	SB	- [Color of wire differs depending on production]
24	BG	- [Color of wire differs depending on production]
25	P	- [Color of wire differs depending on production]
26	L	-
27	Y	-
28	L	-

Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	- [Color of wire differs depending on production]
1	R	- [Color of wire differs depending on production]
3	B	-
4	B	-
5	G	-
6	BR	-
7	B	-
8	B	-
9	G	-
10	L	-
12	B	-
13	G	-
14	BR	-
17	G	-
21	G	-
25	R	-
26	L	-

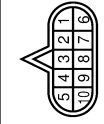
Connector No.	E219
Connector Name	CHASSIS CONTROL MODULE
Connector Type	TH28FW



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	ACTUATOR (EL)-L
3	BR	ACTUATOR (RR)-H
4	BG	IGN

Terminal No.	Color Of Wire	Signal Name [Specification]
5	W	CHASSIS COM-M-L
6	B	GROUND
8	BR	CHASSIS COM-M (Color of wire differs depending on production)
8	L	CHASSIS COM-M (Color of wire differs depending on production)
9	G	CHASSIS COM-M (Color of wire differs depending on production)
9	Y	CAN-H
10	L	CAN-L
12	G	ACTUATOR (FR)-H
13	G	ESS RELAY
14	L	ACTUATOR (RL)-L
15	Y	ACTUATOR (RL)-L
17	Y	ACTUATOR (FR)-H
19	L	CHASSIS COM-B-H
21	W	CHASSIS COM-B-L
22	V	DRIVE MODE SELECT SWITCH (UP)
23	B	GROUND
24	P	CAN-L [Without Gateway]
24	R	CAN-L [With Gateway]
25	G	IGN
26	V	ACTUATOR (RR)-H
28	R	ACTUATOR (FR)-L

Connector No.	F2
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-0G7



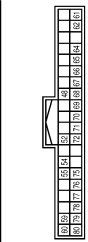
Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	IGNITION POWER SUPPLY (WITH V260 engine)
1	L	IGNITION POWER SUPPLY (WITH V260 engine)
2	P	BATTERY POWER SUPPLY (MEMORY BACK-UP)
3	L	CAN-H
4	R	CAN-L
5	BR	GROUND (With 2.0L turbo gasoline engine)
5	GR	GROUND (With V260 engine)
6	GR	IGNITION POWER SUPPLY
7	BG	BACK-UP LAMP RELAY
8	P	CAN-L
9	V	STARTER RELAY
10	B	GROUND

Connector No.	F100
Connector Name	TCM
Connector Type	SP10FG



Terminal No.	Color Of Wire	Signal Name [Specification]
1	-	IGNITION POWER SUPPLY
2	-	BATTERY POWER SUPPLY (MEMORY BACK-UP)
3	-	CAN-H
4	-	CAN-L
5	-	GROUND
6	-	IGNITION POWER SUPPLY
7	-	BACK-UP LAMP RELAY
8	-	CAN-L
9	-	STARTER RELAY
10	-	GROUND

Connector No.	M14
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
88	R	PUSH-BTN IGN SW (L) PWR
92	G	DONGLE LINK
94	V	CONN LINK
95	R	RAIN SENSOR
99	P	CAN-L
60	L	CAN-H
61	G	REAR WINDOW DEF RLY CONT
62	R	STARTER RLY CONT
64	V	I-KEY WARN BUZZER
65	B	OUTS HD LAMP CONT

DRIVER ASSISTANCE SYSTEMS

[DRIVER ASSISTANCE SYSTEM]

< WIRING DIAGRAM >

DRIVER ASSISTANCE SYSTEMS (VR ENGINE)

66	B	BLOWER FAN RLY CONT (With VR30 engine)
66	Y	BLOWER FAN RLY CONT (With 2.0L turbo gasoline engine)
67	W/B	IGN RLYAY (F/B) CONT
68	R	DIMMER
69	GR	A/T SHIF SELECT PWR SPV
70	B	IGN RLYAY (UPDM/E/R) CONT
71	G	DRS DOOR REQ SW
72	SB	PASS DOOR REQ SW
73	BR	COMB SW (IN) L1 E
74	BG	COMB SW (IN) L1 L
77	V	COMB SW (INPUT 3)
78	Y	COMB SW (INPUT 2)
79	LG	COMB SW (INPUT 1)
80	L	TR LID OPNR SW

Connector No.	W13
Connector Name	WIRE TO WIRE
Connector Type	THR80MW-CS16-TM4

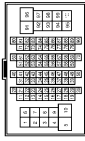


Terminal No.	Color Of Wire	Signal Name (Specification)
1	Y	-
2	G	-
3	SB	-
4	BR	-
5	Y	-
6	R	-
7	W	-
8	V	-
10	BG	-
11	BR	-
12	LG	-
13	GR	-
14	R	-
15	L	-
16	V	-
18	W	-
19	BR	-
20	W	-
22	SB	-
23	R	-

24	R	- (With 2.0L turbo gasoline engine)
24	Y	- (With VR30 engine)
25	P	- (With 2.0L turbo gasoline engine)
25	W	- (With VR30 engine)
26	G	-
27	R	-
28	R	-
31	BR	-
32	B	-
34	V	-
35	P	-
36	W	-
37	SB	-
38	LG	-
40	P	-
41	G	-
42	BR	-
43	BR	-
44	BR	-
46	BG	-
50	W	-
51	Y	-
52	V	-
53	LG	-
54	R	-
55	R	-
57	W	-
58	V	-
59	BG	-
60	G	-
61	G	-
62	BG	-
63	BR	-
64	Y	-
66	R	-
70	LG	-
71	W	-
72	B	-
73	W	-
74	L	-
75	W	-
76	BR	-
77	B	-
78	SB	-
79	P	-
79	W	-
81	B	-
82	R	-
83	BG	-



Connector No.	W22
Connector Name	WIRE TO WIRE
Connector Type	THR80MW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name (Specification)
1	LG	-
2	L	- (With VR30 engine)
2	SHIELD	- (With 2.0L turbo gasoline engine)
3	BR	- (With VR30 engine)
3	R	- (With VR30 engine)
4	SHIELD	- (With VR30 engine)
4	Y	- (With 2.0L turbo gasoline engine)
5	G	- (With VR30 engine)
5	V	- (With 2.0L turbo gasoline engine)
6	BG	- (With VR30 engine)
6	BR	- (With 2.0L turbo gasoline engine)
7	LG	- (With VR30 engine)
7	P	- (With 2.0L turbo gasoline engine)
8	G	- (With 2.0L turbo gasoline engine)
8	P	- (With VR30 engine)
9	LG	- (With 2.0L turbo gasoline engine)
9	SHIELD	- (With VR30 engine)
10	V	-
11	GR	-
12	V	-
13	LG	-
14	LG	-

15	BR	- (With 2.0L turbo gasoline engine)
15	P	- (With VR30 engine)
16	SB	- (With DCM)
17	V	- (Without DCM)
17	Y	-
18	L	-
19	LG	-
20	GR	-
21	R	-
22	V	-
23	L	-
24	BG	- (With 2.0L turbo gasoline engine)
24	V	- (With VR30 engine)
25	L	- (With 2.0L turbo gasoline engine)
25	SB	- (With VR30 engine)
26	G	-
26	W	- (With 2.0L turbo gasoline engine)
27	R	-
29	LG	-
30	SB	- (With VR30 engine)
30	W	- (With 2.0L turbo gasoline engine)
31	SHIELD	-
32	L	-
33	B	- (With VR30 engine)
33	LG	- (With 2.0L turbo gasoline engine)
34	SHIELD	-
35	LG	- (With VR30 engine)
35	W	- (With 2.0L turbo gasoline engine)
36	R	- (With VR30 engine)
36	V	- (With 2.0L turbo gasoline engine)
37	R	- (With VR30 engine)
37	V	- (With 2.0L turbo gasoline engine)
38	W	-
39	P	- (With VR30 engine and without BOSE system)
39	R	- (With 2.0L turbo gasoline engine)
39	V	- (With VR30 engine and with BOSE system)
40	G	-
41	L	-
42	R	-
43	SHIELD	-
44	P	-
45	B	- (With 2.0L turbo gasoline engine)
45	G	- (With VR30 engine)
46	SHIELD	-
47	G	-
48	BR	- (Except with VR30 engine and with BOSE system)
48	BR	- (With VR30 engine and with BOSE system)
49	G	-
50	V	-
51	V	-

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DRIVER ASSISTANCE SYSTEMS

[DRIVER ASSISTANCE SYSTEM]

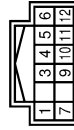
< WIRING DIAGRAM >

DRIVER ASSISTANCE SYSTEMS (VR ENGINE)

52	L	-	[With VR30 engine]
53	Y	-	[With VR30 engine]
54	GR	-	[With VR30 engine]
55	LG	-	[With VR30 engine]
56	P	-	[With VR30 engine]
57	R	-	[With VR30 engine]
58	LG	-	[With VR30 engine]
59	SB	-	[With VR30 engine]
60	Y	-	[With VR30 engine]
61	L	-	[With VR30 engine]
62	P	-	[With VR30 engine]
63	L	-	[With VR30 engine]
64	W	-	[With VR30 engine]
65	R	-	[With VR30 engine]
66	L	-	[With VR30 engine]
67	P	-	[With VR30 engine]
68	L	-	[With VR30 engine]
69	P	-	[With VR30 engine]
70	GR	-	[With VR30 engine]
71	R	-	[With VR30 engine]
72	G	-	[With VR30 engine]
73	V	-	[With VR30 engine]
74	LG	-	[With VR30 engine]
75	P	-	[With VR30 engine]
76	SB	-	[With VR30 engine]
77	Y	-	[With VR30 engine]
78	L	-	[With VR30 engine]
79	G	-	[With VR30 engine]
80	GR	-	[With VR30 engine]
81	B	-	[With VR30 engine]
82	G	-	[With VR30 engine]
83	SHIELD	-	[With VR30 engine]
84	W	-	[With VR30 engine]
85	BR	-	[With VR30 engine]
86	SHIELD	-	[With VR30 engine]
87	BR	-	[With VR30 engine]
88	LG	-	[With VR30 engine]
89	BR	-	[With VR30 engine]
90	SB	-	[With VR30 engine]

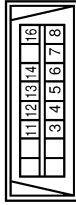
90	V	-	[With VR30 engine]
92	L	-	[With VR30 engine]
93	R	-	[With VR30 engine]
94	SHIELD	-	[With VR30 engine]
95	L	-	[With VR30 engine]
96	Y	-	[With VR30 engine]
97	W	-	[With VR30 engine]
98	BR	-	[With VR30 engine]
99	P	-	[With VR30 engine and with BOSE system]
100	Y	-	[With VR30 engine and without BOSE system]
101	BR	-	[With VR30 engine]
102	W	-	[With VR30 engine]

Connector No.	M24
Connector Name	CAN GATEWAY
Connector Type	TH12FW-NH



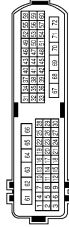
Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	CAN-H [CAN COMMUNICATION CIRCUIT 1]
2	W	BATTERY POWER SUPPLY
3	W	CAN-H [CAN COMMUNICATION CIRCUIT 2]
4	L	GROUND
5	B	CAN-L [CAN COMMUNICATION CIRCUIT 2]
6	L	CAN-L [CAN COMMUNICATION CIRCUIT 1]
7	P	CAN-L [CAN COMMUNICATION CIRCUIT 1]
8	R	BATTERY POWER SUPPLY [With VR30 engine and without ISS]
9	W	BATTERY POWER SUPPLY [With VR30 engine and without ISS]
10	R	CAN-L [CAN COMMUNICATION CIRCUIT 2]
11	B	GROUND
12	R	CAN-L [CAN COMMUNICATION CIRCUIT 2]

Connector No.	M25
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	M_CAN_L
4	B	EARTH
5	B	EARTH
6	L	CAN-H
7	V	K LINE [With 2.0L turbo gasoline engine]
7	W	K LINE [With VR30 engine]
8	W	IGN_SW
11	SB	M_CAN_H
12	R	CAN-L
13	L	CAN-H
14	P	CAN-L
16	W	POWER

Connector No.	M33
Connector Name	WIRE TO WIRE
Connector Type	NH60MW-TS12



Terminal No.	Color Of Wire	Signal Name [Specification]
2	W	-
4	G	-
5	G	-
6	R	-
7	R	-
8	GR	-
9	GR	-
10	W	-

11	SHIELD	-
12	P	-
13	SB	-
14	LG	-
15	Y	-
16	Y	-
17	P	-
18	W/B	- [Without DRPO]
19	LG	- [Without DRPO]
20	Y	-
21	B	-
22	BG	- [Without DRPO]
23	G	- [Without DRPO]
24	L	-
25	Y	-
26	BG	- [Without DRPO]
27	L	- [Without DRPO]
28	Y	-
29	B	-
30	W	-
31	B	-
32	SB	-
33	L	-
34	BR	-
35	LG	-
36	W	-
37	B	-
40	P	-
41	SR	-
43	W	- [Except with VR30 engine and without ISS]
44	Y	- [With VR30 engine and without ISS]
46	BG	-
47	BR	-
49	G	-
50	B	-
52	BR	-
53	B	-
55	BG	-
56	LG	-
57	V	-
58	R	-
59	G	-
60	L	-
61	G	-
62	R	-
63	V	-

DRIVER ASSISTANCE SYSTEMS

[DRIVER ASSISTANCE SYSTEM]

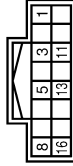
< WIRING DIAGRAM >

DRIVER ASSISTANCE SYSTEMS (VR ENGINE)

57	P	-	[With VR30 engine]
58	B	-	[With 2.0L turbo gasoline engine]
59	S8	-	-
61	W/B	-	-
64	Y	-	-
65	R	-	-
66	P	-	[Color of wire differs depending on production]
66	V	-	[Color of wire differs depending on production]
67	LG	-	-
68	BG	-	-
69	L	-	-
70	R	-	-
71	V	-	[With VR30 engine]
71	W	-	[With 2.0L turbo gasoline engine]
72	L	-	[With 2.0L turbo gasoline engine]
72	LG	-	[With VR30 engine]
73	R	-	[With VR30 engine]
73	R	-	[With 2.0L turbo gasoline engine]
74	BR	-	[With VR30 engine]
74	L	-	[With 2.0L turbo gasoline engine]
75	B	-	[With VR30 engine]
75	P	-	[With 2.0L turbo gasoline engine and without gateway]
75	R	-	[With 2.0L turbo gasoline engine and with gateway]
76	W/B	-	-
77	S8	-	-
78	G	-	[With VR30 engine]
78	LG	-	[With 2.0L turbo gasoline engine]
79	R	-	-
80	G	-	-
81	R	-	-
82	LG	-	-
83	BR	-	[With 2.0L turbo gasoline engine]
83	R	-	[With VR30 engine]
84	V	-	-
86	V	-	-
87	G	-	-
89	V	-	-
90	G	-	[With VR30 engine]
90	V	-	[With 2.0L turbo gasoline engine]
91	W	-	-
92	G	-	-
93	BR	-	-
94	GR	-	[With VR30 engine]
94	L	-	[With 2.0L turbo gasoline engine]
95	BR	-	[With VR30 engine]
95	P	-	[With 2.0L turbo gasoline engine and without gateway]
95	R	-	[With 2.0L turbo gasoline engine and with gateway]
96	W	-	-
97	LG	-	-
98	Y	-	-

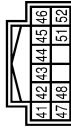
99	BR	-	[With VR30 engine]
99	LG	-	[With 2.0L turbo gasoline engine]
100	SHIELD	-	-

Connector No.	M55
Connector Name	DRIVER ASSISTANCE BUZZER CONTROL MODULE
Connector Type	TH12FW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	IGNITION
3	L	ITS COMM-H
5	B	GROUND
8	R	WARNING BUZZER SIGNAL
11	Y	ITS COMM-L
13	B	GROUND
16	G	WARNING BUZZER SIGNAL GROUND

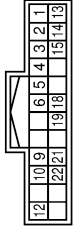
Connector No.	M58
Connector Name	COMBINATION METER
Connector Type	TH12FW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
41	L	CAN-H
42	P	CAN-L
43	B	ILLUMINATION CONTROL SIGNAL
44	Y	FUEL LEVEL SENSOR GROUND
45	W	BATTERY POWER SUPPLY
46	BG	IGNITION SIGNAL [Except with VR30 engine and without ISS]
46	R	IGNITION SIGNAL [With VR30 engine and without ISS]
47	S8	AV COMMUNICATION SIGNAL (H)

48	LG	AV COMMUNICATION SIGNAL (L)
51	BR	FUEL LEVEL SENSOR SIGNAL
52	B	GROUND

Connector No.	M76
Connector Name	SOMAR CONTROL UNIT
Connector Type	TH24FW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	S8	CENTER SENSOR SIGNAL FRONT RH
2	LG	CENTER SENSOR SIGNAL FRONT LH
3	W	CORNER SENSOR SIGNAL FRONT LH
4	GR	CORNER SENSOR SIGNAL FRONT RH
5	L	CAN-H
6	P	CAN-L [Without Gateway]
6	R	CAN-L [With Gateway]
9	G	CORNER SENSOR SIGNAL REAR RH
10	BG	CORNER SENSOR SIGNAL REAR LH
12	R	IGN [For VR30 engine]
12	W	IGN [For 2.0L turbo gasoline engine]
13	B	FRONT SENSOR GND
14	B	REAR SENSOR GND
15	B	GROUND
18	GR	FRONT BUZZER DRIVE SIGNAL
19	P	BUZZER POWER SUPPLY
21	BR	CENTER SENSOR SIGNAL REAR LH
22	W	CORNER SENSOR SIGNAL REAR LH

Connector No.	M77
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GROUND
2	P	CAN-L [Without Gateway]
2	R	CAN-L [With Gateway]
4	G	IGN
5	L	CAN-H

Connector No.	M85
Connector Name	RESISTOR
Connector Type	MD2FBR-LC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	-
2	B	-

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DRIVER ASSISTANCE SYSTEMS

[DRIVER ASSISTANCE SYSTEM]

< WIRING DIAGRAM >

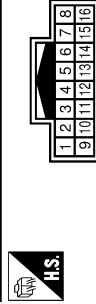
DRIVER ASSISTANCE SYSTEMS (VR ENGINE)

Connector No.	M87
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TH08FQV-1V



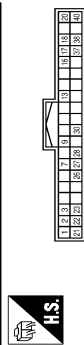
26	B	SENSOR GROUND
27	LG	IN-VEHICLE SENSOR SIGNAL
28	BR	INTAKE SENSOR SIGNAL
30	BG	EXHAUST GAS / OUTSIDE AIR COLOR DETECTING SENSOR SIGNAL
37	B	GROUND
38	BG	IGNITION (ON/OFF) CONTROL SIGNAL
40	BG	ECV CONTROL SIGNAL

Connector No.	M95
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
24	P	-
25	SB	-
31	W/B	-
32	Y	-
33	B	-

Connector No.	M88
Connector Name	A/C AUTO AMP.
Connector Type	TH40FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	CAN-H
2	B	GROUND
3	W	BATTERY POWER SUPPLY
4	G	AMBIENT SENSOR SIGNAL
5	R	SUNLOAD SENSOR SIGNAL
13	SB	ACC POWER SUPPLY [With 2.0L turbo (Gasoline engine)]
13	V	ACC POWER SUPPLY [With VRS0 (Gasoline engine)]
16	P	LIN SIGNAL
17	R	DOOR MOTOR POWER SUPPLY
18	P	BLOWER MOTOR CONTROL SIGNAL
20	L	HEATED STEERING WHEEL RELAY CONTROL SIGNAL
21	P	CAN-L
22	B	GROUND
23	R	IGNITION POWER SUPPLY [With VRS0 engine and with ISU]
23	W	IGNITION POWER SUPPLY [Except with VR0 engine and with ISU]

Connector No.	M107
Connector Name	DRIVER ASSISTANCE BUZZER
Connector Type	NS02FW-CS



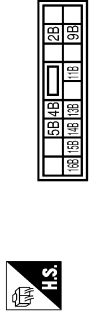
Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	G	-

Connector No.	M124
Connector Name	ACCELERATOR PEDAL ACTUATOR/ACCELERATOR PEDAL POSITION SENSOR
Connector Type	RH12FB



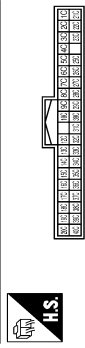
Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	BATTERY
2	G	IGNITION
3	L	ITS COMM-H
4	W	-
5	G	-
6	Y	-
7	B	GROUND
9	Y	ITS COMM-L
10	L	-
11	R	-
12	BR	-

Connector No.	M132
Connector Name	FUSE BLOCK (1/B)
Connector Type	NS16FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
11B	LG	-
13B	P	-
14B	G	-
15B	Y	-
16B	Y	-
2B	B	-
4B	W	-
5B	R	-
9B	Y	-

Connector No.	M133
Connector Name	FUSE BLOCK (1/B)
Connector Type	TH40FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
10C	V	-
12C	L	-
13C	L	-
14C	Y	-
15C	R	-
16C	R	-
17C	L	-
18C	BG	- [Without DRPO]
18C	P	- [With DRPO]
19C	B	-
1C	R	-

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DRIVER ASSISTANCE SYSTEMS

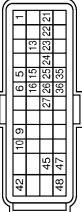
[DRIVER ASSISTANCE SYSTEM]

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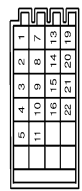
DRIVER ASSISTANCE SYSTEMS (VR ENGINE)

20C	W	-	-	-	-
21C	L	-	-	-	-
22C	L	-	-	-	-
23C	L	-	-	-	-
25C	LG	-	-	-	-
26C	SB	-	-	-	-
27C	P	-	-	-	-
28C	W	-	-	-	-
29C	W	-	-	-	-
30C	R	-	-	-	-
31C	W	-	-	-	-
32C	R	-	-	-	-
33C	B	-	-	-	-
34C	W/B	-	-	-	-
35C	SB	-	-	-	-
36C	R	-	-	-	-
37C	W	-	-	-	-
38C	SB	-	-	-	-
39C	V	-	-	-	-
40C	P	-	-	-	-
41C	G	-	-	-	-
42C	P	-	-	-	-
43C	P	-	-	-	-
44C	G	-	-	-	-
45C	G	-	-	-	-
46C	G	-	-	-	-
47C	G	-	-	-	-
48C	G	-	-	-	-
49C	V	-	-	-	-

Connector No.	M137
Connector Name	JOINT CONNECTOR-M10
Connector Type	24342_4GA2A



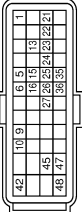
Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	EMCM RELAY CONTROL (SSOFF)
5	L	IGNITION SWITCH
6	LG	STOP_LAMP_SWITCH
9	L	CAN-H
10	P	CAN-L
13	W	STOP/START OFF SWITCH
15	Y	SENSOR POWER SUPPLY (SUB BATTERY CURRENT/TEMPERATURE SENSOR)
16	W	SUB BATTERY RELAY CONTROL
21	V	ENGINE RESTART BYPASS CONTROL RELAY
22	G	ENGINE RESTART BYPASS CONTROL RELAY
23	BR	ENGINE RESTART BYPASS CONTROL RELAY
24	GR	MAIN BATTERY CURRENT SENSOR
25	BG	MAIN BATTERY CURRENT SENSOR
26	R	SUB BATTERY TEMPERATURE SENSOR
27	BR	SUB BATTERY CURRENT SENSOR
35	SB	SENSOR GROUND (MAIN BATTERY CURRENT/TEMPERATURE SENSOR)
36	G	SENSOR GROUND (SUB BATTERY CURRENT/TEMPERATURE SENSOR)
42	G	EMCM POWER SUPPLY
45	R	SUB BATTERY VOLTAGE MONITOR
47	B	EMCM GROUND
48	B	EMCM GROUND



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	B	-
3	B	-
4	B	-
5	B	-

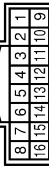
7	B	-	-	-	-
8	B	-	-	-	-
9	B	-	-	-	-
10	B	-	-	-	-
11	B	-	-	-	-
13	L	-	-	-	-
14	L	-	-	-	-
15	L	-	-	-	-
16	L	-	-	-	-
19	R	-	-	-	-
20	R	-	-	-	-
21	R	-	-	-	-
22	R	-	-	-	-

Connector No.	M147
Connector Name	EMCM
Connector Type	RH40FB-R28-RLHZ



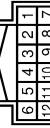
Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	EMCM RELAY CONTROL (SSOFF)
5	L	IGNITION SWITCH
6	LG	STOP_LAMP_SWITCH
9	L	CAN-H
10	P	CAN-L
13	W	STOP/START OFF SWITCH
15	Y	SENSOR POWER SUPPLY (SUB BATTERY CURRENT/TEMPERATURE SENSOR)
16	W	SUB BATTERY RELAY CONTROL
21	V	ENGINE RESTART BYPASS CONTROL RELAY
22	G	ENGINE RESTART BYPASS CONTROL RELAY
23	BR	ENGINE RESTART BYPASS CONTROL RELAY
24	GR	MAIN BATTERY CURRENT SENSOR
25	BG	MAIN BATTERY CURRENT SENSOR
26	R	SUB BATTERY TEMPERATURE SENSOR
27	BR	SUB BATTERY CURRENT SENSOR
35	SB	SENSOR GROUND (MAIN BATTERY CURRENT/TEMPERATURE SENSOR)
36	G	SENSOR GROUND (SUB BATTERY CURRENT/TEMPERATURE SENSOR)
42	G	EMCM POWER SUPPLY
45	R	SUB BATTERY VOLTAGE MONITOR
47	B	EMCM GROUND
48	B	EMCM GROUND

Connector No.	M155
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
3	R	-
4	R	-
5	P	- [Without ADAS and without Gateway]
5	R	- [Without ADAS and with Gateway]
5	Y	- [With ADAS]
6	Y	-
7	P	- [Without Gateway]
7	R	- [With Gateway]
9	R/W	-
10	R	-
11	SHIELD	-
13	L	-
14	L	-
15	L	-

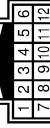
Connector No.	M157
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	-
2	G	-
4	W	-
5	G	-
6	Y	-
7	B	-
9	Y	-
10	L	-
11	R	-
12	BR	-

5	BR	- [With 2.0L turbo gasoline engine]
5	G	- [With VR30 engine]
6	G	- [With 2.0L turbo gasoline engine]
6	Y	- [With VR30 engine]
7	B	-
9	Y	-
10	L	- [With VR30 engine]
10	R	- [With 2.0L turbo gasoline engine]
11	L	- [With 2.0L turbo gasoline engine]
11	R	- [With VR30 engine]
12	BR	- [With VR30 engine]
12	W	- [With 2.0L turbo gasoline engine]

Connector No.	M158
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	-
2	G	-
3	L	-
4	W	-
5	G	-
6	Y	-
7	B	-
9	Y	-
10	L	-
11	R	-
12	BR	-

DRIVER ASSISTANCE SYSTEMS

[DRIVER ASSISTANCE SYSTEM]

< WIRING DIAGRAM >

DRIVER ASSISTANCE SYSTEMS (VR ENGINE)

Connector No.	M159
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH



Terminal No.	Color Of Wire	Signal Name (Specification)
1	G	-
2	B	-
3	BR	-
4	R	-
5	GR	-
6	R	- [With VR30 engine and with ISS]
6	W	- [Except with VR30 engine and with ISS]
7	L	-
9	SHIELD	-
10	W	-
11	R	-
12	L	-
13	G	-
14	Y	-
15	B	-
17	B	-
19	R	-
20	BG	- [Except with VR30 engine and with BOSE system]
20	BR	- [With VR30 engine and with BOSE system]
21	R	-
22	G	-
24	B	-
26	W	-
26	R	-
27	P	-
28	B	-
29	G	-
30	L	-
31	W	-
32	W	-
33	L	-
36	V	-
38	LG	-
40	W	-

Connector No.	M173
Connector Name	JOINT CONNECTOR-M03
Connector Type	24342_4GA2A



Terminal No.	Color Of Wire	Signal Name (Specification)
1	L	-
2	L	-
3	L	-
4	L	-
5	L	-
6	L	-
7	R	-
8	R	-
9	R	-
10	R	-
11	R	-
12	R	-
13	SB	-
14	SB	-
15	SB	-
16	L	- [With 2.0L turbo gasoline engine]
16	SB	- [With VR30 engine]
17	L	- [With 2.0L turbo gasoline engine]
17	SB	- [With VR30 engine]
18	L	- [With 2.0L turbo gasoline engine]
18	SB	- [With VR30 engine]
19	BR	- [With VR30 engine]
19	LG	- [With VR30 engine]
20	BR	- [With 2.0L turbo gasoline engine]
20	LG	- [With 2.0L turbo gasoline engine]
21	BR	- [With VR30 engine]
21	LG	- [With 2.0L turbo gasoline engine]
22	R	- [With 2.0L turbo gasoline engine]
22	SB	- [With VR30 engine and without ISS]
22	V	- [With VR30 engine and with ISS]
23	R	- [With 2.0L turbo gasoline engine]
23	SB	- [With VR30 engine and without ISS]
23	V	- [With VR30 engine and with ISS]
24	R	- [With 2.0L turbo gasoline engine]
24	SB	- [With VR30 engine and without ISS]
24	V	- [With VR30 engine and with ISS]

Connector No.	M174
Connector Name	JOINT CONNECTOR-M04
Connector Type	24342_4GA2A



Terminal No.	Color Of Wire	Signal Name (Specification)
1	L	-
2	L	-
3	L	-
4	L	-
5	L	-
6	L	-
7	Y	-
8	Y	-
9	Y	-
10	Y	-
11	Y	-
12	Y	-
13	SB	-
14	SB	-
15	SB	-
16	SB	-
17	SB	-
18	SB	-
19	LG	-
20	LG	-
21	LG	-
22	LG	-
23	LG	-
24	LG	-

Connector No.	M175
Connector Name	JOINT CONNECTOR-M05
Connector Type	NH20FLDC



Terminal No.	Color Of Wire	Signal Name (Specification)
1	L	-
2	L	-
3	L	-
4	L	-
5	L	-
6	L	-
7	L	-
8	L	-
10	P	-
11	P	-
12	P	-
13	P	-
14	P	-
15	P	-
16	P	-
16	R	- [With VR30 engine]
16	R	- [With 2.0L turbo gasoline engine]
17	P	-
17	R	- [With 2.0L turbo gasoline engine]
19	R	-
19	W	- [Except with VR30 engine and with ISS]
20	R	-
20	R	- [With VR30 engine and with ISS]
20	W	- [Except with VR30 engine and with ISS]

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DRIVER ASSISTANCE SYSTEMS

[DRIVER ASSISTANCE SYSTEM]

< WIRING DIAGRAM >

DRIVER ASSISTANCE SYSTEMS (VR ENGINE)

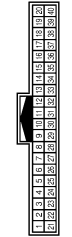
Connector No.	M177
Connector Name	JOINT CONNECTOR-M07
Connector Type	24342_4GAZA



Connector No.	M301
Connector Name	COMBINATIONS SWITCH (SIGNAL CABLE)
Connector Type	TK08FCY



Connector No.	RL5
Connector Name	WIRE TO WIRE
Connector Type	TH40MWA-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	L	-
3	L	-
4	L	-
5	L	-
6	L	-
7	P	-
8	P	-
9	P	-
10	P	-
11	P	-
12	P	-
13	L	-
14	L	-
15	L	-
16	L	-
17	L	-
18	L	-
19	W	-
20	W	-
21	W	-
22	P	-
23	P	-
24	P	-

Terminal No.	Color Of Wire	Signal Name [Specification]
13	-	-
14	-	-
15	-	-
16	-	-
17	-	-
18	-	-
19	-	-
20	-	-

Connector No.	RL3
Connector Name	LANE CAMERA UNIT
Connector Type	TH08F-W-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	CAN_GND
4	L	CAN+
5	B	CAN-
7	V	IGN
8	W	CANL

Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	IG	-
3	BR	-
4	V	-
5	BG	-
6	GR	-
7	BR	-
9	SHIELD	-
10	GR	-
11	R	-
12	L	-
13	G	-
14	Y	-
15	B	-
17	S8	-
19	BG	-
20	BR	- [Without BOSE system]
21	R	-
22	G	-
24	B	-
25	BG	- [Color of wire differs depending on production]
25	P	- [Color of wire differs depending on production]
26	BR	-
27	GR	-
28	B	-
29	R	-
30	L	-
31	V	-
32	W	-
33	L	-
36	BR	-
38	S8	-
40	W	-

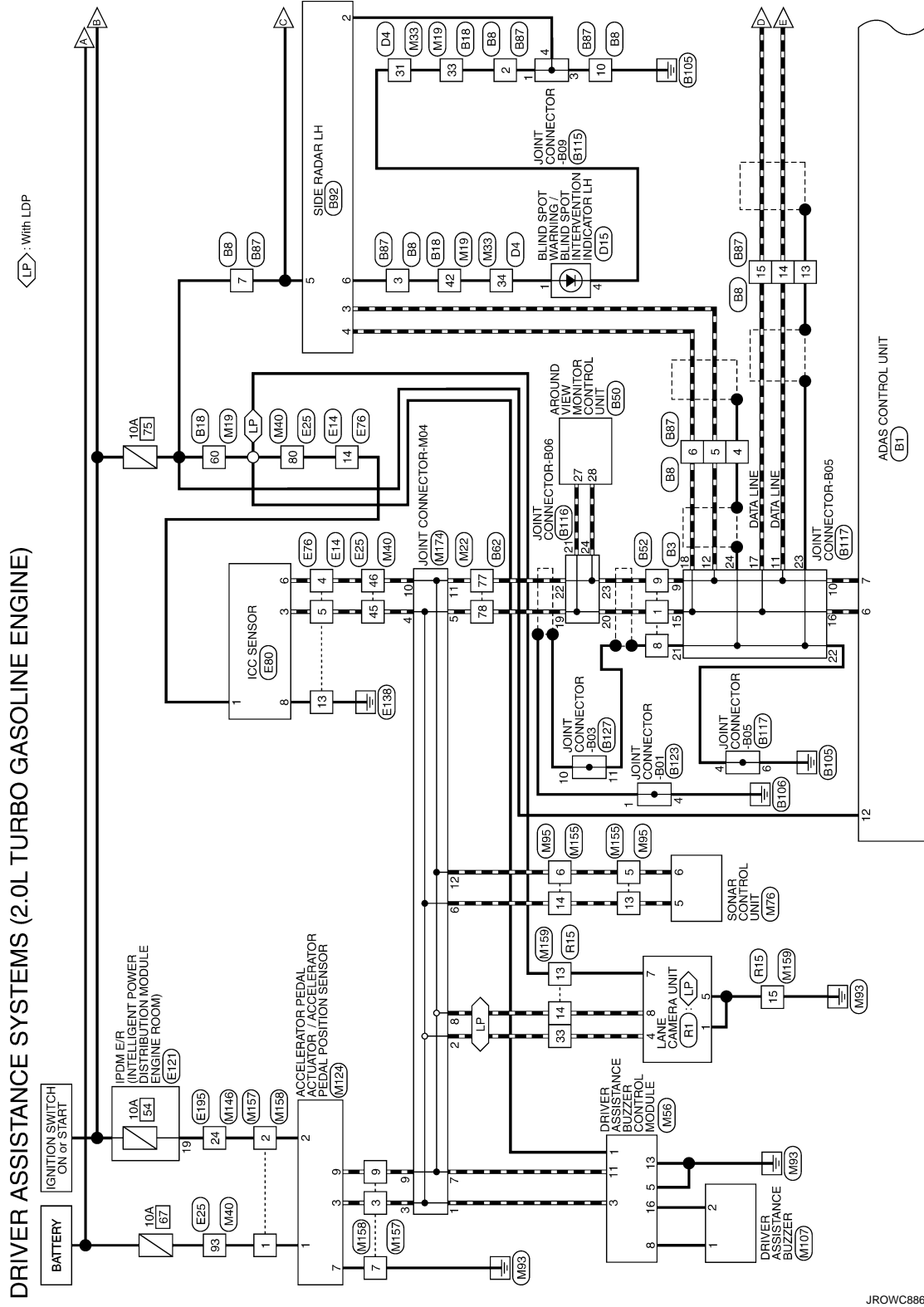
JROWC8861GB

DRIVER ASSISTANCE SYSTEMS

[DRIVER ASSISTANCE SYSTEM]

< WIRING DIAGRAM >

2.0L TURBO GASOLINE ENGINE



*: This connector is not shown in "Harness Layout".

2016/02/15

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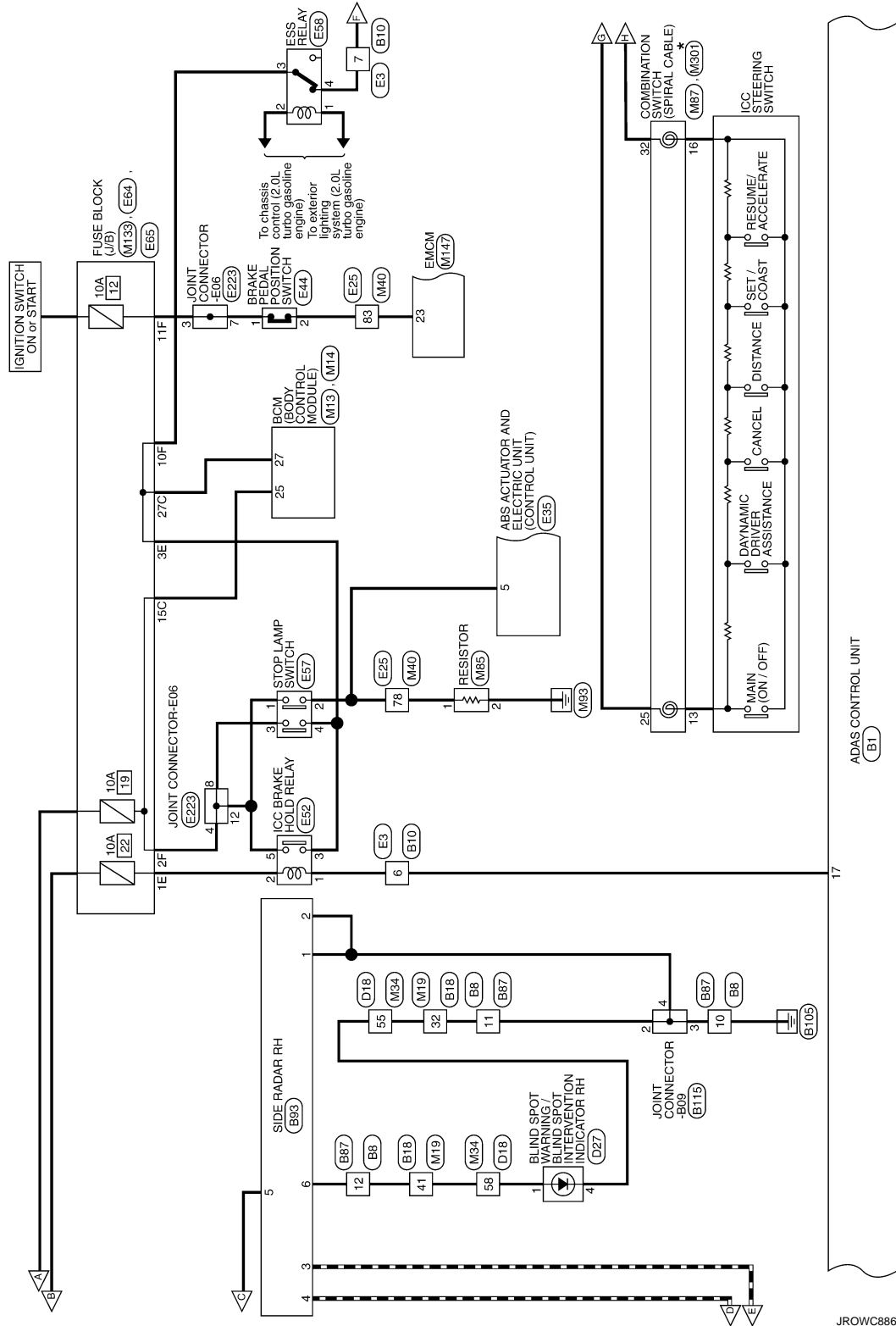
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DRIVER ASSISTANCE SYSTEMS

< WIRING DIAGRAM >

[DRIVER ASSISTANCE SYSTEM]

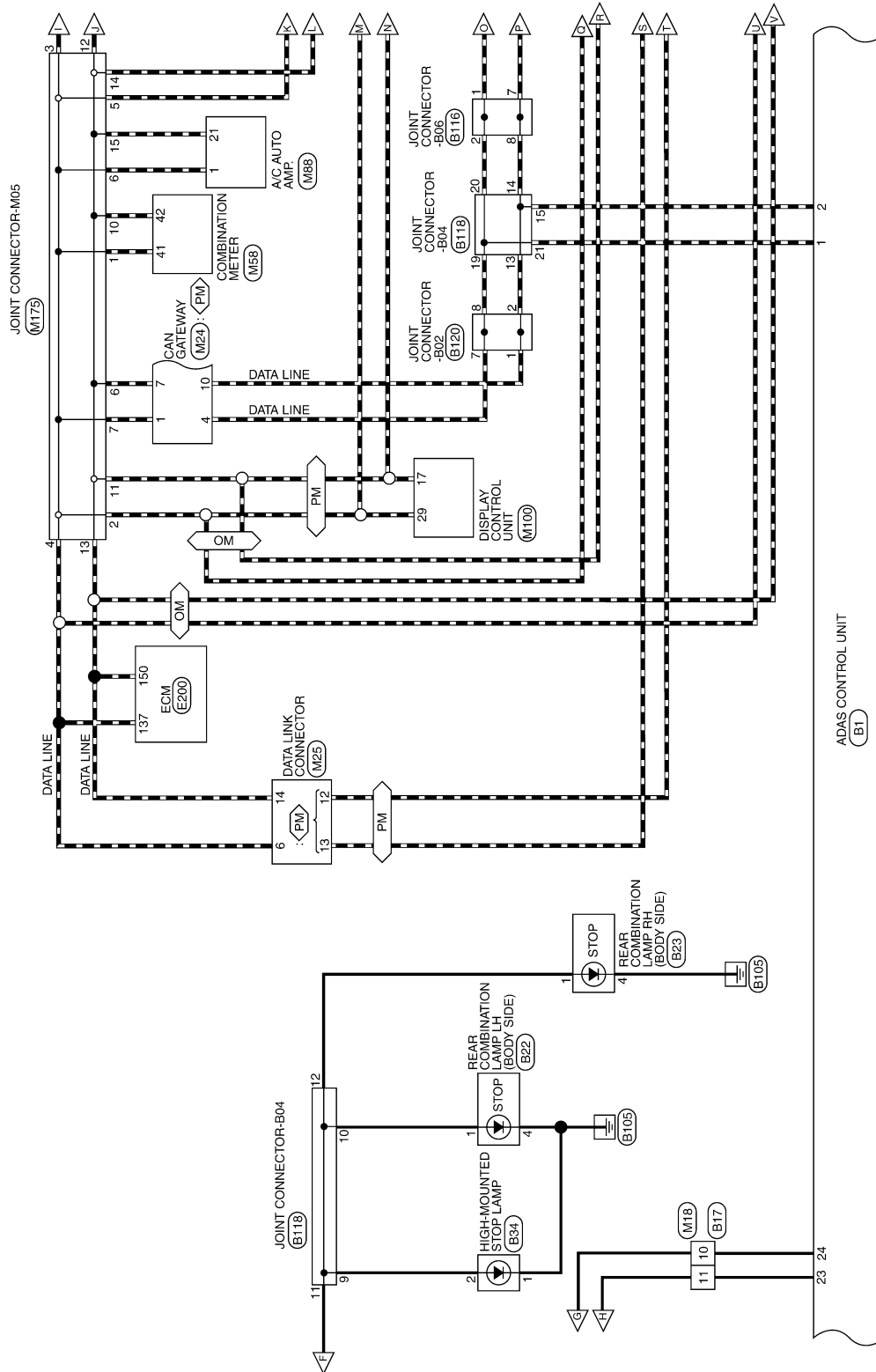


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DRIVER ASSISTANCE SYSTEMS

[DRIVER ASSISTANCE SYSTEM]

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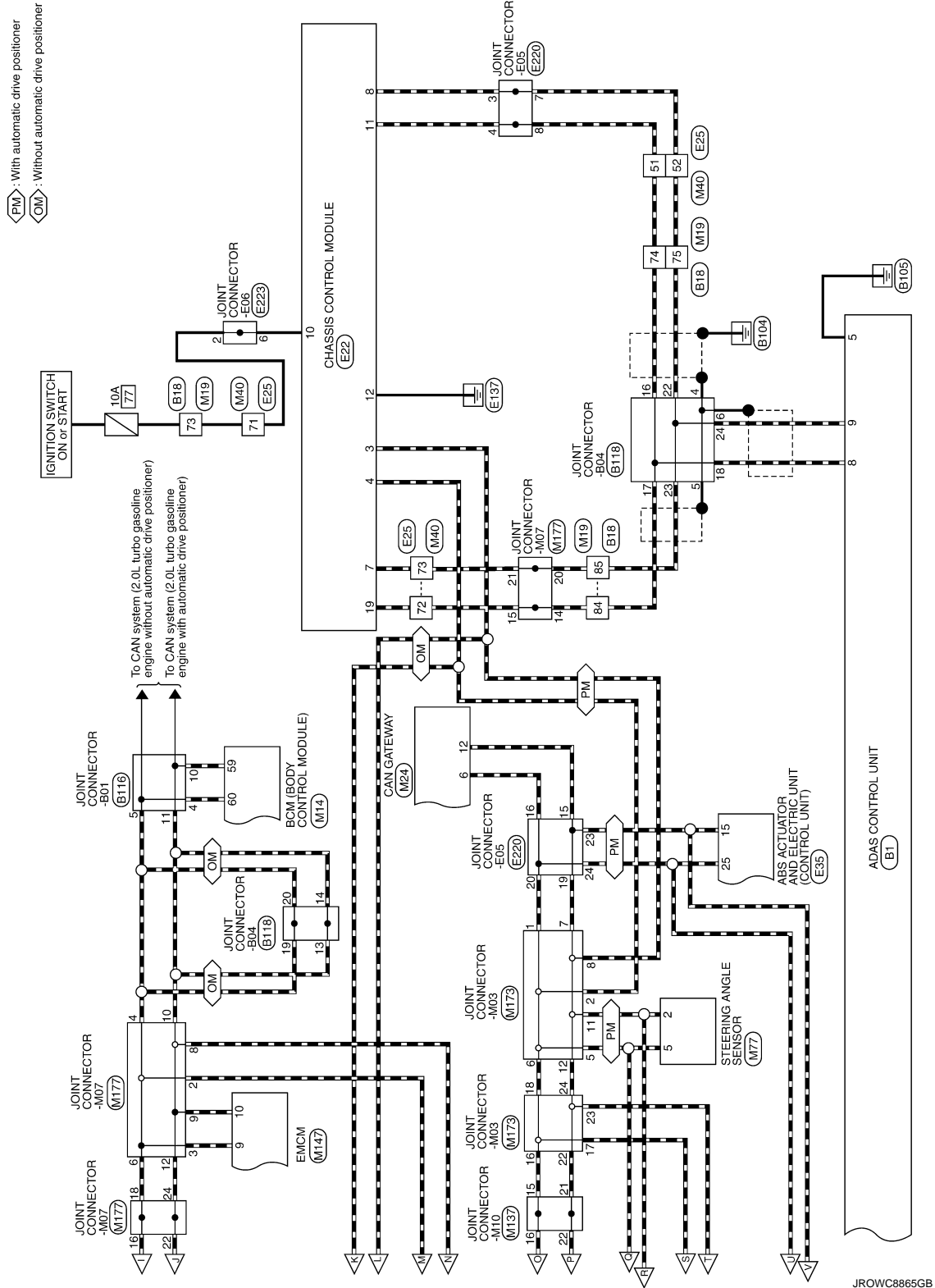
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DRIVER ASSISTANCE SYSTEMS

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< WIRING DIAGRAM >





DRIVER ASSISTANCE SYSTEMS

[DRIVER ASSISTANCE SYSTEM]



< WIRING DIAGRAM >

DRIVER ASSISTANCE SYSTEMS (2.0L TURBO GASOLINE ENGINE)



Connector No.	B1
Connector Name	ADAS CONTROL UNIT
Connector Type	TH24FW-AH



Connector No.	B8
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-AH

Connector No.	B10
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-AH






Connector No.	B17
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	CAN-H
2	R	CAN-L
5	B	GROUND
6	L	ITS COMM-H
7	Y	ITS COMM-L
8	L	CHASSIS COMM-H
9	R	CHASSIS COMM-L
12	G	IGNITION [Except with VR30 engine and without BS]
17	V	IGNITION [VR30 engine and without BS]
23	Y	BRAKE HOLD RLY DRIVE SIGNAL
24	SB	STEERING SW SIGNAL GROUND
		STEERING SW SIGNAL



Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS

Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	- [With 2.0L turbo gasoline engine]
1	Y	- [With VR30 engine]
2	W	-
3	LG	-
4	P	- [With VR30 engine]
4	SB	- [With 2.0L turbo gasoline engine]
5	L	-
6	V	-
7	LG	-
8	R	-
9	W	-
10	B	-
11	G	-
12	R	-
13	GR	-
14	BG	-
15	BR	-
16	LG	-
17	V	-
18	BR	-
19	LG	- [With 2.0L turbo gasoline engine]
19	V	- [With VR30 engine]
20	V	-
21	R	- [With 2.0L turbo gasoline engine]
21	V	- [With VR30 engine]
22	L	-
23	V	-
24	B	- [With VR30 engine]
24	R	- [With 2.0L turbo gasoline engine]

Terminal No.	Color Of Wire	Signal Name [Specification]
10	SB	-
11	Y	-
12	GR	-

Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	G	-
3	L	-
4	LG	-
5	V	-
9	R	-
8	V	-
7	LG	-
10	BG	-
11	BG	-
12	LG	-
13	GR	-
14	R	-
15	L	-
16	V	-
18	W	-

Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
4	B	-
5	BR	- [With BOSE system]
5	Y	- [Without BOSE system]
7	R	-
8	B	-
9	Y	-

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DRIVER ASSISTANCE SYSTEMS

[DRIVER ASSISTANCE SYSTEM]

< WIRING DIAGRAM >

DRIVER ASSISTANCE SYSTEMS (2.0L TURBO GASOLINE ENGINE)

19	BR	-	-	-	-
20	W	-	-	-	-
22	R	-	-	-	- [With VR30 engine]
23	V	-	-	-	- [With 2.0L turbo gasoline engine]
24	R	-	-	-	- [With VR30 engine]
25	P	-	-	-	- [With 2.0L turbo gasoline engine and without gateway]
25	V	-	-	-	- [With 2.0L turbo gasoline engine and with gateway]
26	G	-	-	-	- [With VR30 engine]
27	R	-	-	-	-
28	B	-	-	-	-
31	BR	-	-	-	- [With VR30 engine]
32	B	-	-	-	- [With 2.0L turbo gasoline engine]
33	B	-	-	-	-
34	LG	-	-	-	-
35	P	-	-	-	-
36	W	-	-	-	-
37	SB	-	-	-	-
38	LG	-	-	-	-
40	P	-	-	-	-
41	SB	-	-	-	-
42	BR	-	-	-	-
43	BG	-	-	-	-
44	BG	-	-	-	-
46	R	-	-	-	-
50	W	-	-	-	-
51	SB	-	-	-	-
52	V	-	-	-	-
53	LG	-	-	-	-
54	R	-	-	-	-
55	R	-	-	-	-
57	W	-	-	-	-
58	V	-	-	-	-
59	GR	-	-	-	-
60	G	-	-	-	-
61	G	-	-	-	-
62	BG	-	-	-	-
63	BR	-	-	-	-
64	Y	-	-	-	-
66	R	-	-	-	-
70	R	-	-	-	-
71	W	-	-	-	-
72	B	-	-	-	-
73	W	-	-	-	-
74	L	-	-	-	-
75	R	-	-	-	- [Without paddle shift]
75	V	-	-	-	- [With paddle shift]
76	BR	-	-	-	-

77	B	-	-	-	-
78	SB	-	-	-	-
79	V	-	-	-	- [With VR30 engine]
79	W	-	-	-	- [With 2.0L turbo gasoline engine]
81	B	-	-	-	-
82	R	-	-	-	-
83	BG	-	-	-	-
84	L	-	-	-	-
85	R	-	-	-	- [Without paddle shift]
85	V	-	-	-	- [With paddle shift]
86	B	-	-	-	-
88	G	-	-	-	-
89	V	-	-	-	- [With 2.0L turbo gasoline engine]
89	W	-	-	-	- [With VR30 engine]
91	GR	-	-	-	-
94	GR	-	-	-	-
96	Y	-	-	-	-
97	V	-	-	-	-
98	BR	-	-	-	- [With VR30 engine and with BOSE system]
98	Y	-	-	-	- [Except with VR30 engine and with BOSE system]

Connector No.	B22
Connector Name	REAR COMBINATION LAMP (H) (BODY SIDE)
Connector Type	NS04MW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	-
2	P	-
3	SB	-
4	B	-

Connector No.	B23
Connector Name	REAR COMBINATION LAMP (R) (BODY SIDE)
Connector Type	NS04MW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	-
2	R	-
3	V	-
4	B	-

Connector No.	B34
Connector Name	HIGH-MOUNTED STOP LAMP
Connector Type	TK02MBR-P



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	LG	-

Connector No.	B50
Connector Name	AROUND VIEW MONITOR CONTROL UNIT
Connector Type	TH40FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GND
2	Y	BAT
3	LG	IGN
4	P	ACC
19	P	AV COMM [H]
20	LG	AV COMM [L]
23	SHIELD	AV COMM GND
25	BG	REVERSE SIGNAL
27	L	CAN-H
28	P	CAN-L [Without ADAS] [For VR30 engine]
28	R	CAN-L [With ADAS]
28	Y	CAN-L [Without ADAS] [For 2.0L turbo gasoline engine]
29	B	CAN GND
30	W	RETRACT MOTOR OPERATING SIGNAL (OPEN)
32	G	RETRACT MOTOR OPERATING SIGNAL (CLOSE)

Connector No.	B52
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
4	B	-
5	BR	- [With BOSE system]
5	Y	- [Without BOSE system]
7	R	-

DRIVER ASSISTANCE SYSTEMS

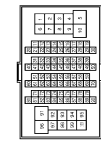
[DRIVER ASSISTANCE SYSTEM]

< WIRING DIAGRAM >

DRIVER ASSISTANCE SYSTEMS (2.0L TURBO GASOLINE ENGINE)

8	SHIELD	-	-	-	-
9	P	-	-	-	-
11	B	-	-	-	-
12	GR	-	-	-	-
13	G	-	-	-	-
14	B	-	-	-	-
15	W	-	-	-	-
16	BR	-	-	-	-

Connector No.	882
Connector Name	WIRE TO WIRE
Connector Type	TH8PW-C516-TM4



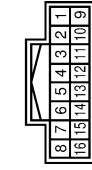
Terminal No.	Color Of Wire	Signal Name (Specification)
1	BR	- [With 2.0L turbo gasoline engine and without BOSE system]
1	LG	- [With VR30 engine]
1	W	- [With 2.0L turbo gasoline engine and with BOSE system]
2	L	- [With VR30 engine]
2	SHIELD	- [With 2.0L turbo gasoline engine]
3	BR	- [With 2.0L turbo gasoline engine]
3	R	- [With VR30 engine and with BOSE system]
3	W	- [With VR30 engine and without BOSE system]
4	SHIELD	- [With VR30 engine]
4	Y	- [With 2.0L turbo gasoline engine]
5	G	- [With VR30 engine]
5	V	- [With 2.0L turbo gasoline engine]
6	BG	- [With VR30 engine]
7	BR	- [With 2.0L turbo gasoline engine]
7	B	- [With 2.0L turbo gasoline engine and with BOSE system]
7	W	- [With VR30 engine and without BOSE system]
7	Y	- [With VR30 engine and with BOSE system]
8	B	- [With VR30 engine and without BOSE system]
8	G	- [With VR30 engine and with BOSE system]
8	Y	- [With 2.0L turbo gasoline engine]
9	LG	- [With 2.0L turbo gasoline engine]
10	V	- [With VR30 engine]
11	GR	-
12	Y	-

13	R	-	-	-	-
14	BG	-	-	-	-
15	BG	-	-	-	-
16	GR	-	-	-	-
17	P	-	-	-	-
18	L	-	-	-	-
19	R	-	-	-	-
20	GR	-	-	-	-
21	R	-	-	-	-
22	W	-	-	-	-
23	W	-	-	-	-
24	BG	-	-	-	-
24	V	-	-	-	-
25	L	-	-	-	-
25	SB	-	-	-	-
26	G	-	-	-	-
26	W	-	-	-	-
27	R	-	-	-	-
29	LG	-	-	-	-
30	LG	-	-	-	-
30	P	-	-	-	-
31	SHIELD	-	-	-	-
32	L	-	-	-	-
33	B	-	-	-	-
33	LG	-	-	-	-
34	SHIELD	-	-	-	-
35	LG	-	-	-	-
35	W	-	-	-	-
36	R	-	-	-	-
36	W	-	-	-	-
37	P	-	-	-	-
37	R	-	-	-	-
37	W	-	-	-	-
38	W	-	-	-	-
39	P	-	-	-	-
39	B	-	-	-	-
39	W	-	-	-	-
40	G	-	-	-	-
41	L	-	-	-	-
42	R	-	-	-	-
43	SHIELD	-	-	-	-
44	P	-	-	-	-
45	B	-	-	-	-
45	G	-	-	-	-
46	SHIELD	-	-	-	-
47	G	-	-	-	-
48	BG	-	-	-	-
49	G	-	-	-	-
50	V	-	-	-	-

51	GR	-	-	-	-
52	W	-	-	-	-
52	Y	-	-	-	-
53	R	-	-	-	-
54	GR	-	-	-	-
55	L	-	-	-	-
56	V	-	-	-	-
57	R	-	-	-	-
58	LG	-	-	-	-
59	P	-	-	-	-
61	L	-	-	-	-
62	P	-	-	-	-
62	V	-	-	-	-
63	L	-	-	-	-
64	W	-	-	-	-
64	LG	-	-	-	-
66	L	-	-	-	-
69	P	-	-	-	-
71	GR	-	-	-	-
71	R	-	-	-	-
72	G	-	-	-	-
72	Y	-	-	-	-
73	R	-	-	-	-
73	SHIELD	-	-	-	-
74	BG	-	-	-	-
74	L	-	-	-	-
75	GR	-	-	-	-
75	V	-	-	-	-
76	GR	-	-	-	-
76	V	-	-	-	-
77	P	-	-	-	-
78	L	-	-	-	-
79	R	-	-	-	-
80	GR	-	-	-	-
80	W	-	-	-	-
81	B	-	-	-	-
81	R	-	-	-	-
82	G	-	-	-	-
82	SHIELD	-	-	-	-
83	R	-	-	-	-
84	BR	-	-	-	-
84	W	-	-	-	-
84	SHIELD	-	-	-	-
85	BG	-	-	-	-
85	G	-	-	-	-
86	R	-	-	-	-
86	W	-	-	-	-
87	LG	-	-	-	-
87	SHIELD	-	-	-	-
89	LG	-	-	-	-

90	P	-	-	-	-
90	V	-	-	-	-
92	L	-	-	-	-
92	W	-	-	-	-
93	R	-	-	-	-
93	SHIELD	-	-	-	-
94	R	-	-	-	-
95	L	-	-	-	-
95	Y	-	-	-	-
96	R	-	-	-	-
96	W	-	-	-	-
97	L	-	-	-	-
97	R	-	-	-	-
97	W	-	-	-	-
98	LG	-	-	-	-
99	BR	-	-	-	-
99	P	-	-	-	-
99	Y	-	-	-	-
100	BR	-	-	-	-
100	W	-	-	-	-

Connector No.	887
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



Terminal No.	Color Of Wire	Signal Name (Specification)
2	B	-
3	BR	-
4	SHIELD	-
5	R	-
6	L	-
7	GR	-
10	B	-
11	B	-
12	SB	-
13	SHIELD	-
14	P	-
15	L	-

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DRIVER ASSISTANCE SYSTEMS

< WIRING DIAGRAM >

[DRIVER ASSISTANCE SYSTEM]

DRIVER ASSISTANCE SYSTEMS (2.0L TURBO GASOLINE ENGINE)

Connector No.	B82
Connector Name	SIDE RADAR LH
Connector Type	AACDFB-WP-5P



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GROUND
2	R	ITS COM1-L
3	L	ITS COM1-H
4	GR	IGNITION
5	BR	BULB SPOT LIGHT/SPOT INTERVENTION INDICATOR

Connector No.	B83
Connector Name	SIDE RADAR RH
Connector Type	AACDFB-WP



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	RIGHT/LEFT SWITCHING SIGNAL
2	B	GROUND
3	P	ITS COM2-L
4	L	ITS COM2-H
5	GR	IGNITION
6	SB	BULB SPOT LIGHT/SPOT INTERVENTION INDICATOR

Connector No.	B115
Connector Name	JOINT CONNECTOR-B09
Connector Type	TK04FW-J



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	B	-
3	B	-
4	B	-

Connector No.	B116
Connector Name	JOINT CONNECTOR-B06
Connector Type	24342_4GAZA



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	L	-
3	L	-
4	L	-
5	L	-
6	L	-
7	R	-
8	R	- [With Gateway]
9	R	- [Without Gateway]
10	R	- [With Gateway]
11	V	- [With VRS0 engine]
12	P	- [With 2.0L turbo gasoline engine]
13	P	- [Without Gateway]

13	SHIELD	-
14	SHIELD	- [With 2.0L turbo gasoline engine]
15	B	- [With VRS0 engine]
16	L	- [With VRS0 engine]
17	SHIELD	- [With 2.0L turbo gasoline engine]
18	L	- [With VRS0 engine]
19	SHIELD	- [With 2.0L turbo gasoline engine]
20	L	- [With VRS0 engine]
21	L	-
22	P	-
23	P	-
24	P	- [With VRS0 engine]
25	Y	- [With 2.0L turbo gasoline engine]

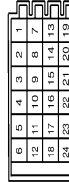
Connector No.	B117
Connector Name	JOINT CONNECTOR-B05
Connector Type	24342_4GAZA



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	- [With 2.0L turbo gasoline engine]
2	SHIELD	- [With VRS0 engine]
3	B	- [With VRS0 engine]
4	B	- [With 2.0L turbo gasoline engine]
5	SHIELD	- [With 2.0L turbo gasoline engine]
6	B	-
7	B	-
8	Y	-
9	P	- [With VRS0 engine]
10	P	- [With 2.0L turbo gasoline engine]
11	Y	- [With VRS0 engine]
12	Y	- [With 2.0L turbo gasoline engine]
13	P	-

12	P	-
13	L	-
14	L	-
15	L	-
16	L	-
17	L	-
18	L	-
19	B	-
20	B	- [With 2.0L turbo gasoline engine]
21	B	- [With VRS0 engine]
22	B	- [With 2.0L turbo gasoline engine]
23	SHIELD	- [With VRS0 engine]
24	SHIELD	-

Connector No.	B118
Connector Name	JOINT CONNECTOR-B04
Connector Type	24342_4GAZA



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	- [With VRS0 engine]
2	SHIELD	- [With 2.0L turbo gasoline engine]
3	SHIELD	- [With VRS0 engine]
4	SHIELD	- [With 2.0L turbo gasoline engine]
5	LG	- [With VRS0 engine]
6	LG	- [With 2.0L turbo gasoline engine]
7	R	- [With 2.0L turbo gasoline engine]
8	R	- [Color of wire differs depending on production]
9	LG	- [With 2.0L turbo gasoline engine]
10	R	- [With VRS0 engine and without paddle shift]
11	V	- [With VRS0 engine and with paddle shift]
12	R	- [With 2.0L turbo gasoline engine]
13	V	- [With VRS0 engine and with paddle shift]
14	V	- [With 2.0L turbo gasoline engine]
15	V	- [With VRS0 engine and with paddle shift]
16	V	- [With 2.0L turbo gasoline engine]
17	V	- [With VRS0 engine and with paddle shift]
18	V	- [With 2.0L turbo gasoline engine]
19	V	- [With VRS0 engine and with paddle shift]
20	V	- [With 2.0L turbo gasoline engine]
21	V	- [With VRS0 engine and with paddle shift]
22	V	- [With 2.0L turbo gasoline engine]
23	V	- [With VRS0 engine and with paddle shift]
24	V	- [With 2.0L turbo gasoline engine]

DRIVER ASSISTANCE SYSTEMS

[DRIVER ASSISTANCE SYSTEM]

< WIRING DIAGRAM >

DRIVER ASSISTANCE SYSTEMS (2.0L TURBO GASOLINE ENGINE)

10	LG	- [With 2.0L turbo gasoline engine]
10	SHIELD	- [With VR30 engine]
11	LG	- [With 2.0L turbo gasoline engine]
11	SHIELD	- [With VR30 engine]
12	LG	- [With 2.0L turbo gasoline engine]
12	SHIELD	- [With VR30 engine]
13	L	- [With VR30 engine]
13	P	- [With 2.0L turbo gasoline engine without gateway]
13	R	- [With 2.0L turbo gasoline engine with gateway]
14	L	- [With VR30 engine]
14	P	- [With 2.0L turbo gasoline engine and without gateway]
14	R	- [With 2.0L turbo gasoline engine and with gateway]
15	L	- [With VR30 engine]
15	R	- [With 2.0L turbo gasoline engine]
16	L	-
17	L	-
18	L	-
19	L	- [With 2.0L turbo gasoline engine]
19	SHIELD	- [With VR30 engine]
20	L	- [With 2.0L turbo gasoline engine]
20	SHIELD	- [With VR30 engine]
21	L	- [With 2.0L turbo gasoline engine]
21	SHIELD	- [With VR30 engine]
22	R	-
23	R	-
24	R	-

Connector No.	B120
Connector Name	JOINT CONNECTOR-B02
Connector Type	24342_4GAZA



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	R	-
3	L	- [With VR30 engine]
3	R	- [With 2.0L turbo gasoline engine]
4	L	- [With VR30 engine]
4	R	- [With 2.0L turbo gasoline engine]
5	L	-
6	L	-

7	L	-
8	L	- [With 2.0L turbo gasoline engine]
9	R	- [With VR30 engine]
9	L	- [With 2.0L turbo gasoline engine]
10	L	- [With 2.0L turbo gasoline engine]
10	R	- [With VR30 engine]
11	R	-
12	R	-
12	W	-
13	W	-
14	W	-
15	W	-
17	SHIELD	-
18	B	-
19	B	- [With 2.0L turbo gasoline engine]
19	GR	- [With VR30 engine]
20	GR	- [With 2.0L turbo gasoline engine]
20	SHIELD	- [With VR30 engine]
21	B	-
21	GR	- [With 2.0L turbo gasoline engine]
22	W	-
23	W	-
24	W	-

Connector No.	B123
Connector Name	JOINT CONNECTOR-B01
Connector Type	TK04FWJ



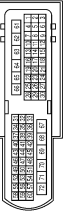
Terminal No.	Color Of Wire	Signal Name [Specification]
1	SHIELD	-
2	SHIELD	-
3	B	- [With 2.0L turbo gasoline engine]
3	SHIELD	- [With VR30 engine]
4	B	-

Connector No.	B127
Connector Name	JOINT CONNECTOR-B03
Connector Type	NH20FGDC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	SHIELD	-
3	SHIELD	-
4	SHIELD	-
5	SHIELD	-
6	P	-
7	P	-
8	P	-
9	P	-
10	LG	- [With VR30 engine]
10	SHIELD	- [With 2.0L turbo gasoline engine]
11	LG	- [With VR30 engine]
11	SHIELD	- [With 2.0L turbo gasoline engine]
13	BG	-
14	BG	-
15	BG	-
17	LG	-
18	LG	-
19	LG	-
20	LG	-

Connector No.	D4
Connector Name	WIRE TO WIRE
Connector Type	NH60FW-3S12



Terminal No.	Color Of Wire	Signal Name [Specification]
2	SB	-
4	BG	-
5	R	-
6	V	-
7	LG	-
8	G	-
9	GR	-
10	Y	-
11	SHIELD	-
12	BG	-
13	L	-
14	B	-
15	Y	-
16	GR	-
17	R	-
18	GR	-
19	R	-
20	W	-
21	LG	-
22	W	-
23	L	-
24	G	-
25	BR	-
26	BR	-
27	BR	-
28	V	-
29	B	-
30	W	-
31	P	-
32	Y	-
33	BR	-
34	L	-
35	R	-
36	GR	-
37	G	-
40	LG	- [Color of wire differs depending on production]

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DRIVER ASSISTANCE SYSTEMS

< WIRING DIAGRAM >

[DRIVER ASSISTANCE SYSTEM]

DRIVER ASSISTANCE SYSTEMS (2.0L TURBO GASOLINE ENGINE)

40	P	-	(Color of wire differs depending on production)
41	L	-	-
43	BG	-	-
44	Y	-	-
46	W	-	-
47	R	-	-
49	BR	-	-
50	B	-	-
52	V	-	-
53	GR	-	-
55	GR	-	(Color of wire differs depending on production)
55	SB	-	(Color of wire differs depending on production)
56	BR	-	-
57	R	-	-
58	L	-	-
59	V	-	-
60	G	-	-
61	BG	-	-
62	Y	-	-
63	SB	-	-
64	B	-	-
65	Y	-	-
66	BR	-	-
68	Y	-	-
69	L	-	-
70	W	-	-
71	LG	-	-
72	P	-	-

Connector No.	D15
Connector Name	BLIND SPOT WARNING/BLIND SPOT INTERVENTION INDICATOR LH
Connector Type	TH94MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
4	L	-
11	P	-

Connector No.	D18
Connector Name	WIRE TO WIRE
Connector Type	NH60FW-TS12



Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	-
2	P	-
4	SB	-
5	BR	-
6	Y	-
7	LG	-
8	W	-
9	L	-
10	L	-
11	GR	-
13	Y	-
14	R	-
16	R	-
17	B	-
18	W	-
19	B	-
20	G	-
21	SHIELD	-
22	GR	-
23	BG	-
24	B	-
25	BR	-
26	V	-
27	G	-
28	V	-
28	Y	-
30	R	-
49	LG	-
52	P	-
55	L	-
56	Y	-
57	R	-
58	SB	-
59	R	-
60	G	-
63	B	-

64	Y	-	-
65	BR	-	-
66	GR	-	-
69	W	-	-
70	L	-	-
71	BG	-	-
72	Y	-	-

Connector No.	D27
Connector Name	BLIND SPOT WARNING/BLIND SPOT INTERVENTION INDICATOR RH
Connector Type	TH94MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	SB	-
4	L	-

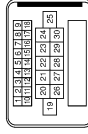
Connector No.	E3
Connector Name	WIRE TO WIRE
Connector Type	TH94MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	-
1	Y	-
2	W	-
3	LG	-
4	P	-
4	SB	-
5	L	-
6	Y	-
7	LG	-

8	BG	-	-
9	W	-	-
10	B	-	-
11	G	-	-
12	R	-	-
13	GR	-	-
14	G	-	-
15	LG	-	-
15	V	-	-
17	P	-	-
18	BR	-	-
19	LG	-	-
19	F	-	-
20	GR	-	-
21	R	-	-
21	V	-	-
22	L	-	-
23	P	-	-
24	B	-	-
24	BR	-	-

Connector No.	E14
Connector Name	WIRE TO WIRE
Connector Type	SA118MB-RS10-SJZZ



Terminal No.	Color Of Wire	Signal Name [Specification]
4	Y	-
5	L	-
6	B	-
7	BG	-
8	LG	-
9	R	-
11	GR	-
12	R	-
13	B	-
14	G	-
15	G	-
16	V	-
17	B	-

DRIVER ASSISTANCE SYSTEMS

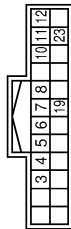
[DRIVER ASSISTANCE SYSTEM]

< WIRING DIAGRAM >

DRIVER ASSISTANCE SYSTEMS (2.0L TURBO GASOLINE ENGINE)

18	S8	-	-
21	B	-	-
22	SHIELD	-	-
23	P	-	-
24	L	-	-
25	V	-	-
26	B	-	-
28	B	-	-

Connector No.	E22
Connector Name	CHASSIS CONTROL MODULE
Connector Type	1124FW/NH



Terminal No.	Wire	Signal Name (Specification)
3	P	CAN-L (Without Gateway)
3	R	CAN-L (With Gateway)
4	L	CAN-H
5	V	DRIVE MODE SELECT SWITCH (UP) (With VR30 engine)
5	Y	DRIVE MODE SELECT SWITCH (UP) (With VR30 engine)
6	G	DRIVE MODE SELECT SW (DOWN) (With 2.0L turbo gasoline engine)
6	Y	DRIVE MODE SELECT SW (DOWN) (With VR30 engine)
7	W	CHASSIS COMM-L
8	W	CHASSIS COMM-L
10	BG	IGN (With 2.0L turbo gasoline engine)
10	G	IGN (With VR30 engine)
11	L	CHASSIS COMM-H
12	B	GROUND (With VR30 engine)
12	B/W	GROUND (With 2.0L turbo gasoline engine)
18	BR	CHASSIS COMM-H (With VR30 engine)
19	L	CHASSIS COMM-H (With 2.0L turbo gasoline engine)
23	G	ESS RELAY (With VR30 engine)
23	R	ESS RELAY (With 2.0L turbo gasoline engine)

Connector No.	E25
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

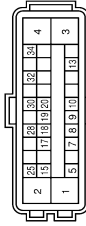


Terminal No.	Color Of Wire	Signal Name (Specification)
1	BG	-
6	V	-
7	L	-
8	BG	- [With VR30 engine]
8	BR	- [With 2.0L turbo gasoline engine]
9	B	- [With 2.0L turbo gasoline engine]
9	GR	- [With VR30 engine] (Color of wire differs depending on production)
9	LG	- [With VR30 engine] (Color of wire differs depending on production)
10	BR	-
11	L	-
12	GR	- [With VR30 engine]
12	P	- [With 2.0L turbo gasoline engine]
13	SHIELD	- [With 2.0L turbo gasoline engine]
13	W	- [With VR30 engine]
14	B	-
15	GR	- [With 2.0L turbo gasoline engine]
15	SB	- [With VR30 engine]
16	BR	- [With 2.0L turbo gasoline engine]
16	Y	- [With VR30 engine]
17	BR	- [With VR30 engine]
17	GR	- [With 2.0L turbo gasoline engine]
18	G	- [With 2.0L turbo gasoline engine]
18	P	- [With VR30 engine]
19	V	-
31	W	- [With 2.0L turbo gasoline engine]
31	Y	- [With VR30 engine]
32	G	- [With 2.0L turbo gasoline engine]
32	GR	- [With VR30 engine]
33	L	- [With VR30 engine]
33	Y	- [With 2.0L turbo gasoline engine]
34	P	-
35	GR	-
36	R	-
37	V	- [With 2.0L turbo gasoline engine]
37	V	- [With VR30 engine]
38	L	- [With VR30 engine]

38	P	- [With 2.0L turbo gasoline engine and without gateway]
38	R	- [With 2.0L turbo gasoline engine and with gateway]
39	BR	- [With 2.0L turbo gasoline engine]
39	Y	- [With VR30 engine]
40	S8	-
41	LG	-
44	V	-
44	Y	-
45	L	- [With 2.0L turbo gasoline engine]
45	W	- [With VR30 engine]
46	V	- [With VR30 engine]
46	Y	- [With 2.0L turbo gasoline engine]
47	G	-
48	SHIELD	-
49	R	-
50	BR	- [With VR30 engine]
50	GR	- [With 2.0L turbo gasoline engine]
51	L	-
52	W	-
53	P	- [With VR30 engine]
54	W	- [With 2.0L turbo gasoline engine]
55	B	- [With VR30 engine]
55	W	- [With 2.0L turbo gasoline engine]
56	BG	- [With 2.0L turbo gasoline engine]
56	SB	- [With VR30 engine]
57	BG	- [With VR30 engine]
57	W	- [With 2.0L turbo gasoline engine]
58	B	- [Color of wire differs depending on production]
58	B/W	- [Color of wire differs depending on production]
59	W	-
61	R	-
64	Y	-
65	BR	- [Color of wire differs depending on production]
65	GR	- [Color of wire differs depending on production]
66	GR	-
67	LG	-
68	BG	-
69	L	-
70	R	-
71	G	- [With 2.0L turbo gasoline engine]
71	LG	- [With VR30 engine]
72	L	- [With 2.0L turbo gasoline engine]
72	V	- [With VR30 engine]
73	G	- [With VR30 engine]
73	W	- [With 2.0L turbo gasoline engine]
74	BR	- [With VR30 engine]
74	L	- [With 2.0L turbo gasoline engine]
75	P	- [With 2.0L turbo gasoline engine and without gateway]
75	R	- [With 2.0L turbo gasoline engine and with gateway]
75	V	- [With VR30 engine]

76	G	-
77	Y	-
78	LG	- [With 2.0L turbo gasoline engine and with ADAS]
78	P	- [With VR30 engine]
78	V	- [With 2.0L turbo gasoline engine and without ADAS]
79	S8	-
80	LG	-
81	R	-
82	V	-
83	BR	- [With 2.0L turbo gasoline engine]
83	R	- [With VR30 engine]
84	LG	-
86	BG	-
87	G	-
89	LG	-
90	G	- [With VR30 engine]
90	GR	- [With 2.0L turbo gasoline engine]
91	G	-
93	BG	-
94	GR	-
94	L	- [With 2.0L turbo gasoline engine]
95	BG	- [With VR30 engine]
95	P	- [With 2.0L turbo gasoline engine and without gateway]
95	R	- [With 2.0L turbo gasoline engine and with gateway]
96	W	-
97	LG	-
98	L	-
99	LG	- [With 2.0L turbo gasoline engine]
99	P	- [With VR30 engine]
100	SHIELD	-

Connector No.	E35
Connector Name	REACTOR AND ELECTRIC UNIT (CONTROL UNIT)
Connector Type	SAZ301BS174-U



Terminal No.	Color Of Wire	Signal Name (Specification)
1	B	GND
2	B	GND
3	G	VALVE BATTERY (With VR30 engine)
3	P	VALVE BATTERY (With 2.0L turbo gasoline engine)

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DRIVER ASSISTANCE SYSTEMS

[DRIVER ASSISTANCE SYSTEM]

< WIRING DIAGRAM >

DRIVER ASSISTANCE SYSTEMS (2.0L TURBO GASOLINE ENGINE)

4	Y	MOTOR BATTERY
5	LG	STOP LAMP SW SIGNAL [WITH ADAS]
5	V	STOP LAMP SW SIGNAL [WITH ASCD]
7	GR	RR LH WHEEL SENSOR SIGNAL
8	G	RR LH WHEEL SENSOR POWER SUPPLY
9	BR	FR RH WHEEL SENSOR SIGNAL
10	GR	FR RH WHEEL SENSOR POWER SUPPLY
13	R	VACUUM SENSOR SIGNAL
15	P	CAN-L [Without Gateway]
17	X	RR RH WHEEL SENSOR SIGNAL
18	LG	RR RH WHEEL SENSOR POWER SUPPLY [With VPSD engine]
18	V	RR RH WHEEL SENSOR POWER SUPPLY [With VPSD engine]
19	SB	FR LH WHEEL SENSOR SIGNAL
20	BG	FR LH WHEEL SENSOR POWER SUPPLY
25	L	CAN-H
28	G	VACUUM SENSOR POWER SUPPLY
30	R	VDC OFF SW SIGNAL
32	SHIELD	VACUUM SENSOR GROUND
34	G	IGN

Connector No.	E44
Connector Name	BRAKE PEDAL POSITION SWITCH
Connector Type	S02FL



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	- [Color of wire differs depending on production]
1	V	- [Color of wire differs depending on production]
2	BG	- [With VPSD engine]
2	BR	- [With 2.0L turbo gasoline engine]

Connector No.	E52
Connector Name	ICC BRAKE HOLD RELAY
Connector Type	M502FL-M2-LC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	G	-
3	V	-
5	BR	- [With 2.0L turbo gasoline engine]
5	L	- [With VPSD engine]

Connector No.	E57
Connector Name	STOP LAMP SWITCH
Connector Type	M04FW-LC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	- [With ASCD]
1	L	- [With ADAS]
2	GR	- [With ASCD]
2	LG	- [With ADAS]
3	BR	-
4	V	-

Connector No.	E58
Connector Name	ESS RELAY
Connector Type	M503FB-M2-LC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	- [With VPSD engine]
1	R	- [With 2.0L turbo gasoline engine]
2	G	-
3	W	-
4	LG	-

Connector No.	E64
Connector Name	FUSE BLOCK (J/B)
Connector Type	MS08FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1E	G	-
2E	P	-
3E	V	-
4E	GR	-
6E	L	-
7E	BG	-

Connector No.	E65
Connector Name	FUSE BLOCK (J/B)
Connector Type	TH12FW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
10F	W	-
11F	G	- [Color of wire differs depending on production]
11F	R	- [Color of wire differs depending on production]
12F	W	- [With VPSD engine]
12F	Y	- [With 2.0L turbo gasoline engine]
1F	R	-
2F	BR	-
3F	P	-
5F	P	-
6F	L	-
7F	R	-
8F	L	-
9F	L	-

Connector No.	E76
Connector Name	WIRE TO WIRE
Connector Type	SA418FB-RS10-S1Z2



Terminal No.	Color Of Wire	Signal Name [Specification]
4	Y	-
5	L	-
6	B	-
7	BR	-
8	LG	-
9	GR	-
11	LG	-

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DRIVER ASSISTANCE SYSTEMS

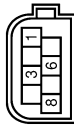
[DRIVER ASSISTANCE SYSTEM]

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DRIVER ASSISTANCE SYSTEMS (2.0L TURBO GASOLINE ENGINE)

12	BG	-	-
13	B	-	-
14	R	-	-
15	G	-	-
16	V	-	-
17	B	-	-
18	P	-	-
21	B	-	-
22	SHIELD	-	-
23	P	-	-
24	L	-	-
25	V	-	-
26	B	-	-
28	B	-	-

Connector No.	E80
Connector Name	ICC SENSOR
Connector Type	AAZ08FB



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	IGNITION
3	L	ITS COMM-H
6	Y	ITS COMM-L
8	B	GROUND

Connector No.	E121
Connector Name	IPM (R) INTELLIGENT POWER DISTRIBUTION MODULE ENGINE (RODM)
Connector Type	TH32FW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
19	L	- [With 2.0L turbo gasoline engine]
19	P	- [With V350 engine]
22	BG	-
23	GR	- [With V350 engine]
23	LG	- [With 2.0L turbo gasoline engine and without Am (left side)]
23	P	- [With 2.0L turbo gasoline engine and with Am (left side)]
27	GR	-
28	P	-
29	L	-
31	G	-
32	SB	-
33	SB	-
34	Y	-
35	G	- [With V350 engine]
36	SB	- [With 2.0L turbo gasoline engine]
36	W	- [With V350 engine]
37	GR	-
38	BR	-
41	GR	-
43	V	-

Connector No.	E195
Connector Name	WIRE TO WIRE
Connector Type	TK36FW-ANS10



Terminal No.	Color Of Wire	Signal Name [Specification]
5	BR	-
8	GR	-
9	P	-
10	R	-
11	L	-
12	P	-
13	GR	-
14	Y	-
15	G	-
16	W	-
17	L	-
18	R	-
19	BR	-
20	SHIELD	-
21	BR	-
22	V	-
23	W	-
24	L	-
25	G	-
26	G	-
30	Y	-
31	GR	-
32	SB	-
33	W	-
34	W	-
35	B	-
36	G	-
37	SHIELD	-
38	R	-
39	L	-
40	GR	-
41	W	-
42	B	-
43	BR	-
44	P	-
45	SB	-

Connector No.	E200
Connector Name	ECM
Connector Type	ADAS245-AH26



Terminal No.	Color Of Wire	Signal Name [Specification]
97	G	POWER SUPPLY (MAIN)
98	B	ECM GROUND
99	G	POWER SUPPLY (MAIN)
100	B	ECM GROUND
101	G	POWER SUPPLY (MAIN)
102	B	ECM GROUND
103	V	COOLING FAN CONTROL SIGNAL (PWM)
104	Y	SENSOR POWER SUPPLY
105	R	SENSOR POWER SUPPLY
106	W	SENSOR GROUND
109	P	ENGINE SPEED SIGNAL
111	G	POWER SUPPLY
116	LG	STARTER RELAY-L
119	BR	SENSOR GROUND
120	BG	SENSOR GROUND
123	BR	MAIN RELAY CONTROL SIGNAL
127	V	FUEL PUMP ON SIGNAL
132	G	ACCELERATOR PEDAL POSITION SENSOR 1
137	L	CAN-H
138	L	DRIVETRAIN CAN-H
143	GR	BACK UP LAMP SWITCH
143	LG	REFRIGERANT PRESSURE SENSOR
145	L	ACCELERATOR PEDAL POSITION SENSOR 2
146	L	FUEL TANK PRESSURE SENSOR
148	L	STARTER RELAYH
150	P	CAN-L
151	P	DRIVETRAIN CAN-L
152	B	EVAP CANISTER VENT CONTROL VALVE
153	G	EVAP PURGE CONTROL VALVE

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DRIVER ASSISTANCE SYSTEMS

[DRIVER ASSISTANCE SYSTEM]

< WIRING DIAGRAM >

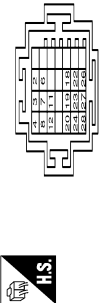
DRIVER ASSISTANCE SYSTEMS (2.0L TURBO GASOLINE ENGINE)

Connector No.	E220
Connector Name	JOINT CONNECTOR-E05
Connector Type	NH24FE-J



Terminal No.	Color Of Wire	Signal Name [Specification]
3	W	-
4	L	-
7	W	-
8	L	-
11	W	-
12	L	-
15	P	- [Without Gateway]
15	R	- [With Gateway]
16	L	-
19	P	- [Without Gateway]
19	R	- [With Gateway]
20	L	-
23	P	- [Without Gateway]
23	R	- [With Gateway]
24	L	-

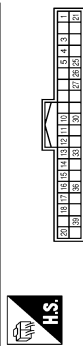
Connector No.	E223
Connector Name	JOINT CONNECTOR-E06
Connector Type	SGA28FB-J



Terminal No.	Color Of Wire	Signal Name [Specification]
2	GR	-
3	G	-
4	BR	-
6	BG	-
7	G	-

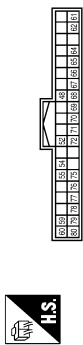
Terminal No.	Color Of Wire	Signal Name [Specification]
8	BR	-
11	G	-
12	L	-
18	V	-
19	W	-
20	BG	-
22	GR	-
23	P	-
24	BR	-
26	V	-
27	W	-
28	BG	-

Connector No.	M13
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FE-NH



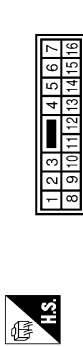
Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	PUSH SW
3	Y	SENS PWR SPLY
4	BG	OPTICAL SENSOR
5	LG	-
10	W	COMBI SW OUTPUT 5
11	SB	COMBI SW OUTPUT 4
12	L	COMBI SW OUTPUT 3
13	G	COMBI SW OUTPUT 2
14	P	COMBI SW OUTPUT 1
15	G	ONE TOUCH UNLK SENS (DR)
16	G	ONE TOUCH UNLK SENS (PASS)
17	P	RECEIVER (SENSE GND)
18	L	SECURITY IND LAMP CONT
20	R	DEFENT SW
21	SB	STEP LAMP CONT
25	R	STOP LAMP SWZ
26	R	EXTENDED STORAGE FUSE SW
27	P	STOP LAMP SW
30	W	DR DOOR UNLK SENS
33	V	TR LID OP CANCEL SW
36	G	HAZARD SW
39	BR	P/N POSITION

Connector No.	M14
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
48	R	PUSH-BTN IGN SW (LL PWR)
52	G	DONGLE LINK
54	V	COMMI LINE
55	R	RAIN SENSOR
59	P	CAN-L
60	L	CAN-H
61	G	REAR WINDOW DEF RLY CONT
62	R	STARTER RLY CONT
64	V	L-KEY WARN BUZZER
65	B	OUTS HD LAMP CONT
66	B	BLOWER FAN RLY CONT [With VR30 engine]
66	Y	BLOWER FAN RLY CONT [With 2.0L turbo gasoline engine]
67	W/B	IGN RLY VY (F/B) CONT
68	R	DIMMER
69	GR	A/T SHIFT SELECT PWR SPLY
70	B	IGN RLY VY (PDM E/R) CONT
71	G	DR DOOR REQ SW
72	SB	PASS DOOR REQ SW
75	BR	COMBI SW INPUT 5
76	BG	COMBI SW INPUT 4
77	V	COMBI SW INPUT 3
78	Y	COMBI SW INPUT 2
79	LG	COMBI SW INPUT 1
80	L	TR LID OPNR SW

Connector No.	M18
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-C5



Terminal No.	Color Of Wire	Signal Name [Specification]
10	SB	-
11	Y	-
12	GR	-

Connector No.	M19
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-C516-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	G	-
3	SB	-
4	BR	-
5	Y	-
6	R	-
7	W	-
8	V	-
10	BG	-
11	BR	-
12	LG	-
13	GR	-
14	R	-
15	L	-
16	V	-
18	W	-
19	BR	-

DRIVER ASSISTANCE SYSTEMS

< WIRING DIAGRAM >

[DRIVER ASSISTANCE SYSTEM]

DRIVER ASSISTANCE SYSTEMS (2.0L TURBO GASOLINE ENGINE)

20	W	-	-	-	-
22	S8	-	-	-	-
23	R	-	-	-	-
24	R	-	-	-	- [With 2.0L turbo gasoline engine]
24	Y	-	-	-	- [With VR30 engine]
25	P	-	-	-	- [With 2.0L turbo gasoline engine]
25	W	-	-	-	- [With VR30 engine]
26	G	-	-	-	-
27	R	-	-	-	-
28	R	-	-	-	-
31	BR	-	-	-	-
32	B	-	-	-	-
33	B	-	-	-	-
34	V	-	-	-	-
35	P	-	-	-	-
36	W	-	-	-	-
37	S8	-	-	-	-
38	LG	-	-	-	-
40	P	-	-	-	-
41	G	-	-	-	-
42	BR	-	-	-	-
43	BR	-	-	-	-
44	BR	-	-	-	-
46	BG	-	-	-	-
50	W	-	-	-	-
51	Y	-	-	-	-
52	V	-	-	-	-
53	LG	-	-	-	-
54	R	-	-	-	-
55	R	-	-	-	-
57	W	-	-	-	-
58	V	-	-	-	-
59	BG	-	-	-	-
60	G	-	-	-	-
61	G	-	-	-	-
62	BG	-	-	-	-
63	BR	-	-	-	-
64	Y	-	-	-	-
66	R	-	-	-	-
70	LG	-	-	-	-
71	W	-	-	-	-
72	B	-	-	-	-
73	W	-	-	-	-
74	L	-	-	-	-
75	W	-	-	-	-
76	BR	-	-	-	-
77	B	-	-	-	-
78	S8	-	-	-	-
79	P	-	-	-	- [With VR30 engine]
79	W	-	-	-	- [With 2.0L turbo gasoline engine]

81	B	-	-	-	-
82	R	-	-	-	-
83	BG	-	-	-	- [With 2.0L turbo gasoline engine]
84	L	-	-	-	- [With VR30 engine]
85	W	-	-	-	- [With VR30 engine]
86	B	-	-	-	- [With DCM]
88	G	-	-	-	- [With DCM]
89	V	-	-	-	- [With 2.0L turbo gasoline engine]
89	W	-	-	-	- [With VR30 engine]
91	GR	-	-	-	-
94	GR	-	-	-	-
96	W	-	-	-	-
97	V	-	-	-	-
98	BR	-	-	-	- [With VR30 engine and with BOSE system]
98	Y	-	-	-	- [Except with VR30 engine and with BOSE system]

Connector No.	M22
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	-
2	L	- [With VR30 engine]
2	SHIELD	- [With 2.0L turbo gasoline engine]
3	BR	- [With 2.0L turbo gasoline engine]
3	R	- [With VR30 engine]
4	SHIELD	- [With VR30 engine]
4	Y	- [With 2.0L turbo gasoline engine]
5	G	- [With VR30 engine]
5	V	- [With 2.0L turbo gasoline engine]
6	BG	- [With VR30 engine]
6	BR	- [With 2.0L turbo gasoline engine]
7	LG	- [With VR30 engine]
7	P	- [With 2.0L turbo gasoline engine]
8	G	- [With 2.0L turbo gasoline engine]
8	P	- [With VR30 engine]
9	LG	- [With 2.0L turbo gasoline engine]
9	SHIELD	- [With VR30 engine]
10	V	-
11	GR	-

49	G	-	-	-	-
50	V	-	-	-	-
51	V	-	-	-	- [With 2.0L turbo gasoline engine]
52	L	-	-	-	- [With VR30 engine]
52	Y	-	-	-	- [With VR30 engine]
53	R	-	-	-	-
54	GR	-	-	-	-
55	L	-	-	-	-
56	P	-	-	-	-
57	R	-	-	-	-
58	LG	-	-	-	-
59	S8	-	-	-	-
61	L	-	-	-	-
62	P	-	-	-	- [With 2.0L turbo gasoline engine]
62	V	-	-	-	- [With VR30 engine]
63	L	-	-	-	-
64	W	-	-	-	-
66	R	-	-	-	-
68	L	-	-	-	-
69	P	-	-	-	-
71	GR	-	-	-	- [With 2.0L turbo gasoline engine]
71	R	-	-	-	- [With VR30 engine]
72	G	-	-	-	- [With VR30 engine]
72	V	-	-	-	- [With 2.0L turbo gasoline engine]
73	LG	-	-	-	- [With 2.0L turbo gasoline engine]
73	SHIELD	-	-	-	- [With VR30 engine]
74	L	-	-	-	-
74	LG	-	-	-	- [With 2.0L turbo gasoline engine]
75	P	-	-	-	-
76	S8	-	-	-	- [With 2.0L turbo gasoline engine]
76	V	-	-	-	- [With VR30 engine]
77	Y	-	-	-	-
78	L	-	-	-	-
79	G	-	-	-	-
80	GR	-	-	-	- [With 2.0L turbo gasoline engine]
80	W	-	-	-	- [With VR30 engine]
81	B	-	-	-	- [With VR30 engine]
81	B	-	-	-	- [With 2.0L turbo gasoline engine]
82	C	-	-	-	- [With 2.0L turbo gasoline engine]
82	SHIELD	-	-	-	- [With VR30 engine]
83	R	-	-	-	- [With 2.0L turbo gasoline engine]
83	W	-	-	-	- [With VR30 engine]
84	BR	-	-	-	- [With VR30 engine]
84	SHIELD	-	-	-	- [With 2.0L turbo gasoline engine]
85	BR	-	-	-	- [With VR30 engine]
85	G	-	-	-	- [With 2.0L turbo gasoline engine]
86	R	-	-	-	- [With 2.0L turbo gasoline engine]
86	V	-	-	-	- [With VR30 engine]
87	LG	-	-	-	- [With VR30 engine]
87	SHIELD	-	-	-	- [With 2.0L turbo gasoline engine]

12	V	-	-	-	-
13	LG	-	-	-	-
14	LG	-	-	-	- [With 2.0L turbo gasoline engine]
15	BR	-	-	-	- [With VR30 engine]
15	P	-	-	-	- [With VR30 engine]
16	S8	-	-	-	- [Without DCM]
16	V	-	-	-	- [Without DCM]
17	Y	-	-	-	-
18	L	-	-	-	-
19	G	-	-	-	-
20	GR	-	-	-	-
21	R	-	-	-	-
22	V	-	-	-	-
23	L	-	-	-	-
24	BG	-	-	-	- [With 2.0L turbo gasoline engine]
24	V	-	-	-	- [With VR30 engine]
25	L	-	-	-	- [With VR30 engine]
25	S8	-	-	-	- [With VR30 engine]
26	G	-	-	-	- [With VR30 engine]
26	W	-	-	-	- [With 2.0L turbo gasoline engine]
27	R	-	-	-	-
29	LG	-	-	-	-
30	S8	-	-	-	- [With VR30 engine]
30	W	-	-	-	- [With 2.0L turbo gasoline engine]
31	SHIELD	-	-	-	-
32	L	-	-	-	-
33	B	-	-	-	- [With VR30 engine]
33	B	-	-	-	- [With VR30 engine]
34	SHIELD	-	-	-	- [With 2.0L turbo gasoline engine]
35	LG	-	-	-	- [With VR30 engine]
35	W	-	-	-	- [With VR30 engine]
36	R	-	-	-	- [With VR30 engine]
36	V	-	-	-	- [With 2.0L turbo gasoline engine]
37	V	-	-	-	- [With VR30 engine]
37	V	-	-	-	- [With 2.0L turbo gasoline engine]
38	W	-	-	-	-
39	P	-	-	-	- [With VR30 engine and without BOSE system]
39	R	-	-	-	- [With 2.0L turbo gasoline engine]
39	V	-	-	-	- [With VR30 engine and with BOSE system]
40	G	-	-	-	-
41	L	-	-	-	-
42	R	-	-	-	-
43	SHIELD	-	-	-	-
44	P	-	-	-	-
45	B	-	-	-	- [With 2.0L turbo gasoline engine]
45	G	-	-	-	- [With VR30 engine]
46	SHIELD	-	-	-	-
47	G	-	-	-	-
48	BG	-	-	-	- [Except with VR30 engine and with BOSE system]
48	BR	-	-	-	- [With VR30 engine and with BOSE system]

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DRIVER ASSISTANCE SYSTEMS

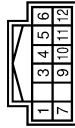
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[DRIVER ASSISTANCE SYSTEM]

DRIVER ASSISTANCE SYSTEMS (2.0L TURBO GASOLINE ENGINE)

89	BR	- [With VR30 engine]
90	LG	- [With 2.0L turbo gasoline engine]
91	S8	- [With 2.0L turbo gasoline engine]
92	V	- [With VR30 engine]
93	L	- [With 2.0L turbo gasoline engine]
94	W	- [With VR30 engine]
95	R	- [With VR30 engine]
96	SHIELD	- [With 2.0L turbo gasoline engine]
97	R	- [With 2.0L turbo gasoline engine]
98	L	- [With VR30 engine]
99	W	- [With 2.0L turbo gasoline engine]
100	BR	- [With VR30 engine]
101	W	- [With 2.0L turbo gasoline engine]

Connector No.	M24
Connector Name	CAN GATEWAY
Connector Type	TH12/PW-NH



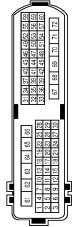
Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	CAN-H (CAN COMMUNICATION CIRCUIT 1)
2	W	CAN-H (CAN COMMUNICATION CIRCUIT 1)
3	L	CAN-H (CAN COMMUNICATION CIRCUIT 2)
4	W	CAN-H (CAN COMMUNICATION CIRCUIT 2)
5	B	GROUND
6	L	CAN-L (CAN COMMUNICATION CIRCUIT 1)
7	P	CAN-L (CAN COMMUNICATION CIRCUIT 1)
8	R	CAN-L (CAN COMMUNICATION CIRCUIT 2)
9	W	IGNITION POWER SUPPLY (with VR30 engine and without ISS)
10	R	CAN-L (CAN COMMUNICATION CIRCUIT 2)
11	B	GROUND
12	R	CAN-L (CAN COMMUNICATION CIRCUIT 2)

Connector No.	M25
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FAW



Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	M_CAN_L
4	B	EARTH
5	B	EARTH
6	L	CAN-H
7	V	KLINE [With 2.0L turbo gasoline engine]
8	W	KLINE [With VR30 engine]
11	SB	M_CAN_H
12	R	CAN-L
13	L	CAN-H
14	P	CAN-L
16	W	POWER

Connector No.	M33
Connector Name	WIRE TO WIRE
Connector Type	NH60MW-TS12

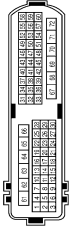


Terminal No.	Color Of Wire	Signal Name [Specification]
2	W	-
4	G	-
5	G	-
6	R	-
7	R	-
8	GR	-
10	W	-

Terminal No.	Color Of Wire	Signal Name [Specification]
11	SHIELD	-
12	P	-
13	S8	-
14	LG	-
15	Y	-
16	Y	-
17	P	-
18	W/B	-
19	LG	- [With DRPO]
20	V	- [Without DRPO]
21	B	-
22	B8	- [Without DRPO]
23	G	- [With DRPO]
24	Y	-
25	B8	- [Without DRPO]
26	L	- [With DRPO]
27	GR	-
28	V	-
29	B	-
30	W	-
31	B	-
32	S8	-
33	L	-
34	BR	-
35	LG	-
36	W	-
37	B	-
40	P	-
41	S8	-
43	W	- [Except with VR30 engine and without ISS]
44	B8	- [With VR30 engine and without ISS]
46	BR	-
47	G	-
49	V	-
50	B	-
52	BR	-
53	B	-
55	B8	-
56	LG	-
57	V	-
58	R	-
59	G	-
60	L	-
61	G	-
62	R	-
63	V	-

64	B	-
65	R	-
66	BR	-
68	P	-
69	V	-
70	W	-
71	LG	-
72	V	-

Connector No.	M34
Connector Name	WIRE TO WIRE
Connector Type	NH60MW-TS12



Terminal No.	Color Of Wire	Signal Name [Specification]
1	V	-
2	R	-
4	G	- [With DRPO]
4	S8	- [Without DRPO]
5	L	-
6	R	-
7	R	-
8	W	-
9	GR	-
10	V	-
11	Y	-
13	LG	-
14	W	-
16	G	-
17	B	-
18	W	-
19	B	-
20	S8	- [With DRPO]
20	S8	- [Without DRPO]
21	SHIELD	-
22	B	-
23	B8	- [Without DRPO]
24	P	- [With DRPO]
25	G	-
26	LG	-

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DRIVER ASSISTANCE SYSTEMS

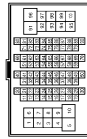
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[DRIVER ASSISTANCE SYSTEM]

DRIVER ASSISTANCE SYSTEMS (2.0L TURBO GASOLINE ENGINE)

26	BR	-	[With DRPO]
27	R	-	-
28	SB	-	-
29	BG	-	[Without DRPO]
29	W/B	-	[With DRPO]
30	L	-	-
49	P	-	-
52	V	-	-
55	B	-	-
56	SB	-	-
57	G	-	-
58	G	-	-
59	LG	-	-
60	R	-	-
63	B	-	-
64	R	-	-
65	BR	-	-
66	Y	-	-
69	BR	-	-
70	Y	-	-
71	SB	-	-
72	W	-	-

Connector No.	M40
Connector Name	WIRE TO WIRE
Connector Type	TH80MM-4316-TM4



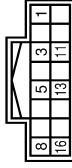
Terminal No.	Color Of Wire	Signal Name (Specification)
1	BG	-
6	W/B	-
7	V	-
8	BG	- [With VR30 engine]
8	BR	- [With 2.0L turbo gasoline engine]
9	LG	- [With VR30 engine]
9	P	- [With 2.0L turbo gasoline engine]
10	W	-
11	W	- [With VR30 engine]
11	Y	- [With 2.0L turbo gasoline engine]
12	B	- [With VR30 engine]
12	B	- [With 2.0L turbo gasoline engine]

13	GR	-	[With VR30 engine]
13	SHIELD	-	[With 2.0L turbo gasoline engine]
14	B	-	-
15	BG	-	[With 2.0L turbo gasoline engine]
15	SB	-	[With VR30 engine]
16	B	-	[With VR30 engine]
16	BR	-	[With 2.0L turbo gasoline engine]
17	LG	-	[With VR30 engine]
18	B	-	[With VR30 engine]
18	W/B	-	[With 2.0L turbo gasoline engine]
19	Y	-	-
31	W	-	-
32	G	-	[With VR30 engine]
32	V	-	[With 2.0L turbo gasoline engine]
33	L	-	[With VR30 engine]
33	Y	-	[With 2.0L turbo gasoline engine]
34	P	-	-
35	BG	-	-
36	G	-	-
37	B	-	[With VR30 engine]
37	L	-	[With 2.0L turbo gasoline engine]
38	L	-	[With VR30 engine]
38	P	-	[With 2.0L turbo gasoline engine and without gateway]
38	R	-	[With 2.0L turbo gasoline engine and with gateway]
39	R	-	[With 2.0L turbo gasoline engine]
39	Y	-	[With VR30 engine]
40	GR	-	-
41	L	-	-
44	BR	-	-
45	L	-	[With 2.0L turbo gasoline engine]
45	W	-	[With VR30 engine]
46	G	-	[With VR30 engine]
46	Y	-	[With 2.0L turbo gasoline engine]
47	BG	-	[With 2.0L turbo gasoline engine]
47	R	-	[With VR30 engine]
48	SHIELD	-	-
49	B	-	[With VR30 engine]
49	G	-	[With 2.0L turbo gasoline engine]
50	B	-	[With 2.0L turbo gasoline engine]
50	BR	-	[With VR30 engine]
51	L	-	-
52	W	-	-
53	G	-	-
54	SB	-	[With 2.0L turbo gasoline engine]
54	Y	-	[With VR30 engine]
55	B	-	[With 2.0L turbo gasoline engine]
55	P	-	[With VR30 engine]
56	BG	-	[With VR30 engine]
56	GR	-	[With 2.0L turbo gasoline engine]
57	GR	-	[With VR30 engine]

57	P	-	[With 2.0L turbo gasoline engine]
58	B	-	-
59	SB	-	-
61	W/B	-	-
64	Y	-	-
65	R	-	-
66	P	-	[Color of wire differs depending on production]
66	V	-	[Color of wire differs depending on production]
67	LG	-	-
68	BG	-	-
69	L	-	-
70	R	-	-
71	V	-	[With VR30 engine]
71	W	-	[With 2.0L turbo gasoline engine]
72	L	-	[With 2.0L turbo gasoline engine]
72	LG	-	[With VR30 engine]
73	R	-	[With VR30 engine]
73	W	-	[With 2.0L turbo gasoline engine]
74	BR	-	[With VR30 engine]
74	L	-	[With 2.0L turbo gasoline engine]
75	B	-	[With VR30 engine]
75	P	-	[With 2.0L turbo gasoline engine and without gateway]
75	R	-	[With 2.0L turbo gasoline engine and with gateway]
76	W/B	-	-
77	SB	-	-
78	G	-	-
78	LG	-	[With 2.0L turbo gasoline engine]
79	R	-	-
80	G	-	-
81	R	-	-
82	LG	-	-
83	BR	-	[With 2.0L turbo gasoline engine]
83	R	-	[With VR30 engine]
84	V	-	-
86	V	-	-
87	G	-	-
89	V	-	-
90	G	-	[With VR30 engine]
90	V	-	[With 2.0L turbo gasoline engine]
91	W	-	-
92	G	-	-
93	BR	-	-
94	GR	-	[With VR30 engine]
94	L	-	[With 2.0L turbo gasoline engine]
95	BR	-	[With VR30 engine]
95	P	-	[With 2.0L turbo gasoline engine and without gateway]
95	R	-	[With 2.0L turbo gasoline engine and with gateway]
96	W	-	-
97	LG	-	-
98	Y	-	-

99	BR	-	[With VR30 engine]
99	LG	-	[With 2.0L turbo gasoline engine]
100	SHIELD	-	-

Connector No.	M55
Connector Name	DRIVER ASSISTANCE BUZZER CONTROL MODULE
Connector Type	TH116FW-NH



Terminal No.	Color Of Wire	Signal Name (Specification)
1	G	IGNITION
3	L	ITS COMM-H
5	B	GROUND
8	R	WARNING BUZZER SIGNAL
11	Y	ITS COMM-L
13	B	GROUND
16	G	WARNING BUZZER SIGNAL GROUND

Connector No.	M58
Connector Name	COMBINATION METER
Connector Type	TH12FW-NH



Terminal No.	Color Of Wire	Signal Name (Specification)
41	L	CAN-H
42	P	CAN-L
43	B	ILLUMINATION CONTROL SIGNAL
44	Y	FUEL LEVEL SENSOR GROUND
45	W	BATTERY POWER SUPPLY
46	BG	IGNITION SIGNAL (Except with VR30 engine and without IS)
46	R	IGNITION SIGNAL [With VR30 engine and without IS]
47	SB	AV COMMUNICATION SIGNAL [H]

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DRIVER ASSISTANCE SYSTEMS

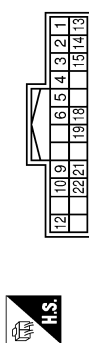
[DRIVER ASSISTANCE SYSTEM]

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DRIVER ASSISTANCE SYSTEMS (2.0L TURBO GASOLINE ENGINE)

48	LG	AV COMMUNICATION SIGNAL (L)
51	BR	FUEL LEVEL SENSOR SIGNAL
52	B	GROUND

Connector No.	M76
Connector Name	SONAR CONTROL UNIT
Connector Type	TH24FW-AH



Connector No.	M77
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GROUND
2	P	CAN-L [Without Gateway]
3	R	CAN-L [With Gateway]
4	G	IGN
5	L	CAN-H

Connector No.	M85
Connector Name	RESISTOR
Connector Type	MD2FBR-LC



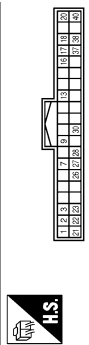
Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	-
2	B	-

Connector No.	M87
Connector Name	COMBINATION SWITCH (SIGNAL CABLE)
Connector Type	TK08FG-1V



Terminal No.	Color Of Wire	Signal Name [Specification]
24	P	-
25	SB	-
31	W/B	-
32	Y	-
33	B	-

Connector No.	M88
Connector Name	A/C AUTO AMP.
Connector Type	TH04FV-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	CAN-H
2	B	GROUND
3	W	BATTERY POWER SUPPLY
4	G	GROUND
5	R	AMBIENT SENSOR SIGNAL
6	B	SUNLOAD SENSOR SIGNAL
13	SB	A/C POWER SUPPLY [With 2.0L turbo gasoline engine]
14	V	A/C POWER SUPPLY [With V6SD engine]
16	P	IGN SIGNAL
17	R	DOOR MOTOR POWER SUPPLY
18	P	BLOWER MOTOR CONTROL SIGNAL
20	L	HEATED STEERING WHEEL RELAY CONTROL SIGNAL
21	P	CAN-L
22	B	GROUND
23	R	IGNITION POWER SUPPLY [With V6SD engine and with BS5]
24	W	IGNITION POWER SUPPLY [Except with V6SD engine and with BS5]

26	B	SENSOR GROUND
27	LG	IN-VEHICLE SENSOR SIGNAL
28	BR	INTAKE SENSOR SIGNAL
30	BG	EXHAUST GAS /OUTSIDE DOOR DETECTING SENSOR SIGNAL
37	B	GROUND
38	BG	IONIZER (ON/OFF) CONTROL SIGNAL
40	BG	ECV CONTROL SIGNAL

Connector No.	M85
Connector Name	WIRE TO WIRE
Connector Type	TH16MWP-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	BR	-
3	BR	-
5	P	- [Without Gateway]
6	R	- [With Gateway]
7	P	- [Without Gateway]
8	R	- [With Gateway]
9	R/W	-
10	R	-
11	SHIELD	-
13	L	-
14	L	-
15	L	-

DRIVER ASSISTANCE SYSTEMS

[DRIVER ASSISTANCE SYSTEM]

< WIRING DIAGRAM >

DRIVER ASSISTANCE SYSTEMS (2.0L TURBO GASOLINE ENGINE)

Connector No.	M100
Connector Name	DISPLAY CONTROL UNIT
Connector Type	TH24FW-AH



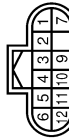
Terminal No.	Color Of Wire	Signal Name [Specification]
16	LG	AV COMM (L)
17	P	CAN-L
19	R	DIMMER SIGNAL
20	BR	REVERSE SIGNAL
22	B	GND
26	BR	CAMERA SWITCH SIGNAL
28	SB	AV COMM (H)
29	L	CAN-H
30	R	IGN [For VR30 engine]
30	W	IGN [For 2.0L turbo gasoline engine]
31	R	VEHICLE SPEED SIGNAL (8-PULSE)
33	SB	ACC [Except for VR30 engine and with ISS]
33	V	ACC [For VR30 engine and with ISS]
34	Y	BAT

Connector No.	M107
Connector Name	DRIVER ASSISTANCE BUZZER
Connector Type	NS02FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	G	-

Connector No.	M124
Connector Name	ACCELERATOR PEDAL ACTUATOR/ACCELERATOR PEDAL POSITION SENSOR
Connector Type	RH12FB



Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	BATTERY
2	G	IGNITION
3	L	ITS COMM-H
4	W	-
5	G	-
6	Y	-
7	B	GROUND
9	Y	ITS COMM-L
10	L	-
11	R	-
12	BR	-

Connector No.	M133
Connector Name	FUSE BLOCK (J/B)
Connector Type	TH40FW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
10C	V	-
13C	L	-
14C	Y	-
15C	R	-
16C	R	-
17C	L	-
18C	BG	- [Without DRPO]
18C	P	- [With DRPO]

19C	B	-
1C	R	-
20C	W	-
21C	L	-
22C	L	-
23C	L	-
23C	L	-
23C	LG	-
26C	SB	-
27C	P	-
28C	W	-
29C	W	-
2C	R	-
30C	R	-
31C	W	-
32C	R	-
33C	B	- [With VR30 engine]
33C	R	- [With 2.0L turbo gasoline engine]
34C	W/B	-
35C	SB	-
36C	R	-
37C	W	-
38C	SB	-
39C	V	-
3C	P	-
40C	G	-
4C	P	-
5C	P	-
6C	G	-
7C	G	-
8C	G	-
9C	V	-

Connector No.	M137
Connector Name	JOINT CONNECTOR-M10
Connector Type	24342-4G42A



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	B	-
3	B	-

4	B	-
5	B	-
7	B	-
8	B	-
9	B	-
10	B	-
11	B	-
13	L	-
14	L	-
15	L	-
16	L	-
18	L	-
19	R	-
20	R	-
21	R	-
22	R	-

Connector No.	M146
Connector Name	WIRE TO WIRE
Connector Type	TK36MW-NS10



Terminal No.	Color Of Wire	Signal Name [Specification]
5	R	-
8	GR	-
9	V	-
10	BG	-
11	L	-
12	P	-
13	SB	-
14	Y	-
15	G	-
16	BR	-
17	W	-
18	R	-
19	L	-
20	SHIELD	-
21	BR	-
22	B	-
23	G	-
24	L	-
25	R	-

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DRIVER ASSISTANCE SYSTEMS

[DRIVER ASSISTANCE SYSTEM]

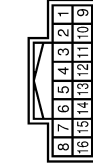
< WIRING DIAGRAM >

DRIVER ASSISTANCE SYSTEMS (2.0L TURBO GASOLINE ENGINE)

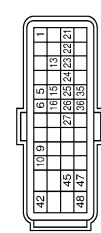
26	G	-	-
30	Y	-	-
31	GR	-	-
32	S8	-	-
33	B6	-	-
34	W	-	-
35	G	-	-
36	R	-	-
37	SHIELD	-	-
38	B	-	-
39	W	-	-
40	B	-	-
41	GR	-	-
42	B	-	-
43	LG	-	-
44	B	-	-
45	S8	-	-
46	B	-	-

36	G	SENSOR GROUND SUB BATTERY CURRENT/TEMPERATURE SENSOR
42	G	EMCM POWER SUPPLY
45	R	SUB BATTERY VOLTAGE MONITOR
47	B	EMCM GROUND
48	B	EMCM GROUND

Connector No.	M155
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH

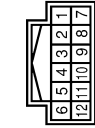


Connector No.	M147
Connector Name	EMCM
Connector Type	RH40FPR28-RLH-Z



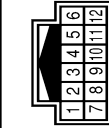
Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	EMCM RELAY CONTROL (SSOFF)
5	L	IGNITION SWITCH
6	LG	STOP LAMP SWITCH
9	L	CON-L
10	P	CON-L
13	W	STOP/START OFF SWITCH
14	Y	SENSOR POWER (TEMPERATURE/TEMPERATURE SENSOR)
15	W	SENSOR POWER (CURRENT/TEMPERATURE SENSOR)
21	V	SENSOR POWER (CURRENT/TEMPERATURE SENSOR)
23	G	SUB BATTERY RELAY CONTROL
24	GR	ENGINE RESTART BYPASS CONTROL RELAY
25	BR	ENGINE RESTART BYPASS CONTROL RELAY
26	R	ENGINE RESTART BYPASS CONTROL RELAY
27	BR	ENGINE RESTART BYPASS CONTROL RELAY
35	SB	ENGINE RESTART BYPASS CONTROL RELAY

Connector No.	M157
Connector Name	WIRE TO WIRE
Connector Type	TH12FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	-
2	G	- [With VR30 engine]
3	L	- [With 2.0L turbo gasoline engine]
4	W	- [With VR30 engine]
5	BR	- [With 2.0L turbo gasoline engine]
6	G	- [With VR30 engine]
7	Y	- [With 2.0L turbo gasoline engine]
8	Y	- [With VR30 engine]
9	Y	-
10	L	- [With VR30 engine]
11	L	- [With 2.0L turbo gasoline engine]
12	BR	- [With VR30 engine]
13	W	- [With 2.0L turbo gasoline engine]

Connector No.	M158
Connector Name	WIRE TO WIRE
Connector Type	TH12MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	-
2	G	-
3	L	-
4	W	-
5	G	-
6	Y	-
7	B	-
8	Y	-
9	Y	-
10	L	-
11	R	-
12	BR	-

Connector No.	M159
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	B	-
3	BR	-
4	R	-
5	GR	-
6	R	- [With VR30 engine and with USS]
7	W	- [Except with VR30 engine and with USS]
9	SHIELD	-
10	W	-
11	R	-
12	L	-
13	L	-
14	Y	-
15	B	-
16	B	-
17	B	-
19	R	-
20	BG	- [Except with VR30 engine and with BOSE system]
21	R	- [With VR30 engine and with BOSE system]
22	G	-

DRIVER ASSISTANCE SYSTEMS

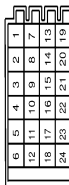
[DRIVER ASSISTANCE SYSTEM]

< WIRING DIAGRAM >

DRIVER ASSISTANCE SYSTEMS (2.0L TURBO GASOLINE ENGINE)

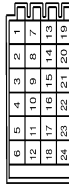
24	B	-	-
25	W	-	-
26	R	-	-
27	P	-	-
28	B	-	-
29	G	-	-
30	L	-	-
31	W	-	-
32	W	-	-
33	L	-	-
38	LG	-	-
40	W	-	-

Connector No.	M173
Connector Name	JOINT CONNECTOR M03
Connector Type	24342_4GAZA



19	BR	-	-	[With VR30 engine]
19	LG	-	-	[With 2.0L turbo gasoline engine]
20	BR	-	-	[With VR30 engine]
20	LG	-	-	[With 2.0L turbo gasoline engine]
21	BR	-	-	[With VR30 engine]
21	LG	-	-	[With 2.0L turbo gasoline engine]
22	R	-	-	[With 2.0L turbo gasoline engine]
23	SB	-	-	[With VR30 engine and without ISS]
23	V	-	-	[With VR30 engine and without ISS]
23	R	-	-	[With 2.0L turbo gasoline engine]
23	SB	-	-	[With VR30 engine and without ISS]
23	V	-	-	[With VR30 engine and without ISS]
24	R	-	-	[With 2.0L turbo gasoline engine]
24	SB	-	-	[With VR30 engine and without ISS]
24	V	-	-	[With VR30 engine and without ISS]

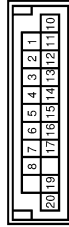
Connector No.	M174
Connector Name	JOINT CONNECTOR M04
Connector Type	24342_4GAZA



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	L	-
3	L	-
4	L	-
5	L	-
6	L	-
7	R	-
8	R	-
9	R	-
10	R	-
11	R	-
12	R	-
13	SB	-
14	SB	-
15	SB	-
16	SB	-
17	SB	-
18	L	-
18	SB	-

20	LG	-	-
21	LG	-	-
22	LG	-	-
23	LG	-	-
24	LG	-	-

Connector No.	M175
Connector Name	JOINT CONNECTOR M05
Connector Type	1N201F-DC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	L	-
3	L	-
4	L	-
5	L	-
6	L	-
7	L	-
8	L	-
10	P	-
11	P	-
12	P	-
13	P	-
14	P	-
15	P	-
16	P	-
17	P	-
17	R	[With 2.0L turbo gasoline engine]
17	R	[With VR30 engine]
19	R	[With 2.0L turbo gasoline engine]
19	W	[With VR30 engine and with ISS]
19	W	[Except with VR30 engine and with ISS]
20	R	[With VR30 engine and with ISS]
20	W	[Except with VR30 engine and with ISS]

Connector No.	M177
Connector Name	JOINT CONNECTOR M07
Connector Type	24342_4GAZA



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	L	-
3	L	-
4	L	-
5	L	-
6	L	-
7	P	-
8	P	-
9	P	-
10	P	-
11	P	-
12	P	-
13	L	-
14	L	-
15	L	-
16	L	-
17	L	-
18	L	-
19	W	-
20	W	-
21	W	-
22	P	-
23	P	-
24	P	-

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JROWC8882GB

DRIVER ASSISTANCE SYSTEMS

[DRIVER ASSISTANCE SYSTEM]

< WIRING DIAGRAM >

DRIVER ASSISTANCE SYSTEMS (2.0L TURBO GASOLINE ENGINE)

Connector No.	M301
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY



Connector No.	R15
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
13	-	-
14	-	-
15	-	-
16	-	-
17	-	-
18	-	-
19	-	-
20	-	-



Connector No.	R1
Connector Name	LANE CAMERA UNIT
Connector Type	TH08FW-NH

Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	LG	-
3	BR	-
4	V	-
5	BG	-
6	GR	-
7	BR	-
9	SHIELD	-
10	GR	-
11	R	-
12	L	-
13	G	-
14	Y	-
15	B	-
17	SB	-
19	BG	-
20	BG	- [Without BOSE system]
20	BR	- [With BOSE system]
21	R	-
22	G	-
24	B	-
25	BG	- [Color of wire differs depending on production]
25	P	- [Color of wire differs depending on production]
26	BR	-
27	GR	-
28	B	-
29	R	-
30	L	-
31	V	-
32	W	-
33	L	-
36	BR	-
38	SB	-
40	W	-

Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GND
4	L	ITS COMA-H
5	B	GND
7	G	IGNITION
8	Y	ITS COMPEL

JROWC8883GB

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[DRIVER ASSISTANCE SYSTEM]

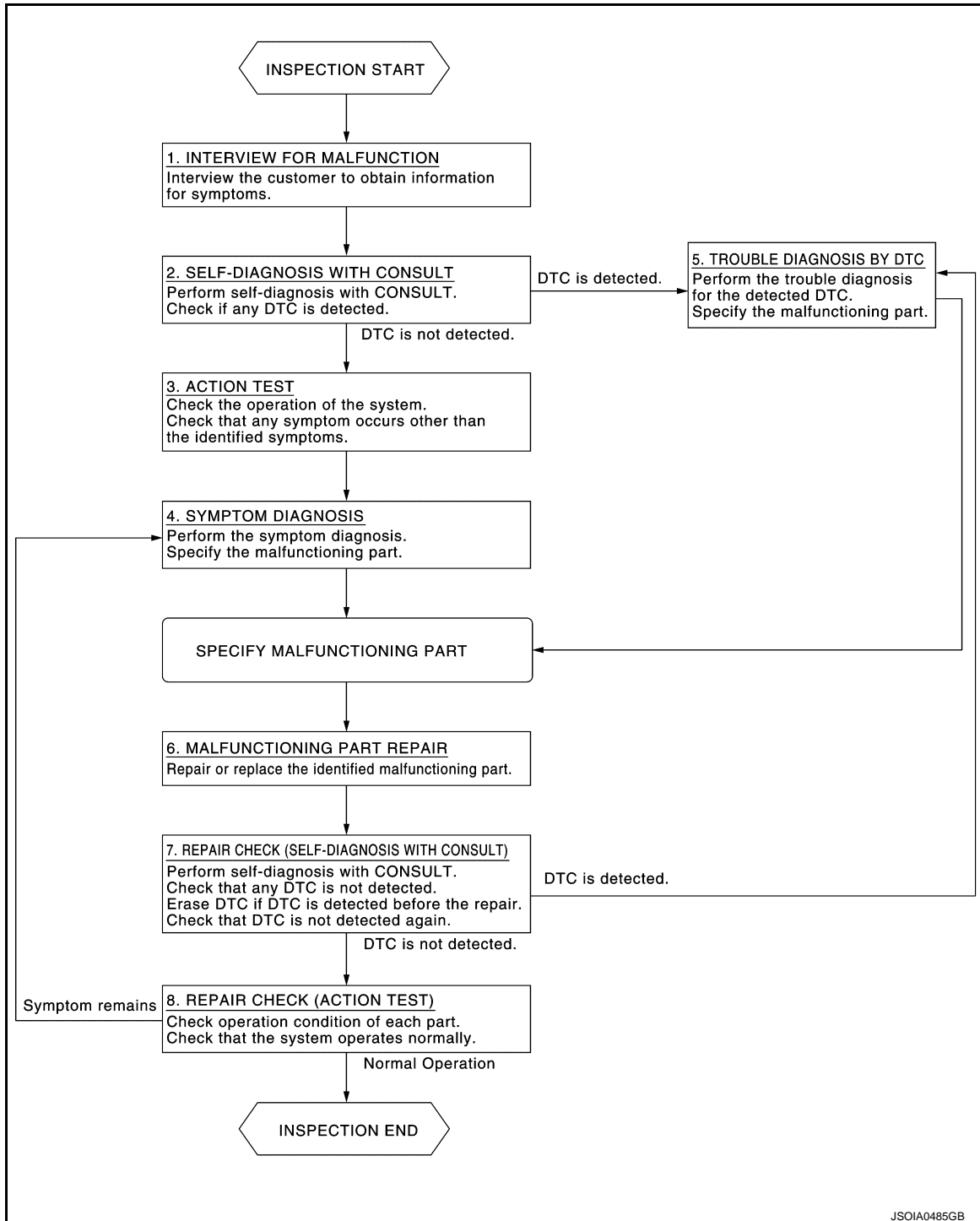
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:0000000012796308

OVERALL SEQUENCE



DETAILED FLOW

1. INTERVIEW FOR MALFUNCTION

It is also important to clarify the customer concerns before starting the inspection. Interview the customer about the concerns carefully and understand the symptoms fully.

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DIAGNOSIS AND REPAIR WORK FLOW

[DRIVER ASSISTANCE SYSTEM]

< BASIC INSPECTION >

NOTE:

The customers are not professionals. Never assume that “maybe the customer means...” or “maybe the customer mentioned this symptom”.

>> GO TO 2.

2. SELF-DIAGNOSIS WITH CONSULT

1. Perform “All DTC Reading” with CONSULT.
2. Check if the DTC is detected on the self-diagnosis results of following.
 - “ICC/ADAS”
 - “CHASSIS CONTROL”
 - “LASER/RADAR”
 - “ACCELE PEDAL ACT”
 - “LANE CAMERA”
 - “SIDE RADAR LEFT”
 - “SIDE RADAR RIGHT”
 - “BSW/BUZZER”

Is any DTC detected?

YES >> GO TO 5.

NO >> GO TO 3.

3. ACTION TEST

Perform Following system action test to check the operation status. Refer to [DAS-436, "DCA : Description"](#). Check if any other malfunctions occur.

>> GO TO 4.

4. SYMPTOM DIAGNOSIS

Perform the applicable diagnosis according to the diagnosis chart by symptom. Refer to [DAS-486, "Symptom Table"](#).

>> GO TO 6.

5. TROUBLE DIAGNOSIS BY DTC

1. Check the DTC in the self-diagnosis results.
2. Perform trouble diagnosis for the detected DTC following.
 - “ICC/ADAS”: Refer to [DAS-338](#)
 - “CHASSIS CONTROL” Refer to [DAS-550](#)
 - “LASER/RADAR” Refer to [DAS-342](#)
 - “ACCELE PEDAL ACT”: Refer to [DAS-345, "DTC Index"](#)
 - “LANE CAMERA”: Refer to [DAS-362](#)
 - “SIDE RADAR LEFT”: Refer to [DAS-347, "DTC Index"](#)
 - “SIDE RADAR RIGHT”: Refer to [DAS-349, "DTC Index"](#)
 - “BSW/BUZZER”: Refer to [DAS-353, "DTC Index"](#)

NOTE:

If “DTC: U1000” is detected, first diagnose the CAN communication system or ITS communication system.

>> GO TO 6.

6. MALFUNCTIONING PART REPAIR

Repair or replace the identified malfunctioning parts.

>> GO TO 7.

7. REPAIR CHECK (SELF-DIAGNOSIS WITH CONSULT)

1. Erases self-diagnosis results.
2. Perform “All DTC Reading” again after repairing or replacing the specific items.
3. Check if any DTC is detected in self-diagnosis results of following.

DIAGNOSIS AND REPAIR WORK FLOW

[DRIVER ASSISTANCE SYSTEM]

< BASIC INSPECTION >

- "ICC/ADAS"
- "CHASSIS CONTROL"
- "LASER/RADAR"
- "ACCELE PEDAL ACT"
- "LANE CAMERA"
- "SIDE RADAR LEFT"
- "SIDE RADAR RIGHT"
- "BSW/BUZZER"

A

B

Is any DTC detected?

C

YES >> GO TO 5.

NO >> GO TO 8.

8. REPAIR CHECK (ACTION TEST)

D

Perform the Following system action test. Check that the malfunction symptom is solved or no other symptoms occur.

- DCA
- LDW/LDP
- Blind Spot Warning/Blind Spot Intervention
- BCI

E

F

Is there a malfunction symptom?

YES >> GO TO 4.

NO >> INSPECTION END

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ADDITIONAL SERVICE WHEN REPLACING ICC SENSOR

< BASIC INSPECTION >

[DRIVER ASSISTANCE SYSTEM]

ADDITIONAL SERVICE WHEN REPLACING ICC SENSOR

Description

INFOID:000000012796309

- Always perform the radar alignment after removing and installing or replacing the ICC sensor.
CAUTION:
The system does not operate normally unless the laser beam aiming adjustment is performed. Always perform it.
- Perform the DCA system action test check that the DCA system operates normally.

Work Procedure

INFOID:000000012796310

1. RADAR ALIGNMENT

Perform the radar alignment. Refer to [CCS-114. "Application Notice"](#).

>> GO TO 2.

2. DCA SYSTEM ACTION TEST

-
1. Perform the DCA system action test. Refer to [DAS-436. "DCA : Description"](#).
 2. Check that the DCA system operates normally.

>> INSPECTION END

ADDITIONAL SERVICE WHEN REPLACING ACCELERATOR PEDAL ASSEMBLY

< BASIC INSPECTION >

[DRIVER ASSISTANCE SYSTEM]

ADDITIONAL SERVICE WHEN REPLACING ACCELERATOR PEDAL ASSEMBLY

Description

INFOID:0000000012796311

- Always perform accelerator pedal released position learning when replacing the accelerator pedal assembly or disconnecting the accelerator pedal position sensor connector.
- Perform the DCA system action test check that the DCA system operates normally.

Work Procedure

INFOID:0000000012796312

1.ACCELERATOR PEDAL RELEASED POSITION LEARNING

Perform accelerator pedal released position learning. Refer to [DAS-427. "Description"](#).

>> GO TO 2.

2.DCA SYSTEM ACTION TEST

1. Perform the DCA system action test. Refer to [DAS-436. "DCA : Description"](#).
2. Check that the DCA system operates normally.

>> INSPECTION END

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DAS

ADDITIONAL SERVICE WHEN REPLACING LANE CAMERA UNIT

< BASIC INSPECTION >

[DRIVER ASSISTANCE SYSTEM]

ADDITIONAL SERVICE WHEN REPLACING LANE CAMERA UNIT

Description

INFOID:000000013405158

Always adjust the camera aiming after removing and installing or replacing the lane camera unit. Refer to [DAS-428, "Work Procedure"](#).

CAUTION:

The system does not operate normally unless the camera aiming adjustment is performed. Always perform it.

Work Procedure

INFOID:000000013405159

1. CAMERA AIMING ADJUSTMENT

Perform the camera aiming adjustment. Refer to [DAS-430, "WITHOUT DIRECT ADAPTIVE STEERING SYSTEM : Description"](#).

>> GO TO 2.

2. PERFORM SELF-DIAGNOSIS

Perform the self-diagnosis of lane camera unit with CONSULT. Check if any DTC is detected.

Is any DTC detected?

YES >> Perform the trouble diagnosis for the detected DTC. Refer to [DAS-362, "WITHOUT DIRECT ADAPTIVE STEERING SYSTEM : DTC Index"](#)

NO >> GO TO 3.

3. LDW/LDP SYSTEM ACTION TEST

1. Perform the LDW/LDP system action test. Refer to [DAS-437, "LDW/LDP : Description"](#).

2. Check that the LDW/LDP system operates normally.

>> GO TO 4.

4. BLIND SPOT WARNING/BLIND SPOT INTERVENTION SYSTEM ACTION TEST

1. Perform the Blind Spot Warning/Blind Spot Intervention system action test. Refer to [DAS-439, "BLIND SPOT WARNING/BLIND SPOT INTERVENTION : Description"](#).

2. Check that the Blind Spot Warning/Blind Spot Intervention system operates normally.

>> WORK END

PRE-INSPECTION FOR DIAGNOSIS

[DRIVER ASSISTANCE SYSTEM]

< BASIC INSPECTION >

PRE-INSPECTION FOR DIAGNOSIS

LANE CAMERA UNIT

LANE CAMERA UNIT : Inspection Procedure

INFOID:0000000013405160

1.CHECK CAMERA LENS AND WINDSHIELD

Are camera lens and windshield contaminated with foreign materials?

YES >> Clean camera lens and windshield.

NO >> GO TO 2.

2.CHECK LANE CAMERA UNIT INSTALLATION CONDITION

Check lane camera unit installation condition (installation position, properly tightened, a bent bracket).

Is it properly installed?

YES >> GO TO 3.

NO >> Install lane camera unit properly, and perform camera aiming. Refer to [DAS-430, "WITHOUT DIRECT ADAPTIVE STEERING SYSTEM : Description"](#).

3.CHECK VEHICLE HEIGHT

Check vehicle height. Refer to [FSU-21, "Wheelarch Height"](#).

Is vehicle height appropriate?

YES >> INSPECTION END

NO >> Repair vehicle to appropriate height.

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CAMERA AIMING ADJUSTMENT WITHOUT DIRECT ADAPTIVE STEERING SYSTEM

WITHOUT DIRECT ADAPTIVE STEERING SYSTEM : Description

INFOID:000000013405161

Always adjust the camera aiming after removing and installing or replacing the lane camera unit. Refer to [DAS-430, "WITHOUT DIRECT ADAPTIVE STEERING SYSTEM : Work Procedure \(Preparation\)"](#).

CAUTION:

- Place the vehicle on level ground when the camera aiming adjustment is operated.
- Follow the **CONSULT** when performing the camera aiming. (Camera aiming adjustment cannot be operated without **CONSULT**.)

WITHOUT DIRECT ADAPTIVE STEERING SYSTEM : Work Procedure (Preparation)

INFOID:000000013405162

1. PERFORM SELF-DIAGNOSIS

Perform self-diagnosis of ADAS control unit and lane camera unit.

Is any DTC detected?

Except "C1B01">>Perform diagnosis on the detected DTC and repair or replace the applicable item. Refer to [DAS-338, "DTC Index" \(ICC/ADAS\)](#) or [DAS-362, "WITHOUT DIRECT ADAPTIVE STEERING SYSTEM : DTC Index" \(LANE CAMERA\)](#).

"C1B01" or no DTC>>GO TO 2.

2. PREPARATION BEFORE CAMERA AIMING ADJUSTMENT

1. Perform pre-inspection for diagnosis. Refer to [DAS-429, "LANE CAMERA UNIT : Inspection Procedure"](#).
2. Adjust the tire pressure to the specified pressure value.
3. Maintain no-load in vehicle.
4. Check if coolant and engine oil are filled up to correct level and fuel tank is full.
5. Shift the selector lever to "P" position and release the parking brake.
6. Clean the windshield.
7. Completely clear off the instrument panel.

>> GO TO 3.

3. PREPARATION OF AIMING ADJUSTMENT JIG

Prepare the aiming adjustment jig according to the following procedure and the figure.

1. Print out the target mark attached in this service manual. Refer to [DAS-434, "WITHOUT DIRECT ADAPTIVE STEERING SYSTEM : Work Procedure \(Target Mark Sample\)"](#).
2. Stick a printed target mark on the board with a scotch tape or a piece of double-sided tape.

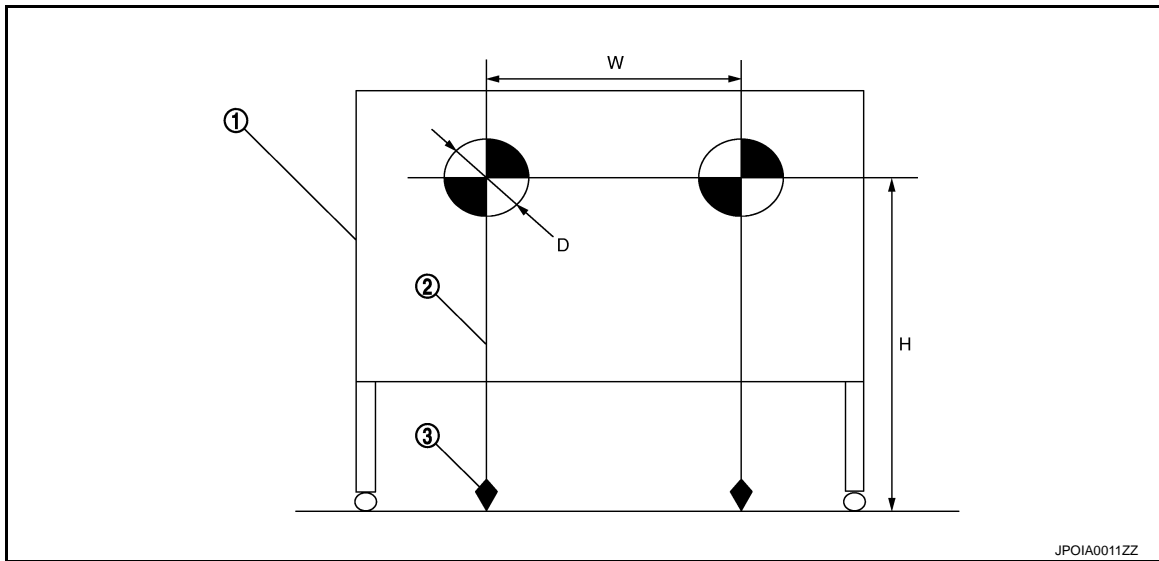
NOTE:

- Use the board that peripheral area of the target is monochrome such as a white-board.
- Notice that the cross of the target is horizontal and vertical.

CAMERA AIMING ADJUSTMENT

< BASIC INSPECTION >

[DRIVER ASSISTANCE SYSTEM]



1. Board

2. String

3. Cone

 : Target mark

- Diameter of a target (D) : 200 mm (7.87 in)
- Height of a target center (H) : 1450 mm (57.09 in)
- Width between a right target center from a left target center (W) : 600 mm (23.62 in)

>> Go to [DAS-431, "WITHOUT DIRECT ADAPTIVE STEERING SYSTEM : Work Procedure \(Target Setting\)"](#).

WITHOUT DIRECT ADAPTIVE STEERING SYSTEM : Work Procedure (Target Setting)

INFOID:000000013405163

CAUTION:

- Perform this operation in a horizontal position where there is a clear view for 5 m (16.4 ft) forward and 3 m (9.84 ft) wide.
- Place the target in a well-lighted location. (Poor lighting may make it hard to adjust.)
- The target may not be detected when there is a light source within 1.5 m (4.92 ft) from either side and within 1 m (3.28 ft) upward/downward from the target.
- Check the location of the sun. (Sunlight should not shine directly on the front of the vehicle.)
- The target may not be detected when there is the same pattern of black and white as the target when the pattern is within 1 m (3.28 ft) from either side and upward/downward position from the target. (It is desirable that the vehicle is positioned on the opposite side of a single-color wall.)

1. TARGET SETTING

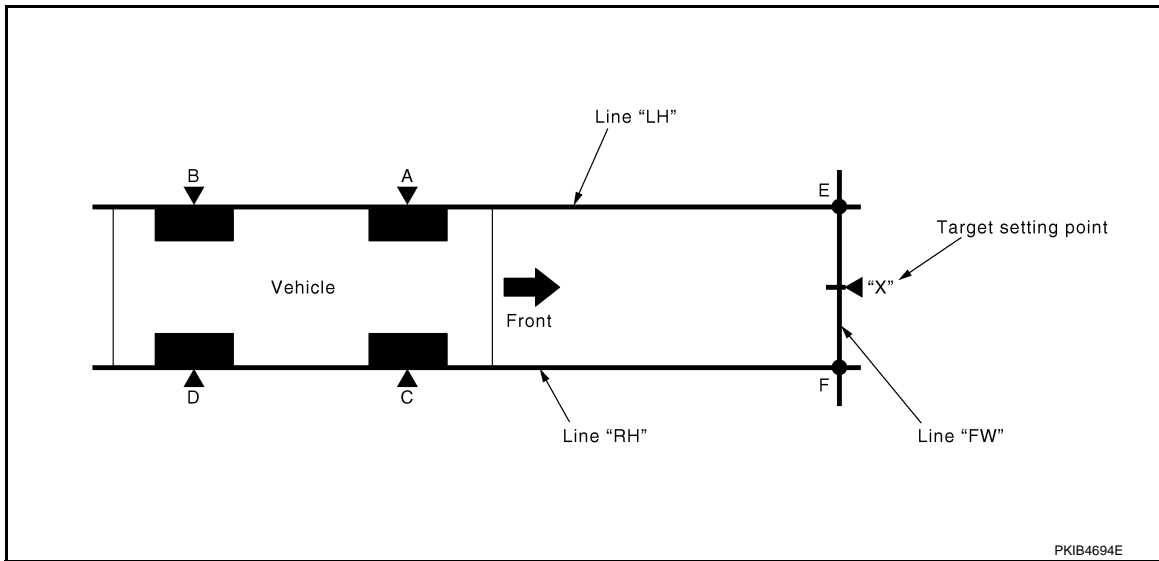
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CAMERA AIMING ADJUSTMENT

< BASIC INSPECTION >

[DRIVER ASSISTANCE SYSTEM]



“A” – “E” (“C” – “F”) : 3850 mm (151.57 in)

1. Mark points “A”, “B”, “C” and “D” at the center of the lateral surface of each wheels.

NOTE:

Hang a string with a cone from the fender so as to pass through the center of wheel, and then mark a point at the center of the lateral surface of the wheel.

2. Draw line “LH” passing through points “A” and “B” on the left side of vehicle.

NOTE:

Approximately 4 m (13.12 ft) or more from the front end of vehicle.

3. Mark point “E” on the line “LH” at the positions 3850 mm (151.57 in) from point “A”.

4. Draw line “RH” passing through points “C” and “D” on the right side of vehicle in the same way as step 2.

NOTE:

Approximately 4 m (13.12 ft) or more from the front end of vehicle.

5. Mark point “F” on the line “RH” at the positions 3850 mm (151.57 in) from point “C”.

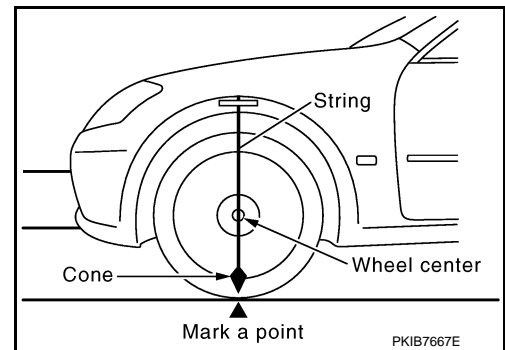
6. Draw line “FW” passing through the points “E” and “F” on the front side of vehicle.

7. Mark point “X” at the center of point “E” and “F” on the line “FW”.

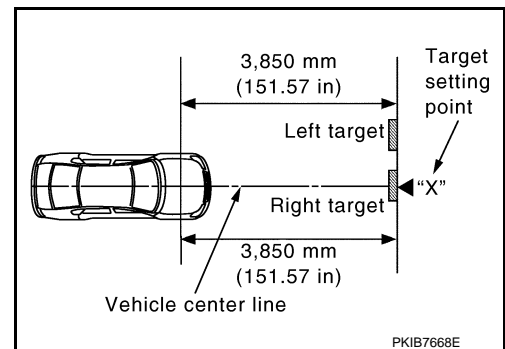
CAUTION:

Make sure that “E” to “X” is equal to “F” to “X”.

8. Position the center of the right target to point of “X”.



>> Go to [DAS-432. "WITHOUT DIRECT ADAPTIVE STEERING SYSTEM : Work Procedure \(Camera Aiming Adjustment\)"](#).



WITHOUT DIRECT ADAPTIVE STEERING SYSTEM : Work Procedure (Camera Aiming Adjustment)

INFOID:000000013405164

CAUTION:

Perform the adjustment under unloaded vehicle condition.

CAMERA AIMING ADJUSTMENT

< BASIC INSPECTION >

[DRIVER ASSISTANCE SYSTEM]

1. CHECK VEHICLE HEIGHT

Measure the wheelarch height. Calculate "Dh".

$$Dh [mm] = (Hfl + Hfr) \div 2 - 715$$

where,

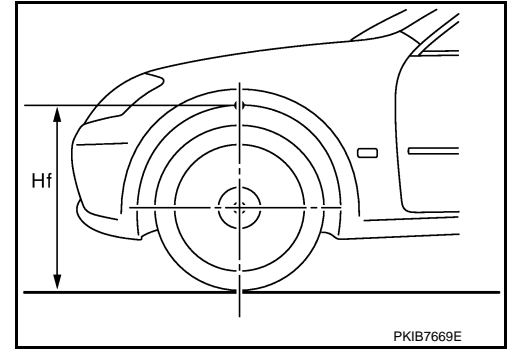
Hfl: Front left wheelarch height [mm]

Hfr: Front right wheelarch height [mm]

NOTE:

"Dh" may be calculated as a minus value.

>> GO TO 2.



2. CAMERA AIMING ADJUSTMENT

CAUTION:

Operate CONSULT outside the vehicle, and close all the doors. (To retain vehicle attitude appropriately)

1. Select "Work Support" on "LANE CAMERA" with CONSULT.
2. Select "AUTO AIM".
3. Confirm the following items;
 - The target should be accurately placed.
 - The vehicle should be stopped.
4. Select "Start" to perform camera aiming.

CAUTION:

- Never select "Start" when the target is not accurately placed.
- Wait 5 seconds or more after selecting "Start".

5. Input "Dh", and then select "Start".

CAUTION:

Never change "Ht" and "Dt".

6. Confirm the displayed item.
 - "Normally Completed": Select "Completion".
 - "SUSPENSION", "X AIMING NG Y", "ABNORMALLY COMPLETED": Perform the following services.

Displayed item		Possible cause	Service procedure
SUSPENSION	—	Temporary malfunction in internal processing of the lane camera unit.	Go back to Step 1
	00H Routine not activated	Lane camera unit malfunction.	Position the target appropriately again. Perform the aiming again. Refer to DAS-431, "WITHOUT DIRECT ADAPTIVE STEERING SYSTEM : Work Procedure (Target Setting)"
	10H Writing error	<ul style="list-style-type: none"> • Temporary malfunction in internal processing of the lane camera unit. • Lane camera unit malfunction. 	
X AIMING NG Y (X: 0 - 7, Y: 1 - 8)	—	<ul style="list-style-type: none"> • A target is not-yet-placed. (The lane camera unit cannot detect a target.) • The position of the lane camera unit is not correct. • Inappropriate work environment. • Inappropriate vehicle condition. 	Position the target appropriately again. Perform the aiming again. Refer to DAS-430, "WITHOUT DIRECT ADAPTIVE STEERING SYSTEM : Work Procedure (Preparation)" .
ABNORMALLY COMPLETED	—		

NOTE:

Replace camera unit if "00H Routine not activated" or "10H Writing error" are repeatedly indicated during the above two services are performed.

7. Confirm that "Normally Completed" is displayed and then select "End" to close the aiming adjustment procedure.

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CAMERA AIMING ADJUSTMENT

< BASIC INSPECTION >

[DRIVER ASSISTANCE SYSTEM]

>> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

Perform self-diagnosis of lane camera unit with CONSULT.

Is any DTC detected?

YES >> Perform diagnosis on the detected DTC and repair or replace the applicable item. Refer to [DAS-362, "WITHOUT DIRECT ADAPTIVE STEERING SYSTEM : DTC Index"](#).

NO >> GO TO 4.

4.ACTION TEST

Test the LDW/LDP system operation by action test. Refer to [DAS-437, "LDW/LDP : Description"](#).

>> WORK END

WITHOUT DIRECT ADAPTIVE STEERING SYSTEM : Work Procedure (Target Mark Sample)

INFOID:000000013405165

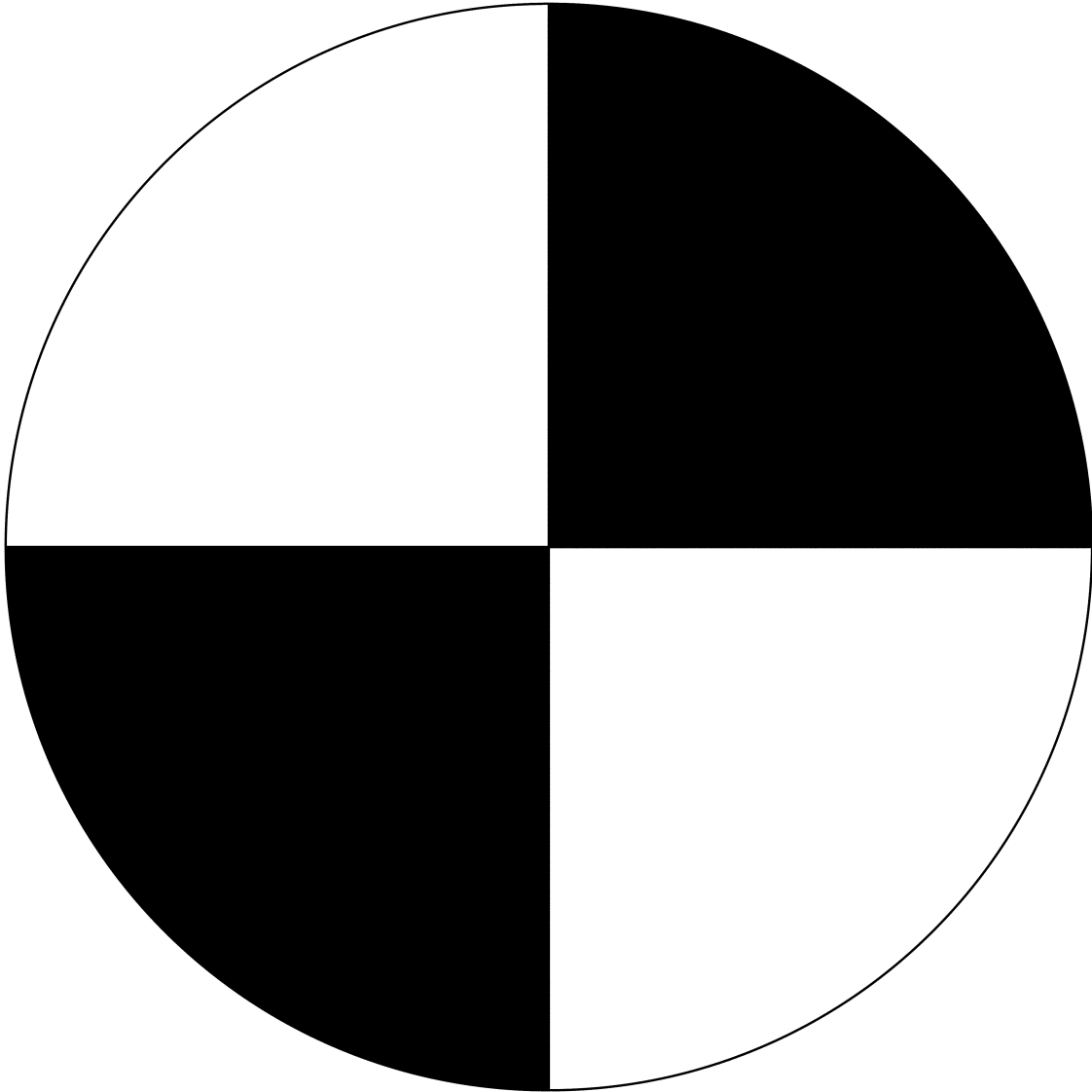
NOTE:

CAMERA AIMING ADJUSTMENT

< BASIC INSPECTION >

[DRIVER ASSISTANCE SYSTEM]

Print this illustration so that the diameter of the circle is 200 mm (7.87 in).



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ACTION TEST

DCA

DCA : Description

INFOID:000000012796313

Always perform the DCA system action test to check that the system operates normally after replacing the ICC sensor, replacing the accelerator pedal assembly, or repairing any DCA system malfunction.

CAUTION:

Perform the DCA system action test after checking that the ICC system operates normally because the DCA system shares components with the ICC system.

DCA : Work Procedure

INFOID:000000012796314

NOTE:

When the ICC system is set, the information display changes to the ICC system display.

1. ICC SYSTEM ACTION TEST

Perform the ICC system action test. Refer to [CCS-126, "Description"](#).

>> GO TO 2.

2. CHECK DCA SYSTEM SETTING

1. Start the engine.
2. After starting the engine wait for 30 seconds or more.
3. Check that the DCA system setting can be enabled/disabled on the integral switch.
4. Turn OFF the ignition switch and wait for 5 seconds or more.
5. Check that the previous setting is saved when the engine starts again.

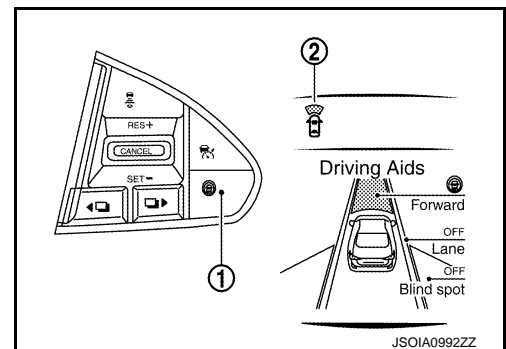
>> GO TO 3.

3. CHECK DRIVER ASSISTANCE SYSTEMS SWITCH

1. Start the engine.
2. After starting the engine wait for 30 seconds or more.
3. Enable the setting of the DCA system on the integral switch.
4. Press the dynamic driver assistance switch ①.
5. Check that the DCA system display ② on the information display illuminates.
6. Check that the DCA system display turns OFF when the system is turned OFF by pressing the dynamic driver assistance switch.
7. Check that the DCA system display turns OFF when the engine starts again.

NOTE:

The DCA system display does not illuminate even when the dynamic driver assistance switch is turned ON within approximately 5 seconds after starting the engine.



If the accelerator pedal assembly is not replaced >> INSPECTION END
 If the accelerator pedal assembly is replaced >> GO TO 4.

4. CHECK DCA SYSTEM OPERATION

Check that the accelerator pedal actuator operates by the "Active Test" items "ACCELERATOR PEDAL ACTUATOR TEST1" and "ACCELERATOR PEDAL ACTUATOR TEST2" of "ACCELE PEDAL ACT" with CONSULT.

>> INSPECTION END

LDW/LDP

ACTION TEST

[DRIVER ASSISTANCE SYSTEM]

< BASIC INSPECTION >

INFOID:000000012796315

LDW/LDP : Description

- Perform action test to verify the customer's concern.
- Perform action test and check the system operation after system diagnosis.

WARNING:

Be careful of traffic conditions and safety around the vehicle when performing road test.

CAUTION:

- Fully understand the following items well before the road test;
- Precautions: Refer to [DAS-217, "LDW/LDP System Service"](#).
- System description for LDW: Refer to [DAS-234, "LDW \(WITHOUT DIRECT ADAPTIVE STEERING SYSTEM\) : System Description"](#).
- System description for LDP: Refer to [DAS-240, "LDP \(WITHOUT DIRECT ADAPTIVE STEERING SYSTEM\) : System Description"](#).
- Handling precaution: Refer to [DAS-283, "Precautions for Lane Departure Warning/Lane Departure Prevention"](#).

LDW/LDP : Inspection Procedure

INFOID:000000012796316

WARNING:

Be careful of traffic conditions and safety around the vehicle when performing road test.

CAUTION:

- Fully understand the following items well before the road test;
- Precautions: Refer to [DAS-217, "LDW/LDP System Service"](#).
- System description for LDW: Refer to [DAS-234, "LDW \(WITHOUT DIRECT ADAPTIVE STEERING SYSTEM\) : System Description"](#).
- System description for LDP: Refer to [DAS-240, "LDP \(WITHOUT DIRECT ADAPTIVE STEERING SYSTEM\) : System Description"](#).
- Handling precaution: Refer to [DAS-283, "Precautions for Lane Departure Warning/Lane Departure Prevention"](#).

1. CHECK LDW SYSTEM SETTING

1. Start the engine.
2. Check that the LDW system setting can be enabled/disabled on the integral switch.
3. Turn OFF the ignition switch and wait for 30 seconds or more.
4. Check that the previous setting is saved when the engine starts again.

>> GO TO 2.

2. ACTION TEST FOR LDW

1. Enable the setting of the LDW system on the integral switch.
2. Turn LDW system display ON (Speaker icon is ON at the "Lane" position).
NOTE:
LDP system is OFF.
3. Check the LDW operation according to the following table.

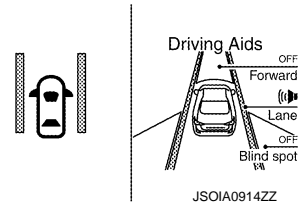
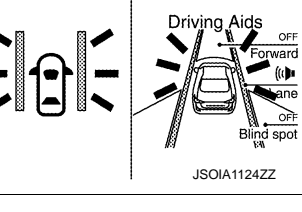
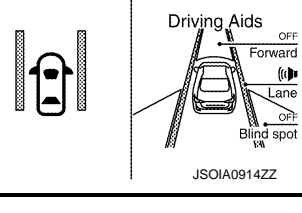
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ACTION TEST

< BASIC INSPECTION >

[DRIVER ASSISTANCE SYSTEM]

Vehicle condition/ Driver's operation			Action		
Vehicle speed (Approx.) [km/h (MPH)]	Turn signal condition	Status of vehicle close to lane marker	Indication on the combination meter	Indicator color	Buzzer
Less than Approx. 60 km/h (37 MPH)	—	Close to lane marker		White	OFF
Approx. 70 km/h (45 MPH) or more	<ul style="list-style-type: none"> • OFF • ON (Opposite to the deviate side) 	Close to lane marker		Yellow (Blink)	Short continuous beeps
	ON (Deviate side)	Close to lane marker		White	OFF

NOTE:

After the operating conditions of warning are satisfied, the warning continues until the vehicle speed reaches approximately 60 km/h (37 MPH). Refer to [DAS-234, "LDW \(WITHOUT DIRECT ADAPTIVE STEERING SYSTEM\) : System Description"](#).

>> GO TO 3.

3. CHECK LDP SYSTEM SETTING

1. Start the engine.
2. Check that the LDP system setting can be enabled/disabled on the integral switch.
3. Turn OFF the ignition switch and wait for 30 seconds or more.
4. Check that the previous setting is saved when the engine starts again.

>> GO TO 4.

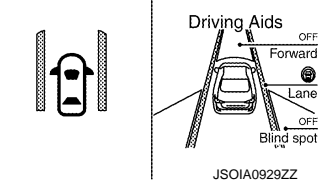
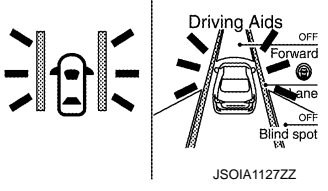
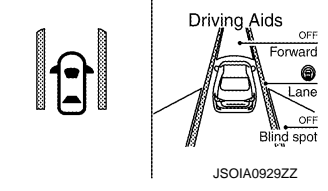
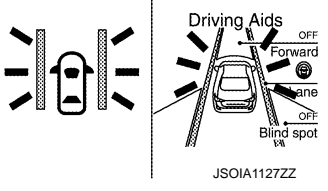
4. ACTION TEST FOR LDP

1. Enable the setting of the LDP system on the integral switch.
2. Turn dynamic driver assistance switch ON (dynamic driver assistance icon is ON at the "Lane" position).
3. Check the LDP operation according to the following table.

ACTION TEST

< BASIC INSPECTION >

[DRIVER ASSISTANCE SYSTEM]

Vehicle condition/ Driver's operation			Action			
Vehicle speed (Approx.) [km/h (MPH)]	Turn signal condition	Status of vehicle close to lane marker	Yawing control	Indication on the combination meter	Indicator	Buzzer
Less than Approx. 60 km/h (37 MPH)	—	Close to lane marker	OFF		Green	—
Approx. 70 km/h (45 MPH) or more	<ul style="list-style-type: none"> • Turn signal OFF • Turn signal ON (Opposite to the deviate side) 	Close to lane marker	ON		Yellow (Blink)	Short continuous beeps
	Turn signal ON (Deviate side)	Close to lane marker	OFF		Green	—
	<ul style="list-style-type: none"> • Turn signal OFF • Turn signal ON (Opposite to the deviate side) 	Close to lane marker with soft braking	OFF		Yellow (Blink)	Short continuous beeps

NOTE:

After the operating conditions are satisfied, the control continues until the vehicle speed reaches approximately 60 km/h (37 MPH). Refer to [DAS-240, "LDP \(WITHOUT DIRECT ADAPTIVE STEERING SYSTEM\) : System Description"](#).

>> INSPECTION END

BLIND SPOT WARNING/BLIND SPOT INTERVENTION

BLIND SPOT WARNING/BLIND SPOT INTERVENTION : Description

INFOID:000000012796317

Always perform the Blind Spot Warning and Blind Spot Intervention system action test to check that the system operates normally after replacing the lane camera unit, replacing the side radar left (right), or repairing any Blind Spot Intervention system malfunction.

NOTE:

Perform the Blind Spot Intervention system action test after checking that the LDP system operates normally because the Blind Spot Intervention system shares components with the LDP system.

WARNING:

Be careful of traffic conditions and safety around the vehicle when performing road test.

CAUTION:

Fully understand the following items well before the road test;

- **Precautions:** Refer to [DAS-217, "Blind Spot Warning/Blind Spot Intervention System Service"](#).
- **System description for Blind Spot Warning:** Refer to [DAS-243, "BSW : System Description"](#).

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ACTION TEST

< BASIC INSPECTION >

[DRIVER ASSISTANCE SYSTEM]

- System description for Blind Spot Intervention: Refer to [DAS-249, "BLIND SPOT INTERVENTION \(WITHOUT DIRECT ADAPTIVE STEERING SYSTEM\) : System Description"](#).
- Normal operating condition: Refer to [DAS-499, "Description"](#).

BLIND SPOT WARNING/BLIND SPOT INTERVENTION : Work Procedure INFOID:000000012796318

WARNING:

Be careful of traffic conditions and safety around the vehicle when performing road test.

CAUTION:

Fully understand the following items well before the road test;

- Precautions: Refer to [DAS-217, "Blind Spot Warning/Blind Spot Intervention System Service"](#).
- System description for Blind Spot Warning: Refer to [DAS-243, "BSW : System Description"](#).
- System description for Blind Spot Intervention: Refer to [DAS-249, "BLIND SPOT INTERVENTION \(WITHOUT DIRECT ADAPTIVE STEERING SYSTEM\) : System Description"](#).
- Normal operating condition: Refer to [DAS-499, "Description"](#).

1. LDW/LDP SYSTEM ACTION TEST

Perform the LDW/LDP system action test. Refer to [DAS-437, "LDW/LDP : Inspection Procedure"](#).

>> GO TO 2.

2. CHECK BSW SYSTEM SETTING

1. Start the engine.
2. Check that the BSW system setting can be enabled/disabled on the integral switch.
3. Turn OFF the ignition switch and wait for 5 seconds or more.
4. Check that the previous setting is saved when the engine starts again.

>> GO TO 3.

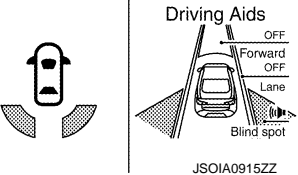
3. BSW SYSTEM ACTION TEST

1. Enable the setting of the BSW system on the integral switch.
2. Turn BSW system display ON (Speaker icon is ON at the "Blind spot").

NOTE:

Blind Spot Intervention system is OFF.


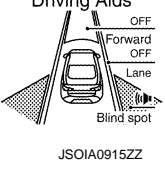

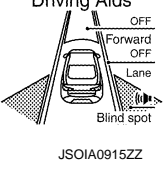

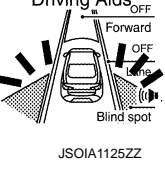

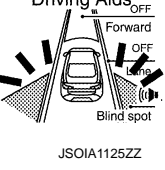
3. Check BSW operation according to the following table.

Vehicle condition/ Driver's operation			Action			
Vehicle speed (Approx.) [km/h (MPH)]	Turn signal condition	Status of vehicle detection within detection area	Indication on the Blind Spot Warning/ Blind Spot Intervention indicator	Indication on the combination meter	Indicator color	Buzzer
Less than approx. 29 (18)	—	—	OFF		White	OFF

ACTION TEST

< BASIC INSPECTION >

[DRIVER ASSISTANCE SYSTEM]

Vehicle condition/ Driver's operation			Action				
Vehicle speed (Approx.) [km/h (MPH)]	Turn signal condition	Status of vehicle detection within detection area	Indication on the Blind Spot Warning/ Blind Spot Intervention indicator	Indication on the combination meter	Indicator color	Buzzer	
Approx. 32 (20) or more	—	Vehicle is absent	OFF	  <small>JSOIA0915ZZ</small>	White	OFF	
	OFF	Vehicle is detected	ON	  <small>JSOIA0915ZZ</small>	White	OFF	
	ON (vehicle detected direction)		Before turn signal operates Vehicle is detected	Blink	  <small>JSOIA1125ZZ</small>	Yellow (Blink)	Short continuous beeps
			Vehicle is detected after turn signal operates	Blink	  <small>JSOIA1125ZZ</small>	Yellow (Blink)	OFF

>> GO TO 4.

4. CHECK BLIND SPOT INTERVENTION SYSTEM SETTING

1. Start the engine.
2. Check that the Blind Spot Intervention system setting can be enabled/disabled on the integral switch.
3. Turn OFF the ignition switch and wait for 5 seconds or more.
4. Check that the previous setting is saved when the engine starts again.

>> GO TO 5.

5. CHECK DYNAMIC DRIVER ASSISTANCE SWITCH

1. Start the engine.
2. After starting the engine wait for 5 seconds or more.
3. Enable the setting of the Blind Spot Intervention system on the integral switch.
4. Press the dynamic driver assistance switch.
5. Check that the Blind Spot Intervention system display on the combination meter illuminates.
6. Check that the Blind Spot Intervention system display turns OFF when the system is turned OFF by pressing the dynamic driver assistance switch.
7. Check that the Blind Spot Intervention ON indicator turns OFF when the engine starts again.

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ACTION TEST

< BASIC INSPECTION >

[DRIVER ASSISTANCE SYSTEM]

- The Blind Spot Intervention system display does not illuminate even when the dynamic driver assistance switch is turned ON within approximately 5 seconds after starting the engine.
- When the Blind Spot Intervention system setting is disabled on the integral switch, the Blind Spot Intervention system display is not turned ON by pressing the dynamic driver assistance switch.

>> INSPECTION END

BCI

BCI : Description

INFOID:000000012796319

Always perform the BCI system action test to check that the system operates normally after replacing the side radar (left or right), or repairing any BCI system malfunction.

WARNING:

Be careful of traffic conditions and safety around the vehicle when performing road test.

CAUTION:

Fully understand the following items well before the road test;

- Precautions: Refer to [DAS-218, "BCI system service"](#).
- System description for BCI: Refer to [DAS-254, "BCI : System Description"](#).
- Normal operating condition: Refer to [DAS-499, "Description"](#).

BCI : Work Procedure

INFOID:000000012796320

WARNING:

Be careful of traffic conditions and safety around the vehicle when performing road test.

CAUTION:

Fully understand the following items well before the road test;

- Precautions: Refer to [DAS-218, "BCI system service"](#).
- System description for BCI: Refer to [DAS-254, "BCI : System Description"](#).
- Normal operating condition: Refer to [DAS-499, "Description"](#).

1. CHECK BCI SYSTEM SETTING

Check the sonar system operation. Refer to [AV-441, "System Description"](#).

>> GO TO 2.

2. CHECK BCI SYSTEM SETTING

1. Start the engine.
2. Check that the BCI system setting can be enabled/disabled on the integral switch.
3. Turn OFF the ignition switch and wait for 30 seconds or more.
4. Check that the previous setting is saved when the engine starts again.

>> GO TO 3.

3. ACTION TEST FOR BCI

1. Enable the setting of the BCI system on the integral switch.
2. Check the BCI operation according to the following table.

Vehicle condition		Action	Buzzer
• R range • 0 km/h (0 MPH)	If the radar detects an approaching vehicle from the side	<ul style="list-style-type: none">• Chime sound (single beep)• Flashes Blind Spot Warning/Blind Spot Intervention indicator on the side of the approaching vehicle is detected• Yellow rectangular frame appears in the display	Single beep
	No approaching vehicle	No action	—

>> INSPECTION END

DTC/CIRCUIT DIAGNOSIS

C1A50 ADAS CONTROL UNIT

LANE CAMERA UNIT

LANE CAMERA UNIT : DTC Logic

INFOID:000000013405168

DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition
C1A50	ADAS MALFUNCTION (ADAS control unit malfunction)	If ADAS control unit is malfunctioning

POSSIBLE CAUSE

ADAS control unit

FAIL-SAFE

The following systems are canceled.

- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "C1A50" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-470, "LANE CAMERA UNIT : DTC Logic"](#).
- NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the LDP system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "C1A50" is detected as the current malfunction in "Self Diagnostic Result" of "LANE CAMERA".

Is "C1A50" detected as the current malfunction?

- YES >> Refer to [DAS-443, "LANE CAMERA UNIT : Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

LANE CAMERA UNIT : Diagnosis Procedure

INFOID:000000013405169

1.CHECK DTC PRIORITY

If DTC "C1A50" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-470, "LANE CAMERA UNIT : DTC Logic"](#).
- NO >> GO TO 2.

2.CHECK ADAS CONTROL UNIT SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "ICC/ADAS".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DAS-338, "DTC Index"](#).
- NO >> Replace the lane camera unit. Refer to [DAS-507, "Removal and Installation"](#).



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C1B00 CAMERA UNIT MALF

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

C1B00 CAMERA UNIT MALF

LANE CAMERA UNIT

LANE CAMERA UNIT : DTC Logic

INFOID:0000000013405170

DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition
C1B00	CAMERA UNIT MALF (Camera unit malfunction)	If lane camera unit is malfunctioning

POSSIBLE CAUSE

Lane camera unit

FAIL-SAFE

The following systems are canceled.

- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Perform "All DTC Reading" with CONSULT.
3. Check if the "C1B00" is detected as the current malfunction in "Self Diagnostic Result" of "LANE CAMERA".

Is "C1B00" detected as the current malfunction?

YES >> Refer to [DAS-444, "LANE CAMERA UNIT : Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

LANE CAMERA UNIT : Diagnosis Procedure

INFOID:0000000013405171

1.CHECK SELF-DIAGNOSIS RESULTS

Check if any DTC other than "C1B00" is detected in "Self Diagnostic Result" of "LANE CAMERA".

Is any DTC detected?

YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DAS-362, "WITHOUT DIRECT ADAPTIVE STEERING SYSTEM : DTC Index"](#).

NO >> Replace the lane camera unit. Refer to [DAS-507, "Removal and Installation"](#).

< DTC/CIRCUIT DIAGNOSIS >

C1B01 CAM AIMING INCOMP

LANE CAMERA UNIT

LANE CAMERA UNIT : DTC Logic

INFOID:0000000013405172

DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition
C1B01	CAM AIMING INCOMP (Camera aiming incomplete)	Camera aiming is not completed

POSSIBLE CAUSE

- Lane camera aiming is not adjusted
- Lane camera aiming adjustment has been interrupted

FAIL-SAFE

The following systems are canceled.

- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Perform "All DTC Reading" with CONSULT.
3. Check if the "C1B01" is detected as the current malfunction in "Self Diagnostic Result" of "LANE CAMERA".

Is "C1B01" detected as the current malfunction?

- YES >> Refer to [DAS-445, "LANE CAMERA UNIT : Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

LANE CAMERA UNIT : Diagnosis Procedure

INFOID:0000000013405173

1. CAMERA AIMING ADJUSTMENT

1. Perform the camera aiming. Refer to [DAS-430, "WITHOUT DIRECT ADAPTIVE STEERING SYSTEM : Description"](#).
2. Erase all self-diagnosis results with CONSULT.
3. Perform "All DTC Reading".
4. Check if the "C1B01" is detected in "Self Diagnostic Result" of "LANE CAMERA".

Is "C1B01" detected?

- YES >> Replace the lane camera unit. Refer to [DAS-507, "Removal and Installation"](#).
- NO >> INSPECTION END

DAS

C1B03 ABNRML TEMP DETECT

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

C1B03 ABNRML TEMP DETECT

LANE CAMERA UNIT

LANE CAMERA UNIT : DTC Logic

INFOID:000000013405174

DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition
C1B03	ABNRML TEMP DETECT (Abnormal temperature detect)	Temperature around lane camera unit is excessively high

POSSIBLE CAUSE

Interior room temperature is excessively high

FAIL-SAFE

The following systems are canceled.

- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Perform "All DTC Reading" with CONSULT.
3. Check if the "C1B03" is detected as the current malfunction in "Self Diagnostic Result" of "LANE CAMERA".

Is "C1B03" detected as the current malfunction?

YES >> Refer to [DAS-446. "LANE CAMERA UNIT : Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45. "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

LANE CAMERA UNIT : Diagnosis Procedure

INFOID:000000013405175

1. COOLING LANE CAMERA UNIT

1. Wait for 10 minutes or more to cool the lane camera unit.
2. Erase all self-diagnosis results with CONSULT.
3. Perform "All DTC Reading".
4. Check if the "C1B03" is detected in "Self Diagnostic Result" of "LANE CAMERA".

Is "C1B03" detected?

YES >> Replace the lane camera unit. Refer to [DAS-507. "Removal and Installation"](#).

NO >> INSPECTION END

C1B20 CONTROL MODULE

[DRIVER ASSISTANCE SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

C1B20 CONTROL MODULE

DRIVER ASSISTANCE BUZZER CONTROL MODULE

DRIVER ASSISTANCE BUZZER CONTROL MODULE : DTC Logic

INFOID:000000012796321

DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition
C1B20	CONTROL MODULE (Control module)	<ul style="list-style-type: none">If driver assistance buzzer control module is malfunctioningMalfunction is detected buzzer signal circuits between driver assistance buzzer control module and driver assistance buzzer

POSSIBLE CAUSE

- Driver assistance buzzer control module
- Driver assistance buzzer
- Driver assistance buzzer circuit

FAIL-SAFE

None

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Start the engine.
- Perform "All DTC Reading" with CONSULT.
- Check if the "C1B20" is detected as the current malfunction in "Self Diagnostic Result" of "BSW/BUZZER".

Is "C1B20" detected as the current malfunction?

YES >> Refer to [DAS-447, "DRIVER ASSISTANCE BUZZER CONTROL MODULE : Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

DRIVER ASSISTANCE BUZZER CONTROL MODULE : Diagnosis Procedure

INFOID:000000012796322

1. CHECK SELF-DIAGNOSIS RESULTS

Check if any DTC other than "C1B20" is detected in "Self Diagnostic Result" of "BSW/BUZZER".

Is any DTC detected?

YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DAS-353, "DTC Index"](#).

NO >> GO TO 2.

2. CHECK DRIVER ASSISTANCE BUZZER SIGNAL CIRCUIT FOR OPEN

- Turn ignition switch OFF.
- Disconnect the driver assistance buzzer connector.
- Disconnect the driver assistance buzzer control module connector.
- Check continuity between the driver assistance buzzer control module harness connector and driver assistance buzzer harness connector.

Driver assistance buzzer control module		Driver assistance buzzer		Continuity
Connector	Terminal	Connector	Terminal	
M56	8	M107	1	Existed
	16		2	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair the harnesses or connectors.

C1B20 CONTROL MODULE

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

3. CHECK DRIVER ASSISTANCE BUZZER SIGNAL CIRCUIT FOR SHORT

Check continuity between the driver assistance buzzer control module harness connector and ground.

Driver assistance buzzer control module		Ground	Continuity
Connector	Terminal		
M56	8		Not existed
	16		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair the harnesses or connectors.

4. CHECK DRIVER ASSISTANCE BUZZER

Check driver assistance buzzer. Refer to [DAS-448, "DRIVER ASSISTANCE BUZZER CONTROL MODULE : Component Inspection"](#).

Is the inspection result normal?

YES >> Replace the driver assistance buzzer control module. Refer to [DAS-511, "Removal and Installation"](#).

NO >> Replace the driver assistance buzzer. Refer to [DAS-512, "Removal and Installation"](#).

DRIVER ASSISTANCE BUZZER CONTROL MODULE : Component Inspection

INFOID:000000012796323

1. CHECK DRIVER ASSISTANCE BUZZER

1. Turn ignition switch OFF.
2. Disconnect driver assistance buzzer connector.
3. Check resistance between driver assistance buzzer terminals.

Terminal		Resistance
1	2	Approx. 6 Ω

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace driver assistance buzzer.

C1B50 SIDE RADAR MALFUNCTION

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

C1B50 SIDE RADAR MALFUNCTION

SIDE RADAR

SIDE RADAR : DTC LOGIC

INFOID:000000012796324

DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition
C1B50	SIDE RDR MALFUNCTION (Side radar malfunction)	Side radar malfunction

POSSIBLE CAUSE

Side radar

FAIL-SAFE

The following systems are canceled.

- Blind Spot Warning (BSW)
- Blind Spot Intervention
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Perform "All DTC Reading" with CONSULT.
3. Check if the "C1B50" is detected as the current malfunction in "Self Diagnostic Result" of "SIDE RADAR RIGHT/LEFT".

Is the "C1B50" detected as the current malfunction?

YES >> Refer to [DAS-449, "SIDE RADAR : Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

SIDE RADAR : Diagnosis Procedure

INFOID:000000012796325

1. CHECK SELF-DIAGNOSIS RESULT

Check if any DTC other than "C1B50" is detected in "Self Diagnostic Result" of "SIDE RADAR LEFT/RIGHT"

Is any DTC detected?

YES >> Perform diagnosis on the detected DTC and repair or replace the malfunction part. Refer to [DAS-347, "DTC Index"](#) (SIDE RADAR RIGHT) or [DAS-349, "DTC Index"](#) (SIDE RADAR LEFT).

NO >> Replace the side radar. Refer to [DAS-508, "Removal and Installation"](#).

DAS

C1B51 BLIND SPOT WARNING/BLIND SPOT INTERVENTION INDICATOR SHORT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

C1B51 BLIND SPOT WARNING/BLIND SPOT INTERVENTION INDICATOR SHORT CIRCUIT SIDE RADAR

SIDE RADAR : DTC Logic

INFOID:000000012796326

DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition
C1B51	BSW/BSI IND SHORT CIR (Blind Spot Warning/Blind Spot Intervention indicator short circuit)	Short circuit in Blind Spot Warning/Blind Spot Intervention indicator circuit is detected. (Over current is detected)

POSSIBLE CAUSE

- Blind Spot Warning/Blind Spot Intervention indicator circuit.
- Blind Spot Warning/Blind Spot Intervention indicator.
- Side radar.

FAIL-SAFE

The following systems are canceled.

- Blind Spot Warning (BSW)
- Blind Spot Intervention
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Perform "All DTC Reading" with CONSULT.
3. Check if the "C1B51" is detected as the current malfunction in "Self Diagnostic Result" of "SIDE RADAR RIGHT/LEFT".

Is the "C1B51" detected as the current malfunction?

YES >> Refer to [DAS-450, "SIDE RADAR : Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

SIDE RADAR : Diagnosis Procedure

INFOID:000000012796327

1. CHECK BLIND SPOT WARNING/BLIND SPOT INTERVENTION INDICATOR CIRCUIT FOR SHORT

1. Turn ignition switch OFF.
2. Disconnect side radar harness connector and Blind Spot Warning/Blind Spot Intervention indicator harness connector.
3. Check continuity between side radar harness connector and ground.

Side radar		Ground	Continuity
Connector	Terminal		
B92 (LH)	6		Not existed
B93 (RH)			

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the harnesses or connectors.

2. REPLACE THE SIDE RADAR

1. Replace the side radar.
2. Perform "All DTC Reading" with CONSULT.
3. Check if the "C1B51" is detected in "Self Diagnostic Result" of "SIDE RADAR RIGHT/LEFT"

C1B51 BLIND SPOT WARNING/BLIND SPOT INTERVENTION INDICATOR SHORT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

Is the DTC "C1B51" detected?

YES >> Replace the side radar. Refer to [DAS-508, "Removal and Installation"](#).
NO >> INSPECTION END

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C1B52 BLIND SPOT WARNING/BLIND SPOT INTERVENTION INDICATOR OPEN CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

C1B52 BLIND SPOT WARNING/BLIND SPOT INTERVENTION INDICATOR OPEN CIRCUIT SIDE RADAR

SIDE RADAR : DTC Logic

INFOID:000000012796328

DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition
C1B52	BSW/BSI IND OPEN CIR (Blind Spot Warning/Blind Spot Intervention indicator open circuit)	Open circuit in Blind Spot Warning/Blind Spot Intervention indicator circuit is detected.

POSSIBLE CAUSE

- Blind Spot Warning/Blind Spot Intervention indicator circuit.
- Blind Spot Warning/Blind Spot Intervention indicator.
- Side radar.

FAIL-SAFE

The following systems are canceled.

- Blind Spot Warning (BSW)
- Blind Spot Intervention
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Perform "All DTC Reading" with CONSULT.
3. Check if the "C1B52" is detected as the current malfunction in "Self Diagnostic Result" of "SIDE RADAR RIGHT/LEFT".

Is the "C1B52" detected as the current malfunction?

- YES >> Refer to [DAS-452, "SIDE RADAR : Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

SIDE RADAR : Diagnosis Procedure

INFOID:000000012796329

1. CHECK BLIND SPOT WARNING/BLIND SPOT INTERVENTION INDICATOR CIRCUIT FOR OPEN 1

1. Turn ignition switch OFF.
2. Disconnect side radar harness connector and Blind Spot Warning/Blind Spot Intervention indicator harness connector.
3. Check continuity between side radar harness connector and Blind Spot Warning/Blind Spot Intervention indicator harness connector.

Side radar		Blind Spot Warning/Blind Spot Intervention indicator		Continuity
Connector	Terminal	Connector	Terminal	
B92 (LH)	6	D15 (LH)	1	Existed
B93 (RH)		D27 (RH)		

Is the inspection result normal?

- YES >> GO TO 2.
- NO >> Repair the harnesses or connectors.

2. CHECK BLIND SPOT WARNING/BLIND SPOT INTERVENTION INDICATOR CIRCUIT FOR OPEN 2

C1B52 BLIND SPOT WARNING/BLIND SPOT INTERVENTION INDICATOR OPEN CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

Check continuity between Blind Spot Warning/Blind Spot Intervention indicator harness connector and ground.

Blind Spot Warning/Blind Spot Intervention indicator		Ground	Continuity
Connector	Terminal		
D15 (LH)	4		Existed
D27 (RH)			

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair the harnesses or connectors.

3. CHECK SIDE RADAR VOLTAGE OUTPUT

1. Connect side radar harness connector.
2. Check voltage between Blind Spot Warning/Blind Spot Intervention indicator harness connector and ground.

Blind Spot Warning/Blind Spot Intervention indicator		Ground	Condition	Voltage (Approx.)
Connector	Terminal			
D15 (LH)	1		Ignition switch OFF ⇒ ON (Approx. 2 sec.)	6 V
D27 (RH)				

Is the inspection result normal?

YES >> Replace Blind Spot Warning/Blind Spot Intervention indicator.

NO >> Replace side radar. Refer to [DAS-508. "Removal and Installation"](#).

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DAS

C1B55 RADAR BLOCKAGE

SIDE RADAR

SIDE RADAR : DTC Logic

INFOID:000000012796330

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition
C1B55	RADAR BLOCKAGE (Radar blockage)	Side radar is blocked.

NOTE:

DTC "C1B55" may be detected under the following conditions except for possible cause. (Explain to the customer about the difference between the contamination detection function and the indication when the malfunction is detected and tell them "This is not malfunction".)

- The side radar may be blocked by temporary ambient conditions such as splashing water, mist or fog.
- The blocked condition may also be caused by objects such as ice, frost or dirt obstructing the side radar.
- Due to the nature of radar technology it is possible to get a blockage warning and not actually be blocked. This is rare and is known as a false blockage warning. A false blocked condition either self-clears or clears after an ignition cycle.

POSSIBLE CAUSE

Stain or foreign materials is deposited.

FAIL-SAFE

The following systems are canceled.

- Blind Spot Warning (BSW)
- Blind Spot Intervention
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the Blind Spot Intervention system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the C1B55 is detected as the current malfunction in "Self Diagnostic Result" of "SIDE RADAR RIGHT/LEFT".

Is the DTC "C1B55" detected?

- YES >> Refer to [DAS-454, "SIDE RADAR : Diagnosis Procedure"](#).
NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
NO-2 >> Confirmation after repair: INSPECTION END

SIDE RADAR : Diagnosis Procedure

INFOID:000000012796331

1.CHECK THE REAR BUMPER

Check rear bumper near the side radar contaminated with foreign materials.

>> GO TO 2.

2.CHECK THE SIDE RADAR

Check side radar and the side radar outskirts contaminated with foreign materials.

>> GO TO 3.

3.CHECK THE SIDE RADAR INSTALL CONDITION

Check side radar installation condition (installation position, properly tightened, a bent bracket).

>> GO TO 4.

C1B55 RADAR BLOCKAGE

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

4. INTERVIEW

1. Ask if there is stain or foreign materials.
2. Ask if there is any temporary ambient condition such as splashing water, mist or fog.
3. Ask if there is any object such as ice, frost or dirt obstructing the side radar.

Is any of above conditions seen?

YES >> Explain to the customer about the difference between the blockage detection function and the indication when the malfunction is detected and tell them "This is not malfunction".

NO >> INSPECTION END

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C1F01 ACCELERATOR PEDAL ACTUATOR

[DRIVER ASSISTANCE SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

C1F01 ACCELERATOR PEDAL ACTUATOR

ACCELERATOR PEDAL ACTUATOR

ACCELERATOR PEDAL ACTUATOR : DTC Logic

INFOID:000000012796332

DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition
C1F01	APA MOTOR MALF (Accelerator pedal actuator motor malfunction)	If the accelerator pedal actuator motor error is detected

POSSIBLE CAUSE

Accelerator pedal actuator integrated motor malfunction

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Turn the ignition switch OFF.
2. Turn the ignition switch ON.
3. Slowly depress the accelerator pedal completely, and then release it.
4. Repeat step 3 several times.
5. Perform "All DTC Reading" with CONSULT.
6. Check if the DTC "C1F01" is detected as the current malfunction on the self-diagnosis results of "ICC/ADAS" or "ACCELE PEDAL ACT".

Is "C1F01" detected as the current malfunction?

- YES >> Refer to [DAS-456, "ACCELERATOR PEDAL ACTUATOR : Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

ACCELERATOR PEDAL ACTUATOR : Diagnosis Procedure

INFOID:000000012796333

1. REPLACE ACCELERATOR PEDAL ASSEMBLY

Perform DTC confirmation procedure. If "C1F01" is detected, replace the accelerator pedal assembly. Refer to [DAS-505, "Exploded View"](#).

>> INSPECTION END

C1F02 ACCELERATOR PEDAL ACTUATOR

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

C1F02 ACCELERATOR PEDAL ACTUATOR

ACCELERATOR PEDAL ACTUATOR

ACCELERATOR PEDAL ACTUATOR : DTC Logic

INFOID:000000012796334

DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition
C1F02	APA C/U MALF (Accelerator pedal actuator control unit malfunction)	If the accelerator pedal actuator integrated control unit error is detected

POSSIBLE CAUSE

Accelerator pedal actuator integrated control unit malfunction

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the DCA system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "C1F02" is detected as the current malfunction on the self-diagnosis results of "ACCELERATOR PEDAL ACT" or "ICC/ADAS".

Is "C1F02" detected as the current malfunction?

- YES >> Refer to [DAS-457, "ACCELERATOR PEDAL ACTUATOR : Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

ACCELERATOR PEDAL ACTUATOR : Diagnosis Procedure

INFOID:000000012796335

1. CHECK SELF-DIAGNOSIS RESULTS

1. Perform "All DTC Reading" with CONSULT.
2. Check if the "C1F02" is detected as the current malfunction on the self-diagnosis results of "ACCELERATOR PEDAL ACT" or "ICC/ADAS".

Is "C1F02" detected as the current malfunction?

- YES >> Replace the accelerator pedal assembly. Refer to [DAS-505, "Exploded View"](#).
- NO >> INSPECTION END

DAS

C1F03 ACCELERATOR PEDAL ACTUATOR

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

C1F03 ACCELERATOR PEDAL ACTUATOR ACCELERATOR PEDAL ACTUATOR

ACCELERATOR PEDAL ACTUATOR : DTC Logic

INFOID:000000012796336

DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition
C1F03	APA HI TEMP (Accelerator pedal actuator high temperature)	<ul style="list-style-type: none">The temperature of the motor integrated in the accelerator pedal actuator remains 100°C (212°F) or more for 0.4 seconds or more.The temperature of the motor drive circuit integrated in the accelerator pedal actuator remains 120°C (248°F) or more for 0.4 seconds or more.

NOTE:

When the accelerator pedal actuator operates excessively, "C1F03" may be detected temporarily.

POSSIBLE CAUSE

Accelerator pedal actuator integrated motor malfunction

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Turn the ignition switch OFF.
2. Wait for 10 minutes or more and cool the accelerator pedal actuator integrated motor.
3. Drive the vehicle with DCA system ON and operate the system.

CAUTION:

Always drive safely.

4. Stop the vehicle.
5. Perform "All DTC Reading" with CONSULT.
6. Check if the DTC "C1F03" is detected as the current malfunction in self-diagnosis results of "ACCELERATOR PEDAL ACT".

Is "C1F03" detected as the current malfunction?

- YES >> Refer to [DAS-458, "ACCELERATOR PEDAL ACTUATOR : Diagnosis Procedure"](#).
NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
NO-2 >> Confirmation after repair: INSPECTION END

ACCELERATOR PEDAL ACTUATOR : Diagnosis Procedure

INFOID:000000012796337

1. REPLACE ACCELERATOR PEDAL ASSEMBLY

Perform DTC confirmation procedure. If "C1F03" is detected, replace the accelerator pedal assembly. Refer to [DAS-505, "Exploded View"](#).

>> INSPECTION END

C1F05 ACCELERATOR PEDAL ACTUATOR POWER SUPPLY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

C1F05 ACCELERATOR PEDAL ACTUATOR POWER SUPPLY CIRCUIT ACCELERATOR PEDAL ACTUATOR

ACCELERATOR PEDAL ACTUATOR : DTC Logic

INFOID:000000012796338

DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition
C1F05	APA PWR SUPPLY CIR (Accelerator pedal actuator power supply circuit)	The battery voltage sent to accelerator pedal actuator remains less than 7.9 V or more than 19.3 V for 5 seconds

POSSIBLE CAUSE

- Harness, connector, or fuse
- Accelerator pedal actuator

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the DCA system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "C1F05" is detected as the current malfunction on the self-diagnosis results of "ACCELERATOR PEDAL ACT".

Is "C1F05" detected as the current malfunction?

- YES >> Refer to [DAS-459, "ACCELERATOR PEDAL ACTUATOR : Diagnosis Procedure"](#).
NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
NO-2 >> Confirmation after repair: INSPECTION END

ACCELERATOR PEDAL ACTUATOR : Diagnosis Procedure

INFOID:000000012796339

1. CHECK POWER SUPPLY CIRCUIT

Check the accelerator pedal actuator power supply circuit. Refer to [DAS-479, "ACCELERATOR PEDAL ACTUATOR : Diagnosis Procedure"](#).

Is the inspection result normal?

- YES >> Replace the accelerator pedal assembly. Refer to [DAS-505, "Exploded View"](#).
NO >> Repair or replace the malfunctioning parts.

DAS

< DTC/CIRCUIT DIAGNOSIS >

C1F06 CAN CIRCUIT2

ACCELERATOR PEDAL ACTUATOR

ACCELERATOR PEDAL ACTUATOR : DTC Logic

INFOID:000000012796340

DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition
C1F06	CAN CIR 2 (CAN Circuit 2)	If accelerator pedal actuator detects an error signal that is received from ADAS control unit via ITS communication

POSSIBLE CAUSE

ADAS control unit

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "C1F06" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
 NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the DCA system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "C1F06" is detected as the current malfunction in "Self Diagnostic Result" of "ACCELE PEDAL ACT".

Is "C1F06" detected as the current malfunction?

- YES >> Refer to [DAS-460, "ACCELERATOR PEDAL ACTUATOR : Diagnosis Procedure"](#).
 NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
 NO-2 >> Confirmation after repair: INSPECTION END

ACCELERATOR PEDAL ACTUATOR : Diagnosis Procedure

INFOID:000000012796341

1.CHECK DTC PRIORITY

If DTC "C1F06" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).
 NO >> GO TO 2.

2.REPLACE ADAS CONTROL UNIT

1. Turn the ignition switch OFF.
2. Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).
3. Erases all self-diagnosis results.
4. Perform "All DTC Reading" again.
5. Check if the "C1F06" is detected in self-diagnosis results of "ACCELE PEDAL ACT".

Is "C1F06" detected?

- YES >> Replace the accelerator pedal assembly. Refer to [DAS-505, "Exploded View"](#).
 NO >> INSPECTION END

C1F07 CAN CIRCUIT1

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

C1F07 CAN CIRCUIT1

ACCELERATOR PEDAL ACTUATOR

ACCELERATOR PEDAL ACTUATOR : DTC Logic

INFOID:000000012796342

DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition
C1F07	CAN CIR 1 (CAN Circuit1)	If accelerator pedal actuator detects an error signal that is received from ADAS control unit via ITS communication

POSSIBLE CAUSE

ADAS control unit

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "C1F07" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the DCA system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "C1F07" is detected as the current malfunction in "Self Diagnostic Result" of "ACCELE PEDAL ACT".

Is "C1F07" detected as the current malfunction?

YES >> Refer to [DAS-461, "ACCELERATOR PEDAL ACTUATOR : Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [G1-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

ACCELERATOR PEDAL ACTUATOR : Diagnosis Procedure

INFOID:000000012796343

1.CHECK DTC PRIORITY

If DTC "C1F07" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. Refer to [DAS-175, "DTC Logic"](#).

NO >> GO TO 2.

2.REPLACE ADAS CONTROL UNIT

1. Turn the ignition switch OFF.
2. Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).
3. Erases all self-diagnosis results.
4. Perform "All DTC Reading" again.
5. Check if the "C1F07" is detected in self-diagnosis results of "ACCELE PEDAL ACT".

Is "C1F07" detected?

YES >> Replace the accelerator pedal assembly. Refer to [DAS-505, "Exploded View"](#).

NO >> INSPECTION END

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DAS

U0104 ADAS CAN 1

LANE CAMERA UNIT

LANE CAMERA UNIT : DTC Logic

INFOID:000000013405214

DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition
U0104	ADAS CAN CIR1 (ADAS control unit CAN circuit 1)	If lane camera unit detects an error signal that is received from ADAS control unit via ITS communication

POSSIBLE CAUSE

ADAS control unit

FAIL-SAFE

The following systems are canceled.

- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention

DTC CONFIRMATION PROCEDURE

1. CHECK DTC PRIORITY

If DTC "U0104" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-470, "LANE CAMERA UNIT : DTC Logic"](#).
 NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the LDP system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U0104" is detected as the current malfunction in "Self Diagnostic Result" of "LANE CAMERA".

Is "U0104" detected as the current malfunction?

- YES >> Refer to [DAS-462, "LANE CAMERA UNIT : Diagnosis Procedure"](#).
 NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
 NO-2 >> Confirmation after repair: INSPECTION END

LANE CAMERA UNIT : Diagnosis Procedure

INFOID:000000012796344

1. CHECK DTC PRIORITY

If DTC "U0104" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-470, "LANE CAMERA UNIT : DTC Logic"](#).
 NO >> GO TO 2.

2. CHECK ADAS CONTROL UNIT SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "ICC/ADAS".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DAS-53, "DTC Index"](#).
 NO >> Replace the lane camera unit. Refer to [DAS-507, "Removal and Installation"](#).

SIDE RADAR

SIDE RADAR : DTC Logic

INFOID:000000012796344

DTC DETECTION LOGIC

U0104 ADAS CAN 1

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

DTC	Trouble diagnosis name	DTC detecting condition
U0104	ADAS CAN CIR1 (ADAS control unit CAN circuit 1)	Side radar detected an error of ITS communication signal that was received from ADAS control unit.

POSSIBLE CAUSE

ADAS control unit

FAIL-SAFE

The following systems are canceled.

- Blind Spot Warning (BSW)
- Blind Spot Intervention
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1. CHECK DTC PRIORITY

If DTC "U0104" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-471. "SIDE RADAR LH : DTC Logic"](#) (SIDE RADAR LH) or [DAS-472. "SIDE RADAR RH : DTC Logic"](#) (SIDE RADAR RH).
- NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the Blind Spot Intervention system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the U0104 is detected as the current malfunction in "Self Diagnostic Result" of "SIDE RADAR RIGHT/LEFT".

Is the DTC "U0104" detected?

- YES >> Refer to [DAS-463. "SIDE RADAR : Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45. "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

SIDE RADAR : Diagnosis Procedure

INFOID:000000012796345

1. CHECK DTC PRIORITY

If DTC "U0104" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-471. "SIDE RADAR LH : DTC Logic"](#) (SIDE RADAR LH) or [DAS-472. "SIDE RADAR RH : DTC Logic"](#) (SIDE RADAR RH).
- NO >> GO TO 2.

2. CHECK ADAS CONTROL UNIT SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "ICC/ADAS".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DAS-338. "DTC Index"](#).
- NO >> Replace side radar LH or RH. Refer to [DAS-508. "Removal and Installation"](#)

DRIVER ASSISTANCE BUZZER CONTROL MODULE

DRIVER ASSISTANCE BUZZER CONTROL MODULE : DTC Logic

INFOID:000000012796346

DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition
U0104	ADAS CAN CIR 1 (ADAS control unit CAN circuit 1)	If driver assistance buzzer control module detects an error signal that is received from ADAS control unit via ITS communication

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DAS

< DTC/CIRCUIT DIAGNOSIS >

POSSIBLE CAUSE

ADAS control unit

FAIL-SAFE

None

DTC CONFIRMATION PROCEDURE**CHECK DTC PRIORITY****1.CHECK DTC PRIORITY**

If DTC "U0104" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. Refer to [DAS-472, "DRIVER ASSISTANCE BUZZER CONTROL MODULE : DTC Logic"](#).

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the MAIN switch of ICC system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U0104" is detected as the current malfunction in "Self Diagnostic Result" of "BSW/BUZZER".

Is "U0104" detected as the current malfunction?

YES >> Refer to [DAS-464, "DRIVER ASSISTANCE BUZZER CONTROL MODULE : Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

DRIVER ASSISTANCE BUZZER CONTROL MODULE : Diagnosis Procedure

INFOID:000000012796347

1.CHECK DTC PRIORITY

If DTC "U0104" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. Refer to [DAS-472, "DRIVER ASSISTANCE BUZZER CONTROL MODULE : DTC Logic"](#).

NO >> GO TO 2.

2.CHECK ADAS CONTROL UNIT SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "ICC/ADAS".

Is any DTC detected?

YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DAS-338, "DTC Index"](#).

NO >> Replace the driver assistance buzzer control module. Refer to [DAS-511, "Removal and Installation"](#).

U0126 STRG SEN CAN 1

LANE CAMERA UNIT

LANE CAMERA UNIT : DTC Logic

INFOID:0000000013405218

DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition
U0126	STRG SEN CAN CIR1 (Steering angle sensor CAN circuit1)	If lane camera unit detects an error signal that is received from steering angle sensor via ADAS control unit

POSSIBLE CAUSE

Steering angle sensor

FAIL-SAFE

The following systems are canceled.

- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "U0126" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-470, "LANE CAMERA UNIT : DTC Logic"](#).
 NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the LDP system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U0126" is detected as the current malfunction in "Self Diagnostic Result" of "LANE CAMERA".

Is "U0126" detected as the current malfunction?

- YES >> Refer to [DAS-465, "LANE CAMERA UNIT : Diagnosis Procedure"](#).
 NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
 NO-2 >> Confirmation after repair: INSPECTION END

LANE CAMERA UNIT : Diagnosis Procedure

INFOID:0000000013405219

1.CHECK DTC PRIORITY

If DTC "U0126" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-470, "LANE CAMERA UNIT : DTC Logic"](#).
 NO >> GO TO 2.

2.CHECK ADAS CONTROL UNIT SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "ICC/ADAS".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DAS-338, "DTC Index"](#).
 NO >> Replace the lane camera unit. Refer to [DAS-507, "Removal and Installation"](#).

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< DTC/CIRCUIT DIAGNOSIS >

U0405 ADAS CAN 2

LANE CAMERA UNIT

LANE CAMERA UNIT : DTC Logic

INFOID:000000013405221

DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition
U0405	ADAS CAN CIR2 (ADAS control unit CAN circuit 2)	If lane camera unit detects an error signal that is received from ADAS control unit via ITS communication

POSSIBLE CAUSE

ADAS control unit

FAIL-SAFE

The following systems are canceled.

- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "U0405" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-470, "LANE CAMERA UNIT : DTC Logic"](#).
 NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the LDP system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U0405" is detected as the current malfunction in "Self Diagnostic Result" of "LANE CAMERA".

Is "U0405" detected as the current malfunction?

- YES >> Refer to [DAS-466, "LANE CAMERA UNIT : Diagnosis Procedure"](#).
 NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
 NO-2 >> Confirmation after repair: INSPECTION END

LANE CAMERA UNIT : Diagnosis Procedure

INFOID:000000013405222

1.CHECK DTC PRIORITY

If DTC "U0405" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-470, "LANE CAMERA UNIT : DTC Logic"](#).
 NO >> GO TO 2.

2.CHECK ADAS CONTROL UNIT SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "ICC/ADAS".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DAS-338, "DTC Index"](#).
 NO >> Replace the lane camera unit. Refer to [DAS-507, "Removal and Installation"](#).

SIDE RADAR

SIDE RADAR : DTC Logic

INFOID:000000012796348

DTC DETECTION LOGIC

U0405 ADAS CAN 2

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

DTC	Trouble diagnosis name	DTC detecting condition
U0405	ADAS CAN CIR2 (ADAS control unit CAN circuit 2)	Side radar detected an error of ITS communication signal that was received from ADAS control unit.

POSSIBLE CAUSE

ADAS control unit.

FAIL-SAFE

The following systems are canceled.

- Blind Spot Warning (BSW)
- Blind Spot Intervention
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1. CHECK DTC PRIORITY

If DTC "U0405" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-471. "SIDE RADAR LH : DTC Logic"](#) (SIDE RADAR LH) or [DAS-472. "SIDE RADAR RH : DTC Logic"](#) (SIDE RADAR RH).
- NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the Blind Spot Intervention system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the U0405 is detected as the current malfunction in "Self Diagnostic Result" of "SIDE RADAR RIGHT/LEFT".

Is the DTC "U0405" detected?

- YES >> Refer to [DAS-467. "SIDE RADAR : Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45. "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

SIDE RADAR : Diagnosis Procedure

INFOID:000000012796349

1. CHECK DTC PRIORITY

If DTC "U0405" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-471. "SIDE RADAR LH : DTC Logic"](#) (SIDE RADAR LH) or [DAS-472. "SIDE RADAR RH : DTC Logic"](#) (SIDE RADAR RH).
- NO >> GO TO 2.

2. CHECK ADAS CONTROL UNIT SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "ICC/ADAS".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DAS-469. "ACCELERATOR PEDAL ACTUATOR : DTC Logic"](#).
- NO >> Replace side radar LH or RH. Refer to [DAS-508. "Removal and Installation"](#).

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DAS

U0428 STRG SEN CAN 2

LANE CAMERA UNIT

LANE CAMERA UNIT : DTC Logic

INFOID:000000013405223

DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition
U0428	STRG SEN CAN CIR2 (Steering angle sensor CAN circuit2)	If lane camera unit detects an error signal that is received from steering angle sensor via ADAS control unit

POSSIBLE CAUSE

Steering angle sensor

FAIL-SAFE

The following systems are canceled.

- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention

DTC CONFIRMATION PROCEDURE

1. CHECK DTC PRIORITY

If DTC "U0428" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-470, "LANE CAMERA UNIT : DTC Logic"](#).
 NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the LDP system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U0428" is detected as the current malfunction in "Self Diagnostic Result" of "LANE CAMERA".

Is "U0428" detected as the current malfunction?

- YES >> Refer to [DAS-468, "LANE CAMERA UNIT : Diagnosis Procedure"](#).
 NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
 NO-2 >> Confirmation after repair: INSPECTION END

LANE CAMERA UNIT : Diagnosis Procedure

INFOID:000000013405224

1. CHECK DTC PRIORITY

If DTC "U0428" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. Refer to [DAS-470, "LANE CAMERA UNIT : DTC Logic"](#).
 NO >> GO TO 2.

2. CHECK ADAS CONTROL UNIT SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "ICC/ADAS".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DAS-338, "DTC Index"](#).
 NO >> Replace the lane camera unit. Refer to [DAS-507, "Removal and Installation"](#).

U1000 CAN COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

U1000 CAN COMM CIRCUIT ACCELERATOR PEDAL ACTUATOR

ACCELERATOR PEDAL ACTUATOR : Description

INFOID:000000012796350

ITS COMMUNICATION

- ITS communication is a multiplex communication system. This enables the system to transmit and receive large quantities of data at high speed by connecting control units with 2 communication lines.
- ITS communication lines adopt twisted-pair line style (two lines twisted) for noise immunity.

ACCELERATOR PEDAL ACTUATOR : DTC Logic

INFOID:000000012796351

DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition
U1000	CAN COMM CIRCUIT (CAN communication circuit)	If accelerator pedal actuator is not transmitting or receiving ITS communication signal for 2 seconds or more

POSSIBLE CAUSE

ITS communication system

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the DCA system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1000" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1000" detected as the current malfunction?

- YES >> Refer to [DAS-469. "ACCELERATOR PEDAL ACTUATOR : Diagnosis Procedure"](#).
NO-1 >> To check malfunction symptom before repair: Refer to [GI-45. "Intermittent Incident"](#).
NO-2 >> Confirmation after repair: INSPECTION END

ACCELERATOR PEDAL ACTUATOR : Diagnosis Procedure

INFOID:000000012796352

1. PERFORM THE SELF-DIAGNOSIS

1. Turn the ignition switch ON.
2. Turn the DCA system ON, and then wait for 2 seconds or more.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1000" is detected as the current malfunction in "Self Diagnostic Result" of "ACCELERATOR PEDAL ACT".

Is "U1000" detected as the current malfunction?

- YES >> Refer to [LAN-41. "Trouble Diagnosis Flow Chart"](#).
NO-1 >> To check malfunction symptom before repair: Refer to [GI-45. "Intermittent Incident"](#).
NO-2 >> Confirmation after repair: INSPECTION END

LANE CAMERA UNIT

LANE CAMERA UNIT : Description

INFOID:000000013405225

ITS COMMUNICATION

A
B
C
D
E
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H
I
J
K
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M
N
P

DAS

U1000 CAN COMM CIRCUIT

[DRIVER ASSISTANCE SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

- ITS communication is a multiplex communication system. This enables the system to transmit and receive large quantities of data at high speed by connecting control units with 2 communication lines.
- ITS communication lines adopt twisted-pair line style (two lines twisted) for noise immunity.

LANE CAMERA UNIT : DTC Logic

INFOID:000000013405226

DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition
U1000	CAN COMM CIRCUIT (CAN communication circuit)	If lane camera unit is not transmitting or receiving ITS communication signal for 2 seconds or more

POSSIBLE CAUSE

ITS communication system

FAIL-SAFE

The following systems are canceled.

- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the LDP system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1000" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1000" detected as the current malfunction?

YES >> Refer to [DAS-470, "LANE CAMERA UNIT : Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

LANE CAMERA UNIT : Diagnosis Procedure

INFOID:000000013405227

1. PERFORM THE SELF-DIAGNOSIS

1. Turn the ignition switch ON.
2. Turn the LDP system ON, and then wait for 2 seconds or more.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1000" is detected as the current malfunction in "Self Diagnostic Result" of "LANE CAMERA".

Is "U1000" detected as the current malfunction?

YES >> Refer to [LAN-41, "Trouble Diagnosis Flow Chart"](#).

NO >> Refer to [GI-45, "Intermittent Incident"](#).

SIDE RADAR LH

SIDE RADAR LH : Description

INFOID:000000012796353

CAN COMMUNICATION

CAN (Controller Area Network) is a serial communication line for real time applications. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Modern vehicle is equipped with many electronic control units, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN-H, CAN-L) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads the required data only.

CAN communication signal chart. Refer to [LAN-67, "CAN COMMUNICATION SYSTEM : CAN Communication Signal Chart \(2.0L Turbo Gasoline Engine Models\)"](#).

ITS COMMUNICATION

- ITS communication is a multiplex communication system. This enables the system to transmit and receive large quantities of data at high speed by connecting plural units with 2 communication lines.

U1000 CAN COMM CIRCUIT

[DRIVER ASSISTANCE SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

- ITS communication lines adopt twisted-pair line style (two lines twisted) for noise immunity.

SIDE RADAR LH : DTC Logic

INFOID:000000012796354

DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition
U1000	CAN COMM CIRCUIT (CAN communication circuit)	If Side radar LH is not transmitting or receiving ITS communication signal for 2 seconds or more

POSSIBLE CAUSE

ITS communication system

FAIL-SAFE

The following systems are canceled.

- Blind Spot Warning (BSW)
- Blind Spot Intervention
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Start the engine.
- Turn the Blind Spot Intervention system ON.
- Perform "All DTC Reading" with CONSULT.
- Check if the "U1000" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1000" detected as the current malfunction?

YES >> Refer to [DAS-471, "SIDE RADAR LH : Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

SIDE RADAR LH : Diagnosis Procedure

INFOID:000000012796355

1. PERFORM THE SELF-DIAGNOSIS

- Start the engine.
- Turn the Blind Spot Intervention system ON, and then wait for 30 seconds or more.
- Perform "All DTC Reading" with CONSULT.
- Check if the "U1000" is detected as the current malfunction in "Self Diagnostic Result" of "SIDE RADAR LEFT".

Is "U1000" detected as the current malfunction?

YES >> Refer to [LAN-41, "Trouble Diagnosis Flow Chart"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

SIDE RADAR RH

SIDE RADAR RH : Description

INFOID:000000012796356

CAN COMMUNICATION

CAN (Controller Area Network) is a serial communication line for real time applications. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Modern vehicle is equipped with many electronic control units, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN-H, CAN-L) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads the required data only.

CAN communication signal chart. Refer to [LAN-67, "CAN COMMUNICATION SYSTEM : CAN Communication Signal Chart \(2.0L Turbo Gasoline Engine Models\)"](#).

ITS COMMUNICATION

- ITS communication is a multiplex communication system. This enables the system to transmit and receive large quantities of data at high speed by connecting plural units with 2 communication lines.

U1000 CAN COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

- ITS communication lines adopt twisted-pair line style (two lines twisted) for noise immunity.

SIDE RADAR RH : DTC Logic

INFOID:000000012796357

DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition
U1000	CAN COMM CIRCUIT (CAN communication circuit)	If Side radar RH is not transmitting or receiving ITS communication signal for 2 seconds or more

POSSIBLE CAUSE

ITS communication system

FAIL-SAFE

The following systems are canceled.

- Blind Spot Warning (BSW)
- Blind Spot Intervention
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the Blind Spot Intervention system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1000" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1000" detected as the current malfunction?

YES >> Refer to [DAS-472, "SIDE RADAR RH : Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

SIDE RADAR RH : Diagnosis Procedure

INFOID:000000012796358

1. PERFORM THE SELF-DIAGNOSIS

1. Start the engine.
2. Turn the Blind Spot Intervention system ON, and then wait for 30 seconds or more.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1000" is detected as the current malfunction in "Self Diagnostic Result" of "SIDE RADAR RIGHT".

Is "U1000" detected as the current malfunction?

YES >> Refer to [LAN-41, "Trouble Diagnosis Flow Chart"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

DRIVER ASSISTANCE BUZZER CONTROL MODULE

DRIVER ASSISTANCE BUZZER CONTROL MODULE : Description

INFOID:000000012796359

ITS COMMUNICATION

- ITS communication is a multiplex communication system. This enables the system to transmit and receive large quantities of data at high speed by connecting control units with 2 communication lines.
- ITS communication lines adopt twisted-pair line style (two lines twisted) for noise immunity.

DRIVER ASSISTANCE BUZZER CONTROL MODULE : DTC Logic

INFOID:000000012796360

DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition
U1000	CAN COMM CIRCUIT (CAN communication circuit)	If driver assistance buzzer control module is not transmitting or receiving ITS communication signal for 2 seconds or more

U1000 CAN COMM CIRCUIT

[DRIVER ASSISTANCE SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

POSSIBLE CAUSE

ITS communication system

FAIL-SAFE

None

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the MAIN switch of ICC system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1000" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1000" detected as the current malfunction?

YES >> Refer to [DAS-473, "DRIVER ASSISTANCE BUZZER CONTROL MODULE : Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

DRIVER ASSISTANCE BUZZER CONTROL MODULE : Diagnosis Procedure

INFOID:000000012796361

1. PERFORM THE SELF-DIAGNOSIS

1. Turn the ignition switch ON.
2. Turn the MAIN switch of ICC system ON, and then wait for 2 seconds or more.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1000" is detected as the current malfunction in "Self Diagnostic Result" of "BSW/BUZZER".

Is "U1000" detected as the current malfunction?

YES >> Refer to [LAN-41, "Trouble Diagnosis Flow Chart"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

DAS

U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

U1010 CONTROL UNIT (CAN) ACCELERATOR PEDAL ACTUATOR

ACCELERATOR PEDAL ACTUATOR : Description

INFOID:0000000012796362

CAN controller controls the communication of ITS communication signal and the error detection.

ACCELERATOR PEDAL ACTUATOR : DTC Logic

INFOID:0000000012796363

DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition
U1010	CONTROL UNIT (CAN) [Control unit (CAN)]	If accelerator pedal actuator detects malfunction by CAN controller initial diagnosis

POSSIBLE CAUSE

Accelerator pedal actuator

FAIL-SAFE

The following systems are canceled.

- Vehicle-to-vehicle distance control mode
- Distance Control Assist (DCA)
- Forward Emergency Braking (FEB)
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the DCA system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1000" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1000" detected as the current malfunction?

- YES >> Refer to [DAS-474, "ACCELERATOR PEDAL ACTUATOR : Diagnosis Procedure"](#).
NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
NO-2 >> Confirmation after repair: INSPECTION END

ACCELERATOR PEDAL ACTUATOR : Diagnosis Procedure

INFOID:0000000012796364

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn the DCA system ON.
2. Perform "All DTC Reading" with CONSULT.
3. Check if the "U1010" is detected as the current malfunction in "Self Diagnostic Result" of "ACCELERATOR PEDAL ACT".

Is "U1010" detected as the current malfunction?

- YES >> Replace the accelerator pedal actuator. Refer to [DAS-505, "Exploded View"](#).
NO >> INSPECTION END

LANE CAMERA UNIT

LANE CAMERA UNIT : Description

INFOID:0000000013405228

CAN controller controls the communication of ITS communication signal and the error detection.

LANE CAMERA UNIT : DTC Logic

INFOID:0000000013405229

DTC DETECTION LOGIC

U1010 CONTROL UNIT (CAN)

[DRIVER ASSISTANCE SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

DTC	Trouble diagnosis name	DTC detecting condition
U1010	CONTROL UNIT (CAN) [Control unit (CAN)]	If lane camera unit detects malfunction by CAN controller initial diagnosis

POSSIBLE CAUSE

Lane camera unit

FAIL-SAFE

The following systems are canceled.

- Lane Departure Warning (LDW)/Lane Departure Prevention (LDP)
- Blind Spot Warning (BSW)/Blind Spot Intervention

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the LDP system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1010" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1010" detected as the current malfunction?

YES >> Refer to [DAS-475, "LANE CAMERA UNIT : Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

LANE CAMERA UNIT : Diagnosis Procedure

INFOID:0000000013405230

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Turn the LDP system ON.
2. Perform "All DTC Reading" with CONSULT.
3. Check if the "U1010" is detected as the current malfunction in "Self Diagnostic Result" of "LANE CAMERA".

Is "U1010" detected as the current malfunction?

YES >> Replace the lane camera unit. Refer to [DAS-507, "Removal and Installation"](#).

NO >> INSPECTION END

SIDE RADAR LH

SIDE RADAR LH : Description

INFOID:0000000012796365

CAN controller controls the communication of ITS communication signal and the error detection.

SIDE RADAR LH : DTC Logic

INFOID:0000000012796366

DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition
U1010	CONTROL UNIT (CAN) [Control unit (CAN)]	If side radar LH detects malfunction by CAN controller initial diagnosis.

POSSIBLE CAUSE

Side radar LH

FAIL-SAFE

The following systems are canceled.

- Blind Spot Warning (BSW)
- Blind Spot Intervention
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

DAS

U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the Blind Spot Intervention system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1000" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1000" detected as the current malfunction?

- YES >> Refer to [DAS-476. "SIDE RADAR LH : Diagnosis Procedure"](#).
NO-1 >> To check malfunction symptom before repair: Refer to [GI-45. "Intermittent Incident"](#).
NO-2 >> Confirmation after repair: INSPECTION END

SIDE RADAR LH : Diagnosis Procedure

INFOID:000000012796367

1. CHECK SELF-DIAGNOSIS RESULT

1. Turn the Blind Spot Intervention system ON.
2. Perform "All DTC Reading" with CONSULT.
3. Check if the "U1010" is detected as the current malfunction in "Self Diagnostic Result" of "SIDE RADAR LEFT".

Is "U1010" detected as the current malfunction?

- YES >> Replace the side radar LH. [DAS-508. "Removal and Installation"](#).
NO >> INSPECTION END

SIDE RADAR RH

SIDE RADAR RH : Description

INFOID:000000012796368

CAN controller controls the communication of ITS communication signal and the error detection.

SIDE RADAR RH : DTC Logic

INFOID:000000012796369

DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition
U1010	CONTROL UNIT (CAN) [Control unit (CAN)]	If Side radar RH detects malfunction by CAN controller initial diagnosis.

POSSIBLE CAUSE

Side radar RH

FAIL-SAFE

The following systems are canceled.

- Blind Spot Warning (BSW)
- Blind Spot Intervention
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the Blind Spot Intervention system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1000" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1000" detected as the current malfunction?

- YES >> Refer to [DAS-476. "SIDE RADAR RH : Diagnosis Procedure"](#).
NO-1 >> To check malfunction symptom before repair: Refer to [GI-45. "Intermittent Incident"](#).
NO-2 >> Confirmation after repair: INSPECTION END

SIDE RADAR RH : Diagnosis Procedure

INFOID:000000012796370

1. CHECK SELF-DIAGNOSIS RESULT

U1010 CONTROL UNIT (CAN)

[DRIVER ASSISTANCE SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

1. Turn the Blind Spot Intervention system ON.
2. Perform "All DTC Reading" with CONSULT.
3. Check if the "U1010" is detected as the current malfunction in "Self Diagnostic Result" of "SIDE RADAR RIGHT".

Is "U1010" detected as the current malfunction?

YES >> Replace the side radar RH. [DAS-508, "Removal and Installation"](#).

NO >> INSPECTION END

DRIVER ASSISTANCE BUZZER CONTROL MODULE

DRIVER ASSISTANCE BUZZER CONTROL MODULE : Description

INFOID:000000012796371

CAN controller controls the communication of ITS communication signal and the error detection.

DRIVER ASSISTANCE BUZZER CONTROL MODULE : DTC Logic

INFOID:000000012796372

DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition
U1010	CONTROL UNIT (CAN) [Control unit (CAN)]	If driver assistance buzzer control module detects malfunction by CAN controller initial diagnosis

POSSIBLE CAUSE

Driver assistance buzzer control module

FAIL-SAFE

None

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the MAIN switch of ICC system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1000" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1000" detected as the current malfunction?

YES >> Refer to [DAS-477, "DRIVER ASSISTANCE BUZZER CONTROL MODULE : Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

DRIVER ASSISTANCE BUZZER CONTROL MODULE : Diagnosis Procedure

INFOID:000000012796373

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn the MAIN switch of ICC system ON.
2. Perform "All DTC Reading" with CONSULT.
3. Check if the "U1010" is detected as the current malfunction in "Self Diagnostic Result" of "BSW/BUZZER".

Is "U1010" detected as the current malfunction?

YES >> Replace the driver assistance buzzer control module. Refer to [DAS-511, "Removal and Installation"](#).

NO >> INSPECTION END

U1527 CCM CAN 1

DRIVER ASSISTANCE BUZZER CONTROL MODULE

DRIVER ASSISTANCE BUZZER CONTROL MODULE : DTC Logic

INFOID:000000012796374

DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition
U1527	CCM CAN CIRCUIT 2 (CCM CAN Circuit 2)	If driver assistance buzzer control module detects an error signal that is received from chassis control module via ADAS control unit

POSSIBLE CAUSE

Chassis control module

FAIL-SAFE

None

DTC CONFIRMATION PROCEDURE

1.CHECK DTC PRIORITY

If DTC "U1527" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. Refer to [DAS-472, "DRIVER ASSISTANCE BUZZER CONTROL MODULE : DTC Logic"](#).

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Turn the MAIN switch of ICC system ON.
3. Perform "All DTC Reading" with CONSULT.
4. Check if the "U1527" is detected as the current malfunction in "Self Diagnostic Result" of "BSW/BUZZER".

Is "U0428" detected as the current malfunction?

YES >> Refer to [DAS-478, "DRIVER ASSISTANCE BUZZER CONTROL MODULE : Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

DRIVER ASSISTANCE BUZZER CONTROL MODULE : Diagnosis Procedure

INFOID:000000012796375

1.CHECK DTC PRIORITY

If DTC "U1527" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. Refer to [DAS-472, "DRIVER ASSISTANCE BUZZER CONTROL MODULE : DTC Logic"](#).

NO >> GO TO 2.

2.CHECK ADAS CONTROL UNIT SELF-DIAGNOSIS RESULTS

Check if any DTC is detected in "Self Diagnostic Result" of "ICC/ADAS".

Is any DTC detected?

YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DAS-338, "DTC Index"](#).

NO >> Replace the lane camera unit. Refer to [DAS-507, "Removal and Installation"](#).

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

POWER SUPPLY AND GROUND CIRCUIT

ACCELERATOR PEDAL ACTUATOR

ACCELERATOR PEDAL ACTUATOR : Diagnosis Procedure

INFOID:0000000012796376

1.CHECK FUSES

Check if any of the following fuses are blown:

Signal name	Fuse No.
Battery power supply	67
Ignition power supply	54

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.

2.CHECK ACCELERATOR PEDAL ACTUATOR POWER SUPPLY CIRCUIT

Check voltage between accelerator pedal actuator harness connector and ground.

Terminal		Condition	Voltage (Approx.)
(+)	(-)		
Accelerator pedal actuator Connector	Ground	Ignition switch	Battery volt- age
M124			
		2	
		OFF	
		ON	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair the accelerator pedal actuator power supply circuit.

3.CHECK ACCELERATOR PEDAL ACTUATOR GROUND CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect the accelerator pedal actuator connector.
3. Check for continuity between accelerator pedal actuator harness connector and ground.

Accelerator pedal actuator		Ground	Continuity
Connector	Terminal		
M124	7		Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair the accelerator pedal actuator ground circuit.

LANE CAMERA UNIT

LANE CAMERA UNIT : Diagnosis Procedure

INFOID:0000000013405231

1.CHECK FUSES

Check if any of the following fuses are blown:

Signal name	Fuse No.
Ignition power supply	75

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.

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POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

2.CHECK LANE CAMERA UNIT POWER SUPPLY CIRCUIT

Check voltage between lane camera unit harness connector and ground.

Terminal		Condition	Voltage (Approx.)
(+)	(-)		
Lane camera unit		Ignition switch	0 V
Connector	Terminal		
R1	7	OFF	
		ON	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair the lane camera unit power supply circuit.

3.CHECK LANE CAMERA UNIT GROUND CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect the lane camera unit connector.
3. Check for continuity between lane camera unit harness connector and ground.

Lane camera unit		Ground	Continuity
Connector	Terminal		
R1	1		Existed
	5		

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair the lane camera unit ground circuit.

SIDE RADAR LH

SIDE RADAR LH : Diagnosis Procedure

INFOID:000000012796377

1.CHECK FUSES

Check if any of the following fuses are blown:

Signal name	Fuse No.
Ignition power supply (VR30DDTT)	22
Ignition power supply (2.0L turbo gasoline engine)	75

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.

2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect the side radar LH connector.
3. Check voltage between side radar LH harness connector and ground.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

Terminals		Condition	Voltage (Approx.)
(+)	(-)		
Side radar LH		Ignition switch	0 V
Connector	Terminal		
B92	5	OFF	0 V
		ON	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair the side radar LH power supply circuit.

3.CHECK GROUND CIRCUIT

Check continuity between side radar LH harness connectors and ground.

Side radar LH		Ground	Continuity
Connector	Terminal		
B92	2		Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair the side radar LH ground circuit.

SIDE RADAR RH

SIDE RADAR RH : Diagnosis Procedure

INFOID:000000012796378

1.CHECK FUSES

Check if any of the following fuses are blown:

Signal name	Fuse No.
Ignition power supply (VR30DDTT)	22
Ignition power supply (2.0L turbo gasoline engine)	75

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.

2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect the side radar RH connector.
3. Check voltage between side radar RH harness connector and ground.

Terminals		Condition	Voltage (Approx.)
(+)	(-)		
Side radar RH		Ignition switch	0 V
Connector	Terminal		
B93	5	OFF	0 V
		ON	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair the side radar RH power supply circuit.

3.CHECK GROUND CIRCUIT

Check continuity between side radar RH harness connectors and ground.

POWER SUPPLY AND GROUND CIRCUIT

[DRIVER ASSISTANCE SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

Side radar RH		Ground	Continuity
Connector	Terminal		Existed
B93	2		

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair the side radar RH ground circuit.

DRIVER ASSISTANCE BUZZER CONTROL MODULE

DRIVER ASSISTANCE BUZZER CONTROL MODULE : Diagnosis Procedure

INFOID:000000012796379

1.CHECK FUSES

Check if any of the following fuses are blown:

Signal name	Fuse No.
Ignition power supply (VR30DDTT)	22
Ignition power supply (2.0L turbo gasoline engine)	75

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.

2.CHECK DRIVER ASSISTANCE BUZZER CONTROL MODULE POWER SUPPLY CIRCUIT

Check voltage between driver assistance buzzer control module harness connector and ground.

Terminal		Condition	Voltage (Approx.)
(+)	(-)		
Driver assistance buzzer control module		Ignition switch	Battery voltage
Connector	Terminal		
M56	1	ON	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair the driver assistance buzzer control module power supply circuit.

3.CHECK DRIVER ASSISTANCE BUZZER CONTROL MODULE GROUND CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect the driver assistance buzzer control module.
3. Check for continuity between driver assistance buzzer control module harness connector and ground.

Driver assistance buzzer control module		Ground	Continuity
Connector	Terminal		Existed
M56	5		
	13		

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair the driver assistance buzzer control module.

RIGHT/LEFT SWITCHING SIGNAL CIRCUIT

[DRIVER ASSISTANCE SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

RIGHT/LEFT SWITCHING SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:000000012796380

1. CHECK CONNECTOR

1. Turn the ignition switch OFF.
2. Check the terminals and connectors of the side radar RH for damage, bend and short (unit side and connector side).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal or connector.

2. CHECK CONTINUITY RIGHT/LEFT SWITCHING SIGNAL CIRCUIT

1. Disconnect side radar RH connector.
2. Check continuity between side radar RH harness connectors and ground.

Side radar RH		Ground	Continuity
Connector	Terminal		
B93	1		Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

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DAS

DRIVER ASSISTANCE BUZZER CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

DRIVER ASSISTANCE BUZZER CIRCUIT

Component Function Check

INFOID:000000012796381

1. CHECK WARNING BUZZER

1. Turn the ignition switch ON.
2. Select the active test item "BUZZER 1 (ADAS)" of "BSW/BUZZER" with CONSULT.
3. With operating the test item, check the operation.

On : Warning buzzer is activated.

Off : Warning buzzer is not activated.

Is the inspection result normal?

YES >> INSPECTION END

NO >> Refer to [DAS-484, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000012796382

1. CHECK DRIVER ASSISTANCE BUZZER SIGNAL CIRCUIT FOR OPEN

1. Turn ignition switch OFF.
2. Disconnect the driver assistance buzzer connector.
3. Disconnect the driver assistance buzzer control module connector.
4. Check continuity between the driver assistance buzzer control module harness connector and driver assistance buzzer harness connector.

Driver assistance buzzer control module		Driver assistance buzzer		Continuity
Connector	Terminal	Connector	Terminal	
M56	8	M107	1	Existed
	16		2	

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the harnesses or connectors.

2. CHECK DRIVER ASSISTANCE BUZZER SIGNAL CIRCUIT FOR SHORT

Check continuity between the driver assistance buzzer control module harness connector and ground.

Driver assistance buzzer control module		Ground	Continuity
Connector	Terminal		
M56	8		Not existed
	16		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair the harnesses or connectors.

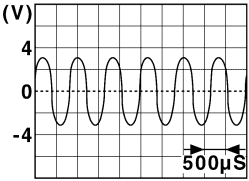
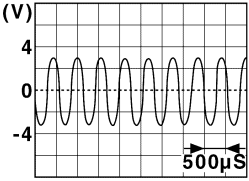
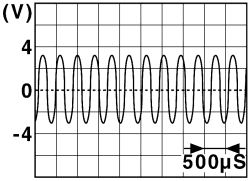
3. CHECK DRIVER ASSISTANCE BUZZER SIGNAL

1. Connect the driver assistance buzzer connector and driver assistance buzzer control module connector.
2. Turn ignition switch ON.
3. Select the active test of "BSW/BUZZER" with CONSULT.
4. Check waveform between the driver assistance buzzer control module harness connector and ground.

DRIVER ASSISTANCE BUZZER CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

Driver assistance buzzer control module		Condition	Voltage (Approx.)
Connector	Terminal		
	+ -		
M56	8 16	At "BUZZER 1" test of "Active test"	 <p style="text-align: right; font-size: small;">JSOIA0949ZZ</p>
		At "BUZZER 2" test of "Active test"	 <p style="text-align: right; font-size: small;">JSOIA0950ZZ</p>
		At "BUZZER 3" test of "Active test"	 <p style="text-align: right; font-size: small;">JSOIA0951ZZ</p>

Is the inspection result normal?

- YES >> Replace the driver assistance buzzer. Refer to [DAS-512, "Removal and Installation"](#).
- NO >> Replace the driver assistance buzzer control module. Refer to [DAS-511, "Removal and Installation"](#).

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DRIVER ASSISTANCE SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

SYMPTOM DIAGNOSIS

DRIVER ASSISTANCE SYSTEM SYMPTOMS

Symptom Table

INFOID:000000012796383

Symptom	Confirmation item		Inspection item/Reference page
PFCW/LDW/BSW/DCA/LDP/ Blind Spot Intervention/BCI system display does not illuminate	All of system display does not illuminate		System cannot be turned ON/OFF ON the integral switch Refer to DAS-488, "Description"
	DCA/LDP/Blind Spot Intervention system display does not illuminate		Switch does not turn ON/Switch does not turn OFF Refer to DAS-491, "Description"
	BCI system display does not illuminate		TCM Refer to TM-102, "2.0L TURBO GASOLINE ENGINE : DTC Index"
	Other information display is not illuminated		Combination meter Refer to MWI-87, "DTC Index"
PFCW/LDW/BSW/DCA/LDP/ Blind Spot Intervention/BCI warning display does not illuminate (Buzzer is functioning normally)	Information display is functioning normally		ADAS control unit Refer to DAS-338, "DTC Index"
	Information display is not functioning normally		Perform On Board Diagnosis of Combination meter Refer to MWI-68, "On Board Diagnosis Function"
PFCW/LDW/BSW/DCA/LDP/ Blind Spot Intervention warning buzzer is not sounding (Warning display is functioning normally)	—		Chime does not sound Refer to DAS-489, "Description"
BCI warning buzzer is not sounding (Warning display is functioning normally)	Buzzer of camera assistance sonar is functioning normally		ADAS control unit Refer to DAS-214, "Removal and Installation"
	Buzzer of camera assistance sonar is not functioning normally		Camera assistance sonar Refer to AV-616, "Symptom Table"
PFCW/DCA is not activated	DCA is not activated	No force generated for putting back the accelerator pedal	No force generated for putting back the accelerator pedal Refer to DAS-493, "Description"
	PFCW and DCA are not activated	Frequently cannot detect the vehicle ahead/Detection zone is short	Frequently cannot detect the vehicle ahead/Detection zone is short Refer to DAS-494, "Description"
		System misidentifies a vehicle even though there is no vehicle ahead	Perform radar alignment Refer to CCS-114, "Application Notice"
		System misidentifies a vehicle in the next lane	
System does not detect the vehicle ahead at all	The system does not detect the vehicle ahead at all Refer to DAS-496, "Description"		

DRIVER ASSISTANCE SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

Symptom	Confirmation item	Inspection item/Reference page	
LDW/LDP is not functioning normally	The system operates once but is cancelled.	Check Cause of auto-cancel <ul style="list-style-type: none"> • With DAST: DAS-526, "CONSULT Function" • Without DAST: DAS-289, "CONSULT Function (ICC/ADAS)" 	
	Functions when changing the course in direction of the turn signal	Symptom operates even when using turn signal Refer to DAS-498, "Description"	
	Warning functions are not timely <ul style="list-style-type: none"> • Does not function when driving on lane markers • Functions when driving in a lane • Functions in a different position from the actual position 	Lane camera unit aiming adjustment Refer to DAS-788, "Description"	
Blind Spot Intervention is not functioning normally	The system operates once but is cancelled.	Check "Cause of auto-cancel 1" Refer to DAS-526, "CONSULT Function"	
	Blind Spot Intervention are not timely <ul style="list-style-type: none"> • Does not function when approaching a lane marker while Blind Spot Warning/Blind Spot Intervention indicator is illuminated • Functions when driving in the middle of lane 	Lane camera unit aiming adjustment Refer to DAS-788, "Description"	
BCI is not activated	The system operates once but is cancelled.	Check "Cause of auto-cancel 3" Refer to DAS-28, "CONSULT Function (ICC/ADAS)"	
	Does not detect a vehicle just behind.	Blind Spot Warning/Blind Spot Intervention is activated	ADAS control unit Refer to DAS-214, "Removal and Installation"
		Blind Spot Warning/Blind Spot Intervention is not activated	Side radar Refer to DAS-508, "Removal and Installation"
	Does not detect obstacles behind the vehicle.	Buzzer of camera assistance sonar is activated	ADAS control unit Refer to DAS-214, "Removal and Installation"
		Buzzer of camera assistance sonar is not activated	Camera assistance sonar Refer to AV-616, "Symptom Table"
	No force generated for putting back the accelerator pedal	DCA is activated	ADAS control unit Refer to DAS-214, "Removal and Installation"
		DCA is not activated	No force generated for putting back the accelerator pedal Refer to DAS-493, "Description"

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SYSTEM SETTINGS CANNOT BE TURNED ON/OFF ON THE INTEGRAL SWITCH

< SYMPTOM DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

SYSTEM SETTINGS CANNOT BE TURNED ON/OFF ON THE INTEGRAL SWITCH

Description

INFOID:000000012796384

- System setting is not selectable on the navigation screen.

NOTE:

When the ignition switch is in ACC position, each system settings cannot be changed.

- The switching between ON and OFF cannot be performed by operating the integral switch.
- The item on the integral switch is not active.
- After turning ON the ignition switch or starting the engine, settings of the integral switch cannot be selected for several tens of seconds under the following conditions:
 - After replacing display control unit.
 - After erasing connection history of the integral switch.
 - After erasing self-diagnosis results.
- The system setting differs from the one set at the previous driving.

NOTE:

Turn OFF the ignition switch and wait for 5 seconds or more.

Diagnosis Procedure

INFOID:000000012796385

1. CHECK DCA SYSTEM SETTING

1. Start the engine.
2. Check that the each system settings is selectable on the integral switch.

Is the inspection result normal?

- YES >> GO TO 3.
- NO >> GO TO 2.

2. PERFORM THE SELF-DIAGNOSIS

1. Perform "All DTC Reading" with CONSULT-.
2. Check if the DTC is detected in self-diagnosis results of "ICC/ADAS", "MULTI AV" and "METER/M&A". Refer to the following.
 - ICC/ADAS: [DAS-338, "DTC Index"](#)
 - MULTI AV: [AV-485, "DTC Index"](#)
 - METER/M&A: [MWI-87, "DTC Index"](#)

Is any DTC detected?

- YES >> Repair or replace malfunctioning parts.
- NO >> INSPECTION END

3. CHECK DATA MONITOR OF ADAS CONTROL UNIT

Check that "DCA SELECT" operates normally in "DATA MONITOR" of "ICC/ADAS" with CONSULT.

Is the inspection result normal?

- YES >> Refer to [AV-83, "On Board Diagnosis Function"](#).
- NO >> GO TO 4.

4. CHECK MULTIFUNCTION SWITCH

Operate the multifunction switch to check that the audio, navigation system, and air conditioner operate properly.

Is the inspection result normal?

- YES >> Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).
- NO >> Repair or replace malfunctioning parts.

CHIME DOES NOT SOUND

< SYMPTOM DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

CHIME DOES NOT SOUND

Description

INFOID:000000012796386

The warning chime may not sound in some cases when there is a short distance between vehicles. Some examples are:

- When the vehicles are traveling at the same speed and the distance between vehicles is not changing.
- When the vehicle ahead is traveling faster and the distance between vehicles is increasing.
- When a vehicle cuts in near own vehicle.
- The warning chime will not sound when own vehicle approaches vehicles that are parked or moving slowly.
- The warning chime does not sound when the system does not detect any vehicle ahead. (Diagnose the conditions under which the system is detecting the vehicle ahead and when the system is malfunctioning. If there is any malfunction in detecting the vehicle ahead, check the system following the [DAS-494, "Description"](#).)

Diagnosis Procedure

INFOID:000000012796387

1.PERFORM ACTIVE TEST

Check if the warning chime sounds on the active test item "ICC BUZZER" of "ICC/ADAS" with CONSULT.

Does the warning chime sound?

- YES >> GO TO 2.
NO >> GO TO 3.

2.CHECK THE MALFUNCTION SYMPTOM DURING WARNING CHIME OPERATION

Understand the vehicle ahead detection condition when the malfunction occurred. If the warning chime should have sounded, replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

>> GO TO 9.

3.PERFORM THE SELF-DIAGNOSIS

1. Perform "All DTC Reading" with CONSULT.
2. Check if the "U1000" is detected in self-diagnosis results of "ICC/ADAS".

Is "U1000" detected?

- YES >> GO TO 4.
NO >> GO TO 5.

4.CAN COMMUNICATIONS INSPECTION

Check the CAN communication and repair or replace malfunctioning parts. Refer to [DAS-175, "DTC Logic"](#).

>> GO TO 9.

5.PERFORM THE SELF-DIAGNOSIS OF DRIVER ASSISTANCE BUZZER CONTROL MODULE

1. Perform "All DTC Reading" with CONSULT.
2. Check if any DTC is detected in self-diagnosis results of "BSW/BUZZER".

Is any DTC detected?

- YES >> Repair or replace malfunctioning parts. Refer to [DAS-353, "DTC Index"](#).
NO >> GO TO 6.

6.CHECK DRIVER ASSISTANCE BUZZER CIRCUIT

Check driver assistance buzzer. Refer to [DAS-484, "Component Function Check"](#).

Is the inspection result normal?

- YES >> GO TO 8.
NO >> GO TO 7.

7.REPAIR OR REPLACE MALFUNCTIONING PARTS

Repair or replace malfunctioning parts.

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DAS

CHIME DOES NOT SOUND

< SYMPTOM DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

>> GO TO 9.

8.REPLACE ADAS CONTROL UNIT

Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

>> GO TO 9.

9.CHECK EACH SYSTEM

1. Erase "self-diagnosis result", and then perform "All DTC Reading" again after performing the action test. (Refer to [DAS-436, "DCA : Description"](#) for action test.)
2. Check if the each system is normal.

>> INSPECTION END

SWITCH DOES NOT TURN ON / SWITCH DOES NOT TURN OFF

< SYMPTOM DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

SWITCH DOES NOT TURN ON / SWITCH DOES NOT TURN OFF

Description

INFOID:000000012796388

The switch does not turn ON

- When the system setting is ON, the system display does not illuminate even if the dynamic driver assistance switch is depressed.

The switch does not turn OFF

- The system display does not turn off even if the dynamic driver assistance switch is pressed when the system display illuminates.

Diagnosis Procedure

INFOID:000000012796389

1. CHECK SYSTEM SETTING

1. Start the engine.
2. After starting the engine wait for 5 seconds or more.
3. Check that system setting on the integral switch is ON.

Is system setting ON?

YES >> GO TO 2.

NO >> Enable the system setting.

2. DYNAMIC DRIVER ASSISTANCE SWITCH INSPECTION

1. Start the engine.
2. Check that "DYNA ASIST SW" operates normally in "DATA MONITOR" of "ICC/ADAS" with CONSULT.

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 4.

3. PERFORM THE SELF-DIAGNOSIS OF COMBINATION METER

1. Perform "All DTC Reading" with CONSULT.
2. Check if the DTC is detected in self-diagnosis results of "METER/M&A". Refer to [MWI-87, "DTC Index"](#).

Is the inspection result normal?

YES >> GO TO 7.

NO >> GO TO 6.

4. CHECK STEERING SWITCH CIRCUIT

Check the steering switch circuit. Refer to [DAS-119, "Diagnosis Procedure \(2.0 TURBO GASOLINE ENGINE\)"](#) (2.0L turbo gasoline engine) or [DAS-117, "Diagnosis Procedure \(VR30DDTT\)"](#) (VR30DDTT).

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 6.

5. PERFORM THE SELF-DIAGNOSIS

1. Perform "All DTC Reading" with CONSULT.
2. Check if the DTC is detected in self-diagnosis results of "ICC/ADAS". Refer to [DAS-338, "DTC Index"](#).

Is any DTC detected?

YES >> GO TO 6.

NO >> GO TO 7.

6. REPAIR OR REPLACE MALFUNCTIONING PARTS.

Repair or replace malfunctioning parts.

>> GO TO 7.

7. CHECK EACH SYSTEM

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SWITCH DOES NOT TURN ON / SWITCH DOES NOT TURN OFF

< SYMPTOM DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

1. Erase “self-diagnosis result”, and then perform “All DTC Reading” again after performing the action test.
(Refer to [DAS-436, "DCA : Description"](#) for action test.)
2. Check that the each system is normal.

>> INSPECTION END

NO FORCE GENERATED FOR PUTTING BACK THE ACCELERATOR PEDAL

Description

INFOID:000000012796390

The dynamic driver assistance switch can be turned ON/OFF but the actuation force of accelerator pedal is not generated.

NOTE:

- When the vehicle ahead detection indicator does not illuminate, the control and warning with the system are not performed.
- The actuation force of accelerator pedal may not be generated sufficiently depending on depressing method or depressing amount of accelerator pedal.

Diagnosis Procedure

INFOID:000000012796391

1.PERFORM THE SELF-DIAGNOSIS

1. Perform "All DTC Reading" with CONSULT.
2. Check if any DTC is detected in self-diagnosis results of "ICC/ADAS" or "ACCELE PEDAL ACT".

Is any DTC detected?

- YES >> GO TO 2.
NO >> GO TO 3.

2.REPAIR OR REPLACE THE MALFUNCTIONING PARTS

Repair or replace malfunctioning parts. Refer to [DAS-338. "DTC Index"](#) (ICC/ADAS) or [DAS-345. "DTC Index"](#) (ACCELE PEDAL ACT).

>> GO TO 5.

3.PERFORM ACTIVE TEST

Check if the accelerator pedal actuator operates by the active test items "ACCELERATOR PEDAL ACTUATOR TEST1" and "ACCELERATOR PEDAL ACTUATOR TEST2" of "ACCELE PEDAL ACT" with CONSULT.

Does it operate?

- YES >> GO TO 4.
NO >> Replace the accelerator pedal assembly.

4.CHECK VEHICLE AHEAD DETECTION PERFORMANCE

Understand the vehicle ahead detection condition when the malfunction occurred. If the detecting function is malfunctioning, check according to [DAS-494. "Description"](#).

>> INSPECTION END

5.CHECK DCA SYSTEM

1. Erase "self-diagnosis result", and then perform "All DTC Reading" again after performing the action test. (Refer to [DAS-436. "DCA : Description"](#) for action test.)
2. Check if the DCA system is normal.

>> INSPECTION END

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FREQUENTLY CANNOT DETECT THE VEHICLE AHEAD / DETECTION ZONE IS SHORT

< SYMPTOM DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

FREQUENTLY CANNOT DETECT THE VEHICLE AHEAD / DETECTION ZONE IS SHORT

Description

INFOID:000000012796392

Symptom check: Detection function may become unstable under the following conditions.

- When the vehicle is driving on a curve such as S-curve where the curvature changes.
- When the vehicle is driving on up-and-down road or passing the peak or foot of slope or passing the break of the inclination of hill.

Diagnosis Procedure

INFOID:000000012796393

1.VISUAL CHECK (1)

Check front bumper grille near the ICC sensor for contamination and foreign materials.

Do foreign materials adhere?

- YES >> GO TO 2.
- NO >> GO TO 3.

2.WIPE OUT DIRT AND FOREIGN OBJECTS

Wipe out the contamination and/or foreign materials from the front bumper grille near the ICC sensor.

>> GO TO 7.

3.VISUAL CHECK (2)

Check ICC sensor for cracks and/or scratches.

Are there cracks?

- YES >> GO TO 5.
- NO >> GO TO 4.

4.PERFORM RADAR ALIGNMENT

1. Perform radar alignment. Refer to [CCS-114, "Application Notice"](#).
2. Perform action test. Refer to [DAS-436, "DCA : Description"](#).
3. Check that the vehicle ahead detection performance improves.

Does it improve?

- YES >> INSPECTION END
- NO >> GO TO 5.

5.REPLACE ICC SENSOR

1. Replace the ICC sensor. Refer to [CCS-166, "Removal and Installation"](#).
2. Perform radar alignment. Refer to [CCS-114, "Application Notice"](#).
3. Perform action test. Refer to [DAS-436, "DCA : Description"](#).
4. Check that the vehicle ahead detection performance improves.

Does it improve?

- YES >> INSPECTION END
- NO >> GO TO 6.

6.REPLACE ADAS CONTROL UNIT

Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

>> GO TO 7.

7.CHECK DCA SYSTEM

1. Erase "self-diagnosis result", and then perform "All DTC Reading" again after performing the action test. (Refer to [DAS-436, "DCA : Description"](#) for action test.)
2. Check that the DCA/FCW system is normal.

FREQUENTLY CANNOT DETECT THE VEHICLE AHEAD / DETECTION ZONE IS SHORT

< SYMPTOM DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

>> INSPECTION END

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THE SYSTEM DOES NOT DETECT THE VEHICLE AHEAD AT ALL

< SYMPTOM DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

THE SYSTEM DOES NOT DETECT THE VEHICLE AHEAD AT ALL

Description

INFOID:000000012796394

When DCA/PFCW system is active, the DCA/PFCW system does not perform any control even though there is a vehicle ahead.

Diagnosis Procedure

INFOID:000000012796395

1. CHECK INFORMATION DISPLAY

1. Start the self-diagnosis mode of combination meter. Refer to [MWI-68, "On Board Diagnosis Function"](#).
2. Check that the segment of information display is displayed normally.

Is the inspection result normal?

- YES >> GO TO 2.
- NO >> Replace the combination meter.

2. VISUAL CHECK (1)

Check front bumper grille near the ICC sensor for contamination and/or foreign materials.

Do foreign materials adhere?

- YES >> GO TO 3.
- NO >> GO TO 4.

3. WIPE OUT DIRT AND FOREIGN MATERIALS

Wipe out the contamination and/or foreign materials from the front bumper grille near the ICC sensor.

>> GO TO 8.

4. VISUAL CHECK (2)

Check ICC sensor for cracks and/or scratches.

Are there cracks?

- YES >> GO TO 6.
- NO >> GO TO 5.

5. PERFORM RADAR ALIGNMENT

1. Perform radar alignment. Refer to [CCS-114, "Application Notice"](#).
2. Perform action test. Refer to [DAS-436, "DCA : Description"](#).
3. Check that the vehicle ahead detection performance improves.

Does it improve?

- YES >> INSPECTION END
- NO >> GO TO 6.

6. REPLACE ICC SENSOR

1. Replace the ICC sensor. Refer to [CCS-166, "Removal and Installation"](#).
2. Perform radar alignment. Refer to [CCS-114, "Application Notice"](#).
3. Perform action test. Refer to [DAS-436, "DCA : Description"](#).
4. Check that the vehicle ahead detection performance improves.

Does it improve?

- YES >> INSPECTION END
- NO >> GO TO 7.

7. REPLACE ADAS CONTROL UNIT

Replace the ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

>> GO TO 8.

8. CHECK DCA SYSTEM

THE SYSTEM DOES NOT DETECT THE VEHICLE AHEAD AT ALL

< SYMPTOM DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

1. Erase “self-diagnosis result”, and then perform “All DTC Reading” again after performing the action test.
(Refer to [DAS-436, "DCA : Description"](#) for action test.)
2. Check that the DCA/FCW system is normal.

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>> INSPECTION END

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THE SYSTEM OPERATES EVEN WHEN USING TURN SIGNAL

< SYMPTOM DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

THE SYSTEM OPERATES EVEN WHEN USING TURN SIGNAL

Description

INFOID:000000012796396

The warning of Lane Departure Warning (LDW) and Lane Departure Prevention (LDP) and the yaw moment control are activated during the use of a turn signal.

NOTE:

For the operational conditions of Lane Departure Warning (LDW) and Lane Departure Prevention (LDP), refer to the following descriptions.

- LDW: [DAS-234, "LDW \(WITHOUT DIRECT ADAPTIVE STEERING SYSTEM\) : System Description"](#)
- LDP: [DAS-240, "LDP \(WITHOUT DIRECT ADAPTIVE STEERING SYSTEM\) : System Description"](#)

Diagnosis Procedure

INFOID:000000012796397

1. CHECK TURN SIGNAL OPERATION

Check that both right and left turn signals are normal.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace malfunctioning parts. Refer to [DAS-486, "Symptom Table"](#).

2. CHECK SELF-DIAGNOSIS RESULTS

1. Perform "All DTC Reading" with CONSULT.

2. Check if the DTC is detected in self-diagnosis results of "ICC/ADAS" Refer to [DAS-338, "DTC Index"](#).

Is any DTC detected?

YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts.

NO >> Replace ADAS control unit. Refer to [DAS-214, "Removal and Installation"](#).

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

NORMAL OPERATING CONDITION

Description

INFOID:000000012796398

PRECAUTIONS FOR DISTANCE CONTROL ASSIST (DCA) SYSTEM

- If the vehicle ahead comes to a stop, the vehicle decelerates to a standstill within the limitations of the system. The system will cancel once it judges that the vehicle has come to a standstill with a warning chime. To prevent the vehicle from moving, the driver must depress the brake pedal.
- The DCA system will not apply brake control while the driver's foot is on the accelerator pedal.
- This system is only an aid to assist the driver and is not a collision warning or avoidance device. It is the driver's responsibility to stay alert, drive safely and be in control of the vehicle at all times.
- This system will not adapt automatically to road conditions. Do not use the system on roads with sharp curves, or on icy roads, in heavy rain or in fog.
- The distance sensor will not detect the following object.
 - Stationary and slow moving vehicles
 - Pedestrians or objects in the roadway
 - Oncoming vehicles in the same lane
 - Motorcycles traveling offset in the travel lane
- As there is a performance limit to the distance control function, never rely solely on the DCA system. This system does not correct careless, inattentive or absent-minded driving, or overcome poor visibility in rain, fog, or other bad weather. Decelerate the vehicle speed by depressing the brake pedal, depending on the distance to the vehicle ahead and the surrounding circumstances in order to maintain a safe distance between vehicles.
- The system may not detect the vehicle in front of own vehicle in certain road or weather conditions. To avoid accidents, never use the DCA system under the following conditions.
 - On roads with sharp curves
 - On slippery road surfaces such as on ice or snow, etc.
 - During bad weather (rain, fog, snow, etc.)
 - When rain, snow or dirt adhere to the system sensor
 - On steep downhill roads (frequent braking may result in overheating the brakes)
 - On repeated uphill and downhill roads
- In some road or traffic conditions, a vehicle or object can unexpectedly come into the sensor detection zone and cause automatic braking. Driver may need to control the distance from other vehicles using the accelerator pedal. Always stay alert and avoid using the DCA system when it is not recommended in this section.
- The following are some conditions in which the sensor cannot detect the signals.
 - When the snow or road spray from traveling vehicles reduces the sensor's visibility
 - When excessively heavy baggage is loaded in the rear seat or the luggage room of own vehicle
- The DCA system is designed to automatically check the sensor's operation. When the sensor area of front bumper is covered with dirt or is obstructed, the system will automatically be canceled. If the sensor is covered with ice, a transparent or translucent vinyl bag, etc., the DCA system may not detect them. In these instances, the DCA system may not be able to decelerate the vehicle properly. Be sure to check and clean the sensor regularly.
- The DCA system is designed to help assist the driver to maintain a following distance from the vehicle ahead. The system will decelerate as necessary and if the vehicle ahead comes to a stop, the vehicle decelerates to standstill. However, the DCA system can only apply up to approximately 40% of the vehicles total braking power. If a vehicle moves into the traveling lane ahead or if a vehicle traveling ahead rapidly decelerates, the distance between vehicles may become closer because the DCA system cannot decelerate the vehicle quickly enough. If this occurs, the DCA system will sound a warning chime and blink the system display to notify the driver to take necessary action.
- The DCA system does not control vehicle speed or warn when driver approach stationary and slow moving vehicles. Driver must pay attention to vehicle operation to maintain proper distance from vehicles ahead.

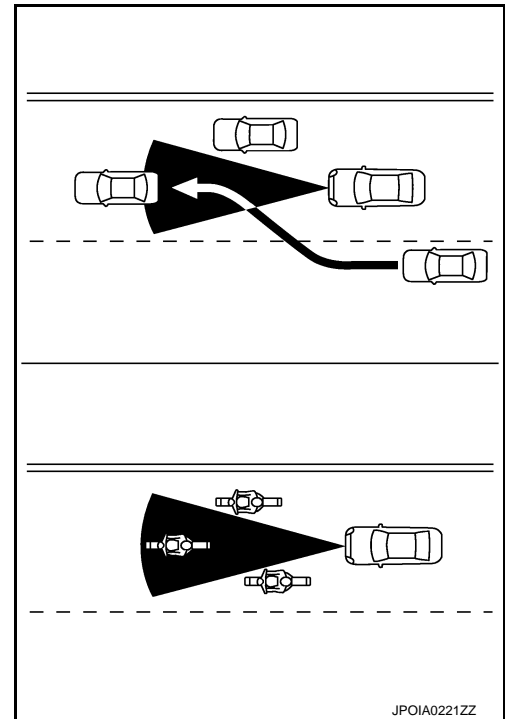
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NORMAL OPERATING CONDITION

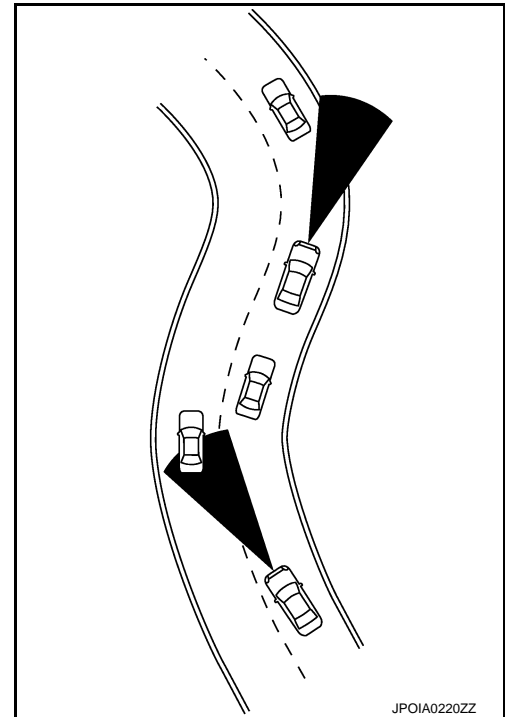
< SYMPTOM DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

- The detection zone of the sensor is limited. A vehicle ahead must be in the detection zone for the system to operate.
- A vehicle ahead may move outside of the detection zone due to its position within the same lane of travel. Motorcycles may not be detected in the same lane ahead if they are traveling offset from the center line of the lane. A vehicle that is entering the lane ahead may not be detected until the vehicle has completely moved into the lane. If this occurs, the system may warn driver by blinking the system indicator and sounding the chime. The driver may have to manually control the proper distance away from vehicle traveling ahead.



- When driving on some roads, such as winding, hilly, curved, narrow roads, or roads which are under construction, the sensor may detect vehicles in a different lane, or may temporarily not detect a vehicle traveling ahead. This may cause the system to work inappropriately. The detection of vehicles may also be affected by vehicle operation (steering maneuver or traveling position in the lane, etc.) or vehicle condition. If this occurs, the system may warn driver by blinking the system indicator and sounding the chime unexpectedly. The driver will have to manually control the proper distance away from the vehicle traveling ahead.



- The approach warning chime may sound and the driver assist system forward indicator (orange) may blink when the radar sensor detects objects on the side of the vehicle or on the side of the road. This may cause the DCA system to decelerate or accelerate the vehicle. The radar sensor may detect these objects when the vehicle is driven on winding roads, narrow roads, hilly roads or when entering or exiting a curve. In these cases driver will have to manually control the proper distance ahead of own vehicle. Also, the sensor sensitivity can be affected by vehicle operation (steering maneuver or driving position in the lane) or traffic or vehicle condition (for example, if a vehicle is being driven with some damage).
- The DCA system automatically decelerates own vehicle to help assist the driver to maintain a following distance from the vehicle ahead. Manually brake when deceleration is required to maintain a safe distance upon sudden braking by the vehicle ahead or when a vehicle suddenly appears in front of own vehicle. Always stay alert when using the DCA system.
- When the vehicle ahead detection indicator lamp is not illuminated, system will not control or warn the driver.
- Never place a foot under the brake pedal. A foot may be caught when the system controls the brake.
- Depending on the position of the accelerator pedal, the system may not be able to assist the driver to release the accelerator pedal appropriately.
- If the vehicle ahead comes to a standstill, the vehicle decelerates to a standstill within the limitations of the system. The system will release brake control with a warning chime once it judges the vehicle is at a standstill. To prevent the vehicle from moving, the driver must depress the brake pedal. [The system will resume control automatically once the system reaches 5 km/h (3 MPH)].
- When the brake operates, a noise may be heard. This is not a malfunction.

PRECAUTIONS FOR PREDICTIVE FORWARD COLLISION WARNING (PFCW)

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

- The predictive forward collision warning system is designed to warn driver before a collision but will not avoid a collision. It is the driver's responsibility to stay alert, drive safely and be in control of the vehicle at all times. A
- The radar sensor does not detect the following objects. B
 - Pedestrians, animals, or obstacles in the roadway.
 - Oncoming vehicles
 - Crossing vehicles
- The predictive forward collision warning system does not function when a vehicle ahead is a narrow vehicle, such as a motorcycle. C
- The radar sensor may not detect a second vehicle ahead in the following conditions: D
 - Snow or heavy rain
 - Dirt, ice, snow or other material covering the radar sensor
 - Interference by other radar sources
 - Snow or road spray from traveling vehicles is splashed
 - Driving in a tunnel
- The radar sensor may not detect a second vehicle when the vehicle ahead is being towed. E
- When the distance to the vehicle ahead is too close, the beam of the radar sensor is obstructed.
- The radar sensor may not detect a second vehicle when driving on a steep downhill slope or on roads with sharp curves.
- Excessive noise will interfere with the warning tone sound, and it may not be heard. F

PRECAUTIONS FOR LANE DEPARTURE WARNING (LDW)

- If the LDW system malfunctions, it will cancel automatically, and the LDW malfunction message will appear in the vehicle information display. G
- LDW system is only a warning device to inform the driver of a potential unintended lane departure. It will not steer the vehicle or prevent loss of control. It is the driver's responsibility to stay alert, drive safely, keep the vehicle in the traveling lane, and be in control of the vehicle at all times. H
- LDW system will not operate at speeds below approximately 70 km/h (45 MPH) or if it cannot detect lane markers.
- Excessive noise will interfere with the warning chime sound, and the chime may not be heard. I
- LDW system may not function properly under the following conditions: J
 - On roads where there are multiple parallel lane markers; lane markers that are faded or not painted clearly; yellow painted lane markers; non-standard lane markers; or lane markers covered with water, dirt or snow, etc.
 - On roads where the discontinued lane markers are still detectable.
 - On roads where there are sharp curves.
 - On roads where there are sharply contrasting objects, such as shadows, snow, water, wheel ruts, seams or lines remaining after road repairs. (The LDW system could detect these items as lane markers.) K
 - On roads where the traveling lane merges or separates.
 - When the vehicle's traveling direction does not align with the lane marker. L
 - When traveling close to the vehicle in front of driver, which obstructs the lane camera unit detection range.
 - When rain, snow or dirt adheres to the windshield in front of the lane camera unit.
 - When the headlights are not bright due to dirt on the lens or if the aiming is not adjusted properly. M
 - When strong light enters the lane camera unit. (For example, the light directly shines on the front of the vehicle at sunrise or sunset.)
 - When a sudden change in brightness occurs. (For example, when the vehicle enters or exits a tunnel or under a bridge.) N

PRECAUTIONS FOR LANE DEPARTURE PREVENTION (LDP)

- If the LDP system malfunctions, it will cancel automatically, and the LDP malfunction message will appear in the vehicle information display. DAS
- The LDP system will not always steer the vehicle to keep it in the lane. It is not designed to prevent loss of control. It is the driver's responsibility to stay alert, drive safely, keep the vehicle in the traveling lane, and be in control of vehicle at all times. P
- LDP system is primarily intended for use on well-developed freeways or highways. It may not detect the lane markers in certain roads, weather or driving conditions.
- Using the LDP system under some conditions of road, lane marker or weather, or when driver change lanes without using the turn signal could lead to an unexpected system operation. In such conditions, driver needs to correct the vehicle's direction with driver's steering operation to avoid accidents.
- The LDP system will not operate at speeds below approximately 70 km/h (45 MPH) or if it cannot detect lane markers.
- Do not use the LDP system under the following conditions as it may not function properly:

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

- During bad weather (rain, fog, snow, etc.).
- When driving on slippery roads, such as on ice or snow, etc.
- When driving on winding or uneven roads.
- When there is a lane closure due to road repairs.
- When driving in a makeshift or temporary lane.
- When driving on roads where the lane width is too narrow.
- When driving with a tire that is not within normal tire conditions (for example, tire wear, low tire pressure, installation of spare tire, tire chains, non-standard wheels).
- When the vehicle is equipped with non-original brake or steering parts or suspension parts.
- Excessive noise will interfere with the warning chime sound, and the chime may not be heard.
- The functions of the LDP system (warning and, system application of the steering or brakes) may or may not operate properly under the following conditions:
 - On roads where there are multiple parallel lane markers; lane markers that are faded or not painted clearly; yellow painted lane markers; non-standard lane markers or lane markers covered with water, dirt or snow, etc.
 - On roads where discontinued lane markers are still detectable.
 - On roads where there are sharp curves.
 - On roads where there are sharply contrasting objects, such as shadows, snow, water, wheel ruts, seams or lines remaining after road repairs (The LDP system could detect these items as lane markers.).
 - On roads where the traveling lane merges or separates.
 - When the vehicle's traveling direction does not align with the lane marker.
 - When traveling close to the vehicle in front of driver, which obstructs the lane camera unit detection range.
 - When rain, snow or dirt adheres to the windshield in front of the lane camera unit.
 - When the headlights are not bright due to dirt on the lens or if the aiming is not adjusted properly.
 - When strong light enters the lane camera unit (For example, the light directly shines on the front of the vehicle at sunrise or sunset.)
 - When a sudden change in brightness occurs (For example, when the vehicle enters or exits a tunnel or under a bridge.)

PRECAUTIONS FOR BLIND SPOT WARNING & BLIND SPOT INTERVENTION

- The Blind Spot Warning and Blind Spot Intervention systems are not a replacement for proper driving procedure and are not designed to prevent contact with vehicles or objects. When changing lanes, always use the side and rear mirrors and turn and look in the direction driver will move to ensure it is safe to change lanes. Never rely solely on the Blind Spot Warning or Blind Spot Intervention system.
- Using the Blind Spot Intervention system under some road, lane marker or weather conditions could lead to improper system operation. Always rely on driver's own steering and braking operation to avoid accidents.
- The Blind Spot Warning and Blind Spot Intervention systems may not provide the warning or the control for vehicles that pass through the detection zone quickly.
- Excessive noise (for example, audio system volume, open vehicle window) will interfere with the chime sound, and it may not be heard.
- The side radar may not be able to detect and activate Blind Spot Warning/Blind Spot Intervention when certain objects are present such as:
 - Pedestrians, bicycles, animals.
 - Several types of vehicles such as motorcycles.
 - Oncoming vehicles.
 - Vehicles remaining in the detection zone when driver accelerate from a stop.
 - A vehicle merging into an adjacent lane at a speed approximately the same as vehicle.
 - A vehicle approaching rapidly from behind.
 - A vehicle which vehicle overtakes rapidly.
- Severe weather or road spray conditions may reduce the ability of the radar to detect other vehicles.
- The side radar detection zone is designed based on a standard lane width. When driving in a wider lane, the side radar may not detect vehicles in an adjacent lane. When driving in a narrow lane, the side radar may detect vehicles driving two lanes away.
- The side radar are designed to ignore most stationary objects, however objects such as guardrails, walls, foliage and parked vehicles may occasionally be detected. This is a normal operating condition.

PRECAUTIONS FOR BLIND SPOT INTERVENTION

- Do not use the Blind Spot Intervention system under the following conditions because the system may not function properly.
 - During bad weather (for example. rain, fog, snow, etc.)
 - When driving on slippery roads, such as on ice or snow, etc.
 - When driving on winding or uneven roads.

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

- When there is a lane closure due to road repairs.
- When driving in a makeshift or temporary lane.
- When driving on roads where the lane width is too narrow.
- When driving with a tire that is not within normal tire conditions (for example, tire wear, low tire pressure, installation of spare tire, tire chains, non-standard wheels).
- When the vehicle is equipped with non-original steering parts, brake parts or suspension parts.
- The camera may not detect lane markers in the following situations and the Blind Spot Intervention system may not operate properly.
- On roads where there are multiple parallel lane markers; lane markers that are faded or not painted clearly; yellow painted lane markers; nonstandard lane markers; lane markers covered with water, dirt, snow, etc.
- On roads where discontinued lane markers are still detectable.
- On roads where there are sharp curves.
- On roads where there are sharply contrasting objects, such as shadows, snow, water, wheel ruts, seams or lines remaining after road repairs.
- On roads where the traveling lane merges or separates.
- When the vehicle is traveling direction does not align with the lane markers.
- When traveling close to the vehicle in front of driver, which obstructs the lane camera unit detection range.
- When rain, snow or dirt adheres to the windshield in front of a lane camera unit.
- When the headlights are not bright due to dirt on the lens or if aiming is not adjusted properly.
- When strong light enters a lane camera unit. (for example, light directly shines on the front of the vehicle at sunrise or sunset.)
- When a sudden change in brightness occurs. (for example, when the vehicle enters or exits a tunnel or under a bridge.)
- The Blind Spot Intervention system will not operate if own vehicle is on a lane marker when another vehicle enters the detection zone. In this case only the BSW system operates.
- Blind Spot Intervention assist will not operate or will stop operating and only a warning chime will sound under the following conditions.
- When the accelerator pedal is depressed while the assist is provided.
- When steering quickly.
- When the ICC, DCA, predictive forward collision warning or forward emergency braking warnings sound.
- When the hazard warning flashers are operated.
- When driving on a curve at a high speed.

PRECAUTIONS FOR BACKUP COLLISION INTERVENTION (BCI)

- The Back-up Collision Intervention system is not a replacement for proper driving procedure and is not designed to prevent contact with vehicles or objects. When backing out of parking space, always use the inside and outside rear view mirrors and turn and look in the direction own vehicle will move. Never rely solely on the Back-up Collision Intervention system.
- There is a limitation to the detection capability of the radar and the sonar. Using the BCI system under some road, ground, lane marker, traffic or weather conditions could lead to improper system operation. Always rely on driver operation to avoid accidents.
- In the case of several vehicles approaching in a row or in the opposite direction, a chime may not be issued to the BCI system after the first vehicle passes the sensors.
- When the sonar sounds a tone, the BCI system does not chime a sound (single beep).
- The BCI system does not operate if the object is very close to the bumper.
- The radar sensor may not be able to detect certain objects are present such as:
 - Pedestrians, bicycles or animals.
 - A vehicle that is passing at a speed greater than approximately 24 km/h (15 MPH).
- The radar sensor may not detect approaching vehicles in certain situations:
 - When the vehicle parked next to own vehicle obstructs the beam of the radar sensor.
 - When the vehicle is parked in an angled parking space.
 - When the vehicle is parked on inclined ground.
 - When the vehicle turns around into own vehicle's aisle.
 - When the angle formed by own vehicle and approaching vehicle is small.
- Severe weather or road spray conditions may reduce the ability of the radar to detect other vehicles.
- The sonar sensor system may not detect:
 - Small or moving object.
 - Wedge-shaped objects.
 - Object closer to the bumper [less than approximately 30 cm (10 in)].
 - Thin objects such as rope, wire, chain, etc...
- The brakes engaged by the BCI system is not as effective on a slope as it is on flat ground. When on a steep slope, the system may not function properly.

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NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

- Do not use the BCI system under the following conditions because the system may not function properly:
 - When driving with a tire that is not the within normal tire condition (example: tire wear, low tire pressure, installation of spare tire, tire chains, non-standard wheels).
 - When the vehicle is equipped with non-original brake parts or suspension parts.
- Excessive noise (for example, audio system volume, open vehicle window) will interfere with the chime sound, and it may not be heard.

ACCELERATOR PEDAL ASSEMBLY

< REMOVAL AND INSTALLATION >

[DRIVER ASSISTANCE SYSTEM]

REMOVAL AND INSTALLATION

ACCELERATOR PEDAL ASSEMBLY

Exploded View

INFOID:0000000012796399

Refer to [ACC-5, "MODELS WITH DISTANCE CONTROL ASSIST SYSTEM : Exploded View"](#).

CAUTION:

Always perform accelerator pedal released position learning after replacement, removal, or installation of accelerator pedal assembly, and then check the DCA system operation. Refer to [DAS-427, "Description"](#).

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DYNAMIC DRIVER ASSISTANCE SWITCH

< REMOVAL AND INSTALLATION >

[DRIVER ASSISTANCE SYSTEM]

DYNAMIC DRIVER ASSISTANCE SWITCH

Exploded View

INFOID:000000012796400

Dynamic driver assistance switch is integrated in the steering switch. Refer to [ST-32. "Exploded View"](#).

NOTE:

Always remove dynamic driver assistance switch together with steering wheel.

LANE CAMERA UNIT

Removal and Installation

INFOID:000000013526273

REMOVAL

1. Remove headlining assembly. Refer to [INT-46. "Removal and Installation"](#).
2. Remove the bolts.
3. Remove lane camera unit.

INSTALLATION

Install in the reverse order of removal.

CAUTION:

- Remove the camera lens cap for replacement.
- Never give an impact to the lane camera unit.
- Perform the camera aiming every time the lane camera unit is removed and installed. Refer to [DAS-428. "Description"](#).

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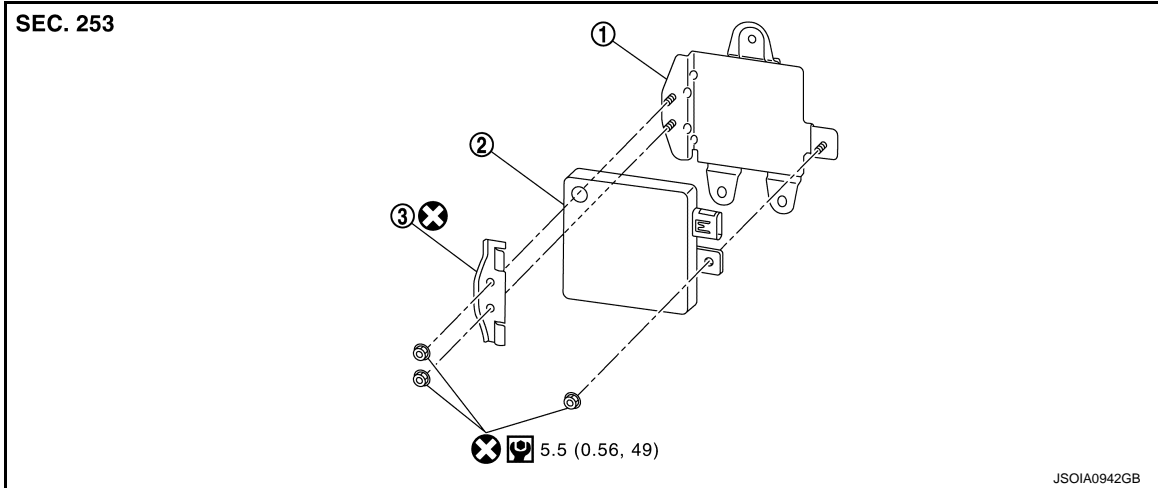
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SIDE RADAR

Removal and Installation

INFOID:000000012796401

EXPLODED VIEW



① Bracket

② Side radar

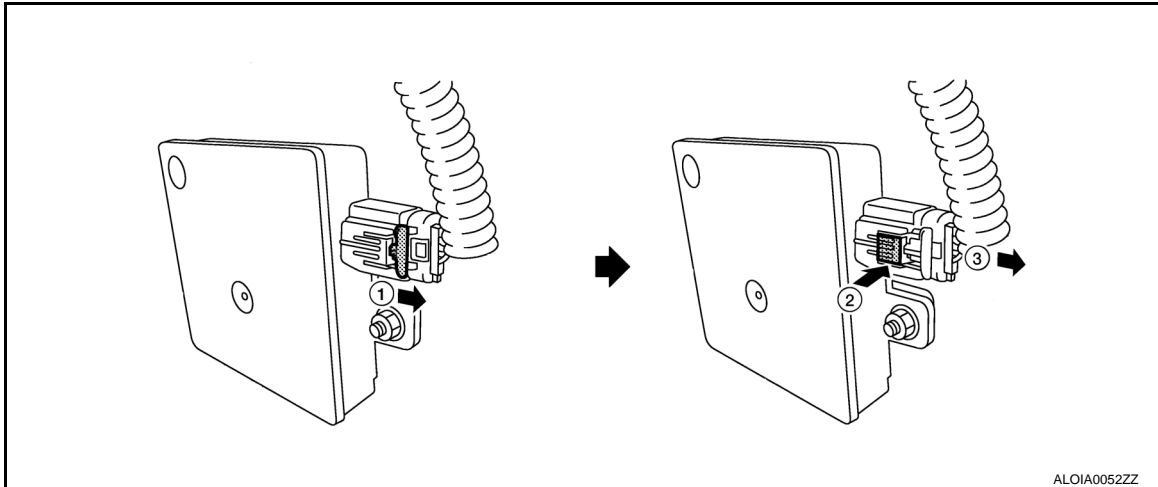
③ Bracket

: N·m (kg-m, in-lb)

REMOVAL AND INSTALLATION

Removal

1. Remove the rear bumper fascia. Refer to [EXT-22, "Removal and Installation"](#).
2. Remove the side radar connector.



3. Remove the mounting nut.
4. Remove the side radar RH/LH.

Installation

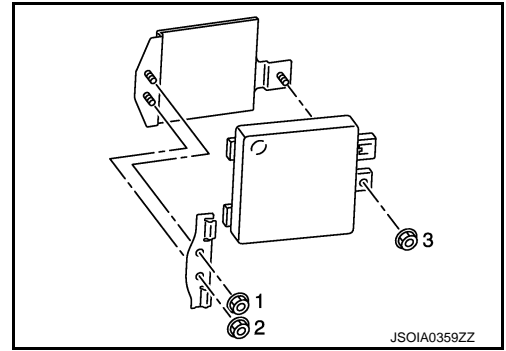
Note the following, and install in the reverse order of removal.

SIDE RADAR

[DRIVER ASSISTANCE SYSTEM]

< REMOVAL AND INSTALLATION >

- Tighten mounting nuts in the numerical order as shown in the figure.
- Always lock the side radar connector.



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BLIND SPOT WARNING/BLIND SPOT INTERVENTION INDICATOR

< REMOVAL AND INSTALLATION >

[DRIVER ASSISTANCE SYSTEM]

BLIND SPOT WARNING/BLIND SPOT INTERVENTION INDICATOR

Removal and Installation

INFOID:000000012796402

REMOVAL AND INSTALLATION

Removal

1. Remove the front door sash inner cover. Refer to [INT-17. "FRONT DOOR SASH INNER COVER : Removal and Installation"](#).
2. Remove the Blind Spot Warning/Blind Spot Intervention indicator.

Installation

Install in the reverse order of removal.

DRIVER ASSISTANCE BUZZER CONTROL MODULE

< REMOVAL AND INSTALLATION >

[DRIVER ASSISTANCE SYSTEM]

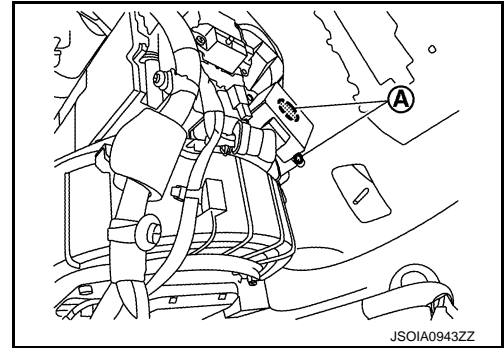
DRIVER ASSISTANCE BUZZER CONTROL MODULE

Removal and Installation

INFOID:000000012796403

REMOVAL

1. Remove grove box. Refer to [IP-13. "Removal and Installation"](#).
2. Remove steering force control module mounting bolts and move steering force control module to obtain space for work. Refer to [STC-492. "Removal and Installation"](#).
3. Remove driver assistance buzzer control module mounting screw **A**.
4. Disconnect harness connector from the driver assistance buzzer control module.
5. Remove driver assistance buzzer control module.



INSTALLATION

Installation is in the reverse order of removal.

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DRIVER ASSISTANCE BUZZER

< REMOVAL AND INSTALLATION >

[DRIVER ASSISTANCE SYSTEM]

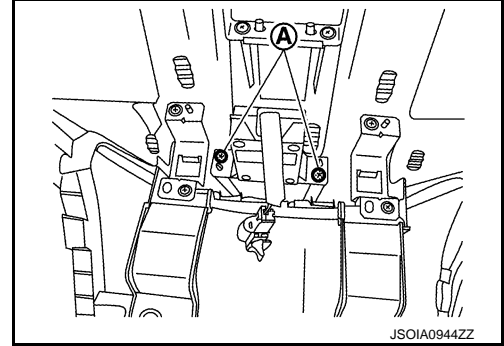
DRIVER ASSISTANCE BUZZER

Removal and Installation

INFOID:000000012796404

REMOVAL

1. Remove the instrument panel. Refer to [IP-13. "Removal and Installation"](#).
2. Remove driver assistance buzzer mounting screw (A).
3. Remove driver assistance buzzer.



INSTALLATION

Install in the reverse order of removal.

PRECAUTION

PRECAUTIONS

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

INFOID:000000013504530

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

WARNING:

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, it is recommended that all maintenance and repair be performed by an authorized NISSAN/INFINITI dealer.
- Improper repair, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see "SRS AIR BAG".
- Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery or batteries, and wait at least 3 minutes before performing any service.

Precautions for Performing 2-wheel Drive Test

INFOID:000000013504507

A vehicle with 2.2L diesel engine or 2.0L turbo gasoline engine of this model limits torque when a difference occurs in each wheel speed. For this reason, it is necessary to use Chassis Dynamometer Mode when performing the 2-wheel drive test (e.g. with 2-wheel chassis dynamometer, speedometer tester).

For Chassis Dynamometer Mode, refer to ENGINE >> ENGINE CONTROL SYSTEM >> BASIC INSPECTION >> CHASSIS DYNAMOMETER MODE >> Description.

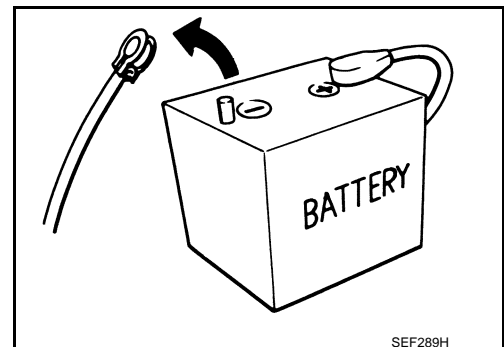
Precautions for Removing Battery Terminal

INFOID:000000013504556

When disconnecting the battery terminal, pay attention to the following.

- Always use a 12V battery as power source.
- Never disconnect battery terminal while engine is running.
- When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.
- For vehicles with the engine listed below, remove the battery terminal after a lapse of the specified time:

BR08DE	: 4 minutes	V9X engine	: 4 minutes
D4D engine	: 20 minutes	YD25DDTi	: 2 minutes
HR09DET	: 12 minutes	YS23DDT	: 4 minutes
HRA2DDT	: 12 minutes	YS23DDTT	: 4 minutes
K9K engine	: 4 minutes	ZD30DDTi	: 60 seconds



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PRECAUTIONS

< PRECAUTION >

[CHASSIS CONTROL]

M9R engine : 4 minutes ZD30DDTT : 60 seconds
R9M engine : 4 minutes

NOTE:

ECU may be active for several tens of seconds after the ignition switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption may occur.

- After high-load driving, if the vehicle is equipped with the V9X engine, turn the ignition switch OFF and wait for at least 15 minutes to remove the battery terminal.

NOTE:

- Turbocharger cooling pump may operate in a few minutes after the ignition switch is turned OFF.
- Example of high-load driving
 - Driving for 30 minutes or more at 140 km/h (86 MPH) or more.
 - Driving for 30 minutes or more on a steep slope.
- For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch.

NOTE:

If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.

- After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC.

NOTE:

The removal of 12V battery may cause a DTC detection error.

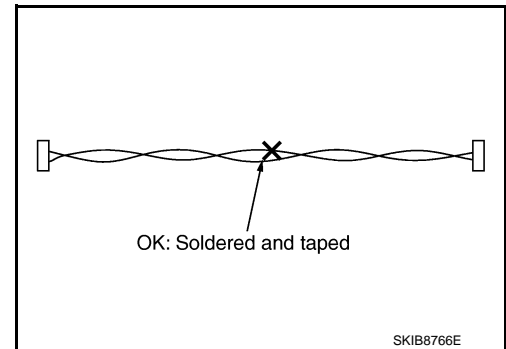
Precautions for Harness Repair

INFOID:000000012796407

- Solder the repaired area and wrap tape around the soldered area.

NOTE:

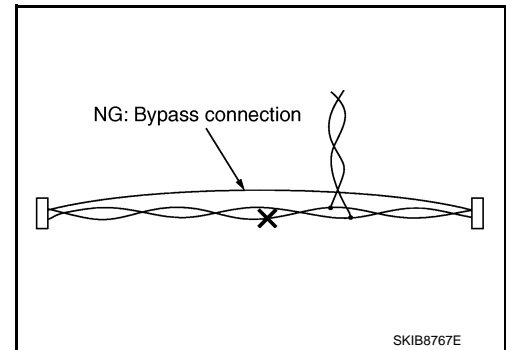
A fray of twisted lines must be within 110 mm (4.33 in).



- Bypass connection is never allowed at the repaired area.

NOTE:

Bypass connection may cause CAN communication error. The spliced wire becomes separated and the characteristics of twisted line are lost.



- Replace the applicable harness as an assembly if error is detected on the shield lines of CAN communication line.

Precautions for Chassis control

INFOID:000000012796408

- Never disassemble the chassis control module.
- The parts must not be reused if they are dropped.
- When using a free roller, never activate the active lane control function.
- Never perform ACTIVE TEST while driving the vehicle.
- Slight vibrations are felt on the brake pedal and the operation noises occur, when active trace control function operates. This is not a malfunction because it is caused by active trace control function that is normally operated.

PRECAUTIONS

[CHASSIS CONTROL]

< PRECAUTION >

- Active trace control function, active lane control function, LDP function, LDW function, blind spot intervention function, and digital motion control function are not always activated in any driving conditions. A
- User registration information is all reset when the display control unit is replaced.
- When a Log-in function related part is replaced, information about the replaced part is reset. Refer to [DMS-24, "Log-in Function"](#). B
- When starting the vehicle or stopping the engine during Log-in function change, the operation results may not be reflected. Refer to [DMS-24, "Log-in Function"](#).
- After an Infiniti drive mode selector related part is replaced, operate the drive mode select switch to check that the indication of the information display positioned in the combination meter changes. Refer to [DMS-26, "Infiniti Drive Mode Selector : Work Flow"](#). C
- After replace the chassis control module, depress brake pedal and check that the stop lamp turns ON. D

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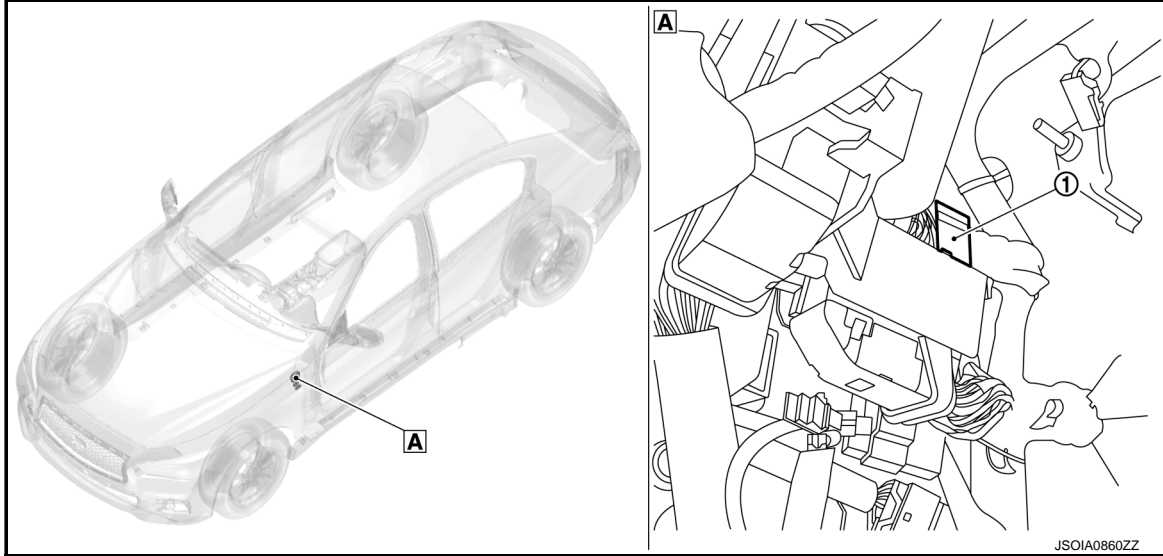
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SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:000000012796409



A inside of dash side finisher LH

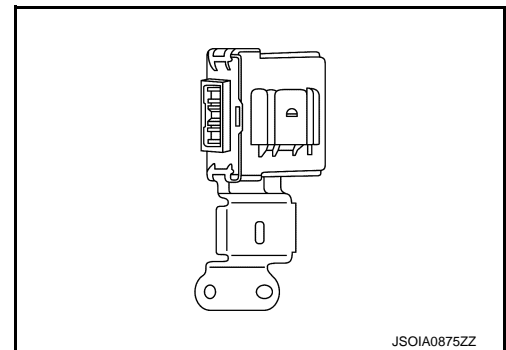
No.	Component parts	Function
①	Chassis control module	DAS-516. "Chassis Control Module"

Chassis Control Module

INFOID:000000012796410

Chassis control module controls the following systems based on the signals from each sensor, switch, and control unit.

- Active trace control
- Active lane control
- Digital motion control
- Infiniti InTuition
- Infiniti drive mode selector
- Log-in function



JSOIA0875ZZ

SYSTEM

System Description

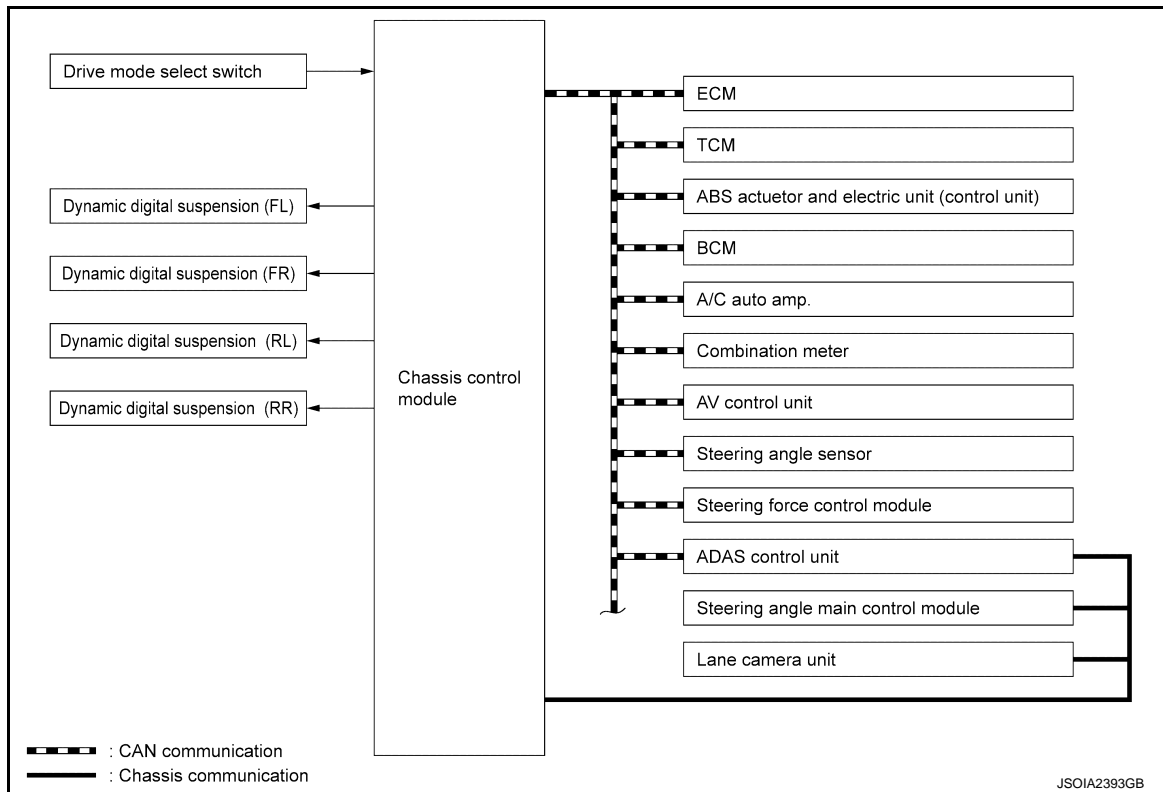
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- Chassis control to integrally control the driving system was adopted.
- Chassis control module inputs the necessary information for control from CAN communication and each switch and integrally controls each system. Refer to the following table for systems controlled and input/output signals.

System	Reference page
Active trace control	BRC-55. "ACTIVE TRACE CONTROL FUNCTION : System Description"
Active lane control	DAS-718. "ACTIVE LANE CONTROL : System Description"
Digital motion control	SCS-6. "System Description"
Infiniti InTuition	DMS-13. "Infiniti Drive Mode Selector : System Description (For 2.0L Turbo Gasoline Engine Models)" (2.0L turbo gasoline engine models), DMS-15. "Infiniti Drive Mode Selector : System Description (For VR30DDTT Engine Models)" (VR30DDTT engine models)
	DMS-17. "LOG-IN FUNCTION : System Description"

SYSTEM DIAGRAM

Models With Digital Motion Control



Models Without Digital Motion Control

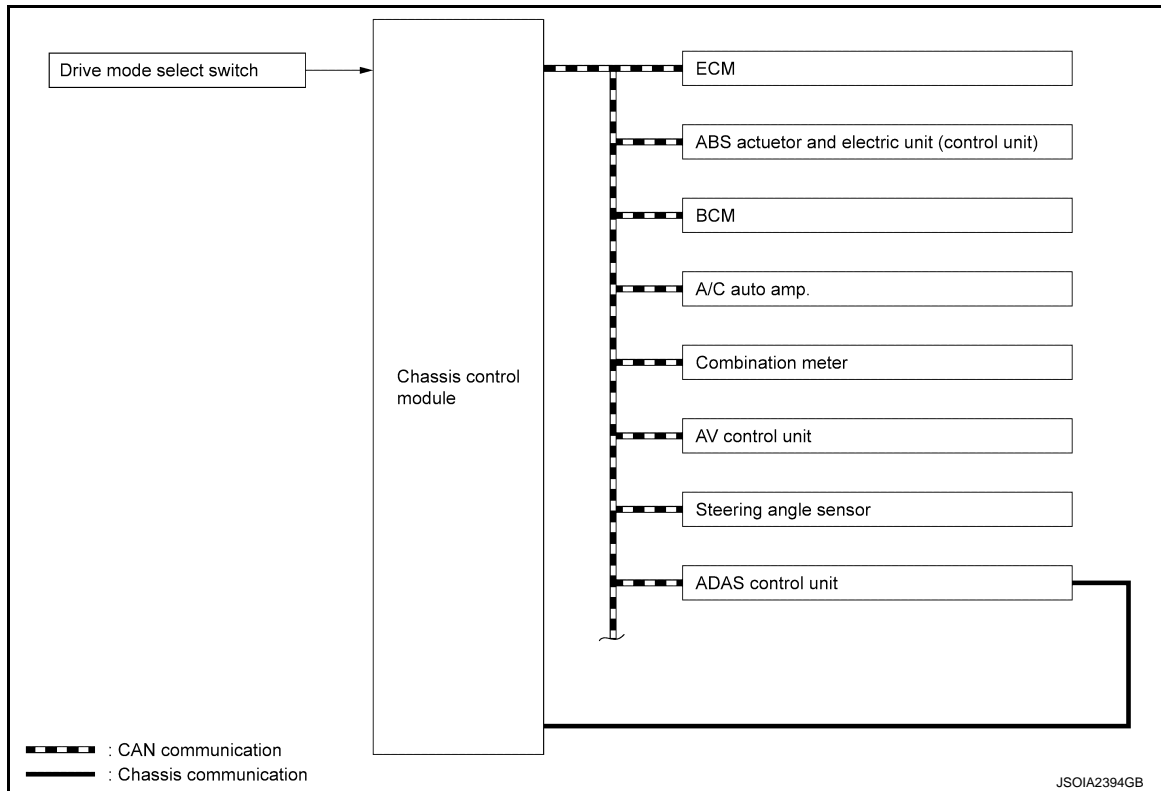
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SYSTEM

< SYSTEM DESCRIPTION >

[CHASSIS CONTROL]



SYSTEM

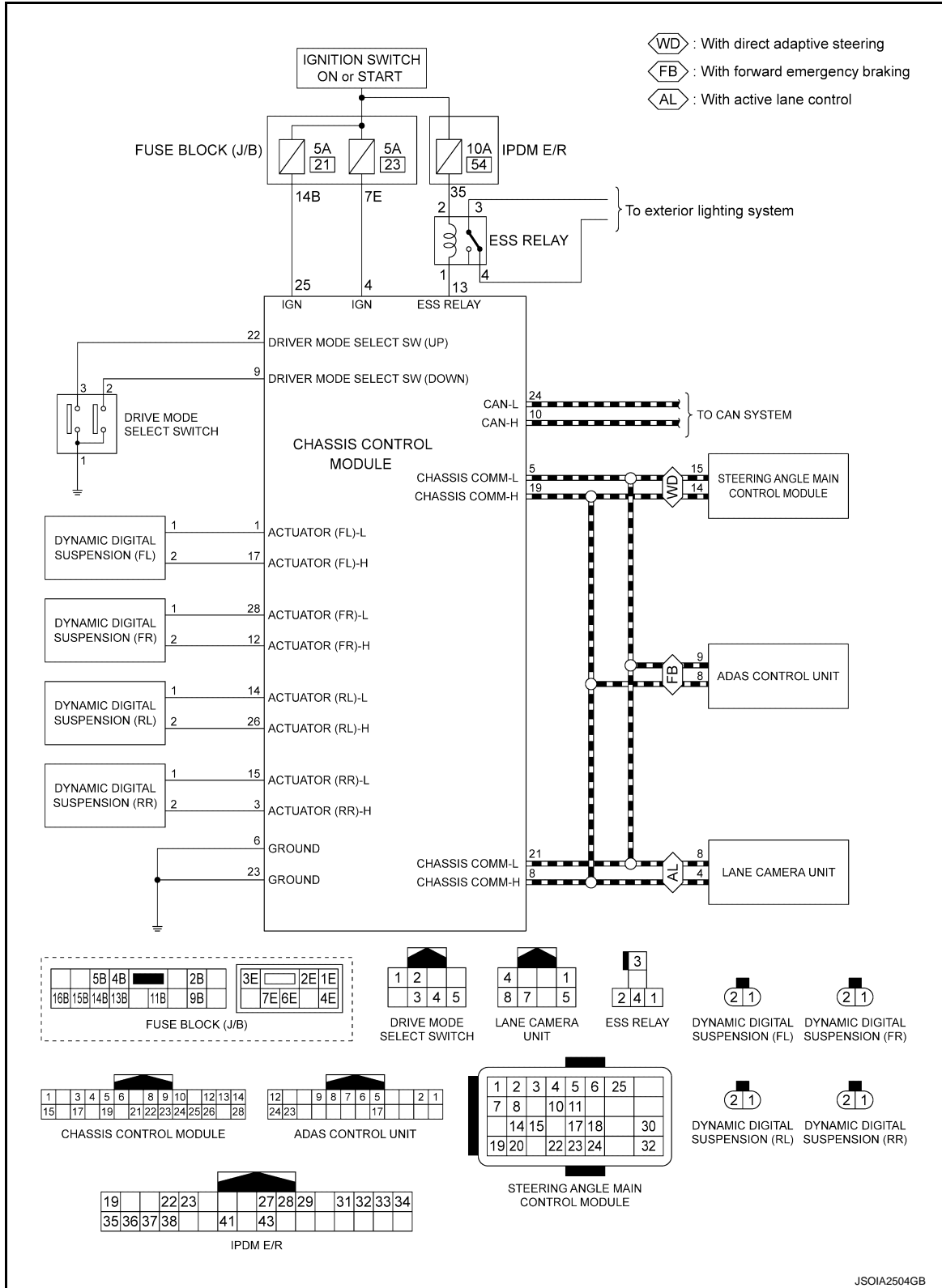
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[CHASSIS CONTROL]

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Circuit Diagram

MODELS WITH DIGITAL MOTION CONTROL



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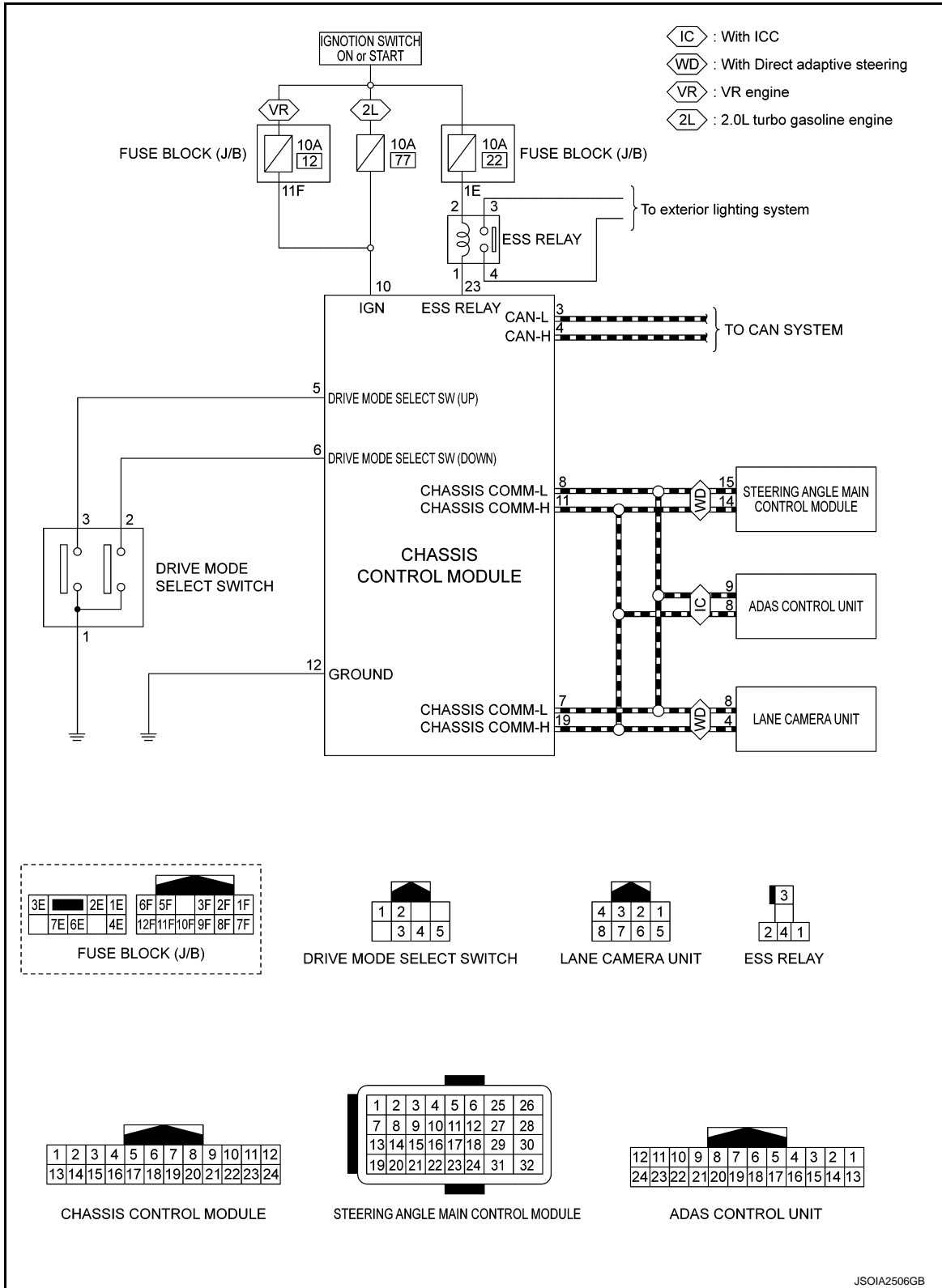
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[CHASSIS CONTROL]

MODELS WITHOUT DIGITAL MOTION CONTROL



Fail-Safe (Chassis Control Module)

INFOID:000000013493057

When a malfunction occurs in the chassis control module, the master warning lamp turns ON and an interrupt is displayed on the information display of the combination meter.

SYSTEM

< SYSTEM DESCRIPTION >

[CHASSIS CONTROL]

DTC	Vehicle condition	A
C1B90-00	The following functions are suspended. <ul style="list-style-type: none"> • Active lane control function • LDW function • LDP function • Blind spot intervention function 	A
C1B91-00		B
C1B92-00	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function 	C
C1B93-00	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • LDW function • LDP function • Blind spot intervention function 	D
C1B94-00		E
C1B96-00	The following functions are suspended. <ul style="list-style-type: none"> • LDW function • LDP function • Blind spot intervention function • Intelligent cruise control function 	F
C1B99-00	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function • Infiniti InTuition function • Digital motion control function 	G
C1BA6-00	The following functions are suspended. <ul style="list-style-type: none"> • Infiniti InTuition function 	H
C1BA7-00	The following functions are suspended. <ul style="list-style-type: none"> • Active lane control function 	I
C1BA9-00	The following functions are suspended. <ul style="list-style-type: none"> • LDW function • LDP function • Blind spot intervention function 	J
C1BAA-00		K
C1BAB-00	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function 	L
C1BAC-00	The following functions are suspended. <ul style="list-style-type: none"> • LDP function • Blind spot intervention function 	M
C1BAD-00		M
C1BAE-00		M
C1BAF-00	The following functions are suspended. <ul style="list-style-type: none"> • Blind spot intervention function 	N
C1BB0-06	Normal control	N
C1BB2-00	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function • Infiniti InTuition function • Digital motion control function 	OAS
C1BB3-00		OAS
C1BB4-00		OAS
C1BB5-00		OAS
C1BB6-00	The following functions are suspended. <ul style="list-style-type: none"> • Digital motion control function 	P

SYSTEM

< SYSTEM DESCRIPTION >

[CHASSIS CONTROL]

DTC	Vehicle condition
C1BB7-00	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function • Infiniti InTuition function • Digital motion control function
C1BB8-00	
C1BB9-00	
C1BBA-00	
C1BBB-00	
C1BBC-00	Normal control
C1BBD-00	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function • Infiniti InTuition function • Digital motion control function
C1BBE-11	The following functions are suspended. <ul style="list-style-type: none"> • Digital motion control function
C1BBE-12	
C1BBE-19	
C1BBE-1D	
C1BEE-39	
C1BEE-64	
C1BBF-11	
C1BBF-12	
C1BBF-19	
C1BBF-1D	
C1BBF-39	
C1BBF-64	
C1BC0-00	
C1BC1-00	
C1BC7-11	The following functions are suspended. <ul style="list-style-type: none"> • Digital motion control function
C1BC7-12	
C1BC7-19	
C1BC7-1D	
C1BC7-39	
C1BC7-64	
C1BC8-11	
C1BC8-12	
C1BC8-19	
C1BC8-1D	
C1BC8-39	
C1BC8-64	
U1000-00	

SYSTEM

< SYSTEM DESCRIPTION >

[CHASSIS CONTROL]

DTC	Vehicle condition	
U1010-49	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • Active lane control function 	A
U1A31-00	The following functions are suspended. <ul style="list-style-type: none"> • Active lane control function • LDW function • LDP function • Blind spot intervention function 	B C
U1A35-00	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function 	D
U1A3E-00	Normal control	E

INFORMATION DISPLAY (COMBINATION METER)

INFORMATION DISPLAY (COMBINATION METER) : Chassis Control Display

INFOID:0000000012796414

DESIGN/PURPOSE

- The warning message is displayed on the vehicle information display when chassis control detected the system malfunction.
- When the aiming of lane camera unit is incomplete, a warning message is displayed.
- Each chassis control system information is displayed on the vehicle information display.

Warning Message

Design	Warning Message
—	Chassis Control System Error See Owner's Manual

System Information

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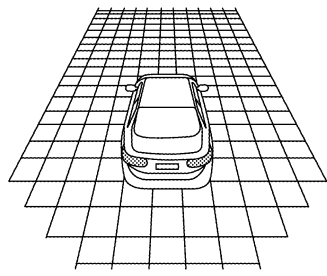
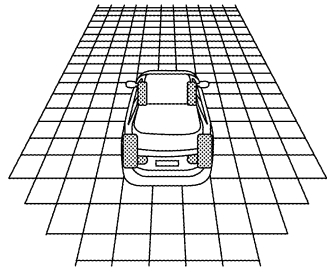
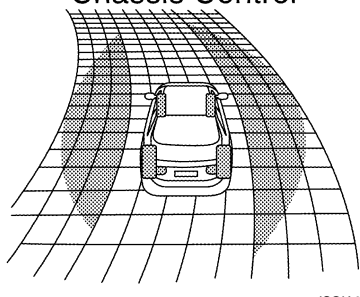
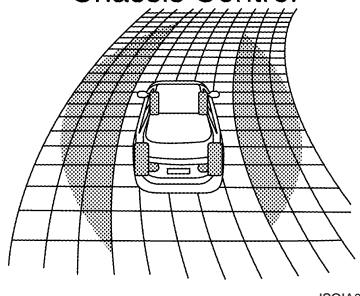
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SYSTEM

< SYSTEM DESCRIPTION >

[CHASSIS CONTROL]

Active trace control

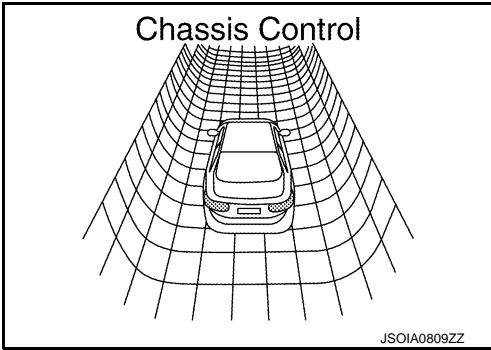
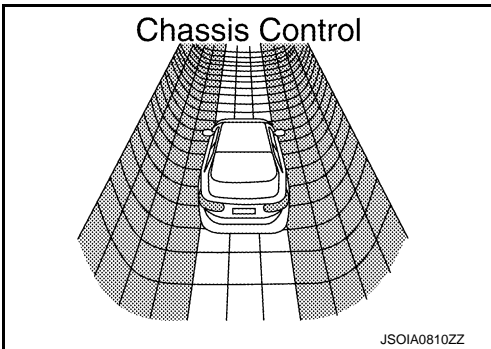
Design	Description
<p>Chassis Control</p>  <p>JSOIA0806ZZ</p>	<p>Active trace control inactive</p>
<p>Chassis Control</p>  <p>JSOIA1052ZZ</p>	<p>Active trace control is active. (Steering angle is less than the specified angle.)</p>
<p>Chassis Control</p>  <p>JSOIA0807ZZ</p>	<p>Active trace control is active. (Steering angle is the specified angle or more in the leftward direction.)</p>
<p>Chassis Control</p>  <p>JSOIA0808ZZ</p>	<p>Active trace control is active. (Steering angle is the specified angle or more in the rightward direction.)</p>

SYSTEM

< SYSTEM DESCRIPTION >

[CHASSIS CONTROL]

Active lane control

Design	Description	
 <p style="text-align: center;">Chassis Control</p> <p style="text-align: right; font-size: small;">JSOIA0809ZZ</p>	<p>Active Lane Control is turned ON.</p>	<p>A</p> <p>B</p> <p>C</p> <p>D</p>
 <p style="text-align: center;">Chassis Control</p> <p style="text-align: right; font-size: small;">JSOIA0810ZZ</p>	<p>Active Lane Control is operational or is operating.</p>	<p>E</p> <p>F</p> <p>G</p> <p>H</p>

SYNCHRONIZATION WITH MASTER WARNING LAMP

Applicable

Refer to [MWI-36, "WARNING LAMPS/INDICATOR LAMPS : Master Warning Lamp"](#).

WARNING/INDICATOR OPERATING CONDITION

Warning

When all of the following conditions are satisfied

- Ignition switch is ON
- Chassis control system malfunction is detected. Refer to [DAS-550, "DTC Index"](#).
- Lane camera system malfunction is detected. Refer to [DAS-746, "DTC Index"](#).

Indicator operating

- Active trace control: Refer to [BRC-55, "ACTIVE TRACE CONTROL FUNCTION : System Description"](#).
- Active lane control: Refer to [DAS-718, "ACTIVE LANE CONTROL : System Description"](#).

DAS

DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

< SYSTEM DESCRIPTION >

[CHASSIS CONTROL]

DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

CONSULT Function

INFOID:000000012796415

APPLICATION ITEM

CONSULT can display each diagnostic item using the diagnostic test modes as follows.

Mode	Function description
ECU identification	Parts number of chassis control module can be read.
Self Diagnostic Results	Self-diagnostic results and freeze frame data can be read and erased quickly.*1
DATA MONITOR	Input/Output data in chassis control module can be read.
ACTIVE TEST	Send the drive signal from CONSULT to the actuator. The operation check can be performed.
Work Support	Components can be quickly and accurately adjusted.
Re/programming, Configuration	<ul style="list-style-type: none">• Read and save the vehicle specification (TYPE ID).• Write the vehicle specification (TYPE ID) when replacing chassis control module.

*1: The following diagnosis information is erased by erasing.

- DTC
- Freeze frame data (FFD)

ECU IDENTIFICATION

Chassis control module part number can be read.

SELF DIAGNOSTIC RESULT

Refer to [DAS-550, "DTC Index"](#).

When "CRNT" is displayed on self-diagnosis result

- The system is presently malfunctioning.

When "PAST" is displayed on self-diagnosis result

- System malfunction in the past is detected, but the system is presently normal.

Freeze frame data (FFD)

When DTC is detected, a vehicle state shown below is recorded and displayed on CONSULT.

Item name	Indication/Unit	Display item
Odometer/Trip meter	km	Total mileage (Odometer value) of the moment a particular.
DTC LOCAL CODE	—	DTC code is displayed but not used.
CAN DIAG PERMIS CONDITION	Off / On	Displays CAN network diagnosis status.
BRAKE SWITCH 1	Off / On	Displays brake pedal operating status.
BRAKE SWITCH 2	Off / On	Displays brake pedal operating status.
ABS	NORMAL / ABNOR	Displays ABS function status.
TCS	NORMAL / ABNOR	Displays TCS function status.
VDC	NORMAL / ABNOR	Displays VDC function status.
VEHICLE SPEED	km	Displays the vehicle speed.
FR WHEEL SPEED	rpm	Displays the rotational speed of front RH tire.
FL WHEEL SPEED	rpm	Displays the rotational speed of front LH tire.
RR WHEEL SPEED	rpm	Displays the rotational speed of rear RH tire.
RL WHEEL SPEED	rpm	Displays the rotational speed of rear LH tire.
STEERING ANG SENSOR	deg	Displays the steering angle from the steering angle sensor.
SIDE G SENSOR	G	Displays the side G.
DECEL G SENSOR	G	Displays the decel G.
YAW RATE SENSOR	deg/s	Displays the yaw rate.
THRTL OPENING	%	Displays the electric throttle position.

DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

< SYSTEM DESCRIPTION >

[CHASSIS CONTROL]

Item name	Indication/Unit	Display item	
SHIFT POSITION	Off / P / R / N / D (A) / S / L / B / 1 – 6 / M 1 – M 8 / A 1 – A 6	Displays the shift position.	A
PRESS SENSOR	bar	Displays the brake fluid pressure.	B
DRIVE MODE SELECTOR	STD / SPORT / ECO / SNOW / PERSO	Displays the drive mode select switch selection status.	C
LANE MARKER (LH) ^{*1}	NOT / DETECT	Displays the lane marker (LH) detection status.	D
LANE MARKER (RH) ^{*1}	NOT / DETECT	Displays the lane marker (RH) detection status.	D
TURN SIGNAL (LH) ^{*1}	Off / On	Displays the turn signal switch (LH) operating status.	E
TURN SIGNAL (RH) ^{*1}	Off / On	Displays the turn signal switch (RH) operating status.	E
TURN SIGNAL SWITCH ^{*1}	Off / LEFT / RIGHT / MALF	Displays the turn signal switch operating status.	E
DAST ^{*1}	Off / On	Displays the operation request status to Direct Adaptive Steering.	F
ROAD DISTORTION ^{*1}	1/m	Displays the road distortion rate radius.	F
ALC COMMAND ST ANG ^{*1}	rad	Displays the steering command value to Direct Adaptive Steering.	G
ST WHL FORCE TORQUE ^{*1}	Nm	Displays the estimated value for the steering wheel force torque.	G
ALC COMMAND ST WHL FORCE ^{*1}	N	Displays the steering reaction force command value to Direct Adaptive Steering.	H
ADAS COND ^{*1}	NORMAL / ABNOR	Displays the ADAS control unit function status.	H
WIPER STATUS ^{*1}	Off / LOW / HIGH / MALF	Displays the wiper operating status.	I
DDS operating condition ^{*2}	Off / On	Displays the dynamic digital suspension condition.	I
Engine rpm ^{*2}	rpm	Displays the engine speed.	J
DMC) CAN signal not receive ^{*2}	Non detection / De- tection	Displays the CAN signal not receive of digital motion control.	J
DMC) CAN signal irregularity 1 ^{*2}	Non detection / De- tection	Displays the CAN signal irregularity (message counter) of digital motion control.	K
DMC) CAN signal irregularity 2 ^{*2}	Non detection / De- tection	Displays the CAN signal irregularity (checksum) of digital motion control.	K
DMC) CAN signal invalid ^{*2}	Non detection / De- tection	Displays the CAN signal invalid of digital motion control.	L
Stop/Start ^{*2}	A	Displays the Stop/Start status.	M
FR shock ab command current ^{*2}	A	Displays the dynamic digital suspension (FR) command current.	M
FL shock ab command current ^{*2}	A	Displays the dynamic digital suspension (FL) command current.	N
RR shock ab command current ^{*2}	A	Displays the dynamic digital suspension (RR) command current.	N
RL shock ab command current ^{*2}	A	Displays the dynamic digital suspension (RL) command current.	N
DMC status ^{*2}	Inactive / Active 1 / Active 2 / Active 3 / Active 4 /Not connect current line / Active test 1 /Active test 2 / Other control unit / CAN commu- nication / Control unit	Displays the digital motion control status.	P

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*1: Models with Active Lane Control

*2: Models with Digital motion control

DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

< SYSTEM DESCRIPTION >

[CHASSIS CONTROL]

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Item [Unit]	Description
IGN VOLT [V]	Displays the ignition power supply voltage.
CONTROL MODULE MALF [Off / On]	Displays chassis control module malfunction.
CAN DIAG STATUS [Off / On]	Displays CAN network diagnosis status.
STP LAMP OFF RELAY 1 [Off / On]	Displayed but not used.
STP LAMP OFF RELAY 2 [Off / On]	Displayed but not used.
ESS RELAY [Off / On]	Displayed but not used.
VEHICLE SPEED [km/m]	Displays the vehicle speed.
FR WHEEL SPEED [rpm]	Displays the rotational speed of front RH tire.
FL WHEEL SPEED [rpm]	Displays the rotational speed of front LH tire.
RR WHEEL SPEED [rpm]	Displays the rotational speed of rear RH tire.
RL WHEEL SPEED [rpm]	Displays the rotational speed of rear LH tire.
STEERING ANG SENSOR [deg]	Displays the steering angle from the steering angle sensor.
DECEL G SENSOR [G]	Displays the decel G.
SIDE G SENSOR [G]	Displays the side G.
YAW RATE SENSOR [deg/s]	Displays the yaw rate.
ACCELE PEDAL POSITION [%]	Displays the accelerator pedal position.
THROTTLE CONTROL [NORMAL / INCORR / PREV / INPOSS]	Displays the electric throttle status.
SHIFT POSITION [Off / P / R / N / D (A) / S / L / B / 1-6 / M 1 -M 8 / A 1 - A 6]	Displays the shift position.
BRAKE SWITCH 2 [Off / On]	Displays brake pedal operating status.
BRAKE SWITCH 1 [Off / On]	Displays brake pedal operating status.
PRESS SENSOR [bar]	Displays the brake fluid pressure.
ABS [NORMAL / ABNOR]	Displays ABS function status.
ABS MALF [NORMAL / ABNOR]	Displays ABS function status.
EBD [NORMAL / ABNOR]	Displays EBD function status.
TCS [NORMAL / ABNOR]	Displays TCS function status.
TCS MALF [NORMAL / ABNOR]	Displays TCS function status.
VDC [NORMAL / ABNOR]	Displays VDC function status.
VDC MALF [NORMAL / ABNOR]	Displays VDC function status.
VDC OFF SWITCH [Off / On]	Displays VDC OFF switch status.
PARKING BRAKE [Off / On]	Displays the parking brake operating status.
ACCELE PEDAL MALF [NORMAL / ABNOR]	Displays the accelerator pedal status.
DRV TRQ CTRL MODE [INITIAL / NORMAL / STOP 1 / STOP 2 / LIMIT 1 / PROHIB]	Displays the status of correction to slightly increase/decrease the drive torque.
DRV TRQ CTRL PERMIS 1 [NO PER / PERMIS]	Displays the permission status (basic requirement) of correction to slightly increase/decrease drive torque.
DRV TRQ CTRL PERMIS 2 [NO PER / PERMIS]	Displays the permission status (system requirement) of correction to slightly increase/decrease drive torque.
DRV TRQ CTRL STOP [REQ / NO REQ]	Displays the stop request status of correction to slightly increase/decrease drive torque.

DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

< SYSTEM DESCRIPTION >

[CHASSIS CONTROL]

Item [Unit]	Description
DRV TRQ CTRL PROHIBIT [REQ / NO REQ]	Displays the prohibition request status of correction to slightly increase/decrease drive torque.
DRIVE MODE SELECTOR [STD / SPORT / SNOW / ECO / SPORT+ / PERSO / NOT / NOT SET]	Displays the drive mode select switch selection status.
LOG-IN PERMIS [NO PER / PERMIS]	Displays the login authority status of Infiniti InTuition function.
I-KEY LINK [Off / On]	Displays the Intelligent Key linking status of Infiniti InTuition function.
USER [USER A / USER B / USER C / GUEST]	Displays the current user status of Infiniti InTuition function.
ENGINE/TM SETTING [SPORT / STD / ECO / SNOW]	Displays the engine/transmission setting status with Infiniti drive mode selector function.
ALC SETTING [Off / LOW / HIGH]	Displays Active Lane Control setting status with Infiniti drive mode selector function.
ATC SETTING [Off / On]	Displays active trace control function setting status with Infiniti drive mode selector function.
COMBI METER [STD / SPORT / SNOW / ECO / PERSO]	Displays the combination meter function setting status with Infiniti drive mode selector function.
ATC 1 [Off / On]	Displays active trace control function operating status.
ATC 2 [Off / On]	Displays active trace control function operating status.
ATC 4 [Off / On]	Displays active trace control function operating status.
FL TIRE DISP [DEF / 1]	Displays the status of front LH tire displayed on the information display in the combination meter.
FR TIRE DISP [DEF / 1]	Displays the status of front RH tire displayed on the information display in the combination meter.
RL TIRE DISP [DEF / 1]	Displays the status of rear LH tire displayed on the information display in the combination meter.
RR TIRE DISP [DEF / 1]	Displays the status of rear RH tire displayed on the information display in the combination meter.
TURN DISP [N STEER / LEFT / RIGHT]	Displays the turning direction of active trace control function on the information display in the combination meter.
ALC LEVEL [0 – 4]	Displays active/inactive status of Active Lane Control.
ALC STATUS [INACT / ACT]	Display Active Lane Control operating status.
ATC DISP [Off / On]	Displays the operating status of active trace control function on the information display in the combination meter.
ALC DISP [Off / On]	Displays the operating status of Active Lane Control on the information display in the combination meter.
ALC SYSTEM [Off / On]	Display Active Lane Control activation status.
LANE MARKER (LH) [NOT / DETECT]	Displays the lane marker (LH) detection status.
LANE MARKER (RH) [NOT / DETECT]	Displays the lane marker (RH) detection status.
TURN SIGNAL (LH) [Off / On]	Displays the turn signal switch (LH) operating status.
TURN SIGNAL (RH) [Off / On]	Displays the turn signal switch (RH) operating status.
TURN SIGNAL SWITCH [Off / LEFT / RIGHT / MALF]	Displays the turn signal switch operating status.
DAST [Off / On]	Displays Direct Adaptive Steering operating status.
ROAD DISTORTION [1/m]	Displays the road curvature.
COMMAND ST ANG [rad]	Displays the steering command value to Direct Adaptive Steering.
ST PINION ANG [rad]	Displays the steering pinion angle.
ST WHL FORCE TORQUE [Nm]	Displays the steering wheel force torque.
COMMAND ST WHL FORCE [N]	Displays the reaction force command value to Direct Adaptive Steering.

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DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

< SYSTEM DESCRIPTION >

[CHASSIS CONTROL]

Item [Unit]	Description
LDW DISP	[On / MALF] Displays LDW status received from ADAS control unit.
LDP DISP	[On / MALF] Displays LDP status received from ADAS control unit.
BSI DISP	[On / MALF] Displays Blind spot intervention function status received from ADAS control unit.
ST SWITCH COND	[OK / NG 1 / NG 2] Displays the steering switch status received from ADAS control unit.
BSW COND	[NORMAL / ABNOR] Displays BSW status received from ADAS control unit.
ADAS COND	[NORMAL / ABNOR] Displays ADAS status received from ADAS control unit.
COLLISION WARN	[Off / On] Displays collision warning status received from ADAS control unit.
ICC ACTIVE	[Off / On] Displays ICC operating status received from ADAS control unit.
IBA ACTIVE	[Off / On] Displays intelligent brake assist operating status received from ADAS control unit.
DR BUZZER STATUS	[NO / 1 / 2 / 3 / 1, 2 / 2, 3 / 1, 3 / 4] Displayed but not used.
LDW COND	[On / MALF] Displays LDW status transmitted to ADAS control unit.
LDP COND	[On / MALF] Displays LDP status transmitted to ADAS control unit.
BSI COND	[On / MALF] Displays blind spot intervention function status transmitted to ADAS control unit.
LDP BRAKE CANCEL	[NONE / SLIP / SNOW / VDC OF] Displays LDP cancel cause transmitted to ADAS control unit.
BSI BRAKE CANCEL	[NONE / SLIP / SNOW / VDC OF] Displays blind spot intervention function cancel cause transmitted to ADAS control unit.
CAMERA COND	[NORMAL / ABNOR] Displays the lane camera unit status.
CAMERA TEMP COND	[NORMAL / ABNOR] Displays the lane camera unit status by temperature.
CAMERA COMM COND	[NORMAL / ABNOR] Displays the communication status with the lane camera unit status.
CAMERA AIMING	[INCOMP / COMP] Displays the lane camera unit aiming status.
CAMERA HIGH TEMP (LDW)	[NORMAL / ABNOR] Displays the lane camera unit system cancel request due to high temperature (LDW).
CAMERA HIGH TEMP (LDP)	[NORMAL / ABNOR] Displays the lane camera unit system cancel request due to high temperature (LDP)
CAMERA HIGH TEMP (BSI)	[NORMAL / ABNOR] Displays the lane camera unit system cancel request due to high temperature (Blind spot intervention)
SIDE RADAR BLOCK CANCEL	[NORMAL / BLOCK] Displays the side radar status.
BSI LAMP REQ (LH)	[Off / On] Displays blind spot intervention indicator blink request at blind spot intervention operation (LH).
BSI LAMP REQ (RH)	[Off / On] Displays blind spot intervention indicator blink request at blind spot intervention operation (RH).
LANE DEPARTURE DISP (LH)	[NO DISP / DEVIAT] Displays the deviating status on the LH side lane.
LANE DEPARTURE DISP (RH)	[NO DISP / DEVIAT] Displays the deviating status on the RH side lane.
LDP/BSI ACTIVE	[Off / On] Displays LDP/blind spot intervention function operation status.
ADAS COND	[NORMAL / ABNOR] Displayed, but not used
DR BUZZER COND	[NORMAL / ABNOR] Displayed, but not used
OUTSIDE TEMP	[°C] Displays the ambient temperature.
WIPER STATUS	[Off / LOW / HIGH / MALF] Displays the front wiper operating status.
Engine rpm	[rpm] Displays the engine speed.
FR shock ab drive current	[A] Displays the dynamic digital suspension (FR) drive current.
FL shock ab drive current	[A] Displays the dynamic digital suspension (FL) drive current.

DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

< SYSTEM DESCRIPTION >

[CHASSIS CONTROL]

Item [Unit]	Description
RR shock ab drive current [A]	Displays the dynamic digital suspension (RR) drive current.
RL shock ab drive current [A]	Displays the dynamic digital suspension (RL) drive current.
Shock absorber control 1 [Off / On]	Displays the dynamic digital suspension control condition.
Shock absorber control 2 [Off / On]	Displays the dynamic digital suspension control condition.
Shock absorber control 3 [Off / On]	Displays the dynamic digital suspension control condition.
FR shock ab command current [A]	Displays the dynamic digital suspension (FR) command current.
FL shock ab command current [A]	Displays the dynamic digital suspension (FL) command current.
RR shock ab command current [A]	Displays the dynamic digital suspension (RR) command current.
RL shock ab command current [A]	Displays the dynamic digital suspension (RL) command current.

ACTIVE TEST

The active test is used to determine and identify details of a malfunction, based on self-diagnosis test results and data obtained in the DATA MONITOR. In response to instructions from CONSULT, instead of those from chassis control module on the vehicle, a drive signal is sent to the actuator to check its operation.

CAUTION:

- **Never perform ACTIVE TEST while driving the vehicle.**
- **Always bleed air from brake system before active test.**
- **Never perform active test when system is malfunctioning.**

NOTE:

- When active test is performed while depressing the brake pedal, the brake pedal depressing stroke may change. This is not a malfunction.
- During an active test, sometimes a chassis control warning is displayed and the master warning lamp illuminates on the information display in the combination meter; however, this is not a malfunction.

Test item	Operation	Description
BRAKE ACTUATOR 1 MODE 1	Start	Controls brake fluid pressure.
BRAKE ACTUATOR 1 MODE 2	Start	Controls brake fluid pressure.
BRAKE ACTUATOR 1 MODE 3	Start	Controls brake fluid pressure.
BRAKE ACTUATOR 2 MODE 1	Start	Controls brake fluid pressure.
BRAKE ACTUATOR 2 MODE 2	Start	Controls brake fluid pressure.
BRAKE ACTUATOR 2 MODE 3	Start	Controls brake fluid pressure.
BRAKE ACTUATOR 3 MODE 1	Start	Controls brake fluid pressure.
BRAKE ACTUATOR 3 MODE 2	Start	Controls brake fluid pressure.
BRAKE ACTUATOR 3 MODE 3	Start	Controls brake fluid pressure.
COMMAND STEERING ANGLE	Start	Transmits the steering command value 0 deg → 0.00349 deg (hold it for approximately 2 seconds) → 0 deg (hold it for approximately 2 seconds) → 0.00349 deg (hold it for approximately 2 seconds) → 0 deg to the steering force control module.
COMMAND ST WHL FORCE	Start	Transmits the steering reaction force command value 0 N → 0.6 N (hold it for approximately 2 seconds) → 0 N (hold it for approximately 2 seconds) → 0.6 N (hold it for approximately 2 seconds) → 0 N to the steering force control module.
MASTER WARNING ACTIVE	On	If touching "On" with the master warning lamp not illuminated, the master warning lamp illuminates. Stops in approximately 1 minute.
	Off	The master warning lamp turns OFF. (vehicle in normal state)
ALC DISP	On	Displays Active Lane Control active status on the information display in the combination meter.
	Off	Displays Active Lane Control inactive status on the information display in the combination meter.

DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

< SYSTEM DESCRIPTION >

[CHASSIS CONTROL]

Test item	Operation	Description
FL TIRE DISP	On	Displays the front LH tire on the information display in the combination meter.
	Off	Does not display the front LH tire on the information display in the combination meter.
FR TIRE DISP	On	Displays the front RH tire on the information display in the combination meter.
	Off	Does not display the front RH tire on the information display in the combination meter.
RL TIRE DISP	On	Displays the rear LH tire on the information display in the combination meter.
	Off	Does not display the rear LH tire on the information display in the combination meter.
RR TIRE DISP	On	Displays the rear RH tire on the information display in the combination meter.
	Off	Does not display the rear RH tire on the information display in the combination meter.
TURN DISP	NO DISP	Does not display the turning status on the information display in the combination meter.
	LH	Displays the LH turning status on the information display in the combination meter.
	RH	Displays the RH turning status on the information display in the combination meter.
ALC LEVEL	LEVEL 1	Displays Active Lane Control corresponding to the selected level on the information display in the combination meter.
	LEVEL 2	
	LEVEL 3	
	LEVEL 4	
ALC SETTING	On	Displays Active Lane Control active status on the information display in the combination meter.
	Off	Displays Active Lane Control inactive status on the information display in the combination meter.
ATC 1 DISP	On	Displays active trace control function active status on the information display in the combination meter.
	Off	Displays active trace control function inactive status on the information display in the combination meter.
ATC 2 DISP	On	Displays active trace control function active status on the information display in the combination meter.
	Off	Displays active trace control function inactive status on the information display in the combination meter.
ATC 4 DISP	On	Displays active trace control function active status on the information display in the combination meter.
	Off	Displays active trace control function inactive status on the information display in the combination meter.
FR shock absorber*	Soft	Controls dynamic digital suspension (FR).
	Medium	
	Hard	
FL shock absorber*	Soft	Controls dynamic digital suspension (FL).
	Medium	
	Hard	

DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

< SYSTEM DESCRIPTION >

[CHASSIS CONTROL]

Test item	Operation	Description
RR shock absorber*	Soft	Controls dynamic digital suspension (RR).
	Medium	
	Hard	
RL shock absorber*	Soft	Controls dynamic digital suspension (RL).
	Medium	
	Hard	
All shock absorber*	Soft	Controls all dynamic digital suspension.
	Medium	
	Hard	

*: Models with digital motion control

WORK SUPPORT

Work support items	Description
ERASE LAST DRIVER INFORMATION	Erases the information for the previous driver.
ERASE KEY ALLOTMENT USER	Erases all user information.
ERASE PERSONAL SETTINGS	Erases all user information (personal settings only).
CAUSE OF AUTO-CANCEL 1	Displays causes of automatic system cancellation occurred during control of the following systems <ul style="list-style-type: none"> • Lane Departure Prevention (LDP) • Blind Spot Intervention

NOTE:

- Causes of the maximum five cancellations (system cancel) are displayed.
- The displayed cancellation causes display the number of the ignition switch ON/OFF up to 254. It is fixed to 254 if it is over 254. It returns to 0 when the same cancellation cause is detected again.

Display Items for The Cause of Automatic Cancellation 1

Cause of cancellation	Lane departure prevention	Blind spot intervention	Description
OPE VDC/TCS/ABS 1	×		The activation of VDC, TCS, or ABS during LDP system control
Vehicle dynamics	×		Vehicle behavior exceeds specified value
Steering speed	×		Steering speed was more than the specified value in evasive direction
End by yaw angle	×		Yaw angle was the end of LDP control
Departure yaw large	×		Detected more than the specified value of yaw angle in departure direction
ICC WARNING	×		Target approach warning of ICC system, IBA system, or FCW system was activated
CURVATURE	×		Road curve was more than the specified value
Steering angle large	×		Steering angle was more than the specified value
Brake is operated	×		Brake pedal was operated
IGN LOW VOLT	×		Decrease in ADAS control unit IGN voltage
Lateral offset	×		Distance of vehicle and lane was detached in lateral direction more than the specified value
Lane marker lost	×		Lane camera unit lost the trace of lane marker
Lane marker unclear	×		Detected lane marker was unclear

DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

< SYSTEM DESCRIPTION >

[CHASSIS CONTROL]

Cause of cancellation	Lane departure prevention	Blind spot intervention	Description
Yaw acceleration	×		Detected yawing speed was more than the specified value
Deceleration large	×		Deceleration in a longitudinal direction was more than the specified value
Accel is operated	×		Accelerator pedal was depressed
Departure steering	×		Steering wheel was steered more than the specified value in departure direction
Evasive steering	×		Steering wheel was steered more than the specified value in the evasive direction
R range	×		Selector lever was operated to R range
Parking brake drift	×		Rear wheels lock was detected
Not operating condition	×		Did not meet the operating condition (vehicle speed, turn signal operation, etc.)
SNOW MODE SW	×		Shifting of the drive mode selector to SNOW position
VDC OFF SW	×		VDC OFF switch was pressed
OPE VDC/ABS 2	×		The activation of VDC or ABS during a standby time of LDP or blind spot intervention system control
BSI) OPE VDC/TCS/ABS 1		×	The activation of VDC, TCS, or ABS during blind spot intervention system control
BSI) Vehicle dynamics		×	Vehicle behavior exceeds specified value
BSI) Steering speed		×	Steering speed was more than the specified value in evasive direction
BSI) End by yaw angle		×	Yaw angle was the end of blind spot intervention control
BSI) Departure yaw large		×	Detected more than the specified value of yaw angle in departure direction
BSI) ICC WARNING		×	Target approach warning of ICC system, FEB system or FCW system was activated
BSI) CURVATURE		×	Road curve was more than the specified value
BSI) Steering angle large		×	Steering angle was more than the specified value
BSI) Brake is operated		×	Brake pedal was operated
BSI) IGN LOW VOLT		×	Decrease in chassis control module IGN voltage
BSI) Lateral offset		×	Distance of vehicle and lane was detached in lateral direction more than the specified
BSI) Lane marker lost		×	Lane camera unit lost the trace of lane marker
BSI) Lane marker unclear		×	Detected lane marker was unclear
BSI) Yaw acceleration		×	Detected yawing speed was more than the specified value
BSI) Deceleration large		×	Deceleration in a longitudinal direction was more than the specified value
BSI) Accel is operated		×	Accelerator pedal was depressed
BSI) Departure steering		×	Steering wheel was steered more than the specified value in departure direction
BSI) Evasive steering		×	Steering wheel was steered more than the specified value in the evasive direction
BSI) R range		×	Selector lever was operated to R range
BSI) Parking brake drift		×	Rear wheels lock was detected
BSI) SNOW MODE SW		×	Shifting of the drive mode selector to SNOW position
BSI) VDC OFF SW		×	VDC OFF switch was pressed
BSI) OPE VDC/ABS 2		×	The activation of VDC or ABS during a standby time of blind spot intervention system control

DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

< SYSTEM DESCRIPTION >

[CHASSIS CONTROL]

Cause of cancellation	Lane departure prevention	Blind spot intervention	Description
BSI) Not operating condition		×	Did not meet the operating condition (vehicle speed, turn signal operation, etc.)
Side Radar Lost		×	Unrecognized side radar LH or RH by the ADAS control unit
NO RECORD	×	×	—

RE/PROGRAMMING, CONFIGURATION

Configuration includes the following functions.

Function	Description
Read/Write Configuration	Before replacing ECU Allows the reading of vehicle specification (Type ID) written in chassis control module to store the specification in CONSULT.
	After replacing ECU Allows the writing of vehicle information (Type ID) stored in CONSULT into the chassis control module.
Manual Configuration	Allows the writing of vehicle specification (Type ID) into the chassis control module by hand.

CAUTION:

Use “Manual Configuration” only when “TYPE ID” of chassis control module cannot be read.

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DAS

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[CHASSIS CONTROL]

ECU DIAGNOSIS INFORMATION

CHASSIS CONTROL MODULE

Reference Value

INFOID:000000012796416

CONSULT DATA MONITOR STANDARD VALUE

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor item	Condition	Reference values in normal operation
IGN VOLT	Ignition switch ON	10 – 16 V
CONTROL MODULE MALF	When chassis control module is normal	Off
	When chassis control module malfunction is detected	On
CAN DIAG STATUS	When diagnosis of CAN communication malfunction is detected	Off
	When diagnosis of CAN communication is normal	On
STP LAMP OFF RELAY 1	Displayed but not used.	—
STP LAMP OFF RELAY 2	Displayed but not used.	—
ESS RELAY	Displayed but not used.	—
VEHICLE SPEED	Vehicle Stopped	0 km/h (0 MPH)
	Driving*	Almost same reading as speedometer (within ±10%)
FR WHEEL SPEED	Vehicle stopped	0 rpm
	Driving*	Increases according to vehicle speed
FL WHEEL SPEED	Vehicle stopped	0 rpm
	Driving*	Increases according to vehicle speed
RR WHEEL SPEED	Vehicle stopped	0 rpm
	Driving*	Increases according to vehicle speed
RL WHEEL SPEED	Vehicle stopped	0 rpm
	Driving*	Increases according to vehicle speed
STEERING ANG SENSOR	When driving straight	0±3.5 deg
	When steering wheel is steered to RH by 90°	Approx. +90 deg
	When steering wheel is steered to LH by 90°	Approx. -90 deg
DECEL G SENSOR	Vehicle stopped	Approx. 0 G
	When during acceleration	Positive value
	When during deceleration	Negative value
SIDE G SENSOR	Vehicle stopped	Approx. 0 G
	When right turn	Negative value
	When left turn	Positive value
YAW RATE SENSOR	Vehicle stopped	Approx. 0 deg/s
	When right turn	Negative value
	When left turn	Positive value

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[CHASSIS CONTROL]

Monitor item	Condition	Reference values in normal operation
ACCELE PEDAL POSITION	When accelerator pedal is released	0%
	When accelerator pedal is depressed	0 – 100%
THROTTLE CONTROL	When electric throttle control actuator is normal	NORMAL
	When the electric throttle control actuator does not achieve the requirement (measured value is inaccurate)	INCORR
	When the electric throttle control actuator does not achieve the requirement (temporary prevention)	PREV
	When the electric throttle control actuator does not achieve the requirement (impossible)	INPOSSI
SHIFT POSITION	Selector lever in any position	Indicates selected selector lever position
BRAKE SWITCH 2	When brake pedal is not depressed	Off
	When brake pedal is depressed	On
BRAKE SWITCH 1	When brake pedal is not depressed	Off
	When brake pedal is depressed	On
PRESS SENSOR	When brake pedal is not depressed	Approx. 0 bar
	when brake pedal is depressed	0 – 255 bar
ABS	When ABS function is normal	NORMAL
	When ABS function malfunction is detected	ABNOR
ABS MALF	When ABS function is normal	NORMAL
	When ABS function malfunction is detected	ABNOR
EBD	When EBD function is normal	NORMAL
	When EBD function malfunction is detected	ABNOR
ACCELE PEDAL MALF	When accelerator pedal is normal	NORMAL
	When accelerator pedal malfunction is detected	ABNOR
TCS	When TCS function is normal	NORMAL
	When TCS function malfunction is detected	ABNOR
TCS MALF	When TCS function is normal	NORMAL
	When TCS function malfunction is detected	ABNOR
VDC	When VDC function is normal	NORMAL
	When VDC function malfunction is detected	ABNOR
VDC MALF	When VDC function is normal	NORMAL
	When VDC function malfunction is detected	ABNOR
VDC OFF SWITCH	When VDC OFF switch is OFF	Off
	When VDC OFF switch is ON	On
PARKING BRAKE	When parking brake is inactive	Off
	When parking brake is active	On

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CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[CHASSIS CONTROL]

Monitor item	Condition	Reference values in normal operation
DRV TRQ CTRL MODE	When correction coefficients are initialized	INITIAL
	When correction is executed	NORMAL
	When correction is stopped (computing is impossible)	STOP 1
	When correction is stopped (computing is possible)	STOP 2
	When correction is limited	LIMIT 1
	When correction is prohibited	PROHIBI
DRV TRQ CTRL PERMIS 1	When correction is permitted (basic requirement)	PERMIS
	When correction is not permitted (basic requirement)	NO PER
DRV TRQ CTRL PERMIS 2	When correction is permitted (system requirement)	PERMIS
	When correction is not permitted (system requirement)	NO PER
DRV TRQ CTRL STOP	When correction is requested to stop	REQ
	When correction is not requested to stop	NO REQ
DRV TRQ CTRL PROHIBIT	When prohibition of correction is requested	REQ
	When prohibition of correction is not requested	NO REQ
DRIVE MODE SELECTOR	When drive mode select switch is "STANDARD" mode	STD
	When drive mode select switch is "SPORT" mode	SPORT
	When drive mode select switch is "SNOW" mode	SNOW
	When drive mode select switch is "ECO" mode	ECO
	When drive mode select switch is "SPORT+" mode	SPORT+
	When drive mode select switch is "PERSONAL" mode	PERSO
	When drive mode select switch is not use	NOT
	When drive mode select switch is not select	NOT SET
LOG-IN PERMIS	When log-in is possible	NO PER
	When log-in is not possible	PERMIS
I-KEY LINK	When Intelligent Key is not linked	Off
	When Intelligent Key is linked	On
USER	When logged in with "USER A" Intelligent Key	USER A
	When logged in with "USER B" Intelligent Key	USER B
	When logged in with "USER C" Intelligent Key	USER C
	When logged in with an Intelligent Key without user registration	GUEST

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[CHASSIS CONTROL]

Monitor item	Condition	Reference values in normal operation	
ENGINE/TM SETTING	When the engine/transmission setting with drive mode select switch is in "SPORT" mode	SPORT	A
	When the engine/transmission setting with drive mode select switch is in "STANDARD" mode	STD	B
	When the engine/transmission setting with drive mode select switch is in "ECO" mode	ECO	C
	When the engine/transmission setting with drive mode select switch is in "SNOW" mode	SNOW	
ALC SETTING	When Active Lane Control setting with drive mode select switch is "OFF"	Off	D
	When Active Lane Control setting with drive mode select switch is "LOW"	LOW	E
	When Active Lane Control setting with drive mode select switch is "HIGH"	HIGH	
ATC SETTING	When active trace control function setting with drive mode select switch is "OFF"	Off	F
	When active trace control function setting with drive mode select switch is "ON"	On	G
COMBI METER	When drive mode select switch is "STANDARD" mode	STD	H
	When drive mode select switch is "SNOW" mode	SNOW	I
	When drive mode select switch is "PERSONAL" mode	PERSO	J
	When drive mode select switch is "SPORT" mode	SPORT	K
	When drive mode select switch is "ECO" mode	ECO	L
ATC 1	When active trace control function is inactive	Off	
	When active trace control function is active	On	
ATC 2	When active trace control function is inactive	Off	
	When active trace control function is active	On	
ATC 4	When active trace control function is inactive	Off	
	When active trace control function is active	On	
FL TIRE DISP	When the front LH tire is not displayed on the information display in the combination meter	DEF	M
	When the front LH tire is displayed on the information display in the combination meter	1	
FR TIRE DISP	When the front RH tire is not displayed on the information display in the combination meter	DEF	N
	When the front RH tire is displayed on the information display in the combination meter	1	DAS
RL TIRE DISP	When the rear LH tire is not displayed on the information display in the combination meter	DEF	
	When the rear LH tire is displayed on the information display in the combination meter	1	P
RR TIRE DISP	When the rear RH tire is not displayed on the information display in the combination meter	DEF	
	When the rear RH tire is displayed on the information display in the combination meter	1	

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[CHASSIS CONTROL]

Monitor item	Condition	Reference values in normal operation
TURN DISP	When the straight-ahead status is displayed on the information display in the combination meter	N STEER
	When the left turning status is displayed on the information display in the combination meter	LEFT
	When the right turning status is displayed on the information display in the combination meter	RIGHT
ALC LEVEL	When Active Lane Control is turned ON.	0
	When Active Lane Control is operational or is operating.	1 – 4
ALC STATUS	When Active Lane Control is OFF	INACT
	When Active Lane Control is ON	ACT
ATC DISP	When the activation of active trace control function is not displayed on the information display in the combination meter	Off
	When the activation of active trace control function is displayed on the information display in the combination meter	On
ALC DISP	When the activation of Active Lane Control is not displayed on the information display in the combination meter	Off
	When the activation of Active Lane Control is displayed on the information display in the combination meter	On
ALC SYSTEM	When Active Lane Control is OFF	Off
	When Active Lane Control is ON	On
LANE MARKER (LH)	When left side lane marker is not detected.	NOT
	when left side lane marker is detected.	DETECT
LANE MARKER (RH)	When right side lane marker is not detected.	NOT
	When right side lane marker is detected.	DETECT
TURN SIGNAL (LH)	When turn signal lamps is OFF	Off
	When turn signal lamp LH is blinking	On
TURN SIGNAL (RH)	When turn signal lamps is OFF	Off
	When turn signal lamp RH is blinking	On
TURN SIGNAL SWITCH	When turn signal lamps is OFF	Off
	When turn signal lamp LH is blinking	LEFT
	When turn signal lamp RH is blinking	RIGHT
	When turn signal lamp system malfunction is detected.	MALF
DAST	When the Active Lane Control request to transmit to the steering force control module is OFF	Off
	When the Active Lane Control request to transmit to the steering force control module is ON	On
ROAD DISTORTION	Driving	Depends on the radius of curve

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[CHASSIS CONTROL]

Monitor item	Condition	Reference values in normal operation	
COMMAND ST ANG	When the Active Lane Control is inactive or when the Active Lane Control is active and the vehicle is driving straight around the center of the lane	Approx. 0 rad	A
	Active Lane Control is active with yaw angle formed on the left of the lane.	Max 0.05 rad	B
	Active Lane Control is active with yaw angle formed on the right of the lane.	Max -0.05 rad	C
ST PINION ANG	When driving straight	Approx. 0 rad	
	when steering wheel is steered to LH by 90°	Approx. -1.6 rad	D
	when steering wheel is steered to RH by 90°	Approx. 1.6 rad	
ST WHL FORCE TORQUE	When driving straight	0 N·m	E
	When steering wheel is steered	MAX ± 32 N·m	
COMMAND ST WHL FORCE	When the Active Lane Control is inactive or when the Active Lane Control is active and the vehicle is driving straight around the center of the lane	0 N·m	F
	When the Active Lane Control is active and the vehicle is drifting to the left end of the lane	Approx. -6 N	G
	When the Active Lane Control is active and the vehicle is drifting to the right end of the lane	Approx. 6 N	
LDW DISP	When LDW function is ON	On	H
	When LDW function malfunction is detected	MALF	
LDP DISP	When LDP function is ON	On	I
	When LDP function malfunction is detected	MALF	
BSI DISP	When blind spot intervention function is ON	On	J
	When blind spot intervention function malfunction is detected	MALF	
ST SWITCH COND	When steering switch is normal	OK	K
	ADAS control unit sends malfunction information of the steering switch to the chassis control module. (During the judgment of malfunction.)	NG 1	L
	ADAS control unit sends malfunction information of the steering switch to the chassis control module. (Malfunction confirmed)	NG 2	
BSW COND	When BSW function is normal	NORMAL	M
	When BSW function malfunction is detected	ABNOR	
ADAS COND	When ADAS control unit is normal	NORMAL	N
	When ADAS control malfunction is detected	ABNOR	
COLLISION WARN	When the collision warning is OFF	Off	DAS
	When the collision warning is ON	On	
ICC ACTIVE	When ICC function is inactive	Off	P
	When ICC function is active	On	
IBA ACTIVE	When forward emergency brake function is inactive	Off	
	When forward emergency brake function is active	On	
DR BUZZER STATUS	Displayed but not used	—	
LDW COND	When LDW function is ON	On	
	When LDW function malfunction is detected	MALF	

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[CHASSIS CONTROL]

Monitor item	Condition	Reference values in normal operation
LDP COND	When LDP function is ON	On
	When LDP function malfunction is detected	MALF
BSI COND	When blind spot intervention function is ON	On
	When blind spot intervention function malfunction is detected	MALF
LDP BRAKE CANCEL	When not cancel	NONE
	When slippery road	SLIP
	When drive mode select switch is "SNOW" mode	SNOW
	When VDC OFF switch is OFF	VDC OF
BSI BRAKE CANCEL	When not cancel	NONE
	When slippery road	SLIP
	When drive mode select switch is "SNOW" mode	SNOW
	When VDC OFF switch is OFF	VDC OF
CAMERA COND	When Lane camera unit is normal	NORMAL
	When Lane camera unit malfunction is detected.	ABNOR
CAMERA TEMP COND	When the temperature around lane camera unit is normal	NORMAL
	When the temperature around the lane camera unit is high	ABNOR
CAMERA COMM COND	When communication between chassis control module and lane camera unit is normal	NORMAL
	When communication between chassis control module and lane camera unit malfunction is detected	ABNOR
CAMERA AIMING	When lane camera aiming is completed	COMP
	When lane camera aiming is not completed	INCOMP
CAMERA HIGH TEMP (LDW)	When the temperature around lane camera unit is normal. (LDW ON)	NORMAL
	When the temperature around the lane camera unit is high. (LDW ON)	ABNOR
CAMERA HIGH TEMP (LDP)	When the temperature around lane camera unit is normal. (LDP ON)	NORMAL
	When the temperature around the lane camera unit is high. (LDP ON)	ABNOR
CAMERA HIGH TEMP (BSI)	When the temperature around lane camera unit is normal. (Blind spot intervention ON)	NORMAL
	When the temperature around the lane camera unit is high. (Blind spot intervention ON)	ABNOR
SIDE RADAR BLOCK CANCEL	When the side radar is normal	NORMAL
	Side radar is blocked and temporarily deactivated.	BLOCK
BSI LAMP REQ (LH)	When blind spot intervention function (LH) is inactive	Off
	When blind spot intervention function (LH) is active	On

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[CHASSIS CONTROL]

Monitor item	Condition	Reference values in normal operation	
BSI LAMP REQ (RH)	When blind spot intervention function (RH) is inactive	Off	A
	When blind spot intervention function (RH) is active	On	B
LANE DEPARTURE DISP (LH)	When not deviating the LH side lane	NO DISP	C
	When deviating the LH side lane	DEVIAT	
LANE DEPARTURE DISP (RH)	When not deviating the RH side lane	NO DISP	D
	When deviating the RH side lane	DEVIAT	
LDP/BSI ACTIVE	When LDP function and blind spot intervention function are inactive	Off	E
	When LDP function or blind spot intervention function are active	On	F
ADAS COND	When diagnosis of ADAS control unit is normal	NORMAL	G
	When diagnosis of ADAS control unit malfunction is detected	ABNOR	
DR BUZZER COND	When driver assistance buzzer is normal	NORMAL	H
	When driver assistance buzzer malfunction is detected	ABNOR	
OUTSIDE TEMP	Ignition switch ON	(-40°C) – (+72°C)	I
WIPER STATUS	When front wiper is inactive	Off	J
	When front wiper is active (low and intermittent)	LOW	
	When front wiper is active (high)	HIGH	
	When front wiper malfunction is detected	MALF	
Engine rpm	Engine stopped	0 rpm	K
	Engine running	Almost same reading as tachometer	
FR shock ab drive current	When select the "Soft" in "FR shock absorber" of "ACTIVE TEST"	Approx. 0.38 A	L
	When select the "Medium" "FR shock absorber" in of "ACTIVE TEST"	Approx. 0.85 A	
	When select the "Hard" in "FR shock absorber" of "ACTIVE TEST"	Approx. 1.15 A	
FL shock ab drive current	When select the "Soft" in "FL shock absorber" of "ACTIVE TEST"	Approx. 0.38 A	M
	When select the "Medium" in "FL shock absorber" of "ACTIVE TEST"	Approx. 0.85 A	
	When select the "Hard" in "FL shock absorber" of "ACTIVE TEST"	Approx. 1.15 A	
RR shock ab drive current	When select the "Soft" in "RR shock absorber" of "ACTIVE TEST"	Approx. 0.38 A	N
	When select the "Medium" in "RR shock absorber" of "ACTIVE TEST"	Approx. 0.85 A	
	When select the "Hard" in "RR shock absorber" of "ACTIVE TEST"	Approx. 1.15 A	
RL shock ab drive current	When select the "Soft" in "RL shock absorber" of "ACTIVE TEST"	Approx. 0.38 A	P
	When select the "Medium" in "RL shock absorber" of "ACTIVE TEST"	Approx. 0.85 A	
	When select the "Hard" in "RL shock absorber" of "ACTIVE TEST"	Approx. 1.15 A	

DAS

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

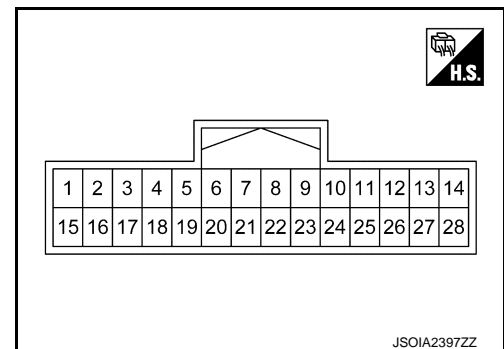
[CHASSIS CONTROL]

Monitor item	Condition	Reference values in normal operation
Shock absorber control 1	When vehicle estimation (control 1) is normal	Off
	When vehicle estimation (control 1) is canceled	On
Shock absorber control 2	When vehicle estimation (control 2) is normal	Off
	When vehicle estimation (control 2) is canceled	On
Shock absorber control 3	When vehicle estimation (control 3) is normal	Off
	When vehicle estimation (control 3) is canceled	On
FR shock ab command current	When select the "Soft" in "FR shock absorber" of "ACTIVE TEST"	Approx. 0.38 A
	When select the "Medium" in "FR shock absorber" of "ACTIVE TEST"	Approx. 0.85 A
	When select the "Hard" in "FR shock absorber" of "ACTIVE TEST"	Approx. 1.15 A
FL shock ab command current	When select the "Soft" in "FL shock absorber" of "ACTIVE TEST"	Approx. 0.38 A
	When select the "Medium" in "FL shock absorber" of "ACTIVE TEST"	Approx. 0.85 A
	When select the "Hard" in "FL shock absorber" of "ACTIVE TEST"	Approx. 1.15 A
RR shock ab command current	When select the "Soft" in "RR shock absorber" of "ACTIVE TEST"	Approx. 0.38 A
	When select the "Medium" in "RR shock absorber" of "ACTIVE TEST"	Approx. 0.85 A
	When select the "Hard" in "RR shock absorber" of "ACTIVE TEST"	Approx. 1.15 A
RL shock ab command current	When select the "Soft" in "RL shock absorber" of "ACTIVE TEST"	Approx. 0.38 A
	When select the "Medium" in "RL shock absorber" of "ACTIVE TEST"	Approx. 0.85 A
	When select the "Hard" in "RL shock absorber" of "ACTIVE TEST"	Approx. 1.15 A

*: Check tire pressure under normal conditions.

TERMINAL LAYOUT

Models with Digital Motion Control

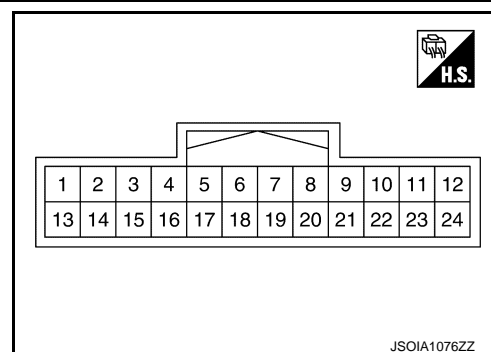


CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[CHASSIS CONTROL]

Models without Digital Motion Control



PHYSICAL VALUES

Models with Digital Motion Control

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
1 (LG)	—	ACTUATOR (FL)-L	—	—	—	—
3 (BR)	—	ACTUATOR (RR)-H	—	—	—	—
4 (BG)	Ground	IGNITION POWER SUPPLY	Input	Ignition switch ON		6.4 – 16 V
5 (W)	Ground	CHASSIS COMM-L	—	—	—	—
6 (B)	Ground	GROUND	—	Ignition switch ON	—	0 V
8 (BR) ^{*1} (L) ^{*1}	Ground	CHASSIS COMM-H	—	—	—	—
9 (G) ^{*1} (Y) ^{*1}	Ground	DRIVE MODE SELECT SWITCH (DOWN)	Input	Ignition switch ON	Down switch is not pressed	6.4 – 16 V
					Down switch is pressed	0 V
10 (L)	Ground	CAN-H	—	—	—	—
12 (G)	—	ACTUATOR (FR)-H	—	—	—	—
13 ^{*2} (G)	Ground	ESS RELAY	Output	Ignition switch ON		6.4 – 16 V
14 (L)	—	ACTUATOR (RL)-L	—	—	—	—
15 (Y)	—	ACTUATOR (RR)-L	—	—	—	—
17 (V)	—	ACTUATOR (FL)-H	—	—	—	—
19 (L)	Ground	CHASSIS COMM-H	—	—	—	—
21 (W)	Ground	CHASSIS COMM-L	—	—	—	—

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[CHASSIS CONTROL]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
22 (V)	Ground	DRIVE MODE SELECT SWITCH (UP)	Input	Ignition switch ON	Up switch is not pressed	6.4 – 16 V
					Up switch is pressed	0 V
23 (B)	Ground	GROUND	—	Ignition switch ON	—	0 V
24 (R) ^{*3} (P) ^{*4}	Ground	CAN-L	—	—	—	—
25 (G)	Ground	IGNITION POWER SUPPLY	Input	Ignition switch ON		6.4 – 16 V
26 (V)	—	ACTUATOR (RL)-H	—	—	—	—
28 (R)	—	ACTUATOR (FR)-L	—	—	—	—

*1: Color of wire differs depending on production.

*2: Although the harness is connected, it is not functioning.

*3: With Gateway

*4: Without Gateway

Models without Digital Motion Control

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
3 (R) ^{*1} (P) ^{*2}	Ground	CAN-L	—	—	—	—
					—	—
4 (L)	Ground	CAN-H	—	—	—	—
					—	—
5 (V) ^{*3} (Y) ^{*4}	Ground	DRIVE MODE SELECT SWITCH (UP)	Input	Ignition switch ON	Up switch is not pressed	6.4 – 16 V
					Up switch is pressed	0 V
6 (Y) ^{*3} (G) ^{*4}	Ground	DRIVE MODE SELECT SWITCH (DOWN)	Input	Ignition switch ON	Down switch is not pressed	6.4 – 16 V
					Down switch is pressed	0 V
7 (W)	Ground	CHASSIS COMM-L	—	—	—	—
8 (W)	Ground	CHASSIS COMM-L	—	—	—	—
10 (G) ^{*3} (BG) ^{*4}	Ground	IGNITION POWER SUPPLY	Input	Ignition switch ON		6.4 – 16 V
11 (L)	Ground	CHASSIS COMM-H	—	—	—	—
12 (B) ^{*3} (B/W) ^{*4}	Ground	GROUND	—	Ignition switch ON	—	0 V

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[CHASSIS CONTROL]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
19 (BR) ^{*3} (L) ^{*4}	Ground	CHASSIS COMM-H	—	—	—	—
23 ^{*5} (G) ^{*3} (R) ^{*4}	Ground	ESS RELAY	Output	Ignition switch ON		6.4 – 16 V

- *1: With Gateway
- *2: Without Gateway
- *3: VR30DDTT engine models
- *4: 2.0L turbo gasoline engine models
- *5: Although the harness is connected, it is not functioning.

Fail-Safe (Chassis Control Module)

INFOID:000000012796417

When a malfunction occurs in the chassis control module, the master warning lamp turns ON and an interrupt is displayed on the information display of the combination meter.

DTC	Vehicle condition
C1B90-00	The following functions are suspended. <ul style="list-style-type: none"> Active lane control function LDW function LDP function Blind spot intervention function
C1B91-00	
C1B92-00	The following functions are suspended. <ul style="list-style-type: none"> Active trace control function Active lane control function LDW function LDP function Blind spot intervention function
C1B93-00	The following functions are suspended. <ul style="list-style-type: none"> Active trace control function LDW function LDP function Blind spot intervention function
C1B94-00	
C1B96-00	The following functions are suspended. <ul style="list-style-type: none"> LDW function LDP function Blind spot intervention function Intelligent cruise control function
C1B99-00	The following functions are suspended. <ul style="list-style-type: none"> Active trace control function Active lane control function LDW function LDP function Blind spot intervention function Infiniti InTuition function Digital motion control function
C1BA6-00	The following functions are suspended. <ul style="list-style-type: none"> Infiniti InTuition function
C1BA7-00	The following functions are suspended. <ul style="list-style-type: none"> Active lane control function
C1BA9-00	The following functions are suspended. <ul style="list-style-type: none"> LDW function LDP function Blind spot intervention function
C1BAA-00	

DAS

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[CHASSIS CONTROL]

DTC	Vehicle condition
C1BAB-00	The following functions are suspended. • Active trace control function
C1BAC-00	The following functions are suspended. • LDP function • Blind spot intervention function
C1BAD-00	
C1BAE-00	
C1BAF-00	The following functions are suspended. • Blind spot intervention function
C1BB0-06	Normal control
C1BB2-00	The following functions are suspended. • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function • Infiniti InTuition function • Digital motion control function
C1BB3-00	
C1BB4-00	
C1BB5-00	
C1BB6-00	The following functions are suspended. • Digital motion control function
C1BB7-00	The following functions are suspended. • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function • Infiniti InTuition function • Digital motion control function
C1BB8-00	
C1BB9-00	
C1BBA-00	
C1BBB-00	
C1BBC-00	Normal control
C1BBD-00	The following functions are suspended. • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function • Infiniti InTuition function • Digital motion control function
C1BBE-11	The following functions are suspended. • Digital motion control function
C1BBE-12	
C1BBE-19	
C1BBE-1D	
C1BEE-39	
C1BEE-64	
C1BBF-11	
C1BBF-12	
C1BBF-19	
C1BBF-1D	
C1BBF-39	
C1BBF-64	
C1BC0-00	
C1BC1-00	

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[CHASSIS CONTROL]

DTC	Vehicle condition	
C1BC7-11	The following functions are suspended. • Digital motion control function	A
C1BC7-12		
C1BC7-19		B
C1BC7-1D		
C1BC7-39		
C1BC7-64		C
C1BC8-11		
C1BC8-12		D
C1BC8-19		
C1BC8-1D		
C1BC8-39	E	
C1BC8-64		
U1000-00	The following functions are suspended. • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function	F
U1010-49	The following functions are suspended. • Active trace control function • Active lane control function	G
U1A31-00	The following functions are suspended. • Active lane control function • LDW function • LDP function • Blind spot intervention function	H
U1A35-00	The following functions are suspended. • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function	I
U1A3E-00	Normal control	J

DTC Inspection Priority Chart

INFOID:0000000012796418

When multiple DTCs are displayed simultaneously, check them one by one according to the following priority list.

Priority	Detected item (DTC)	
1	• U1000-00 CAN COMM CIRCUIT • U1010-49 CONTROL UNIT (CAN)	K
2	• U1A31-00 DAST COMM • U1A35-00 BRAKE CONTROL COMM • U1A3E-00 ADAS COMM	L
3	• C1BBD-00 VARIANT CODING	M

DAS

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[CHASSIS CONTROL]

Priority	Detected item (DTC)
4	<ul style="list-style-type: none"> • C1B90-00 DAST SYSTEM • C1B91-00 CAMERA SYSTEM • C1B92-00 BRAKE CONTROL SYSTEM • C1B93-00 ENGINE/HEV SYSTEM • C1B94-00 TM SYSTEM • C1B96-00 ADAS SYSTEM • C1BA6-00 AV SYSTEM • C1BA7-00 ALC SYSTEM • C1BA9-00 NP RANGE • C1BAA-00 GEAR POSITION • C1BAB-00 STOP LAMP SW • C1BAC-00 OPERATION SW CIRC • C1BAD-00 ACCELERATER PEDAL • C1BAE-00 ACCELERATER PEDAL • C1BAF-00 BSW SYSTEM • C1BB0-06 DR BUZZER SYSTEM • C1BBE-11 Front right shock absorber circuit • C1BBE-12 Front right shock absorber circuit • C1BBE-19 Front right shock absorber circuit • C1BBE-1D Front right shock absorber circuit • C1BBE-39 Front right shock absorber circuit • C1BBE-64 Front right shock absorber circuit • C1BBF-11 Front left shock absorber circuit • C1BBF-12 Front left shock absorber circuit • C1BBF-19 Front left shock absorber circuit • C1BBF-1D Front left shock absorber circuit • C1BBF-39 Front left shock absorber circuit • C1BBF-64 Front left shock absorber circuit • C1BC0-00 FR WHEEL SENSOR • C1BC1-00 FL WHEEL SENSOR • C1BC7-11 Rear right shock absorber circuit • C1BC7-12 Rear right shock absorber circuit • C1BC7-19 Rear right shock absorber circuit • C1BC7-1D Rear right shock absorber circuit • C1BC7-39 Rear right shock absorber circuit • C1BC7-64 Rear right shock absorber circuit • C1BC8-11 Rear left shock absorber circuit • C1BC8-12 Rear left shock absorber circuit • C1BC8-19 Rear left shock absorber circuit • C1BC8-1D Rear left shock absorber circuit • C1BC8-39 Rear left shock absorber circuit • C1BC8-64 Rear left shock absorber circuit
5	<ul style="list-style-type: none"> • C1BB5-00 IGN POWER SUPPLY • C1BB6-00 IGN POWER SUPPLY
6	<ul style="list-style-type: none"> • C1B99-00 CONTROL MODULE • C1BB2-00 CONTROL MODULE • C1BB3-00 CONTROL MODULE • C1BB4-00 CONTROL MODULE • C1BB7-00 CONTROL MODULE • C1BB8-00 CONTROL MODULE • C1BB9-00 CONTROL MODULE • C1BBA-00 CONTROL MODULE • C1BBB-00 CONTROL MODULE • C1BBC-00 CONTROL MODULE

DTC Index

INFOID:0000000012796419

DTC	Display item	Refer to
C1B90-00	DAST SYSTEM	DAS-580, "DTC Description"
C1B91-00	CAMERA SYSTEM	DAS-582, "DTC Description"
C1B92-00	BRAKE CONTROL SYSTEM	DAS-584, "DTC Description"

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[CHASSIS CONTROL]

DTC	Display item	Refer to
C1B93-00	ENGINE/HEV SYSTEM	DAS-586, "DTC Description"
C1B94-00	TM SYSTEM	DAS-588, "DTC Description"
C1B96-00	ADAS SYSTEM	DAS-590, "DTC Description"
C1B99-00	CONTROL NODULE	DAS-592, "DTC Description"
C1BA6-00	AV SYSTEM	DAS-593, "DTC Description"
C1BA7-00	ALC SYSTEM	DAS-595, "DTC Description"
C1BA9-00	NP RANGE	DAS-597, "DTC Description"
C1BAA-00	GEAR POSITION	DAS-599, "DTC Description"
C1BAB-00	STOP LAMP SW	DAS-601, "DTC Description"
C1BAC-00	OPERATION SW CIRC	DAS-603, "DTC Description"
C1BAD-00	ACCELERATER PEDAL	DAS-605, "DTC Description"
C1BAE-00	ACCELERATER PEDAL	DAS-607, "DTC Description"
C1BAF-00	BSW SYSTEM	DAS-609, "DTC Description"
C1BB0-06	DR BUZZER SYSTEM	DAS-611, "DTC Description"
C1BB2-00	CONTROL MODULE	DAS-612, "DTC Description"
C1BB3-00	CONTROL MODULE	DAS-613, "DTC Description"
C1BB4-00	CONTROL MODULE	DAS-614, "DTC Description"
C1BB5-00	IGN POWER SUPPLY	DAS-615, "DTC Description"
C1BB6-00	IGN POWER SUPPLY	DAS-620, "DTC Description"
C1BB7-00	CONTROL MODULE	DAS-623, "DTC Description"
C1BB8-00	CONTROL MODULE	DAS-624, "DTC Description"
C1BB9-00	CONTROL MODULE	DAS-625, "DTC Description"
C1BBA-00	CONTROL MODULE	DAS-626, "DTC Description"
C1BBB-00	CONTROL MODULE	DAS-627, "DTC Description"
C1BBC-00	CONTROL MODULE	DAS-628, "DTC Description"
C1BBD-00	VARIANT CODING	DAS-629, "DTC Description"
C1BBE-11	Front right shock absorber circuit	DAS-630, "DTC Description"
C1BBE-12	Front right shock absorber circuit	DAS-633, "DTC Description"
C1BBE-19	Front right shock absorber circuit	DAS-636, "DTC Description"
C1BBE-1D	Front right shock absorber circuit	DAS-639, "DTC Description"
C1BBE-39	Front right shock absorber circuit	DAS-642, "DTC Description"
C1BBE-64	Front right shock absorber circuit	DAS-644, "DTC Description"
C1BBF-11	Front left shock absorber circuit	DAS-647, "DTC Description"
C1BBF-12	Front left shock absorber circuit	DAS-650, "DTC Description"
C1BBF-19	Front left shock absorber circuit	DAS-653, "DTC Description"
C1BBF-1D	Front left shock absorber circuit	DAS-656, "DTC Description"
C1BBF-39	Front left shock absorber circuit	DAS-659, "DTC Description"
C1BBF-64	Front left shock absorber circuit	DAS-661, "DTC Description"
C1BC0-00	FR WHEEL SENSOR	DAS-664, "DTC Description"
C1BC1-00	FL WHEEL SENSOR	DAS-666, "DTC Description"
C1BC7-11	Rear right shock absorber circuit	DAS-668, "DTC Description"
C1BC7-12	Rear right shock absorber circuit	DAS-671, "DTC Description"
C1BC7-19	Rear right shock absorber circuit	DAS-674, "DTC Description"
C1BC7-1D	Rear right shock absorber circuit	DAS-677, "DTC Description"

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CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[CHASSIS CONTROL]

DTC	Display item	Refer to
C1BC7-39	Rear right shock absorber circuit	DAS-680, "DTC Description"
C1BC7-64	Rear right shock absorber circuit	DAS-682, "DTC Description"
C1BC8-11	Rear left shock absorber circuit	DAS-685, "DTC Description"
C1BC8-12	Rear left shock absorber circuit	DAS-688, "DTC Description"
C1BC8-19	Rear left shock absorber circuit	DAS-691, "DTC Description"
C1BC8-1D	Rear left shock absorber circuit	DAS-694, "DTC Description"
C1BC8-39	Rear left shock absorber circuit	DAS-697, "DTC Description"
C1BC8-64	Rear left shock absorber circuit	DAS-699, "DTC Description"
U1000-00	CAN COMM CIRCUIT	DAS-702, "DTC Description"
U1010-49	CONTROL UNIT (CAN)	DAS-703, "DTC Description"
U1A31-00	DAST COMM	DAS-704, "DTC Description"
U1A35-00	BRAKE CONTROL COMM	DAS-706, "DTC Description"
U1A3E-00	ADAS COMM	DAS-708, "DTC Description"

CHASSIS CONTROL (WITH DIGITAL MOTION CONTROL)

< WIRING DIAGRAM >

[CHASSIS CONTROL]

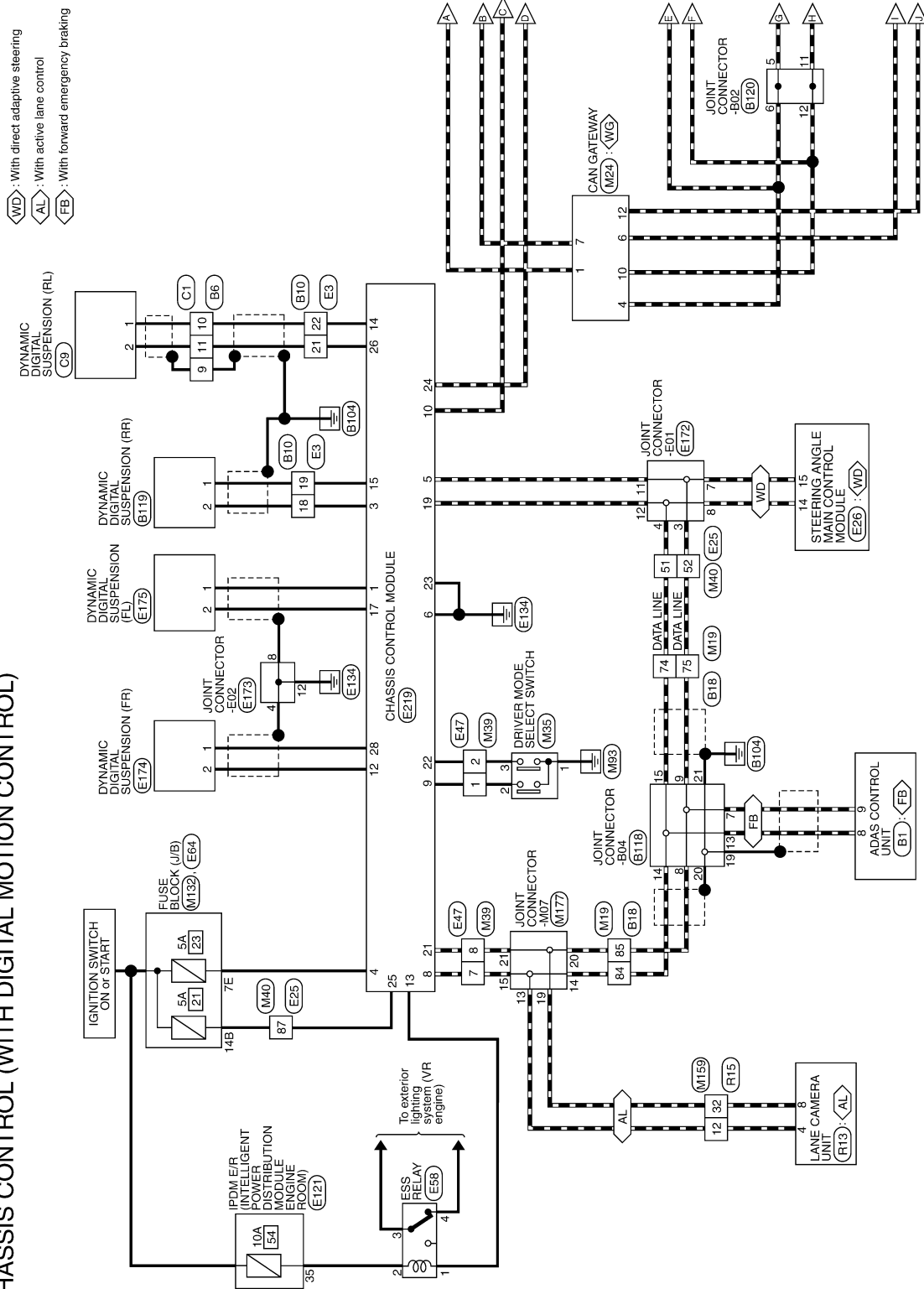
WIRING DIAGRAM

CHASSIS CONTROL (WITH DIGITAL MOTION CONTROL)

Wiring Diagram

INFOID:000000012796420

CHASSIS CONTROL (WITH DIGITAL MOTION CONTROL)



2016/02/15

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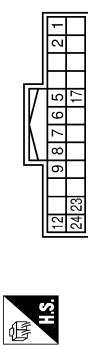
CHASSIS CONTROL (WITH DIGITAL MOTION CONTROL)

< WIRING DIAGRAM >

[CHASSIS CONTROL]

CHASSIS CONTROL (WITH DIGITAL MOTION CONTROL)

Connector No.	B1
Connector Name	ADAS CONTROL UNIT
Connector Type	TH24FW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	CAN-H
2	R	CAN-L
3	B	GROUND
4	L	ITS COMM-H
5	L	ITS COMM-L
6	L	CHASSIS COMM-H
7	Y	CHASSIS COMM-L
8	L	CHASSIS COMM-H
9	R	CHASSIS COMM-L
10	L	CHASSIS COMM-H
11	L	CHASSIS COMM-L
12	G	IGNITION (Except with VR30 engine and without BS)
13	GR	IGNITION (VR30 engine and without BS)
14	V	BRAKE HOLD RLY DRIVE SIGNAL
15	Y	STEERING SW SIGNAL GROUND
16	SB	STEERING SW SIGNAL
17	V	GROUND
24	SB	STEERING SW SIGNAL

Connector No.	B6
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	CAN-H
2	R	CAN-L
3	B	GROUND
4	L	ITS COMM-H
5	L	ITS COMM-L
6	L	CHASSIS COMM-H
7	Y	CHASSIS COMM-L
8	L	CHASSIS COMM-H
9	R	CHASSIS COMM-L
10	L	CHASSIS COMM-H
11	L	CHASSIS COMM-L
12	G	IGNITION (Except with VR30 engine and without BS)
13	GR	IGNITION (VR30 engine and without BS)
14	V	BRAKE HOLD RLY DRIVE SIGNAL
15	Y	STEERING SW SIGNAL GROUND
16	SB	STEERING SW SIGNAL

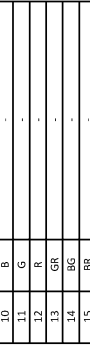
Connector No.	B10
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	CAN-H
2	R	CAN-L
3	B	GROUND
4	L	ITS COMM-H
5	L	ITS COMM-L
6	L	CHASSIS COMM-H
7	Y	CHASSIS COMM-L
8	L	CHASSIS COMM-H
9	R	CHASSIS COMM-L
10	L	CHASSIS COMM-H
11	L	CHASSIS COMM-L
12	G	IGNITION (Except with VR30 engine and without BS)
13	GR	IGNITION (VR30 engine and without BS)
14	V	BRAKE HOLD RLY DRIVE SIGNAL
15	Y	STEERING SW SIGNAL GROUND
16	SB	STEERING SW SIGNAL
17	V	GROUND
18	L	CHASSIS COMM-H
19	L	CHASSIS COMM-L
20	L	CHASSIS COMM-H
21	L	CHASSIS COMM-L
22	L	CHASSIS COMM-H
23	L	CHASSIS COMM-L
24	L	CHASSIS COMM-H

Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	CAN-H
2	R	CAN-L
3	B	GROUND
4	L	ITS COMM-H
5	L	ITS COMM-L
6	L	CHASSIS COMM-H
7	Y	CHASSIS COMM-L
8	L	CHASSIS COMM-H
9	R	CHASSIS COMM-L
10	L	CHASSIS COMM-H
11	L	CHASSIS COMM-L
12	G	IGNITION (Except with VR30 engine and without BS)
13	GR	IGNITION (VR30 engine and without BS)
14	V	BRAKE HOLD RLY DRIVE SIGNAL
15	Y	STEERING SW SIGNAL GROUND
16	SB	STEERING SW SIGNAL
17	V	GROUND
18	L	CHASSIS COMM-H
19	L	CHASSIS COMM-L
20	L	CHASSIS COMM-H
21	L	CHASSIS COMM-L
22	L	CHASSIS COMM-H
23	L	CHASSIS COMM-L
24	L	CHASSIS COMM-H

Connector No.	B8
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-AH



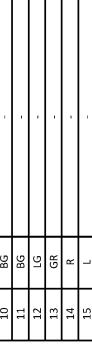
Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	CAN-H
2	R	CAN-L
3	B	GROUND
4	L	ITS COMM-H
5	L	ITS COMM-L
6	L	CHASSIS COMM-H
7	Y	CHASSIS COMM-L
8	L	CHASSIS COMM-H
9	R	CHASSIS COMM-L
10	L	CHASSIS COMM-H
11	L	CHASSIS COMM-L
12	G	IGNITION (Except with VR30 engine and without BS)
13	GR	IGNITION (VR30 engine and without BS)
14	V	BRAKE HOLD RLY DRIVE SIGNAL
15	Y	STEERING SW SIGNAL GROUND
16	SB	STEERING SW SIGNAL

Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TH8DFW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	CAN-H
2	R	CAN-L
3	B	GROUND
4	L	ITS COMM-H
5	L	ITS COMM-L
6	L	CHASSIS COMM-H
7	Y	CHASSIS COMM-L
8	L	CHASSIS COMM-H
9	R	CHASSIS COMM-L
10	L	CHASSIS COMM-H
11	L	CHASSIS COMM-L
12	G	IGNITION (Except with VR30 engine and without BS)
13	GR	IGNITION (VR30 engine and without BS)
14	V	BRAKE HOLD RLY DRIVE SIGNAL
15	Y	STEERING SW SIGNAL GROUND
16	SB	STEERING SW SIGNAL
17	V	GROUND
18	L	CHASSIS COMM-H

Connector No.	B10
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	CAN-H
2	R	CAN-L
3	B	GROUND
4	L	ITS COMM-H
5	L	ITS COMM-L
6	L	CHASSIS COMM-H
7	Y	CHASSIS COMM-L
8	L	CHASSIS COMM-H
9	R	CHASSIS COMM-L
10	L	CHASSIS COMM-H
11	L	CHASSIS COMM-L
12	G	IGNITION (Except with VR30 engine and without BS)
13	GR	IGNITION (VR30 engine and without BS)
14	V	BRAKE HOLD RLY DRIVE SIGNAL
15	Y	STEERING SW SIGNAL GROUND
16	SB	STEERING SW SIGNAL
17	V	GROUND
18	L	CHASSIS COMM-H
19	L	CHASSIS COMM-L
20	L	CHASSIS COMM-H
21	L	CHASSIS COMM-L
22	L	CHASSIS COMM-H
23	L	CHASSIS COMM-L
24	L	CHASSIS COMM-H

Connector No.	B6
Connector Name	WIRE TO WIRE
Connector Type	TH16MW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	CAN-H
2	R	CAN-L
3	B	GROUND
4	L	ITS COMM-H
5	L	ITS COMM-L
6	L	CHASSIS COMM-H
7	Y	CHASSIS COMM-L
8	L	CHASSIS COMM-H
9	R	CHASSIS COMM-L
10	L	CHASSIS COMM-H
11	L	CHASSIS COMM-L
12	G	IGNITION (Except with VR30 engine and without BS)
13	GR	IGNITION (VR30 engine and without BS)
14	V	BRAKE HOLD RLY DRIVE SIGNAL
15	Y	STEERING SW SIGNAL GROUND
16	SB	STEERING SW SIGNAL

34	LG	-	-
35	P	-	-
36	W	-	-
37	SB	-	-
38	LG	-	-
40	P	-	-
41	SB	-	-
42	BR	-	-
43	BR	-	-
44	BG	-	-
46	R	-	-
50	W	-	-
51	SB	-	-
52	V	-	-
53	LG	-	-
54	R	-	-
55	R	-	-
57	W	-	-
58	V	-	-
59	GR	-	-
60	G	-	-
61	G	-	-
62	BG	-	-
63	BR	-	-
64	Y	-	-
66	R	-	-
70	R	-	-
71	W	-	-
72	B	-	-
73	W	-	-
74	L	-	-
75	R	-	- [Without paddle shift]
76	V	-	- [Without paddle shift]
77	B	-	-
78	SB	-	-
79	V	-	- [With VR30 engine]
80	W	-	- [With 2.0L turbo gasoline engine]
81	B	-	-
82	R	-	- [With 2.0L turbo gasoline engine and without gateway]
83	BG	-	- [With 2.0L turbo gasoline engine and without gateway]
84	L	-	- [With VR30 engine]
85	R	-	- [Without paddle shift]
86	V	-	- [Without paddle shift]
88	B	-	-
89	V	-	- [With 2.0L turbo gasoline engine]
89	W	-	- [With VR30 engine]
91	GR	-	-

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CHASSIS CONTROL (WITH DIGITAL MOTION CONTROL)

< WIRING DIAGRAM >

[CHASSIS CONTROL]

CHASSIS CONTROL (WITH DIGITAL MOTION CONTROL)

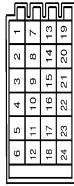
94	GR	-	-	-	[With VR30 engine]
96	Y	-	-	-	-
97	V	-	-	-	-
98	BR	-	-	-	[With VR30 engine and with BOSE system]
98	Y	-	-	-	[Except with VR30 engine and with BOSE system]

Connector No.		B116
Connector Name		JOINT CONNECTOR-B06
Connector Type		24342_4GA2A



20	SHIELD	-	-	-	[With VR30 engine]
21	L	-	-	-	-
22	P	-	-	-	-
23	P	-	-	-	-
24	P	-	-	-	[With VR30 engine]
24	Y	-	-	-	[With 2.0L turbo gasoline engine]

Connector No.		B118
Connector Name		JOINT CONNECTOR-B04
Connector Type		24342_4GA2A



14	L	-	-	-	[With VR30 engine]
14	P	-	-	-	[With 2.0L turbo gasoline engine and without gateway]
14	R	-	-	-	[With 2.0L turbo gasoline engine and with gateway]
15	L	-	-	-	[With VR30 engine]
15	R	-	-	-	[With 2.0L turbo gasoline engine]
16	L	-	-	-	-
17	L	-	-	-	-
18	L	-	-	-	-
19	L	-	-	-	[With 2.0L turbo gasoline engine]
19	SHIELD	-	-	-	[With VR30 engine]
20	L	-	-	-	[With 2.0L turbo gasoline engine]
20	SHIELD	-	-	-	[With VR30 engine]
21	L	-	-	-	[With 2.0L turbo gasoline engine]
21	SHIELD	-	-	-	[With VR30 engine]
22	R	-	-	-	-
23	R	-	-	-	-
24	R	-	-	-	-

Connector No.		B119
Connector Name		DYNAMIC DIGITAL SUSPENSION (RR)
Connector Type		AF202FB-1V



Terminal No.		Color Of Wire	Signal Name [Specification]
1	Y	-	-
2	BR	-	-

Connector No.		B120
Connector Name		JOINT CONNECTOR-B02
Connector Type		24342_4GA2A



Terminal No.		Color Of Wire	Signal Name [Specification]
1	R	-	-
2	R	-	-
3	L	-	- [With VR30 engine]
3	R	-	- [With 2.0L turbo gasoline engine]
4	L	-	- [With VR30 engine]
4	R	-	- [With 2.0L turbo gasoline engine]
5	L	-	-
6	L	-	-
7	L	-	-
8	L	-	-
9	L	-	- [With 2.0L turbo gasoline engine]
9	R	-	- [With VR30 engine]
10	L	-	- [With 2.0L turbo gasoline engine]
10	R	-	- [With VR30 engine]
11	R	-	-
12	R	-	-
13	W	-	-
14	W	-	-
15	W	-	-
17	SHIELD	-	-
18	B	-	-
19	R	-	- [With 2.0L turbo gasoline engine]
19	GR	-	- [With VR30 engine]
20	SHIELD	-	- [With VR30 engine]
20	B	-	- [With 2.0L turbo gasoline engine]
21	B	-	- [With 2.0L turbo gasoline engine]
21	GR	-	- [With VR30 engine]
22	W	-	-
23	W	-	-
24	W	-	-

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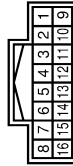
CHASSIS CONTROL (WITH DIGITAL MOTION CONTROL)

< WIRING DIAGRAM >

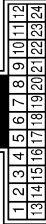
[CHASSIS CONTROL]

CHASSIS CONTROL (WITH DIGITAL MOTION CONTROL)

Connector No.	C1
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-AH



Connector No.	E3
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-AH



Connector No.	E25
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name (Specification)
7	LG	-
8	GR	-
9	SHIELD	-
10	L	- [With VR30 engine]
10	V	- [With 2.0L turbo gasoline engine]
11	G	-
12	GR	-
13	BG	-
14	LG	-
14	BR	-
15	BR	-
16	BG	-

Connector No.	C9
Connector Name	DYNAMIC DIGITAL SUSPENSION (RL)
Connector Type	AFZ02FB-1V



Terminal No.	Color Of Wire	Signal Name (Specification)
1	L	-
2	G	-

Terminal No.	Color Of Wire	Signal Name (Specification)
1	BG	-
6	V	-
7	L	-
8	BG	- [With VR30 engine]
8	BR	- [With 2.0L turbo gasoline engine]
9	B	- [With 2.0L turbo gasoline engine]
9	GR	- [With VR30 engine] (Color of wire differs depending on production)
9	LG	- [With VR30 engine] (Color of wire differs depending on production)
10	BR	-
11	L	-
12	GR	- [With VR30 engine]
12	P	- [With 2.0L turbo gasoline engine]
13	SHIELD	- [With 2.0L turbo gasoline engine]
13	W	- [With VR30 engine]
14	B	-
14	GR	- [With 2.0L turbo gasoline engine]
15	S8	- [With VR30 engine]
16	BR	- [With 2.0L turbo gasoline engine]
16	Y	- [With VR30 engine]
17	BR	- [With VR30 engine]
17	GR	- [With 2.0L turbo gasoline engine]
18	G	- [With 2.0L turbo gasoline engine]
18	P	- [With VR30 engine]
19	V	-
20	GR	-
21	R	- [With 2.0L turbo gasoline engine]
21	V	- [With VR30 engine]
22	L	- [With 2.0L turbo gasoline engine]
22	GR	- [With VR30 engine]
23	P	-
24	B	- [With VR30 engine]
24	BR	- [With 2.0L turbo gasoline engine]

38	P	- [With 2.0L turbo gasoline engine and without gateway]
38	BR	- [With 2.0L turbo gasoline engine and with gateway]
39	R	- [With 2.0L turbo gasoline engine]
39	Y	- [With VR30 engine]
40	S8	-
41	LG	-
44	Y	-
45	L	- [With 2.0L turbo gasoline engine]
46	W	- [With VR30 engine]
46	B	- [With VR30 engine]
46	Z	- [With 2.0L turbo gasoline engine]
47	G	-
48	SHIELD	-
49	R	-
50	BR	- [With VR30 engine]
50	GR	- [With 2.0L turbo gasoline engine]
51	L	-
52	W	-
53	V	-
54	P	- [With VR30 engine]
54	W	- [With 2.0L turbo gasoline engine]
55	B	- [With VR30 engine]
55	W	- [With VR30 engine]
56	BG	- [With 2.0L turbo gasoline engine]
56	S8	- [With VR30 engine]
57	BG	- [With VR30 engine]
57	W	- [With 2.0L turbo gasoline engine]
58	B	- [Color of wire differs depending on production]
58	B/W	- [Color of wire differs depending on production]
59	W	-
61	R	-
64	Y	-
65	BR	- [Color of wire differs depending on production]
65	GR	- [Color of wire differs depending on production]
66	GR	-
67	LG	-
68	BG	-
69	L	-
70	R	-
71	G	- [With 2.0L turbo gasoline engine]
71	LG	- [With VR30 engine]
72	L	- [With 2.0L turbo gasoline engine]
72	V	- [With VR30 engine]
73	G	- [With 2.0L turbo gasoline engine]
73	W	- [With 2.0L turbo gasoline engine]
74	BR	- [With VR30 engine]
74	L	- [With 2.0L turbo gasoline engine]
75	P	- [With 2.0L turbo gasoline engine and without gateway]
75	R	- [With 2.0L turbo gasoline engine and with gateway]
75	V	- [With VR30 engine]

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CHASSIS CONTROL (WITH DIGITAL MOTION CONTROL)

< WIRING DIAGRAM >

[CHASSIS CONTROL]

CHASSIS CONTROL (WITH DIGITAL MOTION CONTROL)

76	G	-	-
77	Y	-	-
78	LG	- [With 2.0L turbo gasoline engine and with ADAS]	-
78	P	- [With VR30 engine]	-
78	V	- [With 2.0L turbo gasoline engine and without ADAS]	-
79	SB	-	-
80	G	-	-
81	R	-	-
82	V	-	-
83	BR	- [With 2.0L turbo gasoline engine]	-
83	R	- [With VR30 engine]	-
84	LG	-	-
86	BG	-	-
87	G	-	-
89	LG	-	-
90	G	- [With VR30 engine]	-
90	GR	- [With 2.0L turbo gasoline engine]	-
91	G	-	-
93	BG	-	-
94	GR	- [With VR30 engine]	-
94	L	- [With 2.0L turbo gasoline engine]	-
95	BG	- [With VR30 engine]	-
95	P	- [With 2.0L turbo gasoline engine and without gateway]	-
95	R	- [With 2.0L turbo gasoline engine and with gateway]	-
96	W	-	-
97	LG	-	-
98	L	-	-
99	LG	- [With 2.0L turbo gasoline engine]	-
99	P	- [With VR30 engine]	-
100	SHIELD	-	-

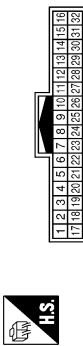
Connector No.	E26
Connector Name	STEERING ANGLE MAIN CONTROL MODULE
Connector Type	RH24HR-R284-14H



Terminal No.	Color	Wire	Signal Name [Specification]
1	BR	Y	TORQUE SENSOR MAIN SIGNAL
2	Y	V	STEERING ANGLE MAIN MOTOR RESOLVER SIGNAL (S1-S3)
3	LG	V	TORQUE SENSOR SUB SIGNAL
4	G	G	STEERING ANGLE MAIN MOTOR RESOLVER SIGNAL (S1-S3)

5	W	-	STEERING ANGLE MAIN MOTOR RESOLVER SIGNAL (S2-S4)
6	L	-	STEERING ANGLE MAIN MOTOR RESOLVER SIGNAL (S2-S4)
7	SB	-	TORQUE SENSOR GROUND
8	P	-	TORQUE SENSOR POWER SUPPLY
10	R	-	STEERING ANGLE MAIN MOTOR RESOLVER SIGNAL (R1-R3)
11	BR	-	STEERING ANGLE MAIN MOTOR RESOLVER SIGNAL (R1-R3)
14	L	-	CHASSIS COMMUNICATION-H
15	W	-	CHASSIS COMMUNICATION-L
17	BG	-	BACK UP SIGNAL (TO PREVENT ANGLE CONTROL MODULE)
18	SB	-	BACK UP SIGNAL (FROM STEERING ANGLE CONTROL MODULE)
19	V	-	ELEXRAY COMMUNICATION-H
20	GR	-	ELEXRAY COMMUNICATION-L
22	GR	-	BACK UP SIGNAL (TO PREVENT ANGLE CONTROL MODULE)
23	BR	-	CAN WAKE UP
24	P	-	BACK UP SIGNAL (TO STEERING ANGLE CONTROL MODULE)
25	G	-	STEERING ANGLE MAIN MOTOR RESOLVER SIGNAL (S1-S3)
30	B	-	GROUND
32	GR	-	GROUND

Connector No.	E47
Connector Name	WIRE TO WIRE
Connector Type	TH32MV-VNH



Terminal No.	Color	Wire	Signal Name [Specification]
1	G	-	- [Color of wire differs depending on production]
1	Y	-	- [Color of wire differs depending on production]
2	V	-	-
3	L	-	-
4	P	-	- [Without Gateway]
4	R	-	- [With Gateway]
5	W	-	-
6	SB	-	-
7	BR	-	- [Color of wire differs depending on production]
7	L	-	- [Color of wire differs depending on production]
8	W	-	-
9	BG	-	- [Without BOSE system]
9	V	-	- [With BOSE system]
10	V	-	-
11	SB	-	-
12	G	-	-

13	G	-	-
15	BR	-	-
16	P	-	-
17	SHIELD	-	-
18	L	-	-
19	Y	-	-
20	W	-	-
21	G	-	-
22	R	-	-
23	BR	-	-
24	R	-	-
25	-	-	-
26	BG	-	-
27	LG	-	-
28	BR	-	-
29	W	-	-
30	Y	-	-
31	G	-	-
32	GR	-	-

Connector No.	E58
Connector Name	ESS RELAY
Connector Type	MS03FB-M2-LC



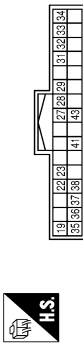
Terminal No.	Color	Wire	Signal Name [Specification]
1	P	R	- [With VR30 engine]
1	R	R	- [With 2.0L turbo gasoline engine]
2	G	G	-
3	W	W	-
4	LG	LG	-

Connector No.	E64
Connector Name	FUSE BLOCK (1/8)
Connector Type	NS08FW-C5



Terminal No.	Color	Wire	Signal Name [Specification]
1E	-	G	-
2E	-	P	-
3E	-	V	-
4E	-	GR	-
6E	-	L	-
7E	-	BG	-

Connector No.	E121
Connector Name	POWER INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	TH32FW-VNH



Terminal No.	Color	Wire	Signal Name [Specification]
19	L	L	- [With 2.0L turbo gasoline engine]
19	P	P	- [With VR30 engine]
22	BG	BG	-
33	GR	GR	- [With VR30 engine]
33	LG	LG	- [With 2.0L turbo gasoline engine and without BOSE system]
33	P	P	- [With 2.0L turbo gasoline engine and with BOSE system]
27	GR	GR	-
28	P	P	-
29	L	L	-
31	G	G	-
32	SB	SB	-
33	SB	SB	-
34	Y	Y	-
35	G	G	-

CHASSIS CONTROL (WITH DIGITAL MOTION CONTROL)

< WIRING DIAGRAM >

[CHASSIS CONTROL]

CHASSIS CONTROL (WITH DIGITAL MOTION CONTROL)

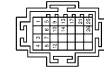
36	5B	- [With VR30 engine]
37	W	- [With 2.0L turbo gasoline engine]
38	GR	-
41	GR	-
43	V	-

Connector No.	E172
Connector Name	JOINT CONNECTOR-E01
Connector Type	SGA28FLBR-J



Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	-
2	Y	-
3	W	-
4	L	-
5	GR	-
6	Y	-
7	W	-
8	L	-
9	GR	-
10	Y	-
11	W	-
12	L	-
15	W	-
16	BG	-
17	P	-
18	L	-
19	W	-
20	BG	-
21	P	-
22	L	-
23	SB	- [Color of wire differs depending on production]
24	BG	- [Color of wire differs depending on production]
24	LG	- [Color of wire differs depending on production]
25	P	-
26	L	-
27	Y	-
28	L	-

Connector No.	E173
Connector Name	JOINT CONNECTOR-E02
Connector Type	SGA28FD0J-J



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	- [Color of wire differs depending on production]
1	R	- [Color of wire differs depending on production]
3	B	-
4	B	-
5	G	-
6	BR	-
7	B	-
8	B	-
9	G	-
10	L	-
12	B	-
13	G	-
14	BR	-
17	G	-
21	G	-
25	R	-
26	L	-

Connector No.	E174
Connector Name	DYNAMIC DIGITAL SUSPENSION (FR)
Connector Type	AFZ02FB-1V



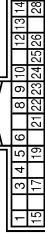
Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	G	-

Connector No.	E175
Connector Name	DYNAMIC DIGITAL SUSPENSION (FL)
Connector Type	AFZ02FB-1V



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	-
2	V	-

Connector No.	E219
Connector Name	CHASSIS CONTROL MODULE
Connector Type	THR28FV



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	ACTUATOR (FL-L)
3	BR	ACTUATOR (RR-H)
4	BG	IGN
5	W	CHASSIS COMMA-L
6	B	GROUND
8	BR	CHASSIS COMMA (Color of wire differs depending on production)
8	L	CHASSIS COMMA (Color of wire differs depending on production)
9	G	CHASSIS COMMA (Color of wire differs depending on production)
9	Y	CHASSIS COMMA (Color of wire differs depending on production)
10	L	CAN-H
12	G	ACTUATOR (FR-H)
13	G	ESS RELAY
14	L	ACTUATOR (RU-L)
15	V	ACTUATOR (FL-H)
17	L	CHASSIS COMMA-H
19	L	CHASSIS COMMA-L
21	W	DRIVE MODE SELECT SWITCH (UP)
22	V	-

23	B	GROUND
24	P	CAN-L [Without Gateway]
24	R	CAN-L [With Gateway]
25	G	IGN
26	V	ACTUATOR (RL-H)
28	R	ACTUATOR (ER-L)

Connector No.	M19
Connector Name	WIRE TO WIRE
Connector Type	THR80MW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	G	-
3	SB	-
4	BR	-
5	Y	-
6	R	-
7	W	-
8	V	-
10	BG	-
11	BR	-
12	LG	-
13	GR	-
14	R	-
15	L	-
16	V	-
18	W	-
19	BR	-
20	W	-
22	SB	-
23	R	-
24	R	- [With 2.0L turbo gasoline engine]
24	P	- [With VR30 engine]
25	P	- [With 2.0L turbo gasoline engine]
25	W	- [With VR30 engine]
26	G	-
27	R	-
28	R	-
31	BR	-

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CHASSIS CONTROL (WITH DIGITAL MOTION CONTROL)

< WIRING DIAGRAM >

[CHASSIS CONTROL]

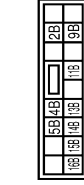
CHASSIS CONTROL (WITH DIGITAL MOTION CONTROL)

8	BR	- [With 2.0L turbo gasoline engine]
9	LG	- [With VR30 engine]
10	W	- [With 2.0L turbo gasoline engine]
11	W	- [With VR30 engine]
12	B	- [With 2.0L turbo gasoline engine]
13	BR	- [With VR30 engine]
14	GR	- [With 2.0L turbo gasoline engine]
15	SHIELD	- [With 2.0L turbo gasoline engine]
16	B	- [With 2.0L turbo gasoline engine]
17	B	- [With VR30 engine]
18	W/B	- [With 2.0L turbo gasoline engine]
19	Y	- [With VR30 engine]
20	Y	- [With VR30 engine]
21	W	- [With 2.0L turbo gasoline engine]
22	G	- [With VR30 engine]
23	V	- [With 2.0L turbo gasoline engine]
24	L	- [With VR30 engine]
25	Y	- [With 2.0L turbo gasoline engine]
26	P	- [With VR30 engine]
27	Y	- [With 2.0L turbo gasoline engine]
28	R	- [With VR30 engine]
29	R	- [With 2.0L turbo gasoline engine]
30	Y	- [With VR30 engine]
31	GR	- [With 2.0L turbo gasoline engine]
32	G	- [With VR30 engine]
33	L	- [With 2.0L turbo gasoline engine]
34	P	- [With VR30 engine]
35	BG	- [With 2.0L turbo gasoline engine]
36	G	- [With VR30 engine]
37	B	- [With 2.0L turbo gasoline engine]
38	L	- [With VR30 engine]
39	P	- [With 2.0L turbo gasoline engine]
40	R	- [With VR30 engine]
41	GR	- [With 2.0L turbo gasoline engine]
42	L	- [With VR30 engine]
43	W	- [With 2.0L turbo gasoline engine]
44	G	- [With VR30 engine]
45	V	- [With 2.0L turbo gasoline engine]
46	BG	- [With VR30 engine]
47	R	- [With 2.0L turbo gasoline engine]
48	SHIELD	- [With VR30 engine]
49	B	- [With 2.0L turbo gasoline engine]
50	B	- [With VR30 engine]
51	L	- [With 2.0L turbo gasoline engine]
52	W	- [With VR30 engine]

53	G	- [With 2.0L turbo gasoline engine]
54	SB	- [With VR30 engine]
55	Y	- [With 2.0L turbo gasoline engine]
56	P	- [With VR30 engine]
57	GR	- [With 2.0L turbo gasoline engine]
58	B	- [With VR30 engine]
59	SB	- [With 2.0L turbo gasoline engine]
60	W/B	- [With VR30 engine]
61	Y	- [With VR30 engine]
62	R	- [With 2.0L turbo gasoline engine]
63	P	- [With VR30 engine]
64	P	- [Color of wire differs depending on production]
65	V	- [Color of wire differs depending on production]
66	LG	- [With VR30 engine]
67	LG	- [With VR30 engine]
68	BG	- [With 2.0L turbo gasoline engine]
69	L	- [With VR30 engine]
70	R	- [With 2.0L turbo gasoline engine]
71	W	- [With VR30 engine]
72	L	- [With 2.0L turbo gasoline engine]
73	R	- [With VR30 engine]
74	W	- [With 2.0L turbo gasoline engine]
75	BR	- [With VR30 engine]
76	B	- [With 2.0L turbo gasoline engine]
77	P	- [With VR30 engine]
78	W/B	- [With 2.0L turbo gasoline engine]
79	R	- [With VR30 engine]
80	G	- [With 2.0L turbo gasoline engine]
81	B	- [With VR30 engine]
82	LG	- [With 2.0L turbo gasoline engine]
83	BR	- [With VR30 engine]
84	R	- [With 2.0L turbo gasoline engine]
85	V	- [With VR30 engine]
86	V	- [With 2.0L turbo gasoline engine]
87	G	- [With VR30 engine]
88	V	- [With 2.0L turbo gasoline engine]
89	V	- [With VR30 engine]
90	G	- [With 2.0L turbo gasoline engine]
91	W	- [With VR30 engine]
92	G	- [With 2.0L turbo gasoline engine]
93	BR	- [With VR30 engine]

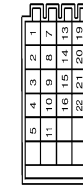
94	GR	- [With VR30 engine]
95	L	- [With 2.0L turbo gasoline engine]
96	BR	- [With VR30 engine]
97	P	- [With 2.0L turbo gasoline engine]
98	W	- [With 2.0L turbo gasoline engine]
99	BR	- [With VR30 engine]
100	SHIELD	- [With 2.0L turbo gasoline engine]

Connector No.	M132
Connector Name	FUSE BLOCK (J/B)
Connector Type	MS16FW-CS



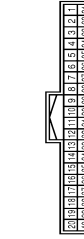
Terminal No.	Color Of Wire	Signal Name (Specification)
11B	LG	-
13B	P	-
14B	G	-
15B	Y	-
16B	Y	-
20	B	-
48	W	-
5B	R	-
9B	Y	-

Connector No.	M137
Connector Name	JOINT CONNECTOR-M10
Connector Type	24342_4GAGA



Terminal No.	Color Of Wire	Signal Name (Specification)
1	B	-
2	B	-
3	B	-
4	B	-
5	B	-
7	B	-
8	B	-
9	B	-
10	B	-
11	B	-
13	L	-
14	L	-
15	L	-
16	L	-
19	R	-
20	R	-
21	R	-
22	R	-

Connector No.	M159
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH



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CHASSIS CONTROL (WITH DIGITAL MOTION CONTROL)

< WIRING DIAGRAM >

[CHASSIS CONTROL]

CHASSIS CONTROL (WITH DIGITAL MOTION CONTROL)

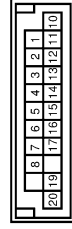
Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	B	-
3	BR	-
4	R	-
5	GR	-
6	R	- [With VR30 engine and with ISS]
6	W	- [Except with VR30 engine and with ISS]
7	L	-
9	SHIELD	-
10	W	-
11	R	-
12	L	-
13	G	-
14	Y	-
15	B	-
17	B	-
19	R	-
20	BG	- [Except with VR30 engine and with BOSE system]
20	BR	- [With VR30 engine and with BOSE system]
21	R	-
22	G	-
24	B	-
25	W	-
26	R	-
27	P	-
28	B	-
29	G	-
30	L	-
31	W	-
32	W	-
33	L	-
36	V	-
38	LG	-
40	W	-

Connector No.	M173
Connector Name	JOINT CONNECTOR-M03
Connector Type	24342_4GA2A



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	L	-
3	L	-
4	L	-
5	L	-
6	L	-
7	R	-
8	R	-
9	R	-
10	R	-
11	R	-
12	R	-
13	SB	-
14	SB	-
15	SB	-
16	L	- [With 2.0L turbo gasoline engine]
16	L	- [With VR30 engine]
17	L	- [With 2.0L turbo gasoline engine]
17	L	- [With VR30 engine]
18	L	- [With 2.0L turbo gasoline engine]
18	SB	- [With VR30 engine]
19	BR	- [With VR30 engine]
19	LG	- [With 2.0L turbo gasoline engine]
20	BR	- [With VR30 engine]
20	LG	- [With 2.0L turbo gasoline engine]
21	BR	- [With VR30 engine]
21	LG	- [With 2.0L turbo gasoline engine]
22	R	- [With 2.0L turbo gasoline engine]
22	SB	- [With VR30 engine and without ISS]
22	V	- [With VR30 engine and with ISS]
23	R	- [With 2.0L turbo gasoline engine]
23	SB	- [With VR30 engine and without ISS]
23	V	- [With VR30 engine and with ISS]
24	R	- [With 2.0L turbo gasoline engine]
24	SB	- [With VR30 engine and without ISS]
24	V	- [With VR30 engine and with ISS]

Connector No.	M175
Connector Name	JOINT CONNECTOR-M05
Connector Type	NH20FL-DC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	L	-
3	L	-
4	L	-
5	L	-
6	L	-
7	L	-
8	L	-
10	P	-
11	P	-
12	P	-
13	P	-
14	P	-
15	P	-
16	R	- [With 2.0L turbo gasoline engine]
16	R	- [With VR30 engine]
17	P	- [With 2.0L turbo gasoline engine]
17	R	- [With VR30 engine]
19	R	- [With VR30 engine and with ISS]
19	W	- [Except with VR30 engine and with ISS]
20	R	- [With VR30 engine and with ISS]
20	W	- [Except with VR30 engine and with ISS]

Connector No.	M177
Connector Name	JOINT CONNECTOR-M07
Connector Type	24342_4GA2A



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	L	-
3	L	-
4	L	-
5	L	-
6	L	-
7	P	-
8	P	-
9	P	-
10	P	-
11	P	-
12	P	-
13	L	-
14	L	-
15	L	-
16	L	-
17	L	-
18	L	-
19	W	-
20	W	-
21	W	-
22	P	-
23	P	-
24	P	-

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CHASSIS CONTROL (WITH DIGITAL MOTION CONTROL)

< WIRING DIAGRAM >

[CHASSIS CONTROL]

CHASSIS CONTROL (WITH DIGITAL MOTION CONTROL)

Connector No.	R13
Connector Name	LANE CAMERA UNIT
Connector Type	TH08FW-NH



19	BG	-
20	BG	- [Without BOSE system] - [With BOSE system]
20	BR	-
21	R	-
22	G	-
24	B	-
25	BG	- [Color of wire differs depending on production]
25	P	- [Color of wire differs depending on production]
26	BR	-
27	GR	-
28	B	-
29	R	-
30	L	-
31	V	-
32	W	-
33	L	-
36	BR	-
38	SB	-
40	W	-

Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	CAN_GND
4	L	CAN-H
5	B	GND
7	V	IGN
8	W	CAN-L

Connector No.	R15
Connector Name	WIRE TO WIRE
Connector Type	TH100W-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	LG	-
3	BR	-
4	V	-
5	BG	-
6	GR	-
7	BR	-
9	SHIELD	-
10	GR	-
11	R	-
12	L	-
13	G	-
14	Y	-
15	B	-
17	SB	-

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CHASSIS CONTROL (WITHOUT DIGITAL MOTION CONTROL)

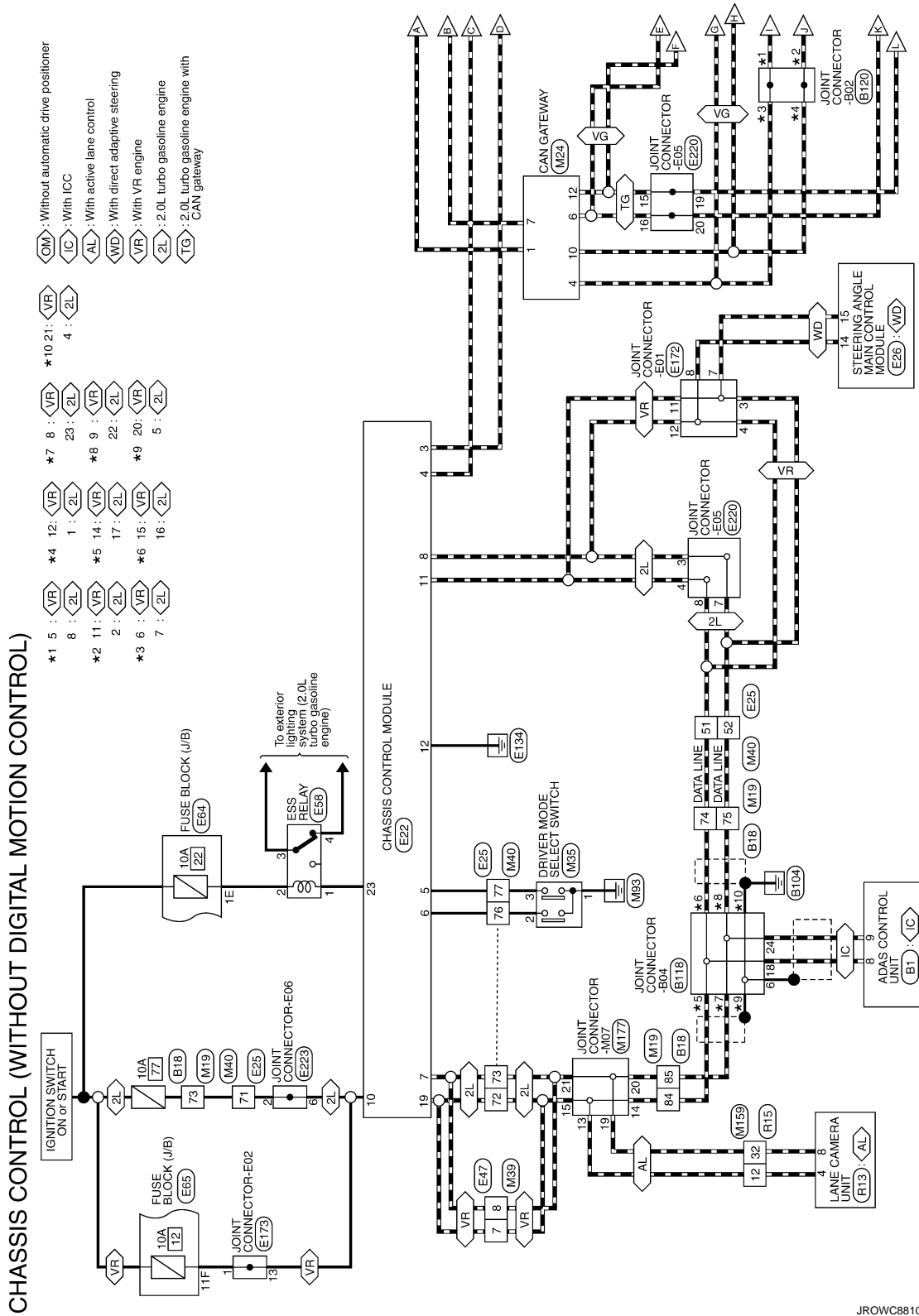
< WIRING DIAGRAM >

[CHASSIS CONTROL]

CHASSIS CONTROL (WITHOUT DIGITAL MOTION CONTROL)

Wiring Diagram

INFOID:000000013525341

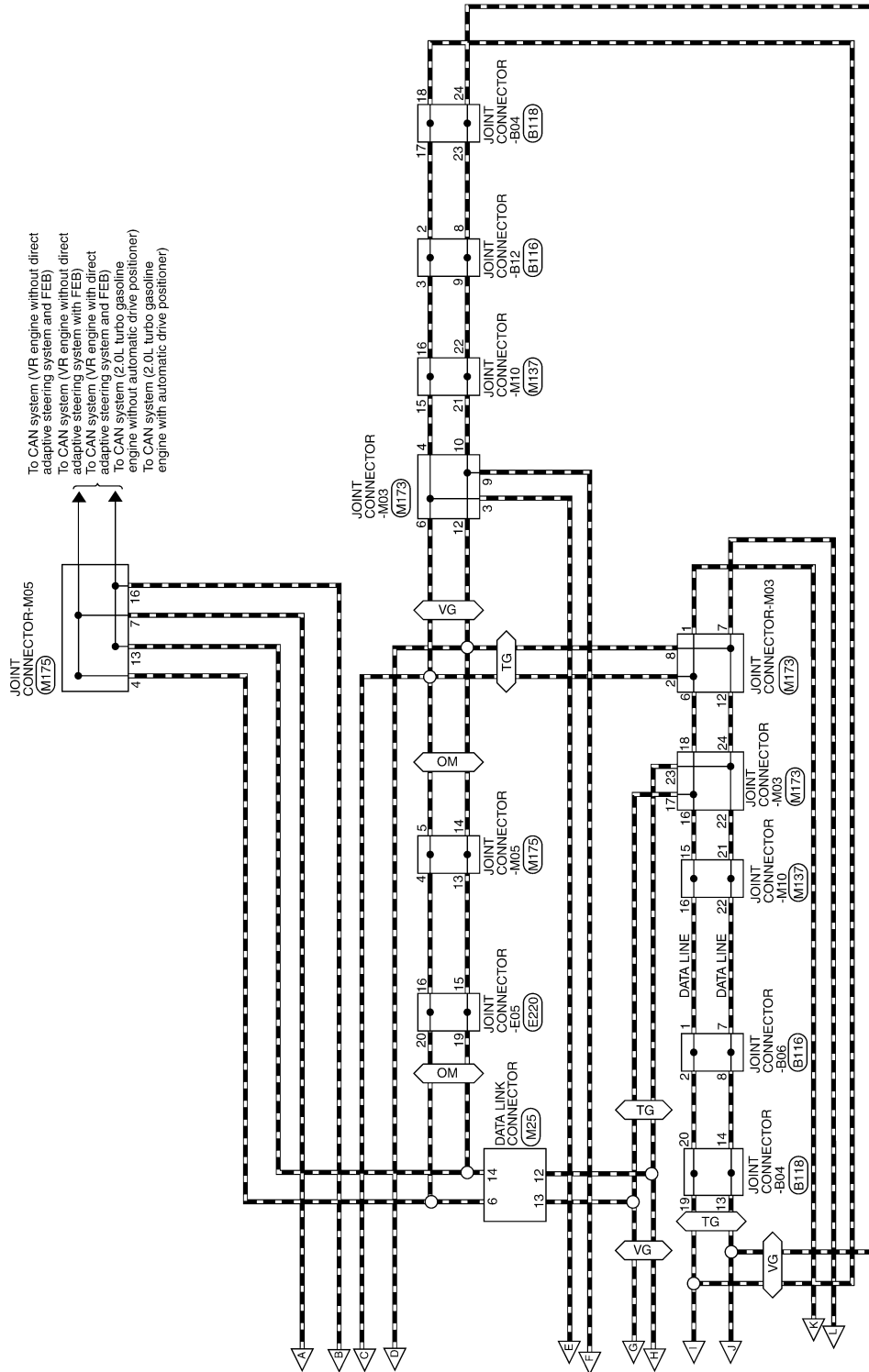


CHASSIS CONTROL (WITHOUT DIGITAL MOTION CONTROL)

< WIRING DIAGRAM >

[CHASSIS CONTROL]

⬡ : VR engine with CAN gateway



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CHASSIS CONTROL (WITHOUT DIGITAL MOTION CONTROL)

< WIRING DIAGRAM >

[CHASSIS CONTROL]

CHASSIS CONTROL (WITHOUT DIGITAL MOTION CONTROL)

Connector No.	B1
Connector Name	ADAS CONTROL UNIT
Connector Type	TH24FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	CAN-H
2	R	CAN-L
5	B	GROUND
6	L	ITS COMM-H
7	Y	ITS COMM-L
8	L	CHASSIS COMM-H
9	R	CHASSIS COMM-L
12	G	IGNITION [Except with VR30 engine and without BS]
17	GR	IGNITION [VR30 engine and without BS]
23	Y	BRAKE HOLD RLY DRIVE SIGNAL
24	SB	STEERING SW SIGNAL GROUND
		STEERING SW SIGNAL

Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	G	-
3	L	-
4	LG	-
5	Y	-
6	R	-
7	V	-

8	LG	-
10	BG	-
11	BG	-
12	LG	-
13	GR	-
14	R	-
15	L	-
16	V	- [Without paddle shift]
18	W	- [With paddle shift]
19	BR	-
20	W	-
22	R	-
23	V	- [With VR30 engine]
24	R	- [With 2.0L turbo gasoline engine]
25	P	- [With VR30 engine]
25	V	- [With 2.0L turbo gasoline engine and without gateway]
25	V	- [With 2.8L turbo gasoline engine and with gateway]
25	V	- [With VR30 engine]
26	G	-
27	R	-
28	R	-
31	B	- [With VR30 engine]
31	BR	- [With 2.0L turbo gasoline engine]
33	B	-
34	LG	-
35	P	-
36	W	-
37	SB	-
38	LG	-
40	P	-
41	SB	-
42	BR	-
43	BG	-
44	BG	-
46	R	-
50	W	-
53	SB	-
53	V	-
53	LG	-
54	R	-
55	R	-
57	W	-
58	V	-
59	GR	-
60	G	-
61	G	-
62	BG	-
63	BR	-

64	Y	-
66	R	-
70	W	-
71	W	-
72	B	-
73	W	-
74	L	-
75	R	- [Without paddle shift]
75	V	- [With paddle shift]
76	BR	-
77	W	-
78	SB	-
79	V	- [With VR30 engine]
79	W	- [With 2.0L turbo gasoline engine]
81	B	-
82	R	-
83	BG	-
84	L	-
85	R	- [Without paddle shift]
85	R	- [With paddle shift]
86	B	-
88	G	-
89	V	- [With 2.0L turbo gasoline engine]
89	W	- [With VR30 engine]
91	GR	-
94	GR	-
96	Y	-
97	V	-
98	BR	- [With VR30 engine and with BOSE system]
98	Y	- [Except with VR30 engine and with BOSE system]

Connector No.	B116
Connector Name	JOINT CONNECTOR-B06
Connector Type	24342_4GA2A



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	L	-
3	L	-

4	L	-
5	L	-
6	L	-
7	R	-
8	R	- [With Gateway]
8	V	- [Without Gateway]
9	R	- [With Gateway]
9	V	- [Without Gateway]
10	V	- [With VR30 engine]
10	V	- [With 2.0L turbo gasoline engine]
11	V	-
12	B	- [With Gateway]
12	R	- [Without Gateway]
13	SHIELD	-
14	SHIELD	-
15	B	-
15	SHIELD	- [With 2.0L turbo gasoline engine]
16	L	- [With VR30 engine]
16	SHIELD	- [With 2.0L turbo gasoline engine]
17	L	- [With VR30 engine]
17	SHIELD	- [With 2.0L turbo gasoline engine]
18	L	- [With VR30 engine]
18	SHIELD	- [With 2.0L turbo gasoline engine]
19	L	- [With 2.0L turbo gasoline engine]
19	SHIELD	- [With VR30 engine]
20	L	- [With 2.0L turbo gasoline engine]
20	SHIELD	- [With VR30 engine]
21	L	-
22	P	-
23	P	-
24	Y	- [With VR30 engine]
24	Y	- [With 2.0L turbo gasoline engine]

Connector No.	B118
Connector Name	JOINT CONNECTOR-B04
Connector Type	24342_4GA2A



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CHASSIS CONTROL (WITHOUT DIGITAL MOTION CONTROL)

< WIRING DIAGRAM >

[CHASSIS CONTROL]

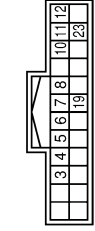
CHASSIS CONTROL (WITHOUT DIGITAL MOTION CONTROL)

Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	- [With VR30 engine]
2	SHIELD	- [With 2.0L turbo gasoline engine]
3	SHIELD	- [With VR30 engine]
4	LG	- [With VR30 engine]
5	SHIELD	- [With VR30 engine]
6	LG	- [With VR30 engine]
7	R	- [With 2.0L turbo gasoline engine]
8	V	- [Color of wire differs depending on production]
9	LG	- [With 2.0L turbo gasoline engine]
10	SHIELD	- [With VR30 engine and without paddle shift]
11	LG	- [With VR30 engine]
12	SHIELD	- [With 2.0L turbo gasoline engine]
13	P	- [With VR30 engine]
14	P	- [With 2.0L turbo gasoline engine and without gateway]
15	R	- [With VR30 engine]
16	R	- [With 2.0L turbo gasoline engine and with gateway]
17	L	- [With VR30 engine]
18	L	- [With 2.0L turbo gasoline engine]
19	SHIELD	- [With VR30 engine]
20	SHIELD	- [With 2.0L turbo gasoline engine]
21	SHIELD	- [With VR30 engine]
22	L	- [With 2.0L turbo gasoline engine]
23	R	- [With VR30 engine]
24	R	- [With 2.0L turbo gasoline engine]

Connector No.	B120
Connector Name	JOINT CONNECTOR-802
Connector Type	24342-4GA2A



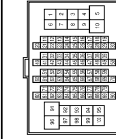
Connector No.	E22
Connector Name	CHASSIS CONTROL MODULE
Connector Type	TH24FWAH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	BG	-
2	V	-
3	V	-
4	BR	- [With VR30 engine]
5	BR	- [With 2.0L turbo gasoline engine]
6	B	- [With 2.0L turbo gasoline engine]
7	GR	- [With VR30 engine]
8	GR	- [With 2.0L turbo gasoline engine]
9	LG	- [With VR30 engine]
10	BR	- [With VR30 engine]
11	L	- [With VR30 engine]
12	P	- [With 2.0L turbo gasoline engine]
13	SHIELD	- [With 2.0L turbo gasoline engine]
14	W	- [With VR30 engine]
15	B	- [With 2.0L turbo gasoline engine]
16	GR	- [With VR30 engine]
17	BR	- [With VR30 engine]
18	G	- [With 2.0L turbo gasoline engine]
19	P	- [With VR30 engine]
20	Y	- [With VR30 engine]
21	Y	- [With 2.0L turbo gasoline engine]
22	G	- [With 2.0L turbo gasoline engine]
23	L	- [With VR30 engine]
24	P	- [With 2.0L turbo gasoline engine]
25	GR	-
26	R	-
27	L	- [With 2.0L turbo gasoline engine]
28	P	- [With VR30 engine]
29	BR	- [With 2.0L turbo gasoline engine and without gateway]
30	BR	- [With 2.0L turbo gasoline engine]
31	Y	- [With VR30 engine]
32	Y	- [With 2.0L turbo gasoline engine]
33	L	- [With VR30 engine]
34	P	- [With 2.0L turbo gasoline engine]
35	GR	-
36	R	-
37	L	- [With 2.0L turbo gasoline engine]
38	L	- [With VR30 engine]
39	P	- [With 2.0L turbo gasoline engine]
40	R	- [With 2.0L turbo gasoline engine and without gateway]
41	BR	- [With 2.0L turbo gasoline engine]
42	Y	- [With VR30 engine]
43	Y	- [With 2.0L turbo gasoline engine]
44	LG	-
45	L	- [With 2.0L turbo gasoline engine]
46	W	- [With VR30 engine]
47	B	- [With VR30 engine]
48	Y	- [With 2.0L turbo gasoline engine]
49	G	- [With 2.0L turbo gasoline engine]

Terminal No.	Color Of Wire	Signal Name [Specification]
3	P	CAN-L [Without Gateway]
4	R	CAN-L [With Gateway]
5	L	CAN-H
6	V	DRIVE MODE SELECT SWITCH (UP) [With VR30 engine]
7	Y	DRIVE MODE SELECT SWITCH (DOWN) [With 2.0L turbo gasoline engine]
8	G	DRIVE MODE SELECT SW (DOWN) [With VR30 engine]
9	W	DRIVE MODE SELECT SW (DOWN) [With VR30 engine]
10	W	CHASSIS COMM-L
11	W	CHASSIS COMM-L
12	BG	IGN [With 2.0L turbo gasoline engine]
13	G	IGN [With VR30 engine]
14	L	CHASSIS COMM-H
15	L	CHASSIS COMM-H
16	B	GROUND [With VR30 engine]
17	B/W	GROUND [With 2.0L turbo gasoline engine]
18	BR	CHASSIS COMM-H [With VR30 engine]
19	L	CHASSIS COMM-H [With 2.0L turbo gasoline engine]
20	G	ESS RELAY [With VR30 engine]
21	R	ESS RELAY [With 2.0L turbo gasoline engine]

Connector No.	E25
Connector Name	WIRE TO WIRE
Connector Type	THB0FW-CSI6-TM4



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CHASSIS CONTROL (WITHOUT DIGITAL MOTION CONTROL)

< WIRING DIAGRAM >

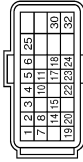
[CHASSIS CONTROL]

CHASSIS CONTROL (WITHOUT DIGITAL MOTION CONTROL)

48	SHIELD	-	-	-	-
49	R	-	-	-	-
50	BR	-	-	-	-
50	GR	-	-	-	-
51	L	-	-	-	-
52	W	-	-	-	-
53	V	-	-	-	-
54	P	-	-	-	-
54	W	-	-	-	-
55	B	-	-	-	-
55	W	-	-	-	-
56	BG	-	-	-	-
56	SB	-	-	-	-
57	BG	-	-	-	-
57	W	-	-	-	-
58	B	-	-	-	-
58	B/W	-	-	-	-
59	W	-	-	-	-
61	R	-	-	-	-
64	Y	-	-	-	-
65	BR	-	-	-	-
65	GR	-	-	-	-
66	GR	-	-	-	-
67	LG	-	-	-	-
68	BG	-	-	-	-
69	L	-	-	-	-
70	R	-	-	-	-
71	G	-	-	-	-
71	LG	-	-	-	-
72	L	-	-	-	-
72	V	-	-	-	-
73	G	-	-	-	-
73	W	-	-	-	-
74	BR	-	-	-	-
74	L	-	-	-	-
75	P	-	-	-	-
75	R	-	-	-	-
75	V	-	-	-	-
76	G	-	-	-	-
77	Y	-	-	-	-
78	LG	-	-	-	-
78	P	-	-	-	-
78	V	-	-	-	-
79	SB	-	-	-	-
80	G	-	-	-	-
81	R	-	-	-	-
82	V	-	-	-	-
83	BR	-	-	-	-
83	R	-	-	-	-
84	LG	-	-	-	-

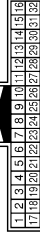
86	BG	-	-	-	-
87	G	-	-	-	-
89	LG	-	-	-	-
90	G	-	-	-	-
90	GR	-	-	-	-
91	G	-	-	-	-
93	BG	-	-	-	-
94	GR	-	-	-	-
94	L	-	-	-	-
95	BG	-	-	-	-
95	R	-	-	-	-
96	W	-	-	-	-
97	LG	-	-	-	-
98	L	-	-	-	-
99	LG	-	-	-	-
99	P	-	-	-	-
100	SHIELD	-	-	-	-

Connector No.	E26
Connector Name	STEERING ANGLE MAIN CONTROL MODULE
Connector Type	RH24FB-R28-L-LH



22	GR	-	-	-	-
23	BR	-	-	-	-
24	P	-	-	-	-
25	G	-	-	-	-
30	B	-	-	-	-
30	G	-	-	-	-
31	G	-	-	-	-
32	GR	-	-	-	-

Connector No.	E47
Connector Name	WIRE TO WIRE
Connector Type	TH22MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	- [Color of wire differs depending on production]
1	Y	- [Color of wire differs depending on production]
2	V	-
3	L	-
4	P	- [Without Gateway]
4	R	- [With Gateway]
5	W	-
6	SB	-
7	L	- [Color of wire differs depending on production]
7	BR	- [Color of wire differs depending on production]
8	W	-
9	BG	- [Without BOSE system]
9	V	- [With BOSE system]
10	V	-
11	SB	-
12	G	-
13	G	-
13	BR	-
16	-	-
17	SHIELD	-
18	L	-
19	Y	-
20	W	-
21	G	-
22	R	-
23	BR	-
24	R	-
25	L	-

25	BG	-	-	-	-
27	LG	-	-	-	-
28	BR	-	-	-	-
29	W	-	-	-	-
30	Y	-	-	-	-
31	G	-	-	-	-
32	GR	-	-	-	-

Connector No.	E58
Connector Name	ESS RELAY
Connector Type	MS03FB-M2-L-C



Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	- [With VR30 engine]
1	R	- [With 2.0L turbo gasoline engine]
2	G	-
3	W	-
4	LG	-

Connector No.	E64
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS08FW-C5



Terminal No.	Color Of Wire	Signal Name [Specification]
1E	G	-
1E	P	-
2E	V	-
3E	V	-
4E	GR	-
6E	L	-
7E	BG	-

JROWC8814GB

CHASSIS CONTROL (WITHOUT DIGITAL MOTION CONTROL)

< WIRING DIAGRAM >

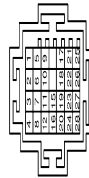
[CHASSIS CONTROL]

CHASSIS CONTROL (WITHOUT DIGITAL MOTION CONTROL)

Connector No.	E65
Connector Name	FUSE BLOCK (J/B)
Connector Type	TH12FW/AH



Terminal No.	Color Of Wire	Signal Name [Specification]
10F	W	-
11F	G	- [Color of wire differs depending on production]
12F	R	- [Color of wire differs depending on production]
13F	W	- [With VR30 engine]
14F	Y	- [With 2.0L turbo gasoline engine]
15F	R	-
16F	BR	-
17F	P	-
18F	P	-
19F	L	-
20F	L	-
21F	L	-
22F	L	-
23F	L	-
24F	L	-
25F	L	-
26F	L	-
27F	L	-
28F	L	-



Connector No.	E172
Connector Name	JOINT CONNECTOR E01
Connector Type	SGA28F1BRJ

Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	-
2	Y	-
3	W	-
4	L	-
5	GR	-
6	Y	-
7	W	-

8	L	-
9	GR	-
10	Y	-
11	W	-
12	L	-
13	W	-
14	BG	-
15	P	-
16	L	-
17	P	-
18	L	-
19	W	-
20	BG	-
21	L	-
22	L	- [Color of wire differs depending on production]
23	SB	- [Color of wire differs depending on production]
24	W	- [Color of wire differs depending on production]
25	LG	- [Color of wire differs depending on production]
26	L	-
27	Y	-
28	L	-

Connector No.	E173
Connector Name	JOINT CONNECTOR E02
Connector Type	SGA28FDGJ



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	- [Color of wire differs depending on production]
2	R	- [Color of wire differs depending on production]
3	B	-
4	B	-
5	G	-
6	BR	-
7	B	-
8	B	-
9	G	-
10	L	-
11	L	-
12	B	-
13	G	-
14	BR	-

17	G	-
21	G	-
25	R	-
26	L	-

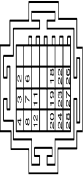


Connector No.	E220
Connector Name	JOINT CONNECTOR E05
Connector Type	NR24FBJ



Terminal No.	Color Of Wire	Signal Name [Specification]
3	W	-
4	L	-
7	W	-
8	L	-
11	W	-
12	L	-
15	P	- [Without Gateway]
16	L	- [With Gateway]
19	P	- [Without Gateway]
19	R	- [With Gateway]
20	L	-
23	P	- [Without Gateway]
23	R	- [With Gateway]
24	L	-

Connector No.	E223
Connector Name	JOINT CONNECTOR E06
Connector Type	SGA28FBJ



Terminal No.	Color Of Wire	Signal Name [Specification]
2	GR	-
3	G	-
4	BR	-
6	BG	-
7	G	-
8	BR	-
11	G	-
12	L	-
18	V	-
19	W	-
20	BG	-
22	GR	-
23	P	-
24	BR	-
26	V	-
27	W	-
28	BG	-

Connector No.	M19
Connector Name	WIRE TO WIRE
Connector Type	TH80MM/CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	G	-
3	SB	-

A
B
C
D
E
F
G
H
I
J
K
L
M
N
P



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CHASSIS CONTROL (WITHOUT DIGITAL MOTION CONTROL)

< WIRING DIAGRAM >

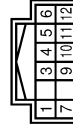
[CHASSIS CONTROL]

CHASSIS CONTROL (WITHOUT DIGITAL MOTION CONTROL)

4	BR	-	-	-	-
5	Y	-	-	-	-
6	R	-	-	-	-
7	W	-	-	-	-
8	V	-	-	-	-
10	BG	-	-	-	-
11	BR	-	-	-	-
12	LG	-	-	-	-
13	GR	-	-	-	-
14	R	-	-	-	-
15	L	-	-	-	-
16	V	-	-	-	-
18	W	-	-	-	-
19	BR	-	-	-	-
20	W	-	-	-	-
22	S8	-	-	-	-
23	R	-	-	-	-
24	R	-	-	-	-
24	Y	-	-	-	-
25	P	-	-	-	-
25	W	-	-	-	-
26	G	-	-	-	-
27	R	-	-	-	-
28	R	-	-	-	-
31	BR	-	-	-	-
32	B	-	-	-	-
33	B	-	-	-	-
34	V	-	-	-	-
35	P	-	-	-	-
36	W	-	-	-	-
37	S8	-	-	-	-
38	LG	-	-	-	-
40	P	-	-	-	-
41	G	-	-	-	-
42	BR	-	-	-	-
43	BR	-	-	-	-
44	BR	-	-	-	-
46	BG	-	-	-	-
50	W	-	-	-	-
51	Y	-	-	-	-
52	V	-	-	-	-
53	LG	-	-	-	-
54	R	-	-	-	-
55	R	-	-	-	-
57	W	-	-	-	-
58	V	-	-	-	-
59	BG	-	-	-	-
60	G	-	-	-	-
61	G	-	-	-	-
62	BG	-	-	-	-

63	BR	-	-	-	-
64	Y	-	-	-	-
66	R	-	-	-	-
70	LG	-	-	-	-
71	W	-	-	-	-
72	B	-	-	-	-
73	W	-	-	-	-
74	L	-	-	-	-
76	BR	-	-	-	-
77	B	-	-	-	-
78	S8	-	-	-	-
79	P	-	-	-	-
79	W	-	-	-	-
81	B	-	-	-	-
82	R	-	-	-	-
83	BG	-	-	-	-
84	L	-	-	-	-
85	W	-	-	-	-
86	B	-	-	-	-
88	G	-	-	-	-
89	V	-	-	-	-
89	W	-	-	-	-
91	GR	-	-	-	-
94	GR	-	-	-	-
96	W	-	-	-	-
97	V	-	-	-	-
98	BR	-	-	-	-
98	Y	-	-	-	-

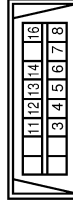
Connector No.	M24
Connector Name	CAN GATEWAY
Connector Type	TH2FW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	CAN-H (CAN COMMUNICATION CIRCUIT 1)
3	W	BATTERY POWER SUPPLY
4	L	CAN-H (CAN COMMUNICATION CIRCUIT 2)
5	B	GROUND
6	L	CAN-H (CAN COMMUNICATION CIRCUIT 2)

7	P	CAN-L (CAN COMMUNICATION CIRCUIT 1)
9	R	IGNITION POWER SUPPLY (With VR30 engine and without SS)
9	W	IGNITION POWER SUPPLY (Except with VR30 engine and without SS)
10	R	CAN-L (CAN COMMUNICATION CIRCUIT 2)
11	B	GROUND
12	R	CAN-L (CAN COMMUNICATION CIRCUIT 2)

Connector No.	M25
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	M, CAN, L
4	B	EARTH
5	B	EARTH
6	L	CAN-H
7	V	KLINE (With 2.0L turbo gasoline engine)
7	W	KLINE (With VR30 engine)
8	W	IGN_SW
11	S8	M, CAN, H
12	R	CAN-H
13	L	CAN-H
14	P	CAN-L
16	W	POWER

Connector No.	M35
Connector Name	DRIVE MODE SELECT SWITCH
Connector Type	TH08FW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	W/B	-
3	S8	-
4	R	-
5	B	-

Connector No.	M39
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W/B	-
2	S8	-
3	L	-
4	P	- [Without Gateway]
4	R	- [With Gateway]
5	BR	-
6	S8	-
7	L	-
8	W	-
9	P	- [Without BOSE system]
9	V	- [With BOSE system]
10	V	-
11	S8	-
12	G	-
13	G	-

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CHASSIS CONTROL (WITHOUT DIGITAL MOTION CONTROL)

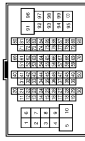
< WIRING DIAGRAM >

[CHASSIS CONTROL]

CHASSIS CONTROL (WITHOUT DIGITAL MOTION CONTROL)

15	R	-	-	[With 2.0L turbo gasoline engine]
16	S/B	-	-	[With VR30 engine]
17	SHIELD	-	-	[With VR30 engine]
18	W	-	-	[With 2.0L turbo gasoline engine]
19	Y	-	-	-
20	L	-	-	[With VR30 engine]
21	G	-	-	[With 2.0L turbo gasoline engine]
22	R	-	-	-
23	BR	-	-	-
24	R	-	-	[With 2.0L turbo gasoline engine]
25	L	-	-	[With VR30 engine]
26	Y	-	-	[With VR30 engine]
27	LG	-	-	[With 2.0L turbo gasoline engine]
28	BR	-	-	-
29	W/B	-	-	-
30	Y	-	-	-
31	W	-	-	[With Anti-theft diode]
32	LG	-	-	[Without Anti-theft diode]

Connector No.	M40
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name (Specification)
1	RG	-
6	W/B	-
7	Y	-
8	RG	[With VR30 engine]
8	BR	[With 2.0L turbo gasoline engine]
9	LG	[With VR30 engine]
9	P	[With 2.0L turbo gasoline engine]
10	W	-
11	W	[With VR30 engine]
11	Y	[With 2.0L turbo gasoline engine]
12	B	[With VR30 engine]
12	BR	[With 2.0L turbo gasoline engine]
13	GR	[With VR30 engine]
13	SHIELD	[With 2.0L turbo gasoline engine]
14	B	-

15	B/G	-	-	[With 2.0L turbo gasoline engine]
15	S/B	-	-	[With VR30 engine]
16	B	-	-	[With VR30 engine]
16	BR	-	-	[With 2.0L turbo gasoline engine]
17	LG	-	-	-
18	B	-	-	[With VR30 engine]
18	W/B	-	-	[With 2.0L turbo gasoline engine]
19	Y	-	-	-
20	W	-	-	-
21	W	-	-	[With 2.0L turbo gasoline engine]
22	G	-	-	[With VR30 engine]
23	L	-	-	[With VR30 engine]
23	L	-	-	[With 2.0L turbo gasoline engine]
24	Y	-	-	[With 2.0L turbo gasoline engine]
25	P	-	-	[With VR30 engine]
25	B/G	-	-	[With 2.0L turbo gasoline engine]
26	G	-	-	-
27	B	-	-	[With VR30 engine]
27	L	-	-	[With 2.0L turbo gasoline engine]
28	L	-	-	[With VR30 engine]
28	L	-	-	[With 2.0L turbo gasoline engine and without gateway]
29	R	-	-	[With 2.0L turbo gasoline engine and with gateway]
30	R	-	-	[With 2.0L turbo gasoline engine]
31	Y	-	-	[With VR30 engine]
32	Y	-	-	[With VR30 engine]
33	L	-	-	[With VR30 engine]
33	L	-	-	[With 2.0L turbo gasoline engine]
34	P	-	-	[With 2.0L turbo gasoline engine]
35	B/G	-	-	-
36	G	-	-	-
37	B	-	-	[With VR30 engine]
37	L	-	-	[With 2.0L turbo gasoline engine]
38	L	-	-	[With VR30 engine]
38	L	-	-	[With 2.0L turbo gasoline engine and without gateway]
39	R	-	-	[With 2.0L turbo gasoline engine and with gateway]
39	R	-	-	[With 2.0L turbo gasoline engine]
39	Y	-	-	[With VR30 engine]
40	GR	-	-	-
41	L	-	-	-
44	BR	-	-	-
45	L	-	-	[With 2.0L turbo gasoline engine]
45	W	-	-	[With VR30 engine]
46	G	-	-	[With VR30 engine]
46	Y	-	-	[With 2.0L turbo gasoline engine]
47	RG	-	-	[With 2.0L turbo gasoline engine]
47	R	-	-	[With VR30 engine]
48	SHIELD	-	-	-
49	B	-	-	[With VR30 engine]
49	G	-	-	[With 2.0L turbo gasoline engine]
50	B	-	-	[With 2.0L turbo gasoline engine]
50	BR	-	-	[With VR30 engine]
51	L	-	-	-
52	W	-	-	-
53	G	-	-	-
54	S/B	-	-	[With 2.0L turbo gasoline engine]
54	Y	-	-	[With VR30 engine]
55	B	-	-	[With 2.0L turbo gasoline engine]
55	P	-	-	[With VR30 engine]
56	B/G	-	-	[With VR30 engine]
56	GR	-	-	[With 2.0L turbo gasoline engine]
57	GR	-	-	[With VR30 engine]
57	P	-	-	[With 2.0L turbo gasoline engine]
58	B	-	-	-
59	S/B	-	-	-

61	W/B	-	-	-
64	Y	-	-	-
65	R	-	-	[Color of wire differs depending on production]
66	P	-	-	[Color of wire differs depending on production]
67	LG	-	-	-
68	B/G	-	-	-
69	L	-	-	-
70	R	-	-	-
71	V	-	-	[With VR30 engine]
71	W	-	-	[With 2.0L turbo gasoline engine]
72	L	-	-	[With 2.0L turbo gasoline engine]
72	LG	-	-	[With VR30 engine]
73	R	-	-	[With VR30 engine]
73	W	-	-	[With 2.0L turbo gasoline engine]
74	BR	-	-	[With VR30 engine]
74	L	-	-	[With 2.0L turbo gasoline engine]
75	B	-	-	[With VR30 engine]
75	P	-	-	[With 2.0L turbo gasoline engine and without gateway]
75	R	-	-	[With 2.0L turbo gasoline engine and with gateway]
76	W/B	-	-	-
77	S/B	-	-	-
78	G	-	-	[With VR30 engine]
78	LG	-	-	[With 2.0L turbo gasoline engine]
79	R	-	-	-
80	G	-	-	-
81	R	-	-	-
82	LG	-	-	[With VR30 engine]
83	BR	-	-	[With 2.0L turbo gasoline engine]
83	R	-	-	[With VR30 engine]
84	V	-	-	-
86	V	-	-	-
87	G	-	-	-
89	V	-	-	-
90	G	-	-	[With VR30 engine]
90	V	-	-	[With 2.0L turbo gasoline engine]
91	W	-	-	-
92	G	-	-	-
93	BR	-	-	[With VR30 engine]
94	GR	-	-	[With 2.0L turbo gasoline engine]
95	BR	-	-	[With VR30 engine]
95	P	-	-	[With 2.0L turbo gasoline engine and without gateway]
95	R	-	-	[With 2.0L turbo gasoline engine and with gateway]
96	W	-	-	-
97	LG	-	-	-
98	Y	-	-	-
99	BR	-	-	[With VR30 engine]
99	LG	-	-	[With 2.0L turbo gasoline engine]
100	SHIELD	-	-	-

Connector No.	M137
Connector Name	JOINT CONNECTOR-M10
Connector Type	24342_4GA2A



Terminal No.	Color Of Wire	Signal Name (Specification)
1	B	-
2	B	-
3	B	-
4	B	-
5	B	-
7	B	-
8	B	-
9	B	-
10	B	-
11	B	-
13	L	-
14	L	-
15	L	-
16	L	-
19	R	-
20	R	-
21	R	-
22	R	-

Connector No.	M159
Connector Name	WIRE TO WIRE
Connector Type	TH40FM-NH



A
B
C
D
E
F
G
H
I
J
K
L
M
N
P

DAS

JROWC8817GB

CHASSIS CONTROL (WITHOUT DIGITAL MOTION CONTROL)

< WIRING DIAGRAM >

[CHASSIS CONTROL]

CHASSIS CONTROL (WITHOUT DIGITAL MOTION CONTROL)

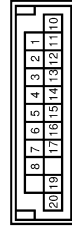
Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	B	-
3	BR	-
4	R	-
5	GR	-
6	R	- [With VR30 engine and with ISS]
7	W	- [Except with VR30 engine and with ISS]
8	L	-
9	SHIELD	-
10	W	-
11	R	-
12	L	-
13	G	-
14	Y	-
15	B	-
16	B	-
17	B	-
18	R	-
19	R	-
20	BG	- [Except with VR30 engine and with BOSE system]
21	BR	- [With VR30 engine and with BOSE system]
22	G	-
23	R	-
24	B	-
25	W	-
26	R	-
27	P	-
28	B	-
29	G	-
30	L	-
31	W	-
32	W	-
33	L	-
36	V	-
38	LG	-
40	W	-

Connector No.	M173
Connector Name	JOINT CONNECTOR-M03
Connector Type	24342_4GA2A



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	L	-
3	L	-
4	L	-
5	L	-
6	L	-
7	R	-
8	R	-
9	R	-
10	R	-
11	R	-
12	R	-
13	SB	-
14	SB	-
15	SB	-
16	L	- [With 2.0L turbo gasoline engine]
17	L	- [With VR30 engine]
18	SB	- [With VR30 engine]
19	SB	- [With 2.0L turbo gasoline engine]
20	BR	- [With VR30 engine]
21	BR	- [With 2.0L turbo gasoline engine]
22	LG	- [With VR30 engine]
23	LG	- [With 2.0L turbo gasoline engine]
24	R	- [With VR30 engine and without ISS]
25	V	- [With VR30 engine and with ISS]
26	R	- [With VR30 engine and without ISS]
27	SB	- [With VR30 engine and with ISS]
28	R	- [With 2.0L turbo gasoline engine]
29	V	- [With VR30 engine and without ISS]
30	R	- [With VR30 engine and without ISS]
31	V	- [With VR30 engine and with ISS]

Connector No.	M175
Connector Name	JOINT CONNECTOR-M05
Connector Type	NH20FL-DC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	L	-
3	L	-
4	L	-
5	L	-
6	L	-
7	L	-
8	L	-
9	P	-
10	P	-
11	P	-
12	P	-
13	P	-
14	P	-
15	P	-
16	R	- [With 2.0L turbo gasoline engine]
17	R	- [With VR30 engine]
18	R	- [With 2.0L turbo gasoline engine]
19	W	- [With VR30 engine and with ISS]
20	R	- [With VR30 engine and with ISS]
21	W	- [Except with VR30 engine and with ISS]
22	W	- [With VR30 engine and with ISS]

Connector No.	M177
Connector Name	JOINT CONNECTOR-M07
Connector Type	24342_4GA2A



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	L	-
3	L	-
4	L	-
5	L	-
6	L	-
7	P	-
8	P	-
9	P	-
10	P	-
11	P	-
12	P	-
13	L	-
14	L	-
15	L	-
16	L	-
17	L	-
18	L	-
19	W	-
20	W	-
21	W	-
22	P	-
23	P	-
24	P	-

JROWC8818GB

CHASSIS CONTROL (WITHOUT DIGITAL MOTION CONTROL)

< WIRING DIAGRAM >

[CHASSIS CONTROL]

CHASSIS CONTROL (WITHOUT DIGITAL MOTION CONTROL)

Connector No.	R13
Connector Name	LANE CAMERA UNIT
Connector Type	TH08FW-NH



19	BG	-	-
20	BG	-	[Without BOSE system]
20	BR	-	[With BOSE system]
21	R	-	-
22	G	-	-
24	B	-	-
25	BG	-	[Color of wire differs depending on production]
25	P	-	[Color of wire differs depending on production]
26	BR	-	-
27	GR	-	-
28	B	-	-
29	R	-	-
30	L	-	-
31	V	-	-
32	W	-	-
33	L	-	-
36	BR	-	-
38	SB	-	-
40	W	-	-

Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	CAN_GND
4	L	CAN-H
5	B	GND
7	V	IGN
8	W	CAN-L

Connector No.	R15
Connector Name	WIRE TO WIRE
Connector Type	TH00MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	LG	-
3	BR	-
4	V	-
5	BG	-
6	GR	-
7	BR	-
9	SHIELD	-
10	GR	-
11	R	-
12	L	-
13	G	-
14	Y	-
15	B	-
17	SB	-

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JROWC8819GB

BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:000000012796421

DETAILED FLOW

1. INTERVIEW FROM THE CUSTOMER

Clarify customer complaints before inspection. First of all, perform an interview utilizing [DAS-575, "Diagnostic Work Sheet"](#) and reproduce the symptom as well as fully understand it. Ask customer about his/her complaints carefully. Check symptoms by driving vehicle with customer, if necessary.

CAUTION:

Customers are not professional. Never guess easily like "maybe the customer means that..." or "maybe the customer mentions this symptom".

>> GO TO 2.

2. CHECK SYMPTOM

Reproduce the symptom that is indicated by the customer, based on the information from the customer obtained by the interview. Also check that the symptom is not caused by fail-safe mode. Refer to [DAS-547, "Fail-Safe \(Chassis Control Module\)"](#).

CAUTION:

When the symptom is caused by normal operation, fully inspect each portion and obtain the understanding of customer that the symptom is not caused by a malfunction.

>> GO TO 3.

3. PERFORM SELF-DIAGNOSIS

Ⓜ With CONSULT

1. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC detected?

- YES >> Record or print self-diagnosis results and freeze frame data (FFD). GO TO 4.
NO >> INSPECTION END

4. RECHECK THE SYMPTOM

Ⓜ With CONSULT

Perform DTC confirmation procedures for the error-detected system.

NOTE:

If some DTCs are detected at the same time, determine the order for performing the diagnosis based on [DAS-549, "DTC Inspection Priority Chart"](#).

Is DTC detected?

- YES >> GO TO 5.
NO >> Check harness and connectors based on the information obtained by the interview. Refer to [DAS-514, "Precautions for Harness Repair"](#).

5. REPAIR OR REPLACE ERROR-DETECTED PARTS

1. Repair or replace error-detected parts.
2. Reconnect part or connector after repairing or replacing.
3. When DTC is detected, erase self-diagnosis results for "CHASSIS CONTROL".

>> GO TO 6.

6. FINAL CHECK

Ⓜ With CONSULT

1. Check the reference value for "CHASSIS CONTROL".
2. Recheck the symptom and check that the symptom is not reproduced on the same conditions.

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[CHASSIS CONTROL]

Is the symptom reproduced?

- YES >> GO TO 3.
- NO >> INSPECTION END

Diagnostic Work Sheet

INFOID:0000000012796422

Description

- In general, customers have their own criteria for a symptom. Therefore, it is important to understand the symptom and status well enough by interviewing the customer about the symptom carefully. To systemize all the information for the diagnosis, prepare the interview sheet referring to the interview points.
- In some cases, multiple conditions that appear simultaneously may cause a DTC to be detected.

INTERVIEW SHEET SAMPLE

Interview sheet					
Customer name	MR/MS	Registration number		Initial year registration	
		Vehicle type		VIN	
Storage date		Engine, Trac-tion motor		Mileage	km (Mile)
Symptom	<input type="checkbox"/> Does not operate () function				
	<input type="checkbox"/> Warning lamp for () turns ON.				
	<input type="checkbox"/> Noise <input type="checkbox"/> Vibration				
	<input type="checkbox"/> Other ()				
First occurrence	<input type="checkbox"/> Recently <input type="checkbox"/> Other ()				
Frequency of occurrence	<input type="checkbox"/> Always <input type="checkbox"/> Under a certain conditions of <input type="checkbox"/> Sometimes (time(s)/day)				
Climate con-ditions	<input type="checkbox"/> Irrelevant				
	Weather	<input type="checkbox"/> Fine <input type="checkbox"/> Cloud <input type="checkbox"/> Rain <input type="checkbox"/> Snow <input type="checkbox"/> Others ()			
	Temperature	<input type="checkbox"/> Hot <input type="checkbox"/> Warm <input type="checkbox"/> Cool <input type="checkbox"/> Cold <input type="checkbox"/> Temperature [Approx. °C (°F)]			
	Relative humidity	<input type="checkbox"/> High <input type="checkbox"/> Moderate <input type="checkbox"/> Low			
Road conditions	<input type="checkbox"/> Urban area <input type="checkbox"/> Suburb area <input type="checkbox"/> Highway <input type="checkbox"/> Mountainous road (uphill or downhill) <input type="checkbox"/> Rough road				
Operating condition, etc.	<input type="checkbox"/> Irrelevant <input type="checkbox"/> When traction motor starts <input type="checkbox"/> During idling <input type="checkbox"/> During driving <input type="checkbox"/> During acceleration <input type="checkbox"/> At constant speed driving <input type="checkbox"/> During deceleration <input type="checkbox"/> During cornering (right curve or left curve) <input type="checkbox"/> When steering wheel is steered (to right or to left)				
Other conditions					

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DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[CHASSIS CONTROL]

Interview sheet

Customer name	MR/MS	Registration number		Initial year registration	
		Vehicle type		VIN	
Storage date		Engine, Trac-tion motor		Mileage	km (Mile)

Vehicle equipment

Memo

ADDITIONAL SERVICE WHEN REPLACING CHASSIS CONTROL MODULE

< BASIC INSPECTION >

[CHASSIS CONTROL]

ADDITIONAL SERVICE WHEN REPLACING CHASSIS CONTROL MODULE

Description

INFOID:000000012796423

When replaced the chassis control module, configuration of the chassis control module is required. Refer to [DAS-578. "Work Procedure"](#).

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CONFIGURATION (CHASSIS CONTROL MODULE)

Work Procedure

INFOID:000000012796424

CAUTION:

- Use “Manual Configuration” only when “TYPE ID” of the chassis control module cannot be read.
- After configuration, turn the ignition switch from OFF to ON and check that the chassis control warning to information display of combination meter displays OFF after staying illuminated for approximately two seconds.
- If an error occurs during configuration, start over from the beginning.

1. CHECKING TYPE ID (1)

Use FAST (service parts catalogue) to search the chassis control module of the applicable vehicle and find “Type ID”.

Is “Type ID” displayed?

YES >> Print out “Type ID” and GO TO 2.

NO >> “Configuration” is not required for the chassis control module. Replace in the usual manner. Refer to [DAS-713, "Removal and Installation"](#).

2. CHECKING TYPE ID (2)

ⓐCONSULT Configuration

1. Select “Before Replace ECU” of “Read/Write Configuration”.
2. Check that “Type ID” is displayed on the CONSULT screen.

Is “Type ID” displayed?

YES >> GO TO 3.

NO >> GO TO 7.

3. VERIFYING TYPE ID (1)

ⓐCONSULT Configuration

Compare a “Type ID” displayed on the CONSULT screen with the one searched by using FAST (service parts catalogue) to check that these “Type ID” agree with each other.

NOTE:

For the “Type ID” searched by using FAST (service parts catalog), use the last five digits of the “Type ID”.

>> GO TO 4.

4. SAVING TYPE ID

ⓐCONSULT Configuration

Save “Type ID” on CONSULT.

>> GO TO 5.

5. REPLACING CHASSIS CONTROL MODULE (1)

Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

>> GO TO 6.

6. WRITING (AUTOMATIC WRITING)

ⓐCONSULT Configuration

1. Select “After Replace ECU” of “Re/programming, Configuration” or that of “Read / Write Configuration”.
2. Select the “Type ID” agreeing with the one stored on CONSULT and the one searched by using FAST (service parts catalogue) to write the “Type ID” into the chassis control module.

NOTE:

For the “Type ID” searched by using FAST (service parts catalog), use the last five digits of the “Type ID”.

>> GO TO 9.

7. REPLACING CHASSIS CONTROL MODULE (2)

CONFIGURATION (CHASSIS CONTROL MODULE)

< BASIC INSPECTION >

[CHASSIS CONTROL]

Replace the chassis control module. Refer to [DAS-713. "Removal and Installation"](#).

>> GO TO 8.

8. WRITING (MANUAL WRITING)

 CONSULT Configuration

1. Select "Manual Configuration".
2. Select the "Type ID" searched by using FAST (service parts catalogue) to write the "Type ID" into the chassis control module.

NOTE:

For the "Type ID" searched by using FAST (service parts catalog), use the last five digits of the "Type ID".

>> GO TO 9.

9. VERIFYING TYPE ID (2)

Compare "Type ID" written into the chassis control module with the one searched by using FAST (service parts catalogue) to check that these "Type ID" agree with each other.

NOTE:

For the "Type ID" searched by using FAST (service parts catalog), use the last five digits of the "Type ID".

>> GO TO 10.

10. CHECKING CHASSIS CONTROL WARNING

1. Turn the ignition switch OFF.
2. Turn the ignition switch ON and check that the chassis control warning to information display of combination meter displays OFF after staying illuminated for approximately two seconds.

CAUTION:

Never start the engine.

Is the inspection result normal?

YES >> GO TO 11.

NO >> Perform the self-diagnosis of "CHASSIS CONTROL". Refer to [DAS-526. "CONSULT Function"](#).

11. PERFORMING SUPPLEMENTARY WORK

1. Perform the self-diagnosis of all systems.
2. Erase self-diagnosis results.

>> End of work.

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C1B90-00 DIRECT ADAPTIVE STEERING SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

DTC/CIRCUIT DIAGNOSIS

C1B90-00 DIRECT ADAPTIVE STEERING SYSTEM

DTC Description

INFOID:000000012796425

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1B90-00	DAST SYSTEM (Direct adaptive steering system)	When a malfunction is detected in direct adaptive steering system.

POSSIBLE CAUSE

- Direct adaptive steering system
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Active lane control function
- LDW function
- LDP function
- Blind spot intervention function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

④ With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1B90-00" detected?

YES >> Proceed to [DAS-580, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796426

1. CHECK DIRECT ADAPTIVE STEERING SYSTEM

④ With CONSULT

1. Perform self-diagnosis for "EPS/DAST 3".
2. Perform self-diagnosis for "DAST 1".
3. Perform self-diagnosis for "DAST 2".

Is DTC detected?

YES >> Check the DTC.

- "EPS/DAST 3": Refer to [STC-156, "DTC Index"](#).

- "DAST 1": Refer to [STC-169, "DTC Index"](#).

- "DAST 2": Refer to [STC-182, "DTC Index"](#).

NO >> GO TO 2.

2. PERFORM SELF-DIAGNOSIS

④ With CONSULT

C1B90-00 DIRECT ADAPTIVE STEERING SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

1. Erase self-diagnosis result for "CHASSIS CONTROL".
2. Turn the ignition switch OFF and wait for 10 seconds or more.
3. Turn the ignition switch ON.
4. Perform "All DTC Reading".

Is DTC "C1B90-00", "U1000-00" or other DTC detected?

YES ("C1B90-00")>>Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

YES ("U1000-00")>>Refer to [LAN-41, "Trouble Diagnosis Flow Chart"](#).

YES (other DTC)>>Check the DTC.

NO >> INSPECTION END

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C1B91-00 CAMERA SYSTEM

DTC Description

INFOID:000000012796427

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1B91-00	CAMERA SYSTEM (Camera system)	When a malfunction is detected in lane camera unit system.

POSSIBLE CAUSE

- Lane camera unit system
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Active lane control function
- LDW function
- LDP function
- Blind spot intervention function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

④ With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for “CHASSIS CONTROL”.

Is DTC “C1B91-00” detected?

- YES >> Proceed to [DAS-582, "Diagnosis Procedure"](#).
 NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
 NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796428

1. CHECK LANE CAMERA UNIT SYSTEM

④ With CONSULT

Perform self-diagnosis for “LANE CAMERA”.

Is DTC detected?

- YES >> Check the DTC. Refer to [DAS-746, "DTC Index"](#).
 NO >> GO TO 2.

2. PERFORM SELF-DIAGNOSIS

④ With CONSULT

1. Erase self-diagnosis result for “CHASSIS CONTROL”.
2. Turn the ignition switch OFF and wait for 10 seconds or more.
3. Turn the ignition switch ON.
4. Perform “All DTC Reading”.

Is DTC “C1B91-00”, “U1000-00” or other DTC detected?

- YES (“C1B91-00”) >> Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

C1B91-00 CAMERA SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

YES ("U1000-00")>>Refer to [LAN-41, "Trouble Diagnosis Flow Chart"](#).
YES (other DTC)>>Check the DTC.
NO >> INSPECTION END

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C1B92-00 BRAKE CONTROL SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1B92-00 BRAKE CONTROL SYSTEM

DTC Description

INFOID:000000012796429

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1B92-00	BRAKE CONTROL SYSTEM (Brake control system)	When a malfunction is detected in ABS actuator and electric unit (control unit) system.

POSSIBLE CAUSE

- ABS actuator and electric unit (control unit) system
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Active trace control function
- Active lane control function
- LDW function
- LDP function
- Blind spot intervention function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

④ With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1B92-00" detected?

YES >> Proceed to [DAS-584, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796430

1. CHECK ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)

④ With CONSULT

Perform self-diagnosis for "ABS".

Is DTC detected?

YES >> Check the DTC. Refer to [BRC-72, "DTC Index"](#).

NO >> GO TO 2.

2. PERFORM SELF-DIAGNOSIS

④ With CONSULT

1. Erase self-diagnosis result for "CHASSIS CONTROL".
2. Turn the ignition switch OFF and wait for 10 seconds or more.
3. Turn the ignition switch ON.
4. Perform "All DTC Reading".

Is DTC "C1B92-00", "U1000-00" or other DTC detected?

C1B92-00 BRAKE CONTROL SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

YES ("C1B92-00")>>Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

YES ("U1000-00")>>Refer to [LAN-41, "Trouble Diagnosis Flow Chart"](#).

YES (other DTC)>>Check the DTC.

NO >> INSPECTION END

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C1B93-00 ENGINE/HEV SYSTEM

DTC Description

INFOID:000000012796431

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1B93-00	ENGINE/HEV SYSTEM (Engine/HEV system)	When a malfunction is detected in ECM system.

POSSIBLE CAUSE

- Engine system
- ECM
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Active trace control function
- LDW function
- LDP function
- Blind spot intervention function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

 With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1B93-00" detected?

- YES >> Proceed to [DAS-586, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796432

1. CHECK ECM SYSTEM

 With CONSULT

Perform self-diagnosis for "ENGINE".

Is DTC detected?

- YES >> Check the DTC.
 - VR30DDTT engine models for USA and Canada
 - Turbo high pressure model: Refer to [EC6-164, "TURBO HIGH PRESSURE MODEL : DTC Index"](#).
 - Turbo low pressure model: Refer to [EC6-205, "TURBO LOW PRESSURE MODEL : DTC Index"](#).
 - VR30DDTT engine models for Mexico: Refer to [EC6-1139, "DTC Index"](#).
 - 2.0L turbo gasoline engine models: Refer to [EC4-146, "DTC Index"](#).
- NO >> GO TO 2.

2. PERFORM SELF-DIAGNOSIS

C1B93-00 ENGINE/HEV SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Ⓜ With CONSULT

1. Erase self-diagnosis result for "CHASSIS CONTROL".
2. Turn the ignition switch OFF and wait for 10 seconds or more.
3. Turn the ignition switch ON.
4. Perform "All DTC Reading".

Is DTC "C1B93-00", "U1000-00" or other DTC detected?

YES ("C1B93-00")>>Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

YES ("U1000-00")>>Refer to [LAN-41, "Trouble Diagnosis Flow Chart"](#).

YES (other DTC)>>Check the DTC.

NO >> INSPECTION END

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C1B94-00 TRANSMISSION SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1B94-00 TRANSMISSION SYSTEM

DTC Description

INFOID:000000012796433

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1B94-00	TM SYSTEM (Transmission system)	When a malfunction is detected in transmission system.

POSSIBLE CAUSE

- Transmission system
- TCM
- ECM
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Active trace control function
- LDW function
- LDP function
- Blind spot intervention function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

 With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1B94-00" detected?

- YES >> Proceed to [DAS-588, "Diagnosis Procedure"](#).
NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796434

1. CHECK VEHICLE SPECIFICATIONS

Check vehicle specifications.

- VR30DDTT engine models>>GO TO 2.
2.0L turbo gasoline engine models>>GO TO 3.

2. CHECK TRANSMISSION SYSTEM (VR30DDTT ENGINE MODELS)

 With CONSULT

Perform self-diagnosis for "TRANSMISSION".

Is DTC detected?

- YES >> Check the DTC. Refer to [TM-111, "VR30DDTT : DTC Index"](#).
NO >> GO TO 4.

C1B94-00 TRANSMISSION SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

3. CHECK TRANSMISSION SYSTEM (2.2L TURBO GASOLINE ENGINE MODELS)

Ⓜ With CONSULT

Perform self-diagnosis for "ENGINE".

Is DTC detected?

YES >> Check the DTC. Refer to [EC4-146, "DTC Index"](#).

NO >> GO TO 4.

4. PERFORM SELF-DIAGNOSIS

Ⓜ With CONSULT

1. Erase self-diagnosis result for "CHASSIS CONTROL".
2. Turn the ignition switch OFF and wait for 10 seconds or more.
3. Turn the ignition switch ON.
4. Perform "All DTC Reading".

Is DTC "C1B94-00", "U1000-00" or other DTC detected?

YES ("C1B94-00")>>Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

YES ("U1000-00")>>Refer to [LAN-41, "Trouble Diagnosis Flow Chart"](#).

YES (other DTC)>>Check the DTC.

NO >> INSPECTION END

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DAS

C1B96-00 ADAS SYSTEM

DTC Description

INFOID:000000012796437

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1B96-00	ADAS SYSTEM (Advanced Driver Assistance system)	When a malfunction is detected in ADAS control unit system.

POSSIBLE CAUSE

- ADAS control unit
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- LDW function
- LDP function
- Blind spot intervention function
- Intelligent cruise control function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

Ⓜ With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for “CHASSIS CONTROL”.

Is DTC “C1B96-00” detected?

YES >> Proceed to [DAS-590, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796438

1. CHECK ADAS CONTROL UNIT SYSTEM

Ⓜ With CONSULT

Perform self-diagnosis for “ICC/ADAS”.

Is DTC detected?

YES >> Check the DTC. Refer to [DAS-53, "DTC Index"](#).

NO >> GO TO 2.

2. PERFORM SELF-DIAGNOSIS

Ⓜ With CONSULT

1. Erase self-diagnosis result for “CHASSIS CONTROL”.
2. Turn the ignition switch OFF and wait for 10 seconds or more.
3. Turn the ignition switch ON.
4. Perform “All DTC Reading”.

Is DTC “C1B96-00”, “U1000-00” or other DTC detected?

C1B96-00 ADAS SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

YES ("C1B96-00")>>Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

YES ("U1000-00")>>Refer to [LAN-41, "Trouble Diagnosis Flow Chart"](#).

YES (other DTC)>>Check the DTC.

NO >> INSPECTION END

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C1B99-00 CONTROL MODULE

DTC Description

INFOID:000000012796441

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1B99-00	CONTROL MODULE (Control module)	When a malfunction is detected in chassis control module.

POSSIBLE CAUSE

- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Active trace control function
- Active lane control function
- LDW function
- LDP function
- Blind spot intervention function
- Infiniti InTuition function
- Digital motion control function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

④ With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1B99-00" detected?

YES >> Proceed to [DAS-592, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796442

1. PERFORM SELF-DIAGNOSIS

④ With CONSULT

1. Erase self-diagnosis result for "CHASSIS CONTROL".
2. Turn the ignition switch OFF and wait for 10 seconds or more.
3. Turn the ignition switch ON.
4. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1B99-00" detected?

YES >> Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

NO >> INSPECTION END

C1BA6-00 AV SYSTEM

DTC Description

INFOID:000000012796449

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BA6-00	AV SYSTEM (AV system)	When a malfunction is detected in AV system.

POSSIBLE CAUSE

- Display control unit
- AV control unit
- NAVI control unit
- Integral switch
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Infiniti InTuition function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

④ With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for “CHASSIS CONTROL”.

Is DTC “C1BA6-00” detected?

YES >> Proceed to [DAS-593, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796450

1. CHECK AV SYSTEM

④ With CONSULT

1. Perform self-diagnosis for “MULTI AV”.

Is DTC detected?

YES >> Check the DTC. Refer to [AV-107, "DTC Index"](#).

NO >> GO TO 2.

2. PERFORM SELF-DIAGNOSIS

④ With CONSULT

1. Erase self-diagnosis result for “CHASSIS CONTROL”.
2. Turn the ignition switch OFF and wait for 10 seconds or more.
3. Turn the ignition switch ON.
4. Perform “All DTC Reading”.

Is DTC “C1BA6-00”, “U1000-00” or other DTC detected?

YES (“C1BA6-00”) >> Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

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C1BA6-00 AV SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

YES ("U1000-00")>>Refer to [LAN-41, "Trouble Diagnosis Flow Chart"](#).

YES (other DTC)>>Check the DTC.

NO >> INSPECTION END

C1BA7-00 ACTIVE LANE CONTROL SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BA7-00 ACTIVE LANE CONTROL SYSTEM

DTC Description

INFOID:000000012796451

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BA7-00	ALC SYSTEM (Active lane control system)	When receiving signal transmitted from the chassis control module to the steering angle main control module is abnormal, from the steering angle main control module.

POSSIBLE CAUSE

- Direct adaptive steering system
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Active lane control function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

④ With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BA7-00" detected?

YES >> Proceed to [DAS-595, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796452

1. CHECK DIRECT ADAPTIVE STEERING SYSTEM

④ With CONSULT

Perform self-diagnosis for "DAST 1".

Is DTC detected?

YES >> Check the DTC. Refer to [STC-169, "DTC Index"](#).

NO >> GO TO 2.

2. PERFORM SELF-DIAGNOSIS

④ With CONSULT

1. Erase self-diagnosis result for "CHASSIS CONTROL".
2. Turn the ignition switch OFF and wait for 10 seconds or more.
3. Turn the ignition switch ON.
4. Perform "All DTC Reading".

Is DTC "C1BA7-00", "U1000-00" or other DTC detected?

YES ("C1BA7-00")>>Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

YES ("U1000-00")>>Refer to [LAN-41, "Trouble Diagnosis Flow Chart"](#).

YES (other DTC)>>Check the DTC.

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DAS

C1BA7-00 ACTIVE LANE CONTROL SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

NO >> INSPECTION END

C1BA9-00 NP RANGE

DTC Description

INFOID:000000012796453

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BA9-00	NP RANGE (NP range)	When a mismatch between a shift position signal transmitted from TCM and an current gear position signal continues for 60 seconds or more.

POSSIBLE CAUSE

- Transmission system
- TCM
- ECM
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- LDW function
- LDP function
- Blind spot intervention function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

 With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for “CHASSIS CONTROL”.

Is DTC “C1BA9-00” detected?

- YES >> Proceed to [DAS-597, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796454

1. CHECK VEHICLE SPECIFICATION

Check vehicle specification.

- VR30DDTT engine models>>GO TO 2.
- 2.0L turbo gasoline engine models>>GO TO 3.

2. CHECK TRANSMISSION SYSTEM (VR30DDTT ENGINE MODELS)

 With CONSULT

Perform self-diagnosis for “TRANSMISSION”.

Is DTC detected?

- YES >> Check the DTC. Refer to [TM-111, "VR30DDTT : DTC Index"](#).
- NO >> GO TO 4.

3. CHECK TRANSMISSION SYSTEM (2.0L TURBO GASOLINE ENGINE MODELS)

< DTC/CIRCUIT DIAGNOSIS >

Ⓟ With CONSULT

Perform self-diagnosis for "ENGINE".

Is DTC detected?

YES >> Check the DTC. Refer to [EC4-146, "DTC Index"](#).

NO >> GO TO 4.

4. PERFORM SELF-DIAGNOSIS

Ⓟ With CONSULT

1. Erase self-diagnosis result for "CHASSIS CONTROL".
2. Turn the ignition switch OFF and wait for 10 seconds or more.
3. Turn the ignition switch ON.
4. Perform "All DTC Reading".

Is DTC "C1BA9-00", "U1000-00" or other DTC detected?

YES ("C1BA9-00")>>Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

YES ("U1000-00")>>Refer to [LAN-41, "Trouble Diagnosis Flow Chart"](#).

YES (other DTC)>>Check the DTC.

NO >> INSPECTION END

C1BAA-00 GEAR POSITION

DTC Description

INFOID:000000012796455

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BAA-00	GEAR POSITION (Gear position)	When a mismatch between a current gear position signal and shift position signal transmitted from TCM continues for approximately 60 seconds or more.

POSSIBLE CAUSE

- Transmission system
- TCM
- ECM
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- LDW function
- LDP function
- Blind spot intervention function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If “DTC CONFIRMATION PROCEDURE” has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

 With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for “CHASSIS CONTROL”.

Is DTC “C1BAA-00” detected?

YES >> Proceed to [DAS-599, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796456

1. PERFORM SELF-DIAGNOSIS (CHASSIS CONTROL MODULE) (1)

1. Start the engine.
2. LDP system is ON.
3. Select the selector lever “D” position and wait 1 minute or more.

CAUTION:

Securely depress the brake pedal, and never move the vehicle.

4. Perform self-diagnosis for “CHASSIS CONTROL”.

Is DTC “C1BAA-00” detected?

YES >> GO TO 3.

NO >> GO TO 2.

2. PERFORM SELF-DIAGNOSIS (CHASSIS CONTROL MODULE) (2)

1. Select the selector lever “R” position and wait 1 minute or more.

CAUTION:

Securely depress the brake pedal, and never move the vehicle.

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< DTC/CIRCUIT DIAGNOSIS >

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BAA-00" detected?

YES (VR30DDTT engine models)>>GO TO 3.

YES (2.0L turbo gasoline engine models)>>GO TO 4.

NO >> GO TO 5.

3.CHECK TRANSMISSION SYSTEM (VR30DDTT ENGINE MODELS)

ⓅWith CONSULT

Perform self-diagnosis for "TRANSMISSION".

Is DTC detected?

YES >> Check the DTC. Refer to [TM-111, "VR30DDTT : DTC Index"](#).

NO >> GO TO 5.

4.CHECK TRANSMISSION SYSTEM (2.0L TURBO GASOLINE ENGINE MODELS)

ⓅWith CONSULT

Perform self-diagnosis for "ENGINE".

Is DTC detected?

YES >> Check the DTC. Refer to [EC4-146, "DTC Index"](#).

NO >> GO TO 5.

5.PERFORM SELF-DIAGNOSIS

ⓅWith CONSULT

1. Erase self-diagnosis result for "CHASSIS CONTROL".
2. Turn the ignition switch OFF and wait for 10 seconds or more.
3. Turn the ignition switch ON.
4. Perform "All DTC Reading".

Is DTC "C1BAA-00", "U1000-00" or other DTC detected?

YES ("C1BAA-00")>>Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

YES ("U1000-00")>>Refer to [LAN-41, "Trouble Diagnosis Flow Chart"](#).

YES (other DTC)>>Check the DTC.

NO >> INSPECTION END

C1BAB-00 STOP LAMP SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BAB-00 STOP LAMP SWITCH

DTC Description

INFOID:000000012796457

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BAB-00	STOP LAMP SW (Stop lamp switch)	When a malfunction is detected in stop lamp switch system.

POSSIBLE CAUSE

- Stop lamp switch
- ABS actuator and electric unit (control unit) system
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Active trace control function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

④ With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BAB-00" detected?

YES >> Proceed to [DAS-601, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796458

1. CHECK STOP LAMP SWITCH SYSTEM

④ With CONSULT

Perform self-diagnosis for "ABS".

Is DTC detected?

YES >> Check the DTC. Refer to [BRC-72, "DTC Index"](#).

NO >> GO TO 2.

2. PERFORM SELF-DIAGNOSIS

④ With CONSULT

1. Erase self-diagnosis result for "CHASSIS CONTROL".
2. Turn the ignition switch OFF and wait for 10 seconds or more.
3. Turn the ignition switch ON.
4. Perform "All DTC Reading".

Is DTC "C1BAB-00", "U1000-00" or other DTC detected?

YES ("C1BAB-00")>>Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

YES ("U1000-00")>>Refer to [LAN-41, "Trouble Diagnosis Flow Chart"](#).

YES (other DTC)>>Check the DTC.

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C1BAB-00 STOP LAMP SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

NO >> INSPECTION END

C1BAC-00 OPERATION SWITCH SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BAC-00 OPERATION SWITCH SYSTEM

DTC Description

INFOID:000000012796459

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BAC-00	OPERATION SW CIRC (Operation switch circuit)	Any switch of the ICC steering switch is detected as "ON" continuously for 60 seconds.

POSSIBLE CAUSE

- ICC steering switch
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- LDP function
- Blind spot intervention function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

④ With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BAC-00" detected?

YES >> Proceed to [DAS-603, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796460

1. CHECK STEERING SWITCH SYSTEM

④ With CONSULT

Perform self-diagnosis for "ICC/ADAS".

Is DTC detected?

YES >> Check the DTC. Refer to [DAS-53, "DTC Index"](#).

NO >> GO TO 2.

2. PERFORM SELF-DIAGNOSIS

④ With CONSULT

1. Erase self-diagnosis result for "CHASSIS CONTROL".
2. Turn the ignition switch OFF and wait for 10 seconds or more.
3. Turn the ignition switch ON.
4. Perform "All DTC Reading".

Is DTC "C1BAC-00", "U1000-00" or other DTC detected?

YES ("C1BAC-00")>>Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

YES ("U1000-00")>>Refer to [LAN-41, "Trouble Diagnosis Flow Chart"](#).

YES (other DTC)>>Check the DTC.

C1BAC-00 OPERATION SWITCH SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

NO >> INSPECTION END

C1BAD-00 ACCELERATOR PEDAL SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BAD-00 ACCELERATOR PEDAL SYSTEM

DTC Description

INFOID:000000012796461

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BAD-00	ACCELERATER PEDAL (Accelerator pedal system)	When a malfunction is detected in accelerator pedal system.

POSSIBLE CAUSE

- Accelerator pedal position sensor
- ECM
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- LDP function
- Blind spot intervention function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

④ With CONSULT

1. Start the engine.
2. LDP system is ON.
3. Depress the accelerator pedal for 1 second or more.
4. Stop the engine.
5. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

6. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BAD-00" detected?

- YES >> Proceed to [DAS-605, "Diagnosis Procedure"](#).
NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796462

1. CHECK ACCELERATOR PEDAL SYSTEM (ECM)

④ With CONSULT

Perform self-diagnosis for "ENGINE".

Is DTC detected?

- YES >> Check the DTC.
- VR30DDTT engine models for USA and Canada
 - Turbo high pressure model: Refer to [EC6-164, "TURBO HIGH PRESSURE MODEL : DTC Index"](#).
 - Turbo low pressure model: Refer to [EC6-205, "TURBO LOW PRESSURE MODEL : DTC Index"](#).
 - VR30DDTT engine models for Mexico: Refer to [EC6-1139, "DTC Index"](#).
 - 2.0L turbo gasoline engine models: Refer to [EC4-146, "DTC Index"](#).
- NO >> GO TO 2.

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C1BAD-00 ACCELERATOR PEDAL SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

2. PERFORM SELF-DIAGNOSIS

④ With CONSULT

1. Erase self-diagnosis result for "CHASSIS CONTROL".
2. Turn the ignition switch OFF and wait for 10 seconds or more.
3. Turn the ignition switch ON.
4. Perform "All DTC Reading".

Is DTC "C1BAD-00", "U1000-00" or other DTC detected?

YES ("C1BAD-00")>>Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

YES ("U1000-00")>>Refer to [LAN-41, "Trouble Diagnosis Flow Chart"](#).

YES (other DTC)>>Check the DTC.

NO >> INSPECTION END

C1BAE-00 ACCELERATOR PEDAL SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BAE-00 ACCELERATOR PEDAL SYSTEM

DTC Description

INFOID:000000012796463

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BAE-00	ACCELERATER PEDAL (Accelerator pedal system)	When a malfunction is detected in distance control assist system.

POSSIBLE CAUSE

- Accelerator pedal assembly
- ECM
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- LDP function
- Blind spot intervention function

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

④With CONSULT

1. Start the engine.
2. LDP system is ON.
3. Depress the accelerator pedal for 1 second or more.
4. Stop the engine.
5. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

6. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BAE-00" detected?

- YES >> Proceed to [DAS-607. "Diagnosis Procedure"](#).
NO-1 >> To check malfunction symptom before repair: Refer to [GI-45. "Intermittent Incident"](#).
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796464

1.CHECK DISTANCE CONTROL ASSIST SYSTEM

④With CONSULT

Perform self-diagnosis for "ICC/ADAS".

Is DTC detected?

- YES >> Check the DTC. Refer to [DAS-53. "DTC Index"](#).
NO >> GO TO 2.

2.PERFORM SELF-DIAGNOSIS

④With CONSULT

1. Erase self-diagnosis result for "CHASSIS CONTROL".
2. Turn the ignition switch OFF and wait for 10 seconds or more.
3. Turn the ignition switch ON.
4. Perform "All DTC Reading".

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C1BAE-00 ACCELERATOR PEDAL SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Is DTC "C1BAE-00", "U1000-00" or other DTC detected?

YES ("C1BAE-00")>>Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

YES ("U1000-00")>>Refer to [LAN-41, "Trouble Diagnosis Flow Chart"](#).

YES (other DTC)>>Check the DTC.

NO >> INSPECTION END

C1BAF-00 BLIND SPOT WARNING SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BAF-00 BLIND SPOT WARNING SYSTEM

DTC Description

INFOID:000000012796465

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BAF-00	BSW SYSTEM (Blind Spot Warning system)	When a malfunction is detected in blind spot warning system.

POSSIBLE CAUSE

- ADAS control unit
- Side radar
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Blind spot intervention function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

④ With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BAF-00" detected?

YES >> Proceed to [DAS-609, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796466

1. CHECK BLIND SPOT WARNING SYSTEM

④ With CONSULT

Perform self-diagnosis for "ICC/ADAS".

Is DTC detected?

YES >> Check the DTC. Refer to [DAS-53, "DTC Index"](#).

NO >> GO TO 2.

2. PERFORM SELF-DIAGNOSIS

④ With CONSULT

1. Erase self-diagnosis result for "CHASSIS CONTROL".
2. Turn the ignition switch OFF and wait for 10 seconds or more.
3. Turn the ignition switch ON.
4. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BAF-00", "U1000-00" or other DTC detected?

YES ("C1BAF-00")>>Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

YES ("U1000-00")>>Refer to [LAN-41, "Trouble Diagnosis Flow Chart"](#).

YES (other DTC)>>Check the DTC.

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C1BAF-00 BLIND SPOT WARNING SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

NO >> INSPECTION END

C1BB0-06 DRIVER ASSISTANCE BUZZER SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BB0-06 DRIVER ASSISTANCE BUZZER SYSTEM

DTC Description

INFOID:000000012796467

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BB0-06	DR BUZZER SYSTEM (Driver assistance buzzer system)	When a malfunction is detected in driver assistance buzzer system.

POSSIBLE CAUSE

- Driver assistance buzzer control module
- ADAS control unit
- Chassis control module

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

④ With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BB0-06" detected?

YES >> Proceed to [DAS-611, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796468

1. CHECK DRIVER ASSISTANCE BUZZER SYSTEM

④ With CONSULT

Perform self-diagnosis for "ICC/ADAS".

Is DTC detected?

YES >> Check the DTC. Refer to [DAS-53, "DTC Index"](#).

NO >> GO TO 2.

2. PERFORM SELF-DIAGNOSIS

④ With CONSULT

1. Erase self-diagnosis result for "CHASSIS CONTROL".
2. Turn the ignition switch OFF and wait for 10 seconds or more.
3. Turn the ignition switch ON.
4. Perform "ALL DTC Reading".

Is DTC "C1BB0-06", "U1000-00" or other DTC detected?

YES ("C1BB0-06")>>Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

YES ("U1000-00")>>Refer to [LAN-41, "Trouble Diagnosis Flow Chart"](#).

YES (other DTC)>>Check the DTC.

NO >> INSPECTION END

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DAS

C1BB2-00 CONTROL MODULE

DTC Description

INFOID:000000012796469

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BB2-00	CONTROL MODULE (Control module)	When a malfunction is detected in chassis control module.

POSSIBLE CAUSE

- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Active trace control function
- Active lane control function
- LDW function
- LDP function
- Blind spot intervention function
- Infiniti InTuition function
- Digital motion control function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

④ With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BB2-00" detected?

YES >> Proceed to [DAS-612, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796470

1. PERFORM SELF-DIAGNOSIS

④ With CONSULT

1. Erase self-diagnosis result for "CHASSIS CONTROL".
2. Turn the ignition switch OFF and wait for 10 seconds or more.
3. Turn the ignition switch ON.
4. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BB2-00" detected?

YES >> Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

NO >> INSPECTION END

C1BB3-00 CONTROL MODULE

DTC Description

INFOID:000000012796471

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BB3-00	CONTROL MODULE (Control module)	When a malfunction is detected in chassis control module.

POSSIBLE CAUSE

- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Active trace control function
- Active lane control function
- LDW function
- LDP function
- Blind spot intervention function
- Infiniti InTuition function
- Digital motion control function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BB3-00" detected?

- YES >> Proceed to [DAS-613, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796472

1. PERFORM SELF-DIAGNOSIS

With CONSULT

1. Erase self-diagnosis result for "CHASSIS CONTROL".
2. Turn the ignition switch OFF and wait for 10 seconds or more.
3. Turn the ignition switch ON.
4. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BB3-00" detected?

- YES >> Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).
- NO >> INSPECTION END



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C1BB4-00 CONTROL MODULE

DTC Description

INFOID:000000012796473

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BB4-00	CONTROL MODULE (Control module)	When a malfunction is detected in chassis control module.

POSSIBLE CAUSE

- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Active trace control function
- Active lane control function
- LDW function
- LDP function
- Blind spot intervention function
- Infiniti InTuition function
- Digital motion control function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

④ With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BB4-00" detected?

YES >> Proceed to [DAS-614, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796474

1. PERFORM SELF-DIAGNOSIS

④ With CONSULT

1. Erase self-diagnosis result for "CHASSIS CONTROL".
2. Turn the ignition switch OFF and wait for 10 seconds or more.
3. Turn the ignition switch ON.
4. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BB4-00" detected?

YES >> Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

NO >> INSPECTION END

C1BB5-00 IGNITION POWER SUPPLY

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BB5-00 IGNITION POWER SUPPLY

DTC Description

INFOID:000000012796475

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BB5-00	IGN POWER SUPPLY (Ignition power supply)	Ignition power supply voltage of chassis control module is as shown below. • Ignition power supply voltage: $6.4\text{ V} \geq$ Ignition power supply voltage

POSSIBLE CAUSE

- Harness or connector
- Fuse
- Ignition power supply system
- Battery
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Active trace control function
- Active lane control function
- LDW function
- LDP function
- Blind spot intervention function
- Infiniti InTuition function
- Digital motion control function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

Ⓜ With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BB5-00" detected?

YES (Models with digital motion control)>>Proceed to [DAS-615, "Diagnosis Procedure \(Models with Digital Motion Control\)".](#)

YES (Models without digital motion control)>>Proceed to [DAS-617, "Diagnosis Procedure \(Models without Digital Motion Control\)".](#)

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident".](#)

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure (Models with Digital Motion Control)

INFOID:000000012796476

1. CHECK CONNECTOR

1. Turn the ignition switch OFF.
2. Disconnect chassis control module harness connector
3. Check the connector for disconnection or looseness.
4. Check the pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> GO TO 2.

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C1BB5-00 IGNITION POWER SUPPLY

[CHASSIS CONTROL]

< DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace error-detected parts, securely lock the harness connector, and GO TO 2.

2.PERFORM SELF-DIAGNOSIS (1)

1. Connect chassis control module harness connector.
2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BB5-00" detected?

YES >> GO TO 3.

NO >> INSPECTION END

3.CHECK CHASSIS CONTROL MODULE IGNITION POWER SUPPLY

1. Turn the ignition switch OFF.
2. Disconnect chassis control module harness connector.
3. Check the voltage between chassis control module harness connector and ground.

Chassis control module		—	Voltage (Approx.)
Connector	Terminal		
E219	4	Ground	0 V
	25		

4. Turn the ignition switch ON.

CAUTION:

Never start engine.

5. Check the voltage between chassis control module harness connector and ground.

Chassis control module		—	Voltage (Approx.)
Connector	Terminal		
E219	4	Ground	6.4 – 16 V
	25		

Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 4.

4.CHECK BATTERY

Check the battery. Refer to [PG-245, "VR30DDTT : Work Flow"](#).

Is the inspection result normal?

YES >> GO TO 5.

NO >> Charge or replace the battery.

- Charge the battery: Refer to [PG-245, "VR30DDTT : Work Flow"](#).
- Replace the battery: Refer to [PG-259, "VR30DDTT : Removal and Installation"](#).

5.CHECK CHASSIS CONTROL MODULE IGNITION POWER SUPPLY CIRCUIT

1. Turn the ignition switch OFF.
2. Check the 5A fuse (#21).
3. Check the 5A fuse (#23).
4. Disconnect fuse block (J/B) harness connector.
5. Check the continuity between chassis control module harness connector and fuse block (J/B) harness connector.

Chassis control module		Fuse block (J/B)		Continuity
Connector	Terminal	Connector	Terminal	
E219	4	E64	7E	Existed
	25	M132	14B	

6. Check the continuity between chassis control module harness connector and the ground.

C1BB5-00 IGNITION POWER SUPPLY

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Chassis control module		—	Continuity
Connector	Terminal		
E219	4	Ground	Not existed
	25		

Is the inspection result normal?

YES >> Perform trouble diagnosis for ignition power supply.

NO >> Repair or replace error-detected parts.

6. CHECK CHASSIS CONTROL MODULE GROUND CIRCUIT

1. Turn the ignition switch OFF.
2. Check the continuity between chassis control module harness connector and ground.

Chassis control module		—	Continuity
Connector	Terminal		
E219	6	Ground	Existed
	23		

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace error-detected parts.

7. PERFORM SELF-DIAGNOSIS (2)

1. Connect chassis control module harness connector.
2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BB5-00" detected?

YES >> Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

NO >> INSPECTION END

Diagnosis Procedure (Models without Digital Motion Control)

INFOID:0000000013498281

1. CHECK CONNECTOR

1. Turn the ignition switch OFF.
2. Disconnect chassis control module harness connector
3. Check the connector for disconnection or looseness.
4. Check the pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace error-detected parts, securely lock the harness connector, and GO TO 2.

2. PERFORM SELF-DIAGNOSIS (1)

1. Connect chassis control module harness connector.
2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BB5-00" detected?

YES >> GO TO 3.

NO >> INSPECTION END

3. CHECK CHASSIS CONTROL MODULE IGNITION POWER SUPPLY

1. Turn the ignition switch OFF.
2. Disconnect chassis control module harness connector.
3. Check the voltage between chassis control module harness connector and ground.

Chassis control module		—	Voltage (Approx.)
Connector	Terminal		
E22	10	Ground	0 V

C1BB5-00 IGNITION POWER SUPPLY

[CHASSIS CONTROL]

< DTC/CIRCUIT DIAGNOSIS >

4. Turn the ignition switch ON.

CAUTION:

Never start engine.

5. Check the voltage between chassis control module harness connector and ground.

Chassis control module		—	Voltage (Approx.)
Connector	Terminal		
E22	10	Ground	6.4 – 16 V

Is the inspection result normal?

YES >> GO TO 7.

NO >> GO TO 4.

4.CHECK BATTERY

Check the battery.

• VR30DDTT engine models: Refer to [PG-245, "VR30DDTT : Work Flow"](#).

• 2.0L turbo gasoline engine models: Refer to [PG-249, "2.0L TURBO GASOLINE ENGINE : Work Flow"](#).

Is the inspection result normal?

YES (VR30DDTT engine models)>>GO TO 5.

YES (2.0L turbo gasoline engine models)>>GO TO 6.

NO >> Charge or replace the battery.

• VR30DDTT engine models

- Charge the battery: Refer to [PG-245, "VR30DDTT : Work Flow"](#).

- Replace the battery: Refer to [PG-259, "VR30DDTT : Removal and Installation"](#).

• 2.0L turbo gasoline engine models

- Charge the battery: Refer to [PG-249, "2.0L TURBO GASOLINE ENGINE : Work Flow"](#).

- Replace the battery: Refer to [PG-261, "2.0L TURBO GASOLINE ENGINE : Removal and Installation"](#).

5.CHECK CHASSIS CONTROL MODULE IGNITION POWER SUPPLY CIRCUIT (VR30DDTT ENGINE MODELS)

1. Turn the ignition switch OFF.

2. Check the 10A fuse (#12).

3. Disconnect fuse block (J/B) harness connector.

4. Check the continuity between chassis control module harness connector and fuse block (J/B) harness connector.

Chassis control module		Fuse block (J/B)		Continuity
Connector	Terminal	Connector	Terminal	
E22	10	E65	11F	Existed

5. Check the continuity between chassis control module harness connector and the ground.

Chassis control module		—	Continuity
Connector	Terminal		
E22	10	Ground	Not existed

Is the inspection result normal?

YES >> Perform trouble diagnosis for ignition power supply.

NO >> Repair or replace error-detected parts.

6.CHECK CHASSIS CONTROL MODULE IGNITION POWER SUPPLY CIRCUIT (2.0L TURBO GASOLINE ENGINE MODELS)

1. Turn the ignition switch OFF.

2. Check the 10A fuse (#77).

3. Check the continuity and for short circuit between chassis control module harness connector terminal (10) and 10A fuse (#77).

4. Check the continuity between chassis control module harness connector and the ground.

C1BB5-00 IGNITION POWER SUPPLY

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Chassis control module		—	Continuity
Connector	Terminal		
E22	10	Ground	Not existed

Is the inspection result normal?

YES >> Perform trouble diagnosis for ignition power supply.

NO >> Repair or replace error-detected parts.

7. CHECK CHASSIS CONTROL MODULE GROUND CIRCUIT

1. Turn the ignition switch OFF.
2. Check the continuity between chassis control module harness connector and ground.

Chassis control module		—	Continuity
Connector	Terminal		
E22	12	Ground	Existed

Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair or replace error-detected parts.

8. PERFORM SELF-DIAGNOSIS (2)

1. Connect chassis control module harness connector.
2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BB5-00" detected?

YES >> Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

NO >> INSPECTION END

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C1BB6-00 IGNITION POWER SUPPLY

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BB6-00 IGNITION POWER SUPPLY

DTC Description

INFOID:000000013591024

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BB6-00	IGN POWER SUPPLY (Ignition power supply)	Ignition power supply voltage of chassis control module is as shown below. <ul style="list-style-type: none">Ignition power supply voltage: $17\text{ V} \leq$ Ignition power supply voltage

POSSIBLE CAUSE

- Harness or connector
- Fuse
- Ignition power supply system
- Battery
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Digital motion control function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

 With CONSULT

1. Erase self-diagnosis results for "CHASSIS CONTROL".
2. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

3. Repeat step 2 two or more times.
4. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BB6-00" detected?

- YES >> Proceed to [DAS-620, "Diagnosis Procedure"](#).
NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000013591025

1. CHECK CONNECTOR

1. Turn the ignition switch OFF.
2. Disconnect chassis control module harness connector
3. Check the connector for disconnection or looseness.
4. Check the pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

- YES >> GO TO 2.
NO >> Repair or replace error-detected parts, securely lock the harness connector, and GO TO 2.

2. PERFORM SELF-DIAGNOSIS (1)

1. Connect chassis control module harness connector.
2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BB6-00" detected?

- YES >> GO TO 3.

C1BB6-00 IGNITION POWER SUPPLY

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

NO >> INSPECTION END

3. CHECK CHASSIS CONTROL MODULE IGNITION POWER SUPPLY

1. Turn the ignition switch OFF.
2. Disconnect chassis control module harness connector.
3. Check the voltage between chassis control module harness connector and ground.

Chassis control module		—	Voltage (Approx.)
Connector	Terminal		
E219	4	Ground	0 V
	25		

4. Turn the ignition switch ON.
CAUTION:
Never start engine.
5. Check the voltage between chassis control module harness connector and ground.

Chassis control module		—	Voltage (Approx.)
Connector	Terminal		
E219	4	Ground	6.4 – 16 V
	25		

Is the inspection result normal?

- YES >> GO TO 6.
NO >> GO TO 4.

4. CHECK BATTERY

Check the battery. Refer to [PG-245, "VR30DDTT : Work Flow"](#).

Is the inspection result normal?

- YES >> GO TO 5.
NO >> Charge or replace the battery.
- Charge the battery: Refer to [PG-245, "VR30DDTT : Work Flow"](#).
 - Replace the battery: Refer to [PG-259, "VR30DDTT : Removal and Installation"](#).

5. CHECK CHASSIS CONTROL MODULE IGNITION POWER SUPPLY CIRCUIT

1. Turn the ignition switch OFF.
2. Check the 5A fuse (#21).
3. Check the 5A fuse (#23).
4. Disconnect fuse block (J/B) harness connector.
5. Check the continuity between chassis control module harness connector and fuse block (J/B) harness connector.

Chassis control module		Fuse block (J/B)		Continuity
Connector	Terminal	Connector	Terminal	
E219	4	E64	7E	Existed
	25	M132	14B	

6. Check the continuity between chassis control module harness connector and the ground.

Chassis control module		—	Continuity
Connector	Terminal		
E219	4	Ground	Not existed
	25		

Is the inspection result normal?

- YES >> Perform trouble diagnosis for ignition power supply.

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C1BB6-00 IGNITION POWER SUPPLY

[CHASSIS CONTROL]

< DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace error-detected parts.

6. CHECK CHASSIS CONTROL MODULE GROUND CIRCUIT

1. Turn the ignition switch OFF.
2. Check the continuity between chassis control module harness connector and ground.

Chassis control module		—	Continuity
Connector	Terminal		
E219	6	Ground	Existed
	23		

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace error-detected parts.

7. PERFORM SELF-DIAGNOSIS (2)

1. Connect chassis control module harness connector.
2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BB6-00" detected?

YES >> Replace the chassis control module. Refer to [DAS-713. "Removal and Installation"](#).

NO >> INSPECTION END

C1BB7-00 CONTROL MODULE

DTC Description

INFOID:000000012796479

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BB7-00	CONTROL MODULE (Control module)	When a malfunction is detected in chassis control module.

POSSIBLE CAUSE

- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Active trace control function
- Active lane control function
- LDW function
- LDP function
- Blind spot intervention function
- Infiniti InTuition function
- Digital motion control

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BB7-00" detected?

YES >> Proceed to [DAS-623, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796480

1. PERFORM SELF-DIAGNOSIS

With CONSULT

1. Erase self-diagnosis result for "CHASSIS CONTROL".
2. Turn the ignition switch OFF and wait for 10 seconds or more.
3. Turn the ignition switch ON.
4. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BB7-00" detected?

YES >> Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

NO >> INSPECTION END



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C1BB8-00 CONTROL MODULE

DTC Description

INFOID:000000012796481

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BB8-00	CONTROL MODULE (Control module)	When a malfunction is detected in chassis control module.

POSSIBLE CAUSE

- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Active trace control function
- Active lane control function
- LDW function
- LDP function
- Blind spot intervention function
- Infiniti InTuition function
- Digital motion control function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

④ With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BB8-00" detected?

YES >> Proceed to [DAS-624, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796482

1. PERFORM SELF-DIAGNOSIS

④ With CONSULT

1. Erase self-diagnosis result for "CHASSIS CONTROL".
2. Turn the ignition switch OFF and wait for 10 seconds or more.
3. Turn the ignition switch ON.
4. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BB8-00" detected?

YES >> Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

NO >> INSPECTION END

C1BB9-00 CONTROL MODULE

DTC Description

INFOID:000000012796483

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BB9-00	CONTROL MODULE (Control module)	When a malfunction is detected in chassis control module.

POSSIBLE CAUSE

- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Active trace control function
- Active lane control function
- LDW function
- LDP function
- Blind spot intervention function
- Infiniti InTuition function
- Digital motion control function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BB9-00" detected?

- YES >> Proceed to [DAS-625, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796484

1. PERFORM SELF-DIAGNOSIS

With CONSULT

1. Erase self-diagnosis result for "CHASSIS CONTROL".
2. Turn the ignition switch OFF and wait for 10 seconds or more.
3. Turn the ignition switch ON.
4. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BB9-00" detected?

- YES >> Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).
- NO >> INSPECTION END



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C1BBA-00 CONTROL MODULE

DTC Description

INFOID:000000012796485

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BBA-00	CONTROL MODULE (Control module)	When a malfunction is detected in chassis control module.

POSSIBLE CAUSE

- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Active trace control function
- Active lane control function
- LDW function
- LDP function
- Blind spot intervention function
- Infiniti InTuition function
- Digital motion control function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

④ With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BBA-00" detected?

YES >> Proceed to [DAS-626, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796486

1. PERFORM SELF-DIAGNOSIS

④ With CONSULT

1. Erase self-diagnosis result for "CHASSIS CONTROL".
2. Turn the ignition switch OFF and wait for 10 seconds or more.
3. Turn the ignition switch ON.
4. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BBA-00" detected?

YES >> Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

NO >> INSPECTION END

C1BBB-00 CONTROL MODULE

DTC Description

INFOID:000000012796487

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BBB-00	CONTROL MODULE (Control module)	When a malfunction is detected in chassis control module.

POSSIBLE CAUSE

- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Active trace control function
- Active lane control function
- LDW function
- LDP function
- Blind spot intervention function
- Infiniti InTuition function
- Digital motion control function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

Ⓜ With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BBB-00" detected?

YES >> Proceed to [DAS-627, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796488

1. PERFORM SELF-DIAGNOSIS

Ⓜ With CONSULT

1. Erase self-diagnosis result for "CHASSIS CONTROL".
2. Turn the ignition switch OFF and wait for 10 seconds or more.
3. Turn the ignition switch ON.
4. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BBB-00" detected?

YES >> Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

NO >> INSPECTION END



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C1BBC-00 CONTROL MODULE

DTC Description

INFOID:000000012796489

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BBC-00	CONTROL MODULE (Control module)	When a malfunction is detected in chassis control module.

POSSIBLE CAUSE

- Chassis control module

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

④ With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BBC-00" detected?

YES >> Proceed to [DAS-628, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796490

1. PERFORM SELF-DIAGNOSIS

④ With CONSULT

1. Erase self-diagnosis result for "CHASSIS CONTROL".
2. Turn the ignition switch OFF and wait for 10 seconds or more.
3. Turn the ignition switch ON.
4. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BBC-00" detected?

YES >> Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

NO >> INSPECTION END

C1BBD-00 VARIANT CODING

DTC Description

INFOID:000000012796491

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BBD-00	VARIANT CODING (Variant coding)	When variant coding is incomplete.

POSSIBLE CAUSE

- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Active trace control function
- Active lane control function
- LDW function
- LDP function
- Blind spot intervention function
- Infiniti InTuition function
- Digital motion control function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

Ⓜ With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BBD-00" detected?

- YES >> Proceed to [DAS-629, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796492

1. PERFORM SELF-DIAGNOSIS

Ⓜ With CONSULT

1. Erase self-diagnosis result for "CHASSIS CONTROL".
2. Turn the ignition switch OFF and wait for 10 seconds or more.
3. Turn the ignition switch ON.
4. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BBD-00" detected?

- YES >> Perform configuration. Refer to [DAS-578, "Work Procedure"](#).
- NO >> INSPECTION END



C1BBE-11 DYNAMIC DIGITAL SUSPENSION (FR)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BBE-11 DYNAMIC DIGITAL SUSPENSION (FR)

DTC Description

INFOID:000000013591026

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BBE-11	Front right shock absorber circuit (Front right shock absorber circuit)	Dynamic digital suspension (FR) circuit is short-circuited to ground circuit.

POSSIBLE CAUSE

- Harness or connector
- Dynamic digital suspension (FR)
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Digital motion control function


DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

 With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BBE-11" detected?

YES >> Proceed to [DAS-630, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000013591027

1. CHECK CONNECTOR AND TERMINAL

1. Turn the ignition switch OFF.
2. Disconnect dynamic digital suspension (FR) harness connector.
3. Check the dynamic digital suspension (FR) harness connector for disconnection or looseness.
4. Check the dynamic digital suspension (FR) pin terminals for damage or loose connection with harness connector.
5. Disconnect chassis control module harness connector.
6. Check the chassis control module harness connector for disconnection or looseness.
7. Check the chassis control module pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair/replace harness or connector.

2. CHECK DYNAMIC DIGITAL SUSPENSION (FR) CIRCUIT (1)

Check the continuity between chassis control module harness connector and dynamic digital suspension (FR) harness connector.

C1BBE-11 DYNAMIC DIGITAL SUSPENSION (FR)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Chassis control module		Dynamic digital suspension (FR)		Continuity
Connector	Terminal	Connector	Terminal	
E219	28	E174	1	Existed
	12		2	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair/replace harness or connector.

3.CHECK DYNAMIC DIGITAL SUSPENSION (FR) CIRCUIT (2)

Check the continuity between chassis control module harness connector and ground.

Chassis control module		—	Continuity
Connector	Terminal		
E219	28	Ground	No existed
	12		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair/replace harness or connector.

4.CHECK DYNAMIC DIGITAL SUSPENSION (FR) CIRCUIT (3)

Check the continuity between chassis control module harness connector terminals.

Chassis control module		Continuity
Connector	Terminal	
E219	28 – 4	No existed
	28 – 25	
	12 – 4	
	12 – 25	

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair/replace harness or connector.

5.CHECK DYNAMIC DIGITAL SUSPENSION (FR) CIRCUIT (4)

Check the resistance between dynamic digital suspension (FR) connector terminals.

Dynamic digital suspension (FR)		Resistance
Connector	Terminal	
E174	1 – 2	3.473 – 7.740 Ω

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace the dynamic digital suspension (FR).

- 2WD models: Refer to [FSU-32. "Disassembly and Assembly"](#).
- AWD models: Refer to [FSU-59. "Disassembly and Assembly"](#).

6.PERFORM SELF-DIAGNOSIS

Ⓜ With CONSULT

1. Connect dynamic digital suspension (FR) harness connector.
2. Connect chassis control module harness connector.
3. Erase self-diagnosis result for "CHASSIS CONTROL".
4. Turn the ignition switch OFF and wait for 10 seconds or more.
5. Turn the ignition switch ON.

C1BBE-11 DYNAMIC DIGITAL SUSPENSION (FR)

[CHASSIS CONTROL]

< DTC/CIRCUIT DIAGNOSIS >

6. Perform "All DTC Reading".

Is DTC "C1BBE-11" detected?

YES >> Replace the chassis control module. Refer to [DAS-713. "Removal and Installation"](#).

NO >> INSPECTION END

C1BBE-12 DYNAMIC DIGITAL SUSPENSION (FR)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BBE-12 DYNAMIC DIGITAL SUSPENSION (FR)

DTC Description

INFOID:000000013591028

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BBE-12	Front right shock absorber circuit (Front right shock absorber circuit)	Dynamic digital suspension (FR) circuit is short-circuited to power source circuit.

POSSIBLE CAUSE

- Harness or connector
- Dynamic digital suspension (FR)
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Digital motion control function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

④ With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BBE-12" detected?

YES >> Proceed to [DAS-633, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000013591029

1. CHECK CONNECTOR AND TERMINAL

1. Turn the ignition switch OFF.
2. Disconnect dynamic digital suspension (FR) harness connector.
3. Check the dynamic digital suspension (FR) harness connector for disconnection or looseness.
4. Check the dynamic digital suspension (FR) pin terminals for damage or loose connection with harness connector.
5. Disconnect chassis control module harness connector.
6. Check the chassis control module harness connector for disconnection or looseness.
7. Check the chassis control module pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair/replace harness or connector.

2. CHECK DYNAMIC DIGITAL SUSPENSION (FR) CIRCUIT (1)

Check the continuity between chassis control module harness connector and dynamic digital suspension (FR) harness connector.

C1BBE-12 DYNAMIC DIGITAL SUSPENSION (FR)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Chassis control module		Dynamic digital suspension (FR)		Continuity
Connector	Terminal	Connector	Terminal	
E219	4	E174	1	No existed
			2	
	1			
	2			

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair/replace harness, connector or fuse.

3.CHECK DYNAMIC DIGITAL SUSPENSION (FR) CIRCUIT (2)

Check the continuity between chassis control module harness connector and dynamic digital suspension (FR) harness connector.

Chassis control module		Dynamic digital suspension (FR)		Continuity
Connector	Terminal	Connector	Terminal	
E219	28	E174	1	Existed
	12		2	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair/replace harness or connector.

4.CHECK DYNAMIC DIGITAL SUSPENSION (FR) CIRCUIT (3)

Check the continuity between chassis control module harness connector and ground.

Chassis control module		—	Continuity
Connector	Terminal		
E219	28	Ground	No existed
	12		

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair/replace harness or connector.

5.CHECK DYNAMIC DIGITAL SUSPENSION (FR) CIRCUIT (4)

Check the continuity between chassis control module harness connector terminals.

Chassis control module		Continuity
Connector	Terminal	
E219	28 – 4	No existed
	28 – 25	
	12 – 4	
	12 – 25	

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair/replace harness or connector.

6.CHECK DYNAMIC DIGITAL SUSPENSION (FR) CIRCUIT (5)

Check the resistance between dynamic digital suspension (FR) connector terminals.

C1BBE-12 DYNAMIC DIGITAL SUSPENSION (FR)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Dynamic digital suspension (FR)		Resistance
Connector	Terminal	
E174	1 – 2	3.473 – 7.440 Ω

Is the inspection result normal?

YES >> GO TO 7.

NO >> Replace the dynamic digital suspension (FR).

- 2WD models: Refer to [FSU-32. "Disassembly and Assembly"](#).
- AWD models: Refer to [FSU-59. "Disassembly and Assembly"](#).

7. PERFORM SELF-DIAGNOSIS

Ⓜ With CONSULT

1. Connect dynamic digital suspension (FR) harness connector.
2. Connect chassis control module harness connector.
3. Erase self-diagnosis result for "CHASSIS CONTROL".
4. Turn the ignition switch OFF and wait for 10 seconds or more.
5. Turn the ignition switch ON.
6. Perform "All DTC Reading".

Is DTC "C1BBE-12" detected?

YES >> Replace the chassis control module. Refer to [DAS-713. "Removal and Installation"](#).

NO >> INSPECTION END

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C1BBE-19 DYNAMIC DIGITAL SUSPENSION (FR)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BBE-19 DYNAMIC DIGITAL SUSPENSION (FR)

DTC Description

INFOID:000000013591030

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BBE-19	Front right shock absorber circuit (Front right shock absorber circuit)	Over current flows in dynamic digital suspension (FR) circuit.

POSSIBLE CAUSE

- Harness or connector
- Dynamic digital suspension (FR)
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Digital motion control function


DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

 With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BBE-19" detected?

YES >> Proceed to [DAS-636, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000013591031

1. CHECK CONNECTOR AND TERMINAL

1. Turn the ignition switch OFF.
2. Disconnect dynamic digital suspension (FR) harness connector.
3. Check the dynamic digital suspension (FR) harness connector for disconnection or looseness.
4. Check the dynamic digital suspension (FR) pin terminals for damage or loose connection with harness connector.
5. Disconnect chassis control module harness connector.
6. Check the chassis control module harness connector for disconnection or looseness.
7. Check the chassis control module pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair/replace harness or connector.

2. CHECK DYNAMIC DIGITAL SUSPENSION (FR) CIRCUIT (1)

Check the continuity between chassis control module harness connector and dynamic digital suspension (FR) harness connector.

C1BBE-19 DYNAMIC DIGITAL SUSPENSION (FR)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Chassis control module		Dynamic digital suspension (FR)		Continuity
Connector	Terminal	Connector	Terminal	
E219	28	E174	1	Existed
	12		2	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair/replace harness or connector.

3.CHECK DYNAMIC DIGITAL SUSPENSION (FR) CIRCUIT (2)

Check the continuity between chassis control module harness connector and ground.

Chassis control module		—	Continuity
Connector	Terminal		
E219	28	Ground	No existed
	12		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair/replace harness or connector.

4.CHECK DYNAMIC DIGITAL SUSPENSION (FR) CIRCUIT (3)

Check the continuity between chassis control module harness connector terminals.

Chassis control module		Continuity
Connector	Terminal	
E219	28 – 4	No existed
	28 – 25	
	12 – 4	
	12 – 25	

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair/replace harness or connector.

5.CHECK DYNAMIC DIGITAL SUSPENSION (FR) CIRCUIT (4)

Check the resistance between dynamic digital suspension (FR) connector terminals.

Dynamic digital suspension (FR)		Resistance
Connector	Terminal	
E174	1 – 2	3.473 – 7.440 Ω

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace the dynamic digital suspension (FR).

- 2WD models: Refer to [FSU-32. "Disassembly and Assembly"](#).
- AWD models: Refer to [FSU-59. "Disassembly and Assembly"](#).

6.PERFORM SELF-DIAGNOSIS

Ⓜ With CONSULT

1. Connect dynamic digital suspension (FR) harness connector.
2. Connect chassis control module harness connector.
3. Erase self-diagnosis result for "CHASSIS CONTROL".
4. Turn the ignition switch OFF and wait for 10 seconds or more.
5. Turn the ignition switch ON.

C1BBE-19 DYNAMIC DIGITAL SUSPENSION (FR)

[CHASSIS CONTROL]

< DTC/CIRCUIT DIAGNOSIS >

6. Perform "All DTC Reading".

Is DTC "C1BBE-19" detected?

YES >> Replace the chassis control module. Refer to [DAS-713. "Removal and Installation"](#).

NO >> INSPECTION END

C1BBE-1D DYNAMIC DIGITAL SUSPENSION (FR)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BBE-1D DYNAMIC DIGITAL SUSPENSION (FR)

DTC Description

INFOID:000000013591032

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BBE-1D	Front right shock absorber circuit (Front right shock absorber circuit)	Current in dynamic digital suspension (FR) circuit is outside the range for 2 consecutive seconds or more.

POSSIBLE CAUSE

- Harness or connector
- Dynamic digital suspension (FR)
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Digital motion control function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

 With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BBE-1D" detected?

YES >> Proceed to [DAS-639, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000013591033

1. CHECK CONNECTOR AND TERMINAL

1. Turn the ignition switch OFF.
2. Disconnect dynamic digital suspension (FR) harness connector.
3. Check the dynamic digital suspension (FR) harness connector for disconnection or looseness.
4. Check the dynamic digital suspension (FR) pin terminals for damage or loose connection with harness connector.
5. Disconnect chassis control module harness connector.
6. Check the chassis control module harness connector for disconnection or looseness.
7. Check the chassis control module pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair/replace harness or connector.

2. CHECK DYNAMIC DIGITAL SUSPENSION (FR) CIRCUIT (1)

Check the continuity between chassis control module harness connector and dynamic digital suspension (FR) harness connector.

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C1BBE-1D DYNAMIC DIGITAL SUSPENSION (FR)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Chassis control module		Dynamic digital suspension (FR)		Continuity
Connector	Terminal	Connector	Terminal	
E219	28	E174	1	Existed
	12		2	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair/replace harness or connector.

3.CHECK DYNAMIC DIGITAL SUSPENSION (FR) CIRCUIT (2)

Check the continuity between chassis control module harness connector and ground.

Chassis control module		—	Continuity
Connector	Terminal		
E219	28	Ground	No existed
	12		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair/replace harness or connector.

4.CHECK DYNAMIC DIGITAL SUSPENSION (FR) CIRCUIT (3)

Check the continuity between chassis control module harness connector terminals.

Chassis control module		Continuity
Connector	Terminal	
E219	28 – 4	No existed
	28 – 25	
	12 – 4	
	12 – 25	

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair/replace harness or connector.

5.CHECK DYNAMIC DIGITAL SUSPENSION (FR) CIRCUIT (4)

Check the resistance between dynamic digital suspension (FR) connector terminals.

Dynamic digital suspension (FR)		Resistance
Connector	Terminal	
E174	1 – 2	3.473 – 7.440 Ω

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace the dynamic digital suspension (FR).

- 2WD models: Refer to [FSU-32. "Disassembly and Assembly"](#).
- AWD models: Refer to [FSU-59. "Disassembly and Assembly"](#).

6.PERFORM SELF-DIAGNOSIS

Ⓜ With CONSULT

1. Connect dynamic digital suspension (FR) harness connector.
2. Connect chassis control module harness connector.
3. Erase self-diagnosis result for "CHASSIS CONTROL".
4. Turn the ignition switch OFF and wait for 10 seconds or more.
5. Turn the ignition switch ON.

C1BBE-1D DYNAMIC DIGITAL SUSPENSION (FR)

[CHASSIS CONTROL]

< DTC/CIRCUIT DIAGNOSIS >

6. Perform "All DTC Reading".

Is DTC "C1BBE-1D" detected?

YES >> Replace the chassis control module. Refer to [DAS-713. "Removal and Installation"](#).

NO >> INSPECTION END

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C1BBE-39 DYNAMIC DIGITAL SUSPENSION (FR)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BBE-39 DYNAMIC DIGITAL SUSPENSION (FR)

DTC Description

INFOID:000000013591034

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BBE-39	Front right shock absorber circuit (Front right shock absorber circuit)	Current in dynamic digital suspension (FR) circuit is too low for 0.8 consecutive seconds.

POSSIBLE CAUSE

- Harness or connector
- Dynamic digital suspension (FR)
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Digital motion control function


DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

 With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BBE-39" detected?

YES >> Proceed to [DAS-642, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000013591035

1. CHECK CONNECTOR AND TERMINAL

1. Turn the ignition switch OFF.
2. Disconnect dynamic digital suspension (FR) harness connector.
3. Check the dynamic digital suspension (FR) harness connector for disconnection or looseness.
4. Check the dynamic digital suspension (FR) pin terminals for damage or loose connection with harness connector.
5. Disconnect chassis control module harness connector.
6. Check the chassis control module harness connector for disconnection or looseness.
7. Check the chassis control module pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair/replace harness or connector.

2. CHECK DYNAMIC DIGITAL SUSPENSION (FR) CIRCUIT (1)

Check the continuity between chassis control module harness connector and dynamic digital suspension (FR) harness connector.

C1BBE-39 DYNAMIC DIGITAL SUSPENSION (FR)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Chassis control module		Dynamic digital suspension (FR)		Continuity
Connector	Terminal	Connector	Terminal	
E219	28	E174	1	Existed
	12		2	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair/replace harness or connector.

3.CHECK DYNAMIC DIGITAL SUSPENSION (FR) CIRCUIT (2)

Check the continuity between chassis control module harness connector and ground.

Chassis control module		—	Continuity
Connector	Terminal		
E219	28	Ground	No existed
	12		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair/replace harness or connector.

4.CHECK DYNAMIC DIGITAL SUSPENSION (FR) CIRCUIT (3)

Check the continuity between chassis control module harness connector terminals.

Chassis control module		Continuity
Connector	Terminal	
E219	28 – 4	No existed
	28 – 25	
	12 – 4	
	12 – 25	

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair/replace harness or connector.

5.PERFORM SELF-DIAGNOSIS

④With CONSULT

1. Connect dynamic digital suspension (FR) harness connector.
2. Connect chassis control module harness connector.
3. Erase self-diagnosis result for "CHASSIS CONTROL".
4. Turn the ignition switch OFF and wait for 10 seconds or more.
5. Turn the ignition switch ON.
6. Perform "All DTC Reading".

Is DTC "C1BBE-39" detected?

YES >> Replace the chassis control module. Refer to [DAS-713. "Removal and Installation"](#).

NO >> INSPECTION END

C1BBE-64 DYNAMIC DIGITAL SUSPENSION (FR)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BBE-64 DYNAMIC DIGITAL SUSPENSION (FR)

DTC Description

INFOID:000000013591036

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BBE-64	Front right shock absorber circuit (Front right shock absorber circuit)	Difference exists for 2 consecutive seconds or more between current applied to dynamic digital suspension (FR) and command current to dynamic digital suspension (FR).

POSSIBLE CAUSE

- Harness or connector
- Dynamic digital suspension (FR)
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Digital motion control function

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

 With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BBE-64" detected?

YES >> Proceed to [DAS-644, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000013591037

1.CHECK CONNECTOR AND TERMINAL

1. Turn the ignition switch OFF.
2. Disconnect dynamic digital suspension (FR) harness connector.
3. Check the dynamic digital suspension (FR) harness connector for disconnection or looseness.
4. Check the dynamic digital suspension (FR) pin terminals for damage or loose connection with harness connector.
5. Disconnect chassis control module harness connector.
6. Check the chassis control module harness connector for disconnection or looseness.
7. Check the chassis control module pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair/replace harness or connector.

2.CHECK DYNAMIC DIGITAL SUSPENSION (FR) CIRCUIT (1)

Check the continuity between chassis control module harness connector and dynamic digital suspension (FR) harness connector.

C1BBE-64 DYNAMIC DIGITAL SUSPENSION (FR)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Chassis control module		Dynamic digital suspension (FR)		Continuity
Connector	Terminal	Connector	Terminal	
E219	28	E174	1	Existed
	12		2	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair/replace harness or connector.

3. CHECK DYNAMIC DIGITAL SUSPENSION (FR) CIRCUIT (2)

Check the continuity between chassis control module harness connector and ground.

Chassis control module		—	Continuity
Connector	Terminal		
E219	28	Ground	No existed
	12		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair/replace harness or connector.

4. CHECK DYNAMIC DIGITAL SUSPENSION (FR) CIRCUIT (3)

Check the continuity between chassis control module harness connector terminals.

Chassis control module		Continuity
Connector	Terminal	
E219	28 – 4	No existed
	28 – 25	
	12 – 4	
	12 – 25	

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair/replace harness or connector.

5. CHECK DYNAMIC DIGITAL SUSPENSION (FR) CIRCUIT (4)

1. Check the resistance between dynamic digital suspension (FR) connector terminals.

Dynamic digital suspension (FR)		Resistance
Connector	Terminal	
E174	1 – 2	3.473 – 7.440 Ω

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace the dynamic digital suspension (FR).

- 2WD models: Refer to [FSU-32. "Disassembly and Assembly"](#).
- AWD models: Refer to [FSU-59. "Disassembly and Assembly"](#).

6. PERFORM SELF-DIAGNOSIS

Ⓜ With CONSULT

1. Connect dynamic digital suspension (FR) harness connector.
2. Connect chassis control module harness connector.
3. Erase self-diagnosis result for "CHASSIS CONTROL".
4. Turn the ignition switch OFF and wait for 10 seconds or more.
5. Turn the ignition switch ON.

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C1BBE-64 DYNAMIC DIGITAL SUSPENSION (FR)

[CHASSIS CONTROL]

< DTC/CIRCUIT DIAGNOSIS >

6. Perform "All DTC Reading".

Is DTC "C1BBE-64" detected?

YES >> Replace the chassis control module. Refer to [DAS-713. "Removal and Installation"](#).

NO >> INSPECTION END

C1BBF-11 DYNAMIC DIGITAL SUSPENSION (FL)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BBF-11 DYNAMIC DIGITAL SUSPENSION (FL)

DTC Description

INFOID:0000000013591038

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BBF-11	Front left shock absorber circuit (Front left shock absorber circuit)	Dynamic digital suspension (FL) circuit is short-circuited to ground circuit.

POSSIBLE CAUSE

- Harness or connector
- Dynamic digital suspension (FL)
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Digital motion control function

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2.CHECK DTC DETECTION

④ With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BBF-11" detected?

YES >> Proceed to [DAS-647, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013591039

1.CHECK CONNECTOR AND TERMINAL

1. Turn the ignition switch OFF.
2. Disconnect dynamic digital suspension (FL) harness connector.
3. Check the dynamic digital suspension (FL) harness connector for disconnection or looseness.
4. Check the dynamic digital suspension (FL) pin terminals for damage or loose connection with harness connector.
5. Disconnect chassis control module harness connector.
6. Check the chassis control module harness connector for disconnection or looseness.
7. Check the chassis control module pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair/replace harness or connector.

2.CHECK DYNAMIC DIGITAL SUSPENSION (FL) CIRCUIT (1)

Check the continuity between chassis control module harness connector and dynamic digital suspension (FL) harness connector.

C1BBF-11 DYNAMIC DIGITAL SUSPENSION (FL)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Chassis control module		Dynamic digital suspension (FL)		Continuity
Connector	Terminal	Connector	Terminal	
E219	1	E175	1	Existed
	17		2	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair/replace harness or connector.

3. CHECK DYNAMIC DIGITAL SUSPENSION (FL) CIRCUIT (2)

Check the continuity between chassis control module harness connector and ground.

Chassis control module		—	Continuity
Connector	Terminal		
E219	1	Ground	No existed
	17		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair/replace harness or connector.

4. CHECK DYNAMIC DIGITAL SUSPENSION (FL) CIRCUIT (3)

Check the continuity between chassis control module harness connector terminals.

Chassis control module		Continuity
Connector	Terminal	
E219	1 – 4	No existed
	1 – 25	
	17 – 4	
	17 – 25	

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair/replace harness or connector.

5. CHECK DYNAMIC DIGITAL SUSPENSION (FL) CIRCUIT (4)

Check the resistance between dynamic digital suspension (FL) connector terminals.

Dynamic digital suspension (FL)		Resistance
Connector	Terminal	
E175	1 – 2	3.473 – 7.740 Ω

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace the dynamic digital suspension (FL).

- 2WD models: Refer to [FSU-32. "Disassembly and Assembly"](#).
- AWD models: Refer to [FSU-59. "Disassembly and Assembly"](#).

6. PERFORM SELF-DIAGNOSIS

Ⓟ With CONSULT

1. Connect dynamic digital suspension (FL) harness connector.
2. Connect chassis control module harness connector.
3. Erase self-diagnosis result for "CHASSIS CONTROL".
4. Turn the ignition switch OFF and wait for 10 seconds or more.
5. Turn the ignition switch ON.

C1BBF-11 DYNAMIC DIGITAL SUSPENSION (FL)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

6. Perform "All DTC Reading".

Is DTC "C1BBF-11" detected?

YES >> Replace the chassis control module. Refer to [DAS-713. "Removal and Installation"](#).

NO >> INSPECTION END

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C1BBF-12 DYNAMIC DIGITAL SUSPENSION (FL)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BBF-12 DYNAMIC DIGITAL SUSPENSION (FL)

DTC Description

INFOID:000000013591040

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BBF-12	Front left shock absorber circuit (Front left shock absorber circuit)	Dynamic digital suspension (FL) circuit is short-circuited to power source circuit.

POSSIBLE CAUSE

- Harness or connector
- Dynamic digital suspension (FL)
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Digital motion control function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

 With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BBF-12" detected?

YES >> Proceed to [DAS-650, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000013591041

1. CHECK CONNECTOR AND TERMINAL

1. Turn the ignition switch OFF.
2. Disconnect dynamic digital suspension (FL) harness connector.
3. Check the dynamic digital suspension (FL) harness connector for disconnection or looseness.
4. Check the dynamic digital suspension (FL) pin terminals for damage or loose connection with harness connector.
5. Disconnect chassis control module harness connector.
6. Check the chassis control module harness connector for disconnection or looseness.
7. Check the chassis control module pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair/replace harness or connector.

2. CHECK DYNAMIC DIGITAL SUSPENSION (FL) CIRCUIT (1)

Check the continuity between chassis control module harness connector and dynamic digital suspension (FL) harness connector.

C1BBF-12 DYNAMIC DIGITAL SUSPENSION (FL)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Chassis control module		Dynamic digital suspension (FL)		Continuity
Connector	Terminal	Connector	Terminal	
E219	4	E175	1	No existed
			2	
	25		1	
			2	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair/replace harness, connector or fuse.

3.CHECK DYNAMIC DIGITAL SUSPENSION (FL) CIRCUIT (2)

Check the continuity between chassis control module harness connector and dynamic digital suspension (FL) harness connector.

Chassis control module		Dynamic digital suspension (FL)		Continuity
Connector	Terminal	Connector	Terminal	
E219	1	E175	1	Existed
	17		2	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair/replace harness or connector.

4.CHECK DYNAMIC DIGITAL SUSPENSION (FL) CIRCUIT (3)

Check the continuity between chassis control module harness connector and ground.

Chassis control module		—	Continuity
Connector	Terminal		
E219	1	Ground	No existed
	17		

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair/replace harness or connector.

5.CHECK DYNAMIC DIGITAL SUSPENSION (FL) CIRCUIT (4)

Check the continuity between chassis control module harness connector terminals.

Chassis control module		Continuity
Connector	Terminal	
E219	1 – 4	No existed
	1 – 25	
	17 – 4	
	17 – 25	

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair/replace harness or connector.

6.CHECK DYNAMIC DIGITAL SUSPENSION (FL) CIRCUIT (5)

Check the resistance between dynamic digital suspension (FL) connector terminals.

C1BBF-12 DYNAMIC DIGITAL SUSPENSION (FL)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Dynamic digital suspension (FL)		Resistance
Connector	Terminal	
E175	1 – 2	3.473 – 7.440 Ω

Is the inspection result normal?

YES >> GO TO 7.

NO >> Replace the dynamic digital suspension (FL).

- 2WD models: Refer to [FSU-32, "Disassembly and Assembly"](#).
- AWD models: Refer to [FSU-59, "Disassembly and Assembly"](#).

7. PERFORM SELF-DIAGNOSIS

Ⓜ With CONSULT

1. Connect dynamic digital suspension (FL) harness connector.
2. Connect chassis control module harness connector.
3. Erase self-diagnosis result for "CHASSIS CONTROL".
4. Turn the ignition switch OFF and wait for 10 seconds or more.
5. Turn the ignition switch ON.
6. Perform "All DTC Reading".

Is DTC "C1BBF-12" detected?

YES >> Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

NO >> INSPECTION END

C1BBF-19 DYNAMIC DIGITAL SUSPENSION (FL)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BBF-19 DYNAMIC DIGITAL SUSPENSION (FL)

DTC Description

INFOID:0000000013591042

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BBF-19	Front left shock absorber circuit (Front left shock absorber circuit)	Over current flows in dynamic digital suspension (FL) circuit.

POSSIBLE CAUSE

- Harness or connector
- Dynamic digital suspension (FL)
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Digital motion control function


DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

 With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BBF-19" detected?

YES >> Proceed to [DAS-653, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000013591043

1. CHECK CONNECTOR AND TERMINAL

1. Turn the ignition switch OFF.
2. Disconnect dynamic digital suspension (FL) harness connector.
3. Check the dynamic digital suspension (FL) harness connector for disconnection or looseness.
4. Check the dynamic digital suspension (FL) pin terminals for damage or loose connection with harness connector.
5. Disconnect chassis control module harness connector.
6. Check the chassis control module harness connector for disconnection or looseness.
7. Check the chassis control module pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair/replace harness or connector.

2. CHECK DYNAMIC DIGITAL SUSPENSION (FL) CIRCUIT (1)

Check the continuity between chassis control module harness connector and dynamic digital suspension (FL) harness connector.

C1BBF-19 DYNAMIC DIGITAL SUSPENSION (FL)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Chassis control module		Dynamic digital suspension (FL)		Continuity
Connector	Terminal	Connector	Terminal	
E219	1	E175	1	Existed
	17		2	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair/replace harness or connector.

3. CHECK DYNAMIC DIGITAL SUSPENSION (FL) CIRCUIT (2)

Check the continuity between chassis control module harness connector and ground.

Chassis control module		—	Continuity
Connector	Terminal		
E219	1	Ground	No existed
	17		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair/replace harness or connector.

4. CHECK DYNAMIC DIGITAL SUSPENSION (FL) CIRCUIT (3)

Check the continuity between chassis control module harness connector terminals.

Chassis control module		Continuity
Connector	Terminal	
E219	1 – 4	No existed
	1 – 25	
	17 – 4	
	17 – 25	

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair/replace harness or connector.

5. CHECK DYNAMIC DIGITAL SUSPENSION (FL) CIRCUIT (4)

Check the resistance between dynamic digital suspension (FL) connector terminals.

Dynamic digital suspension (FL)		Resistance
Connector	Terminal	
E175	1 – 2	3.473 – 7.440 Ω

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace the dynamic digital suspension (FL).

- 2WD models: Refer to [FSU-32. "Disassembly and Assembly"](#).
- AWD models: Refer to [FSU-59. "Disassembly and Assembly"](#).

6. PERFORM SELF-DIAGNOSIS

Ⓟ With CONSULT

1. Connect dynamic digital suspension (FL) harness connector.
2. Connect chassis control module harness connector.
3. Erase self-diagnosis result for "CHASSIS CONTROL".
4. Turn the ignition switch OFF and wait for 10 seconds or more.
5. Turn the ignition switch ON.

C1BBF-19 DYNAMIC DIGITAL SUSPENSION (FL)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

6. Perform "All DTC Reading".

Is DTC "C1BBF-19" detected?

YES >> Replace the chassis control module. Refer to [DAS-713. "Removal and Installation"](#).

NO >> INSPECTION END

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C1BBF-1D DYNAMIC DIGITAL SUSPENSION (FL)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BBF-1D DYNAMIC DIGITAL SUSPENSION (FL)

DTC Description

INFOID:000000013591044

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BBF-1D	Front left shock absorber circuit (Front left shock absorber circuit)	Current in dynamic digital suspension (FL) circuit is outside the range for 2 consecutive seconds or more.

POSSIBLE CAUSE

- Harness or connector
- Dynamic digital suspension (FL)
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Digital motion control function


DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

 With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BBF-1D" detected?

YES >> Proceed to [DAS-656, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000013591045

1. CHECK CONNECTOR AND TERMINAL

1. Turn the ignition switch OFF.
2. Disconnect dynamic digital suspension (FL) harness connector.
3. Check the dynamic digital suspension (FL) harness connector for disconnection or looseness.
4. Check the dynamic digital suspension (FL) pin terminals for damage or loose connection with harness connector.
5. Disconnect chassis control module harness connector.
6. Check the chassis control module harness connector for disconnection or looseness.
7. Check the chassis control module pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair/replace harness or connector.

2. CHECK DYNAMIC DIGITAL SUSPENSION (FL) CIRCUIT (1)

Check the continuity between chassis control module harness connector and dynamic digital suspension (FL) harness connector.

C1BBF-1D DYNAMIC DIGITAL SUSPENSION (FL)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Chassis control module		Dynamic digital suspension (FL)		Continuity
Connector	Terminal	Connector	Terminal	
E219	1	E175	1	Existed
	17		2	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair/replace harness or connector.

3.CHECK DYNAMIC DIGITAL SUSPENSION (FL) CIRCUIT (2)

Check the continuity between chassis control module harness connector and ground.

Chassis control module		—	Continuity
Connector	Terminal		
E219	1	Ground	No existed
	17		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair/replace harness or connector.

4.CHECK DYNAMIC DIGITAL SUSPENSION (FL) CIRCUIT (3)

Check the continuity between chassis control module harness connector terminals.

Chassis control module		Continuity
Connector	Terminal	
E219	1 – 4	No existed
	1 – 25	
	17 – 4	
	17 – 25	

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair/replace harness or connector.

5.CHECK DYNAMIC DIGITAL SUSPENSION (FL) CIRCUIT (4)

Check the resistance between dynamic digital suspension (FL) connector terminals.

Dynamic digital suspension (FL)		Resistance
Connector	Terminal	
E175	1 – 2	3.473 – 7.440 Ω

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace the dynamic digital suspension (FL).

- 2WD models: Refer to [FSU-32. "Disassembly and Assembly"](#).
- AWD models: Refer to [FSU-59. "Disassembly and Assembly"](#).

6.PERFORM SELF-DIAGNOSIS

Ⓜ With CONSULT

1. Connect dynamic digital suspension (FL) harness connector.
2. Connect chassis control module harness connector.
3. Erase self-diagnosis result for "CHASSIS CONTROL".
4. Turn the ignition switch OFF and wait for 10 seconds or more.
5. Turn the ignition switch ON.

C1BBF-1D DYNAMIC DIGITAL SUSPENSION (FL)

[CHASSIS CONTROL]

< DTC/CIRCUIT DIAGNOSIS >

6. Perform "All DTC Reading".

Is DTC "C1BBF-1D" detected?

YES >> Replace the chassis control module. Refer to [DAS-713. "Removal and Installation"](#).

NO >> INSPECTION END

C1BBF-39 DYNAMIC DIGITAL SUSPENSION (FL)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BBF-39 DYNAMIC DIGITAL SUSPENSION (FL)

DTC Description

INFOID:000000013591046

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BBF-39	Front left shock absorber circuit (Front left shock absorber circuit)	Current in dynamic digital suspension (FL) circuit is too low for 0.8 consecutive seconds.

POSSIBLE CAUSE

- Harness or connector
- Dynamic digital suspension (FL)
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Digital motion control function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

④ With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BBF-39" detected?

YES >> Proceed to [DAS-659, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000013591047

1. CHECK CONNECTOR AND TERMINAL

1. Turn the ignition switch OFF.
2. Disconnect dynamic digital suspension (FL) harness connector.
3. Check the dynamic digital suspension (FL) harness connector for disconnection or looseness.
4. Check the dynamic digital suspension (FL) pin terminals for damage or loose connection with harness connector.
5. Disconnect chassis control module harness connector.
6. Check the chassis control module harness connector for disconnection or looseness.
7. Check the chassis control module pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair/replace harness or connector.

2. CHECK DYNAMIC DIGITAL SUSPENSION (FL) CIRCUIT (1)

Check the continuity between chassis control module harness connector and dynamic digital suspension (FL) harness connector.

C1BBF-39 DYNAMIC DIGITAL SUSPENSION (FL)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Chassis control module		Dynamic digital suspension (FL)		Continuity
Connector	Terminal	Connector	Terminal	
E219	1	E175	1	Existed
	17		2	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair/replace harness or connector.

3.CHECK DYNAMIC DIGITAL SUSPENSION (FL) CIRCUIT (2)

Check the continuity between chassis control module harness connector and ground.

Chassis control module		—	Continuity
Connector	Terminal		
E219	1	Ground	No existed
	17		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair/replace harness or connector.

4.CHECK DYNAMIC DIGITAL SUSPENSION (FL) CIRCUIT (3)

Check the continuity between chassis control module harness connector terminals.

Chassis control module		Continuity
Connector	Terminal	
E219	1 – 4	No existed
	1 – 25	
	17 – 4	
	17 – 25	

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair/replace harness or connector.

5.PERFORM SELF-DIAGNOSIS

④With CONSULT

1. Connect dynamic digital suspension (FL) harness connector.
2. Connect chassis control module harness connector.
3. Erase self-diagnosis result for "CHASSIS CONTROL".
4. Turn the ignition switch OFF and wait for 10 seconds or more.
5. Turn the ignition switch ON.
6. Perform "All DTC Reading".

Is DTC "C1BBF-39" detected?

YES >> Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

NO >> INSPECTION END

C1BBF-64 DYNAMIC DIGITAL SUSPENSION (FL)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BBF-64 DYNAMIC DIGITAL SUSPENSION (FL)

DTC Description

INFOID:000000013591048

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BBF-64	Front left shock absorber circuit (Front left shock absorber circuit)	Difference exists for 2 consecutive seconds or more between current applied to dynamic digital suspension (FL) and command current to dynamic digital suspension (FL).

POSSIBLE CAUSE

- Harness or connector
- Dynamic digital suspension (FL)
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Digital motion control function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

 With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BBF-64" detected?

YES >> Proceed to [DAS-661, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000013591049

1. CHECK CONNECTOR AND TERMINAL

1. Turn the ignition switch OFF.
2. Disconnect dynamic digital suspension (FL) harness connector.
3. Check the dynamic digital suspension (FL) harness connector for disconnection or looseness.
4. Check the dynamic digital suspension (FL) pin terminals for damage or loose connection with harness connector.
5. Disconnect chassis control module harness connector.
6. Check the chassis control module harness connector for disconnection or looseness.
7. Check the chassis control module pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair/replace harness or connector.

2. CHECK DYNAMIC DIGITAL SUSPENSION (FL) CIRCUIT (1)

Check the continuity between chassis control module harness connector and dynamic digital suspension (FL) harness connector.

C1BBF-64 DYNAMIC DIGITAL SUSPENSION (FL)

[CHASSIS CONTROL]

< DTC/CIRCUIT DIAGNOSIS >

Chassis control module		Dynamic digital suspension (FL)		Continuity
Connector	Terminal	Connector	Terminal	
E219	1	E175	1	Existed
	17		2	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair/replace harness or connector.

3. CHECK DYNAMIC DIGITAL SUSPENSION (FL) CIRCUIT (2)

Check the continuity between chassis control module harness connector and ground.

Chassis control module		—	Continuity
Connector	Terminal		
E219	1	Ground	No existed
	17		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair/replace harness or connector.

4. CHECK DYNAMIC DIGITAL SUSPENSION (FL) CIRCUIT (3)

Check the continuity between chassis control module harness connector terminals.

Chassis control module		Continuity
Connector	Terminal	
E219	1 – 4	No existed
	1 – 25	
	17 – 4	
	17 – 25	

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair/replace harness or connector.

5. CHECK DYNAMIC DIGITAL SUSPENSION (FL) CIRCUIT (4)

1. Check the resistance between dynamic digital suspension (FL) connector terminals.

Dynamic digital suspension (FL)		Resistance
Connector	Terminal	
E175	1 – 2	3.473 – 7.440 Ω

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace the dynamic digital suspension (FL).

- 2WD models: Refer to [FSU-32. "Disassembly and Assembly"](#).
- AWD models: Refer to [FSU-59. "Disassembly and Assembly"](#).

6. PERFORM SELF-DIAGNOSIS

Ⓜ With CONSULT

1. Connect dynamic digital suspension (FL) harness connector.
2. Connect chassis control module harness connector.
3. Erase self-diagnosis result for "CHASSIS CONTROL".
4. Turn the ignition switch OFF and wait for 10 seconds or more.
5. Turn the ignition switch ON.

C1BBF-64 DYNAMIC DIGITAL SUSPENSION (FL)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

6. Perform "All DTC Reading".

Is DTC "C1BBF-64" detected?

YES >> Replace the chassis control module. Refer to [DAS-713. "Removal and Installation"](#).

NO >> INSPECTION END

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C1BC0-00 FRONT RIGHT WHEEL SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BC0-00 FRONT RIGHT WHEEL SENSOR

DTC Description

INFOID:000000012796493

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BC0-00	FR WHEEL SENSOR (Front right wheel sensor)	When a malfunction is detected in front right wheel sensor system.

POSSIBLE CAUSE

- Front right wheel sensor
- Front right sensor rotor
- ABS actuator and electric unit (control unit)
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Active trace control function
- Active lane control function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

④ With CONSULT

1. Start the engine.
2. Drive the vehicle at approx. 30 km/h (19 MPH) or more for approx. 1 minute.
3. Stop the vehicle.
4. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

5. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BC0-00" detected?

- YES >> Proceed to [DAS-664, "Diagnosis Procedure"](#).
NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796494

1. CHECK FRONT RH WHEEL SENSOR SYSTEM

④ With CONSULT

Perform self-diagnosis for "ABS".

Is DTC detected?

- YES >> Check the DTC. Refer to [BRC-72, "DTC Index"](#).
NO >> GO TO 2.

2. PERFORM SELF-DIAGNOSIS

④ With CONSULT

1. Erase self-diagnosis result for "CHASSIS CONTROL".
2. Turn the ignition switch OFF and wait for 10 seconds or more.
3. Turn the ignition switch ON.
4. Perform "All DTC Reading".

C1BC0-00 FRONT RIGHT WHEEL SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Is DTC "C1BC0-00", "U1000-00" or other DTC detected?

YES ("C1BC0-00")>>Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

YES ("U1000-00")>>Refer to [LAN-41, "Trouble Diagnosis Flow Chart"](#).

YES (other DTC)>>Check the DTC.

NO >> INSPECTION END

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C1BC1-00 FRONT LEFT WHEEL SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BC1-00 FRONT LEFT WHEEL SENSOR

DTC Description

INFOID:000000012796495

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BC1-00	FL WHEEL SENSOR (Front left wheel sensor)	When a malfunction is detected in front left wheel sensor system.

POSSIBLE CAUSE

- Front left wheel sensor
- Front left sensor rotor
- ABS actuator and electric unit (control unit)
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Active trace control function
- Active lane control function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

④ With CONSULT

1. Start the engine.
2. Drive the vehicle at approx. 30 km/h (19 MPH) or more for approx. 1 minute.
3. Stop the vehicle.
4. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

5. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BC1-00" detected?

- YES >> Proceed to [DAS-666, "Diagnosis Procedure"](#).
NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796495

1. CHECK FRONT LH WHEEL SENSOR SYSTEM

④ With CONSULT

Perform self-diagnosis for "ABS".

Is DTC detected?

- YES >> Check the DTC. Refer to [BRC-72, "DTC Index"](#).
NO >> GO TO 2.

2. PERFORM SELF-DIAGNOSIS

④ With CONSULT

1. Erase self-diagnosis result for "CHASSIS CONTROL".
2. Turn the ignition switch OFF and wait for 10 seconds or more.
3. Turn the ignition switch ON.
4. Perform "All DTC Reading".

C1BC1-00 FRONT LEFT WHEEL SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Is DTC "C1BC1-00", "U1000-00" or other DTC detected?

YES ("C1BC1-00")>>Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

YES ("U1000-00")>>Refer to [LAN-41, "Trouble Diagnosis Flow Chart"](#).

YES (other DTC)>>Check the DTC.

NO >> INSPECTION END

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C1BC7-11 DYNAMIC DIGITAL SUSPENSION (RR)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BC7-11 DYNAMIC DIGITAL SUSPENSION (RR)

DTC Description

INFOID:000000013591050

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BC7-11	Rear right shock absorber circuit (Rear right shock absorber circuit)	Dynamic digital suspension (RR) circuit is short-circuited to ground circuit.

POSSIBLE CAUSE

- Harness or connector
- Dynamic digital suspension (RR)
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Digital motion control function


DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

 With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BC7-11" detected?

YES >> Proceed to [DAS-668, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000013591051

1. CHECK CONNECTOR AND TERMINAL

1. Turn the ignition switch OFF.
2. Disconnect dynamic digital suspension (RR) harness connector.
3. Check the dynamic digital suspension (RR) harness connector for disconnection or looseness.
4. Check the dynamic digital suspension (RR) pin terminals for damage or loose connection with harness connector.
5. Disconnect chassis control module harness connector.
6. Check the chassis control module harness connector for disconnection or looseness.
7. Check the chassis control module pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair/replace harness or connector.

2. CHECK DYNAMIC DIGITAL SUSPENSION (RR) CIRCUIT (1)

Check the continuity between chassis control module harness connector and dynamic digital suspension (RR) harness connector.

C1BC7-11 DYNAMIC DIGITAL SUSPENSION (RR)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Chassis control module		Dynamic digital suspension (RR)		Continuity
Connector	Terminal	Connector	Terminal	
E219	15	B119	1	Existed
	3		2	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair/replace harness or connector.

3.CHECK DYNAMIC DIGITAL SUSPENSION (RR) CIRCUIT (2)

Check the continuity between chassis control module harness connector and ground.

Chassis control module		—	Continuity
Connector	Terminal		
E219	15	Ground	No existed
	3		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair/replace harness or connector.

4.CHECK DYNAMIC DIGITAL SUSPENSION (RR) CIRCUIT (3)

Check the continuity between chassis control module harness connector terminals.

Chassis control module		Continuity
Connector	Terminal	
E219	15 – 4	No existed
	15 – 25	
	3 – 4	
	3 – 25	

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair/replace harness or connector.

5.CHECK DYNAMIC DIGITAL SUSPENSION (RR) CIRCUIT (4)

Check the resistance between dynamic digital suspension (RR) connector terminals.

Dynamic digital suspension (RR)		Resistance
Connector	Terminal	
B119	1 – 2	3.477 – 7.448 Ω

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace the dynamic digital suspension (RR). Refer to [RSU-9, "Disassembly and Assembly"](#).

6.PERFORM SELF-DIAGNOSIS

Ⓜ With CONSULT

1. Connect dynamic digital suspension (RR) harness connector.
2. Connect chassis control module harness connector.
3. Erase self-diagnosis result for "CHASSIS CONTROL".
4. Turn the ignition switch OFF and wait for 10 seconds or more.
5. Turn the ignition switch ON.
6. Perform "All DTC Reading".

Is DTC "C1BC7-11" detected?

C1BC7-11 DYNAMIC DIGITAL SUSPENSION (RR)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

YES >> Replace the chassis control module. Refer to [DAS-713. "Removal and Installation"](#).
NO >> INSPECTION END

C1BC7-12 DYNAMIC DIGITAL SUSPENSION (RR)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BC7-12 DYNAMIC DIGITAL SUSPENSION (RR)

DTC Description

INFOID:000000013591052

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BC7-12	Rear right shock absorber circuit (Rear right shock absorber circuit)	Dynamic digital suspension (RR) circuit is short-circuited to power source circuit.

POSSIBLE CAUSE

- Harness or connector
- Dynamic digital suspension (RR)
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Digital motion control function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

④ With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BC7-12" detected?

YES >> Proceed to [DAS-671, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000013591053

1. CHECK CONNECTOR AND TERMINAL

1. Turn the ignition switch OFF.
2. Disconnect dynamic digital suspension (RR) harness connector.
3. Check the dynamic digital suspension (RR) harness connector for disconnection or looseness.
4. Check the dynamic digital suspension (RR) pin terminals for damage or loose connection with harness connector.
5. Disconnect chassis control module harness connector.
6. Check the chassis control module harness connector for disconnection or looseness.
7. Check the chassis control module pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair/replace harness or connector.

2. CHECK DYNAMIC DIGITAL SUSPENSION (RR) CIRCUIT (1)

Check the continuity between chassis control module harness connector and dynamic digital suspension (RR) harness connector.

C1BC7-12 DYNAMIC DIGITAL SUSPENSION (RR)

[CHASSIS CONTROL]

< DTC/CIRCUIT DIAGNOSIS >

Chassis control module		Dynamic digital suspension (RR)		Continuity
Connector	Terminal	Connector	Terminal	
E219	4	B119	1	No existed
			2	
	1			
	2			

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair/replace harness, connector or fuse.

3.CHECK DYNAMIC DIGITAL SUSPENSION (RR) CIRCUIT (2)

Check the continuity between chassis control module harness connector and dynamic digital suspension (RR) harness connector.

Chassis control module		Dynamic digital suspension (RR)		Continuity
Connector	Terminal	Connector	Terminal	
E219	15	B119	1	Existed
	3		2	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair/replace harness or connector.

4.CHECK DYNAMIC DIGITAL SUSPENSION (RR) CIRCUIT (3)

Check the continuity between chassis control module harness connector and ground.

Chassis control module		—	Continuity
Connector	Terminal		
E219	15	Ground	No existed
	3		

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair/replace harness or connector.

5.CHECK DYNAMIC DIGITAL SUSPENSION (RR) CIRCUIT (4)

Check the continuity between chassis control module harness connector terminals.

Chassis control module		Continuity
Connector	Terminal	
E219	15 – 4	No existed
	15 – 25	
	3 – 4	
	3 – 25	

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair/replace harness or connector.

6.CHECK DYNAMIC DIGITAL SUSPENSION (RR) CIRCUIT (5)

Check the resistance between dynamic digital suspension (RR) connector terminals.

C1BC7-12 DYNAMIC DIGITAL SUSPENSION (RR)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Dynamic digital suspension (RR)		Resistance
Connector	Terminal	
B119	1 - 2	3.477 - 7.448 Ω

Is the inspection result normal?

YES >> GO TO 7.

NO >> Replace the dynamic digital suspension (RR). Refer to [RSU-9. "Disassembly and Assembly"](#)

7.PERFORM SELF-DIAGNOSIS

ⓂWith CONSULT

1. Connect dynamic digital suspension (RR) harness connector.
2. Connect chassis control module harness connector.
3. Erase self-diagnosis result for "CHASSIS CONTROL".
4. Turn the ignition switch OFF and wait for 10 seconds or more.
5. Turn the ignition switch ON.
6. Perform "All DTC Reading".

Is DTC "C1BC7-12" detected?

YES >> Replace the chassis control module. Refer to [DAS-713. "Removal and Installation"](#).

NO >> INSPECTION END

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C1BC7-19 DYNAMIC DIGITAL SUSPENSION (RR)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BC7-19 DYNAMIC DIGITAL SUSPENSION (RR)

DTC Description

INFOID:000000013591054

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BC7-19	Rear right shock absorber circuit (Rear right shock absorber circuit)	Over current flows in dynamic digital suspension (RR) circuit.

POSSIBLE CAUSE

- Harness or connector
- Dynamic digital suspension (RR)
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Digital motion control function


DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

 With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BC7-19" detected?

YES >> Proceed to [DAS-674, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000013591055

1. CHECK CONNECTOR AND TERMINAL

1. Turn the ignition switch OFF.
2. Disconnect dynamic digital suspension (RR) harness connector.
3. Check the dynamic digital suspension (RR) harness connector for disconnection or looseness.
4. Check the dynamic digital suspension (RR) pin terminals for damage or loose connection with harness connector.
5. Disconnect chassis control module harness connector.
6. Check the chassis control module harness connector for disconnection or looseness.
7. Check the chassis control module pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair/replace harness or connector.

2. CHECK DYNAMIC DIGITAL SUSPENSION (RR) CIRCUIT (1)

Check the continuity between chassis control module harness connector and dynamic digital suspension (RR) harness connector.

C1BC7-19 DYNAMIC DIGITAL SUSPENSION (RR)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Chassis control module		Dynamic digital suspension (RR)		Continuity
Connector	Terminal	Connector	Terminal	
E219	15	B119	1	Existed
	3		2	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair/replace harness or connector.

3.CHECK DYNAMIC DIGITAL SUSPENSION (RR) CIRCUIT (2)

Check the continuity between chassis control module harness connector and ground.

Chassis control module		—	Continuity
Connector	Terminal		
E219	15	Ground	No existed
	3		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair/replace harness or connector.

4.CHECK DYNAMIC DIGITAL SUSPENSION (RR) CIRCUIT (3)

Check the continuity between chassis control module harness connector terminals.

Chassis control module		Continuity
Connector	Terminal	
E219	15 – 4	No existed
	15 – 25	
	3 – 4	
	3 – 25	

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair/replace harness or connector.

5.CHECK DYNAMIC DIGITAL SUSPENSION (RR) CIRCUIT (4)

Check the resistance between dynamic digital suspension (RR) connector terminals.

Dynamic digital suspension (RR)		Resistance
Connector	Terminal	
B119	1 – 2	3.477 – 7.448 Ω

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace the dynamic digital suspension (RR). Refer to [RSU-9, "Disassembly and Assembly"](#).

6.PERFORM SELF-DIAGNOSIS

Ⓜ With CONSULT

1. Connect dynamic digital suspension (RR) harness connector.
2. Connect chassis control module harness connector.
3. Erase self-diagnosis result for "CHASSIS CONTROL".
4. Turn the ignition switch OFF and wait for 10 seconds or more.
5. Turn the ignition switch ON.
6. Perform "All DTC Reading".

Is DTC "C1BC7-19" detected?

C1BC7-19 DYNAMIC DIGITAL SUSPENSION (RR)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

YES >> Replace the chassis control module. Refer to [DAS-713. "Removal and Installation"](#).
NO >> INSPECTION END

C1BC7-1D DYNAMIC DIGITAL SUSPENSION (RR)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BC7-1D DYNAMIC DIGITAL SUSPENSION (RR)

DTC Description

INFOID:000000013591056

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BC7-1D	Rear right shock absorber circuit (Rear right shock absorber circuit)	Current in dynamic digital suspension (RR) circuit is outside the range for 2 consecutive seconds or more.

POSSIBLE CAUSE

- Harness or connector
- Dynamic digital suspension (RR)
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Digital motion control function


DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

 With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BC7-1D" detected?

YES >> Proceed to [DAS-677, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000013591057

1. CHECK CONNECTOR AND TERMINAL

1. Turn the ignition switch OFF.
2. Disconnect dynamic digital suspension (RR) harness connector.
3. Check the dynamic digital suspension (RR) harness connector for disconnection or looseness.
4. Check the dynamic digital suspension (RR) pin terminals for damage or loose connection with harness connector.
5. Disconnect chassis control module harness connector.
6. Check the chassis control module harness connector for disconnection or looseness.
7. Check the chassis control module pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair/replace harness or connector.

2. CHECK DYNAMIC DIGITAL SUSPENSION (RR) CIRCUIT (1)

Check the continuity between chassis control module harness connector and dynamic digital suspension (RR) harness connector.

C1BC7-1D DYNAMIC DIGITAL SUSPENSION (RR)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Chassis control module		Dynamic digital suspension (RR)		Continuity
Connector	Terminal	Connector	Terminal	
E219	15	B119	1	Existed
	3		2	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair/replace harness or connector.

3.CHECK DYNAMIC DIGITAL SUSPENSION (RR) CIRCUIT (2)

Check the continuity between chassis control module harness connector and ground.

Chassis control module		—	Continuity
Connector	Terminal		
E219	15	Ground	No existed
	3		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair/replace harness or connector.

4.CHECK DYNAMIC DIGITAL SUSPENSION (RR) CIRCUIT (3)

Check the continuity between chassis control module harness connector terminals.

Chassis control module		Continuity
Connector	Terminal	
E219	15 – 4	No existed
	15 – 25	
	3 – 4	
	3 – 25	

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair/replace harness or connector.

5.CHECK DYNAMIC DIGITAL SUSPENSION (RR) CIRCUIT (4)

Check the resistance between dynamic digital suspension (RR) connector terminals.

Dynamic digital suspension (RR)		Resistance
Connector	Terminal	
B119	1 – 2	3.477 – 7.448 Ω

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace the dynamic digital suspension (RR). Refer to [RSU-9, "Disassembly and Assembly"](#).

6.PERFORM SELF-DIAGNOSIS

Ⓜ With CONSULT

1. Connect dynamic digital suspension (RR) harness connector.
2. Connect chassis control module harness connector.
3. Erase self-diagnosis result for "CHASSIS CONTROL".
4. Turn the ignition switch OFF and wait for 10 seconds or more.
5. Turn the ignition switch ON.
6. Perform "All DTC Reading".

Is DTC "C1BC7-1D" detected?

C1BC7-1D DYNAMIC DIGITAL SUSPENSION (RR)

[CHASSIS CONTROL]

< DTC/CIRCUIT DIAGNOSIS >

YES >> Replace the chassis control module. Refer to [DAS-713. "Removal and Installation"](#).
NO >> INSPECTION END

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C1BC7-39 DYNAMIC DIGITAL SUSPENSION (RR)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BC7-39 DYNAMIC DIGITAL SUSPENSION (RR)

DTC Description

INFOID:000000013591058

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BC7-39	Rear right shock absorber circuit (Rear right shock absorber circuit)	Current in dynamic digital suspension (RR) circuit is too low for 0.8 consecutive seconds.

POSSIBLE CAUSE

- Harness or connector
- Dynamic digital suspension (RR)
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Digital motion control function


DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

 With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BC7-39" detected?

YES >> Proceed to [DAS-680, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000013591059

1. CHECK CONNECTOR AND TERMINAL

1. Turn the ignition switch OFF.
2. Disconnect dynamic digital suspension (RR) harness connector.
3. Check the dynamic digital suspension (RR) harness connector for disconnection or looseness.
4. Check the dynamic digital suspension (RR) pin terminals for damage or loose connection with harness connector.
5. Disconnect chassis control module harness connector.
6. Check the chassis control module harness connector for disconnection or looseness.
7. Check the chassis control module pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair/replace harness or connector.

2. CHECK DYNAMIC DIGITAL SUSPENSION (RR) CIRCUIT (1)

Check the continuity between chassis control module harness connector and dynamic digital suspension (RR) harness connector.

C1BC7-39 DYNAMIC DIGITAL SUSPENSION (RR)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Chassis control module		Dynamic digital suspension (RR)		Continuity
Connector	Terminal	Connector	Terminal	
E219	15	B119	1	Existed
	3		2	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair/replace harness or connector.

3.CHECK DYNAMIC DIGITAL SUSPENSION (RR) CIRCUIT (2)

Check the continuity between chassis control module harness connector and ground.

Chassis control module		—	Continuity
Connector	Terminal		
E219	15	Ground	No existed
	3		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair/replace harness or connector.

4.CHECK DYNAMIC DIGITAL SUSPENSION (RR) CIRCUIT (3)

Check the continuity between chassis control module harness connector terminals.

Chassis control module		Continuity
Connector	Terminal	
E219	15 – 4	No existed
	15 – 25	
	3 – 4	
	3 – 25	

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair/replace harness or connector.

5.PERFORM SELF-DIAGNOSIS

④ With CONSULT

1. Connect dynamic digital suspension (RR) harness connector.
2. Connect chassis control module harness connector.
3. Erase self-diagnosis result for "CHASSIS CONTROL".
4. Turn the ignition switch OFF and wait for 10 seconds or more.
5. Turn the ignition switch ON.
6. Perform "All DTC Reading".

Is DTC "C1BC7-39" detected?

YES >> Replace the chassis control module. Refer to [DAS-713. "Removal and Installation"](#).

NO >> INSPECTION END

C1BC7-64 DYNAMIC DIGITAL SUSPENSION (RR)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BC7-64 DYNAMIC DIGITAL SUSPENSION (RR)

DTC Description

INFOID:000000013591060

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BC7-64	Rear right shock absorber circuit (Rear right shock absorber circuit)	Difference exists for 2 consecutive seconds or more between current applied to dynamic digital suspension (RR) and command current to dynamic digital suspension (RR).

POSSIBLE CAUSE

- Harness or connector
- Dynamic digital suspension (RR)
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Digital motion control function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

 With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BC7-64" detected?

YES >> Proceed to [DAS-682, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000013591061

1. CHECK CONNECTOR AND TERMINAL

1. Turn the ignition switch OFF.
2. Disconnect dynamic digital suspension (RR) harness connector.
3. Check the dynamic digital suspension (RR) harness connector for disconnection or looseness.
4. Check the dynamic digital suspension (RR) pin terminals for damage or loose connection with harness connector.
5. Disconnect chassis control module harness connector.
6. Check the chassis control module harness connector for disconnection or looseness.
7. Check the chassis control module pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair/replace harness or connector.

2. CHECK DYNAMIC DIGITAL SUSPENSION (RR) CIRCUIT (1)

Check the continuity between chassis control module harness connector and dynamic digital suspension (RR) harness connector.

C1BC7-64 DYNAMIC DIGITAL SUSPENSION (RR)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Chassis control module		Dynamic digital suspension (RR)		Continuity
Connector	Terminal	Connector	Terminal	
E219	15	B119	1	Existed
	3		2	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair/replace harness or connector.

3.CHECK DYNAMIC DIGITAL SUSPENSION (RR) CIRCUIT (2)

Check the continuity between chassis control module harness connector and ground.

Chassis control module		—	Continuity
Connector	Terminal		
E219	15	Ground	No existed
	3		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair/replace harness or connector.

4.CHECK DYNAMIC DIGITAL SUSPENSION (RR) CIRCUIT (3)

Check the continuity between chassis control module harness connector terminals.

Chassis control module		Continuity
Connector	Terminal	
E219	15 – 4	No existed
	15 – 25	
	3 – 4	
	3 – 25	

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair/replace harness or connector.

5.CHECK DYNAMIC DIGITAL SUSPENSION (RR) CIRCUIT (4)

1. Check the resistance between dynamic digital suspension (RR) connector terminals.

Dynamic digital suspension (RR)		Resistance
Connector	Terminal	
B119	1 – 2	3.477 – 7.448 Ω

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace the dynamic digital suspension (RR). Refer to [RSU-9, "Disassembly and Assembly"](#).

6.PERFORM SELF-DIAGNOSIS

Ⓜ With CONSULT

1. Connect dynamic digital suspension (RR) harness connector.
2. Connect chassis control module harness connector.
3. Erase self-diagnosis result for "CHASSIS CONTROL".
4. Turn the ignition switch OFF and wait for 10 seconds or more.
5. Turn the ignition switch ON.
6. Perform "All DTC Reading".

Is DTC "C1BC7-64" detected?

C1BC7-64 DYNAMIC DIGITAL SUSPENSION (RR)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

YES >> Replace the chassis control module. Refer to [DAS-713. "Removal and Installation"](#).
NO >> INSPECTION END

C1BC8-11 DYNAMIC DIGITAL SUSPENSION (RL)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BC8-11 DYNAMIC DIGITAL SUSPENSION (RL)

DTC Description

INFOID:000000013591062

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BC8-11	Rear left shock absorber circuit (Rear Left shock absorber circuit)	Dynamic digital suspension (RL) circuit is short-circuited to ground circuit.

POSSIBLE CAUSE

- Harness or connector
- Dynamic digital suspension (RL)
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Digital motion control function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

④ With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BC8-11" detected?

YES >> Proceed to [DAS-685, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000013591063

1. CHECK CONNECTOR AND TERMINAL

1. Turn the ignition switch OFF.
2. Disconnect dynamic digital suspension (RL) harness connector.
3. Check the dynamic digital suspension (RL) harness connector for disconnection or looseness.
4. Check the dynamic digital suspension (RL) pin terminals for damage or loose connection with harness connector.
5. Disconnect chassis control module harness connector.
6. Check the chassis control module harness connector for disconnection or looseness.
7. Check the chassis control module pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair/replace harness or connector.

2. CHECK DYNAMIC DIGITAL SUSPENSION (RL) CIRCUIT (1)

Check the continuity between chassis control module harness connector and dynamic digital suspension (RL) harness connector.

C1BC8-11 DYNAMIC DIGITAL SUSPENSION (RL)

[CHASSIS CONTROL]

< DTC/CIRCUIT DIAGNOSIS >

Chassis control module		Dynamic digital suspension (RL)		Continuity
Connector	Terminal	Connector	Terminal	
E219	14	C9	1	Existed
	26		2	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair/replace harness or connector.

3.CHECK DYNAMIC DIGITAL SUSPENSION (RL) CIRCUIT (2)

Check the continuity between chassis control module harness connector and ground.

Chassis control module		—	Continuity
Connector	Terminal		
E219	14	Ground	No existed
	26		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair/replace harness or connector.

4.CHECK DYNAMIC DIGITAL SUSPENSION (RL) CIRCUIT (3)

Check the continuity between chassis control module harness connector terminals.

Chassis control module		Continuity
Connector	Terminal	
E219	14 – 4	No existed
	14 – 25	
	26 – 4	
	26 – 25	

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair/replace harness or connector.

5.CHECK DYNAMIC DIGITAL SUSPENSION (RL) CIRCUIT (4)

Check the resistance between dynamic digital suspension (RL) connector terminals.

Dynamic digital suspension (RL)		Resistance
Connector	Terminal	
C9	1 – 2	3.477 – 7.448 Ω

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace the dynamic digital suspension (RL). Refer to [RSU-9, "Disassembly and Assembly"](#).

6.PERFORM SELF-DIAGNOSIS

ⓘ With CONSULT

1. Connect dynamic digital suspension (RL) harness connector.
2. Connect chassis control module harness connector.
3. Erase self-diagnosis result for "CHASSIS CONTROL".
4. Turn the ignition switch OFF and wait for 10 seconds or more.
5. Turn the ignition switch ON.
6. Perform "All DTC Reading".

Is DTC "C1BC8-11" detected?

C1BC8-11 DYNAMIC DIGITAL SUSPENSION (RL)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

YES >> Replace the chassis control module. Refer to [DAS-713. "Removal and Installation"](#).
NO >> INSPECTION END

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C1BC8-12 DYNAMIC DIGITAL SUSPENSION (RL)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BC8-12 DYNAMIC DIGITAL SUSPENSION (RL)

DTC Description

INFOID:000000013591064

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BC8-12	Rear left shock absorber circuit (Rear left shock absorber circuit)	Dynamic digital suspension (RL) circuit is short-circuited to power source circuit.

POSSIBLE CAUSE

- Harness or connector
- Dynamic digital suspension (RL)
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Digital motion control function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

 With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BC8-12" detected?

YES >> Proceed to [DAS-688, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000013591065

1. CHECK CONNECTOR AND TERMINAL

1. Turn the ignition switch OFF.
2. Disconnect dynamic digital suspension (RL) harness connector.
3. Check the dynamic digital suspension (RL) harness connector for disconnection or looseness.
4. Check the dynamic digital suspension (RL) pin terminals for damage or loose connection with harness connector.
5. Disconnect chassis control module harness connector.
6. Check the chassis control module harness connector for disconnection or looseness.
7. Check the chassis control module pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair/replace harness or connector.

2. CHECK DYNAMIC DIGITAL SUSPENSION (RL) CIRCUIT (1)

Check the continuity between chassis control module harness connector and dynamic digital suspension (RL) harness connector.

C1BC8-12 DYNAMIC DIGITAL SUSPENSION (RL)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Chassis control module		Dynamic digital suspension (RL)		Continuity
Connector	Terminal	Connector	Terminal	
E219	4	C9	1	No existed
			2	
	25		1	
	2			

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair/replace harness, connector or fuse.

3.CHECK DYNAMIC DIGITAL SUSPENSION (RL) CIRCUIT (2)

Check the continuity between chassis control module harness connector and dynamic digital suspension (RL) harness connector.

Chassis control module		Dynamic digital suspension (RL)		Continuity
Connector	Terminal	Connector	Terminal	
E219	14	C9	1	Existed
	26		2	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair/replace harness or connector.

4.CHECK DYNAMIC DIGITAL SUSPENSION (RL) CIRCUIT (3)

Check the continuity between chassis control module harness connector and ground.

Chassis control module		—	Continuity
Connector	Terminal		
E219	14	Ground	No existed
	26		

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair/replace harness or connector.

5.CHECK DYNAMIC DIGITAL SUSPENSION (RL) CIRCUIT (4)

Check the continuity between chassis control module harness connector terminals.

Chassis control module		Continuity
Connector	Terminal	
E219	14 – 4	No existed
	14 – 25	
	26 – 4	
	26 – 25	

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair/replace harness or connector.

6.CHECK DYNAMIC DIGITAL SUSPENSION (RL) CIRCUIT (5)

Check the resistance between dynamic digital suspension (RL) connector terminals.

C1BC8-12 DYNAMIC DIGITAL SUSPENSION (RL)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Dynamic digital suspension (RL)		Resistance
Connector	Terminal	
C9	1 – 2	3.477 – 7.448 Ω

Is the inspection result normal?

YES >> GO TO 7.

NO >> Replace the dynamic digital suspension (RL). Refer to [RSU-9. "Disassembly and Assembly"](#).

7.PERFORM SELF-DIAGNOSIS

 With CONSULT

1. Connect dynamic digital suspension (RL) harness connector.
2. Connect chassis control module harness connector.
3. Erase self-diagnosis result for "CHASSIS CONTROL".
4. Turn the ignition switch OFF and wait for 10 seconds or more.
5. Turn the ignition switch ON.
6. Perform "All DTC Reading".

Is DTC "C1BC8-12" detected?

YES >> Replace the chassis control module. Refer to [DAS-713. "Removal and Installation"](#).

NO >> INSPECTION END

C1BC8-19 DYNAMIC DIGITAL SUSPENSION (RL)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BC8-19 DYNAMIC DIGITAL SUSPENSION (RL)

DTC Description

INFOID:000000013591066

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BC8-19	Rear left shock absorber circuit (Rear left shock absorber circuit)	Over current flows in dynamic digital suspension (RL) circuit.

POSSIBLE CAUSE

- Harness or connector
- Dynamic digital suspension (RL)
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Digital motion control function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

 With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BC8-19" detected?

YES >> Proceed to [DAS-691, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000013591067

1. CHECK CONNECTOR AND TERMINAL

1. Turn the ignition switch OFF.
2. Disconnect dynamic digital suspension (RL) harness connector.
3. Check the dynamic digital suspension (RL) harness connector for disconnection or looseness.
4. Check the dynamic digital suspension (RL) pin terminals for damage or loose connection with harness connector.
5. Disconnect chassis control module harness connector.
6. Check the chassis control module harness connector for disconnection or looseness.
7. Check the chassis control module pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair/replace harness or connector.

2. CHECK DYNAMIC DIGITAL SUSPENSION (RL) CIRCUIT (1)

Check the continuity between chassis control module harness connector and dynamic digital suspension (RL) harness connector.

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C1BC8-19 DYNAMIC DIGITAL SUSPENSION (RL)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Chassis control module		Dynamic digital suspension (RL)		Continuity
Connector	Terminal	Connector	Terminal	
E219	14	C9	1	Existed
	26		2	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair/replace harness or connector.

3.CHECK DYNAMIC DIGITAL SUSPENSION (RL) CIRCUIT (2)

Check the continuity between chassis control module harness connector and ground.

Chassis control module		—	Continuity
Connector	Terminal		
E219	14	Ground	No existed
	26		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair/replace harness or connector.

4.CHECK DYNAMIC DIGITAL SUSPENSION (RL) CIRCUIT (3)

Check the continuity between chassis control module harness connector terminals.

Chassis control module		Continuity
Connector	Terminal	
E219	14 – 4	No existed
	14 – 25	
	26 – 4	
	26 – 25	

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair/replace harness or connector.

5.CHECK DYNAMIC DIGITAL SUSPENSION (RL) CIRCUIT (4)

Check the resistance between dynamic digital suspension (RL) connector terminals.

Dynamic digital suspension (RL)		Resistance
Connector	Terminal	
C9	1 – 2	3.477 – 7.448 Ω

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace the dynamic digital suspension (RL). Refer to [RSU-9, "Disassembly and Assembly"](#).

6.PERFORM SELF-DIAGNOSIS

ⓘ With CONSULT

1. Connect dynamic digital suspension (RL) harness connector.
2. Connect chassis control module harness connector.
3. Erase self-diagnosis result for "CHASSIS CONTROL".
4. Turn the ignition switch OFF and wait for 10 seconds or more.
5. Turn the ignition switch ON.
6. Perform "All DTC Reading".

Is DTC "C1BC8-19" detected?

C1BC8-19 DYNAMIC DIGITAL SUSPENSION (RL)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

YES >> Replace the chassis control module. Refer to [DAS-713. "Removal and Installation"](#).
NO >> INSPECTION END

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C1BC8-1D DYNAMIC DIGITAL SUSPENSION (RL)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BC8-1D DYNAMIC DIGITAL SUSPENSION (RL)

DTC Description

INFOID:000000013591068

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BC8-1D	Rear left shock absorber circuit (Rear left shock absorber circuit)	Current in dynamic digital suspension (RL) circuit is outside the range for 2 consecutive seconds or more.

POSSIBLE CAUSE

- Harness or connector
- Dynamic digital suspension (RL)
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Digital motion control function


DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

 With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BC8-1D" detected?

YES >> Proceed to [DAS-694, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000013591069

1. CHECK CONNECTOR AND TERMINAL

1. Turn the ignition switch OFF.
2. Disconnect dynamic digital suspension (RL) harness connector.
3. Check the dynamic digital suspension (RL) harness connector for disconnection or looseness.
4. Check the dynamic digital suspension (RL) pin terminals for damage or loose connection with harness connector.
5. Disconnect chassis control module harness connector.
6. Check the chassis control module harness connector for disconnection or looseness.
7. Check the chassis control module pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair/replace harness or connector.

2. CHECK DYNAMIC DIGITAL SUSPENSION (RL) CIRCUIT (1)

Check the continuity between chassis control module harness connector and dynamic digital suspension (RL) harness connector.

C1BC8-1D DYNAMIC DIGITAL SUSPENSION (RL)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Chassis control module		Dynamic digital suspension (RL)		Continuity
Connector	Terminal	Connector	Terminal	
E219	14	C9	1	Existed
	26		2	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair/replace harness or connector.

3. CHECK DYNAMIC DIGITAL SUSPENSION (RL) CIRCUIT (2)

Check the continuity between chassis control module harness connector and ground.

Chassis control module		—	Continuity
Connector	Terminal		
E219	14	Ground	No existed
	26		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair/replace harness or connector.

4. CHECK DYNAMIC DIGITAL SUSPENSION (RL) CIRCUIT (3)

Check the continuity between chassis control module harness connector terminals.

Chassis control module		Continuity
Connector	Terminal	
E219	14 – 4	No existed
	14 – 25	
	26 – 4	
	26 – 25	

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair/replace harness or connector.

5. CHECK DYNAMIC DIGITAL SUSPENSION (RL) CIRCUIT (4)

Check the resistance between dynamic digital suspension (RL) connector terminals.

Dynamic digital suspension (RL)		Resistance
Connector	Terminal	
C9	1 – 2	3.477 – 7.448 Ω

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace the dynamic digital suspension (RL). Refer to [RSU-9, "Disassembly and Assembly"](#).

6. PERFORM SELF-DIAGNOSIS

Ⓜ With CONSULT

1. Connect dynamic digital suspension (RL) harness connector.
2. Connect chassis control module harness connector.
3. Erase self-diagnosis result for "CHASSIS CONTROL".
4. Turn the ignition switch OFF and wait for 10 seconds or more.
5. Turn the ignition switch ON.
6. Perform "All DTC Reading".

Is DTC "C1BC8-1D" detected?

C1BC8-1D DYNAMIC DIGITAL SUSPENSION (RL)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

YES >> Replace the chassis control module. Refer to [DAS-713. "Removal and Installation"](#).
NO >> INSPECTION END

C1BC8-39 DYNAMIC DIGITAL SUSPENSION (RL)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BC8-39 DYNAMIC DIGITAL SUSPENSION (RL)

DTC Description

INFOID:000000013591070

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BC8-39	Rear left shock absorber circuit (Rear left shock absorber circuit)	Current in dynamic digital suspension (RL) circuit is too low for 0.8 consecutive seconds.

POSSIBLE CAUSE

- Harness or connector
- Dynamic digital suspension (RL)
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Digital motion control function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

 With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BC8-39" detected?

YES >> Proceed to [DAS-697, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000013591071

1. CHECK CONNECTOR AND TERMINAL

1. Turn the ignition switch OFF.
2. Disconnect dynamic digital suspension (RL) harness connector.
3. Check the dynamic digital suspension (RL) harness connector for disconnection or looseness.
4. Check the dynamic digital suspension (RL) pin terminals for damage or loose connection with harness connector.
5. Disconnect chassis control module harness connector.
6. Check the chassis control module harness connector for disconnection or looseness.
7. Check the chassis control module pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair/replace harness or connector.

2. CHECK DYNAMIC DIGITAL SUSPENSION (RL) CIRCUIT (1)

Check the continuity between chassis control module harness connector and dynamic digital suspension (RL) harness connector.

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C1BC8-39 DYNAMIC DIGITAL SUSPENSION (RL)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Chassis control module		Dynamic digital suspension (RL)		Continuity
Connector	Terminal	Connector	Terminal	
E219	14	C9	1	Existed
	26		2	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair/replace harness or connector.

3.CHECK DYNAMIC DIGITAL SUSPENSION (RL) CIRCUIT (2)

Check the continuity between chassis control module harness connector and ground.

Chassis control module		—	Continuity
Connector	Terminal		
E219	14	Ground	No existed
	26		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair/replace harness or connector.

4.CHECK DYNAMIC DIGITAL SUSPENSION (RL) CIRCUIT (3)

Check the continuity between chassis control module harness connector terminals.

Chassis control module		Continuity
Connector	Terminal	
E219	14 – 4	No existed
	14 – 25	
	26 – 4	
	26 – 25	

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair/replace harness or connector.

5.PERFORM SELF-DIAGNOSIS

④With CONSULT

1. Connect dynamic digital suspension (RL) harness connector.
2. Connect chassis control module harness connector.
3. Erase self-diagnosis result for "CHASSIS CONTROL".
4. Turn the ignition switch OFF and wait for 10 seconds or more.
5. Turn the ignition switch ON.
6. Perform "All DTC Reading".

Is DTC "C1BC8-39" detected?

YES >> Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

NO >> INSPECTION END

C1BC8-64 DYNAMIC DIGITAL SUSPENSION (RL)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BC8-64 DYNAMIC DIGITAL SUSPENSION (RL)

DTC Description

INFOID:000000013591072

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BC8-64	Rear left shock absorber circuit (Rear left shock absorber circuit)	Difference exists for 2 consecutive seconds or more between current applied to dynamic digital suspension (RL) and command current to dynamic digital suspension (RL).

POSSIBLE CAUSE

- Harness or connector
- Dynamic digital suspension (RL)
- Chassis control module

FAIL-SAFE

The following functions are suspended.

- Digital motion control function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

 With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BC8-64" detected?

YES >> Proceed to [DAS-699, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000013591073

1. CHECK CONNECTOR AND TERMINAL

1. Turn the ignition switch OFF.
2. Disconnect dynamic digital suspension (RL) harness connector.
3. Check the dynamic digital suspension (RL) harness connector for disconnection or looseness.
4. Check the dynamic digital suspension (RL) pin terminals for damage or loose connection with harness connector.
5. Disconnect chassis control module harness connector.
6. Check the chassis control module harness connector for disconnection or looseness.
7. Check the chassis control module pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair/replace harness or connector.

2. CHECK DYNAMIC DIGITAL SUSPENSION (RL) CIRCUIT (1)

Check the continuity between chassis control module harness connector and dynamic digital suspension (RL) harness connector.

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C1BC8-64 DYNAMIC DIGITAL SUSPENSION (RL)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Chassis control module		Dynamic digital suspension (RL)		Continuity
Connector	Terminal	Connector	Terminal	
E219	14	C9	1	Existed
	26		2	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair/replace harness or connector.

3.CHECK DYNAMIC DIGITAL SUSPENSION (RL) CIRCUIT (2)

Check the continuity between chassis control module harness connector and ground.

Chassis control module		—	Continuity
Connector	Terminal		
E219	14	Ground	No existed
	26		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair/replace harness or connector.

4.CHECK DYNAMIC DIGITAL SUSPENSION (RL) CIRCUIT (3)

Check the continuity between chassis control module harness connector terminals.

Chassis control module		Continuity
Connector	Terminal	
E219	14 – 4	No existed
	14 – 25	
	26 – 4	
	26 – 25	

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair/replace harness or connector.

5.CHECK DYNAMIC DIGITAL SUSPENSION (RL) CIRCUIT (4)

1. Check the resistance between dynamic digital suspension (RL) connector terminals.

Dynamic digital suspension (RL)		Resistance
Connector	Terminal	
C9	1 – 2	3.477 – 7.448 Ω

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace the dynamic digital suspension (RL). Refer to [RSU-9, "Disassembly and Assembly"](#).

6.PERFORM SELF-DIAGNOSIS

Ⓜ With CONSULT

1. Connect dynamic digital suspension (RL) harness connector.
2. Connect chassis control module harness connector.
3. Erase self-diagnosis result for "CHASSIS CONTROL".
4. Turn the ignition switch OFF and wait for 10 seconds or more.
5. Turn the ignition switch ON.
6. Perform "All DTC Reading".

Is DTC "C1BC8-64" detected?

C1BC8-64 DYNAMIC DIGITAL SUSPENSION (RL)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

YES >> Replace the chassis control module. Refer to [DAS-713. "Removal and Installation"](#).
NO >> INSPECTION END

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U1000-00 CAN COMM CIRCUIT

DTC Description

INFOID:000000012796507

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
U1000-00	CAN COMM CIRCUIT (CAN communication circuit)	When CAN communication signal is not continuously transmitted or received for 2 seconds or more.

POSSIBLE CAUSE

- CAN communication system

FAIL-SAFE

The following functions are suspended.

- Active trace control function
- Active lane control function
- LDW function
- LDP function
- Blind spot intervention function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

Ⓟ With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "U1000-00" detected?

- YES >> Proceed to [DAS-702, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796508

Proceed to [LAN-41, "Trouble Diagnosis Flow Chart"](#).

U1010-49 CONTROL MODULE (CAN)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

U1010-49 CONTROL MODULE (CAN)

DTC Description

INFOID:000000012796509

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
U1010-49	CONTROL UNIT (CAN) [Control unit (CAN)]	When detecting error during the initial diagnosis of CAN controller of chassis control module.

POSSIBLE CAUSE

- Chassis control module
- CAN communication line

FAIL-SAFE

The following functions are suspended.

- Active trace control function
- Active lane control function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

④ With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "U1010-49" detected?

YES >> Proceed to [DAS-703, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796510

1. CHECK CHASSIS CONTROL MODULE

Check chassis control module harness connector for disconnection and deformation.

Is the inspection result normal?

YES >> Replace chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

NO >> Repair or replace error-detected parts.

DAS

U1A31-00 DIRECT ADAPTIVE STEERING COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

U1A31-00 DIRECT ADAPTIVE STEERING COMMUNICATION

DTC Description

INFOID:000000012796513

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
U1A31-00	DAST COMM (Direct adaptive steering communication)	A calculated signal value differs between a signal transmitted from the steering force control module and a signal received from chassis control module via CAN communication.

POSSIBLE CAUSE

- Steering angle main control module
- Chassis control module
- CAN communication line
- Chassis communication line

FAIL-SAFE

The following functions are suspended.

- Active lane control function
- LDW function
- LDP function
- Blind spot intervention function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

Ⓟ With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "U1A31-00" detected?

YES >> Proceed to [DAS-704, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796514

1. CHECK CAN DIAGNOSIS SUPPORT MONITOR

Ⓟ With CONSULT

1. Select "CAN Diagnosis Support Monitor" of "CHASSIS CONTROL".
2. Check malfunction history between each control unit connected to chassis control module.

Check the result of "PAST"?

All items are "OK">>Refer to [GI-45, "Intermittent Incident"](#).

"TRANSMIT DIAG" is other than "OK" (Models with digital motion control)>>GO TO 2.

"TRANSMIT DIAG" is other than "OK" (Models without digital motion control)>>GO TO 3.

"DAST 1" other than "OK">>GO TO 4.

2. CHECK TRANSMITTING SIDE UNIT (MODELS WITH DIGITAL MOTION CONTROL)

1. Turn the ignition switch OFF.
2. Disconnect chassis control module harness connector.

U1A31-00 DIRECT ADAPTIVE STEERING COMMUNICATION

[CHASSIS CONTROL]

< DTC/CIRCUIT DIAGNOSIS >

3. Check the chassis control module harness connector terminals No. 5, 19, 21 and 8 for damage or loose connection. (Chassis communication line)

Is the inspection result normal?

YES >> GO TO 6.

NO >> Recheck terminals for damage or loose connection. Refer to [LAN-31, "Precautions for Harness Repair"](#), and GO TO 6.

3.CHECK TRANSMITTING SIDE UNIT (MODELS WITHOUT DIGITAL MOTION CONTROL)

1. Turn the ignition switch OFF.
2. Disconnect chassis control module harness connector.
3. Check the chassis control module harness connector terminals No. 8, 11, 7 and 19 for damage or loose connection. (Chassis communication line)

Is the inspection result normal?

YES >> GO TO 6.

NO >> Recheck terminals for damage or loose connection. Refer to [LAN-31, "Precautions for Harness Repair"](#), and GO TO 6.

4.CHECK STEERING ANGLE MAIN CONTROL MODULE

1. Turn the ignition switch OFF.
2. Disconnect steering angle main control module harness connector.
3. Check steering angle main control module harness connector terminals (chassis communication line) or damage or loose connection.

Is the inspection result normal?

YES >> GO TO 5.

NO >> Recheck terminals for damage or loose connection. Refer to [LAN-31, "Precautions for Harness Repair"](#), and GO TO 5.

5.PERFORM SELF-DIAGNOSIS (STEERING ANGLE MAIN CONTROL MODULE)

Ⓜ With CONSULT

1. Connect steering angle main control module harness connector.
2. Erase self-diagnosis result for "DAST 1".
3. Turn the ignition switch OFF and wait for 10 seconds or more.
4. Turn the ignition switch ON.
5. Perform self-diagnosis for "DAST 1".

Is DTC detected?

YES >> Check the DTC.

NO >> GO TO 6.

6.PERFORM SELF-DIAGNOSIS

Ⓜ With CONSULT

1. Connect chassis control module harness connector.
2. Erase self-diagnosis result for "CHASSIS CONTROL".
3. Turn the ignition switch OFF and wait for 10 seconds or more.
4. Turn the ignition switch ON.
5. Perform "All DTC Reading".

Is DTC "U1000-00", "U1A31-00" or other DTC detected?

YES ("U1000-00")>>Refer to [LAN-41, "Trouble Diagnosis Flow Chart"](#).

YES ("U1A31-00")>>Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

YES (other DTC)>>Check the DTC.

NO >> INSPECTION END

U1A35-00 BRAKE CONTROL COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

U1A35-00 BRAKE CONTROL COMMUNICATION

DTC Description

INFOID:000000012796519

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
U1A35-00	BRAKE CONTROL COMM (Brake control communication)	A calculated signal value differs between a signal transmitted from the ABS actuator and electric unit (control unit) and a signal received from chassis control module via CAN communication.

POSSIBLE CAUSE

- ABS actuator and electric unit (control unit)
- Chassis control module
- CAN communication line

FAIL-SAFE

The following functions are suspended.

- Active trace control function
- Active lane control function
- LDW function
- LDP function
- Blind spot intervention function

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

Ⓟ With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "U1A35-00" detected?

YES >> Proceed to [DAS-706, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796520

1. CHECK CAN DIAGNOSIS SUPPORT MONITOR

Ⓟ With CONSULT

1. Select "CAN Diagnosis Support Monitor" of "CHASSIS CONTROL".
2. Check malfunction history between each control unit connected to chassis control module.

Check the result of "PAST"?

All items are "OK">>Refer to [GI-45, "Intermittent Incident"](#).

"TRANSMIT DIAG" is other than "OK" (Models with digital motion control)>>GO TO 2.

"TRANSMIT DIAG" is other than "OK" (Models without digital motion control)>>GO TO 3.

"ABS" other than "OK">>GO TO 4.

2. CHECK TRANSMITTING SIDE UNIT (MODELS WITH DIGITAL MOTION CONTROL)

1. Turn the ignition switch OFF.
2. Disconnect chassis control module harness connector.

U1A35-00 BRAKE CONTROL COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

3. Check the chassis control module harness connector terminals No. 24 and 10 for damage or loose connection.

Is the inspection result normal?

YES >> GO TO 6.

NO >> Recheck terminals for damage or loose connection. Refer to [LAN-31, "Precautions for Harness Repair"](#), and GO TO 6.

3.CHECK TRANSMITTING SIDE UNIT (MODELS WITHOUT DIGITAL MOTION CONTROL)

1. Turn the ignition switch OFF.
2. Disconnect chassis control module harness connector.
3. Check the chassis control module harness connector terminals No. 3 and 4 for damage or loose connection.

Is the inspection result normal?

YES >> GO TO 6.

NO >> Recheck terminals for damage or loose connection. Refer to [LAN-31, "Precautions for Harness Repair"](#), and GO TO 6.

4.CHECK ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)

1. Turn the ignition switch OFF.
2. Disconnect ABS actuator and electric unit (control unit) harness connector.
3. Check ABS actuator and electric unit (control unit) harness connector terminals (CAN communication line) or damage or loose connection.

Is the inspection result normal?

YES >> GO TO 5.

NO >> Recheck terminals for damage or loose connection. Refer to [LAN-31, "Precautions for Harness Repair"](#), and GO TO 5.

5.PERFORM SELF-DIAGNOSIS [ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)]

Ⓜ With CONSULT

1. Connect ABS actuator and electric unit (control unit) harness connector.
2. Erase self-diagnosis result for "ABS".
3. Turn the ignition switch OFF and wait for 10 seconds or more.
4. Turn the ignition switch ON.
5. Perform self-diagnosis for "ABS".

Is DTC detected?

YES >> Check the DTC. Refer to [BRC-72, "DTC Index"](#).

NO >> GO TO 6.

6.PERFORM SELF-DIAGNOSIS

Ⓜ With CONSULT

1. Connect chassis control module harness connector.
2. Erase self-diagnosis result for "CHASSIS CONTROL".
3. Turn the ignition switch OFF and wait for 10 seconds or more.
4. Turn the ignition switch ON.
5. Perform "All DTC Reading".

Is DTC "U1000-00", "U1A35-00" or other DTC detected?

YES ("U1000-00")>>Refer to [LAN-41, "Trouble Diagnosis Flow Chart"](#).

YES ("U1A35-00")>>Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

YES (other DTC)>>Check the DTC.

NO >> INSPECTION END

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U1A3E-00 ADAS COMMUNICATION

DTC Description

INFOID:000000012796529

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
U1A3E-00	ADAS COMM (Advanced Driver Assistance system communication)	<ul style="list-style-type: none"> A calculated signal value differs between a signal transmitted from the ADAS control unit and a signal received from chassis control module via CAN communication. A calculated signal value differs between a signal transmitted from the ADAS control unit and a signal received from chassis control module via chassis communication.

POSSIBLE CAUSE

- ADAS control unit
- Chassis control module
- Chassis communication line
- CAN communication line

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "U1A3E-00" detected?

YES >> Proceed to [DAS-708, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796530

1. CHECK CAN DIAGNOSIS SUPPORT MONITOR

With CONSULT

1. Select "CAN Diagnosis Support Monitor" of "CHASSIS CONTROL".
2. Check malfunction history between each control unit connected to chassis control module.

Check the result of "PAST"?

All items are "OK">>Refer to [GI-45, "Intermittent Incident"](#).

"TRANSMIT DIAG" is other than "OK" (Models with digital motion control)>>GO TO 2.

"TRANSMIT DIAG" is other than "OK" (Models without digital motion control)>>GO TO 3.

"ICC/ADAS" other than "OK">>GO TO 4.

2. CHECK TRANSMITTING SIDE UNIT (MODELS WITH DIGITAL MOTION CONTROL)

1. Turn the ignition switch OFF.
2. Disconnect chassis control module harness connector.
3. Check the chassis control module harness connector terminals No. 24 and 10 for damage or loose connection. (CAN communication line)
4. Check the chassis control module harness connector terminals No. 5, 19, 21 and 8 for damage or loose connection. (Chassis communication line)

U1A3E-00 ADAS COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Is the inspection result normal?

YES >> GO TO 6.

NO >> Recheck terminals for damage or loose connection. Refer to [LAN-31, "Precautions for Harness Repair"](#), and GO TO 6.

3.CHECK TRANSMITTING SIDE UNIT (MODELS WITHOUT DIGITAL MOTION CONTROL)

1. Turn the ignition switch OFF.
2. Disconnect chassis control module harness connector.
3. Check the chassis control module harness connector terminals No. 3 and 4 for damage or loose connection. (CAN communication line)
4. Check the chassis control module harness connector terminals No. 8, 11, 7 and 19 for damage or loose connection. (Chassis communication line)

Is the inspection result normal?

YES >> GO TO 6.

NO >> Recheck terminals for damage or loose connection. Refer to [LAN-31, "Precautions for Harness Repair"](#), and GO TO 6.

4.CHECK ADAS CONTROL UNIT

1. Turn the ignition switch OFF.
2. Disconnect ADAS control unit harness connector.
3. Check ADAS control unit harness connector terminals (CAN communication line) or damage or loose connection.

Is the inspection result normal?

YES >> GO TO 5.

NO >> Recheck terminals for damage or loose connection. Refer to [LAN-31, "Precautions for Harness Repair"](#), and GO TO 5.

5.PERFORM SELF-DIAGNOSIS (ADAS CONTROL UNIT)

ⓂWith CONSULT

1. Connect ADAS control unit harness connector.
2. Erase self-diagnosis result for "ICC/ADAS".
3. Turn the ignition switch OFF and wait for 10 seconds or more.
4. Turn the ignition switch ON.
5. Perform self-diagnosis for "ICC/ADAS".

Is DTC detected?

YES >> Check the DTC. Refer to [DAS-53, "DTC Index"](#).

NO >> GO TO 6.

6.PERFORM SELF-DIAGNOSIS

ⓂWith CONSULT

1. Connect chassis control module harness connector.
2. Erase self-diagnosis result for "CHASSIS CONTROL".
3. Turn the ignition switch OFF and wait for 10 seconds or more.
4. Turn the ignition switch ON.
5. Perform "All DTC Reading".

Is DTC "U1000-00", "U1A3E-00" or other DTC detected?

YES ("U1000-00")>>Refer to [LAN-41, "Trouble Diagnosis Flow Chart"](#).

YES ("U1A3E-00")>>Replace the chassis control module. Refer to [DAS-713, "Removal and Installation"](#).

YES (other DTC)>>Check the DTC.

NO >> INSPECTION END

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POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure (Models with Digital Motion Control)

INFOID:000000012796549

1. CHECK CHASSIS CONTROL MODULE IGNITION POWER SUPPLY

1. Turn the ignition switch OFF.
2. Disconnect chassis control module harness connector.
3. Check the voltage between chassis control module harness connector and ground.

Chassis control module		—	Voltage (Approx.)
Connector	Terminal		
E219	4	Ground	0 V
	25		

4. Turn the ignition switch ON.
CAUTION:
Never start engine.
5. Check the voltage between chassis control module harness connector and ground.

Chassis control module		—	Voltage (Approx.)
Connector	Terminal		
E219	4	Ground	6.4 – 16 V
	25		

Is the inspection result normal?

- YES >> GO TO 3.
NO >> GO TO 2.

2. CHECK CHASSIS CONTROL MODULE IGNITION POWER SUPPLY CIRCUIT

1. Turn the ignition switch OFF.
2. Check the 5A fuse (#21).
3. Check the 5A fuse (#23).
4. Disconnect fuse block (J/B) harness connector.
5. Check the continuity between chassis control module harness connector and fuse block (J/B) harness connector.

Chassis control module		Fuse block (J/B)		Continuity
Connector	Terminal	Connector	Terminal	
E219	4	E64	7E	Existed
	25	M132	14B	

6. Check the continuity between chassis control module harness connector and the ground.

Chassis control module		—	Continuity
Connector	Terminal		
E219	4	Ground	Not existed
	25		

Is the inspection result normal?

- YES >> Perform trouble diagnosis for ignition power supply.
NO >> Repair or replace error-detected parts.

3. CHECK CHASSIS CONTROL MODULE GROUND CIRCUIT

1. Turn the ignition switch OFF.
2. Check the continuity between chassis control module harness connector and ground.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Chassis control module		—	Continuity
Connector	Terminal		
E219	6	Ground	Existed
	23		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace error-detected parts.

4. CHECK TERMINAL

Check the chassis control module pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace error-detected parts.

Diagnosis Procedure (Models without Digital Motion Control)

INFOID:000000013498284

1. CHECK CHASSIS CONTROL MODULE IGNITION POWER SUPPLY

1. Turn the ignition switch OFF.
2. Disconnect chassis control module harness connector.
3. Check the voltage between chassis control module harness connector and ground.

Chassis control module		—	Voltage (Approx.)
Connector	Terminal		
E22	10	Ground	0 V

4. Turn the ignition switch ON.
CAUTION:
Never start engine.
5. Check the voltage between chassis control module harness connector and ground.

Chassis control module		—	Voltage (Approx.)
Connector	Terminal		
E22	10	Ground	6.4 – 16 V

Is the inspection result normal?

YES >> GO TO 4.

NO (VR30DDTT engine models)>>GO TO 2.

NO (2.0L turbo gasoline engine models)>>GO TO 3.

2. CHECK CHASSIS CONTROL MODULE IGNITION POWER SUPPLY CIRCUIT (VR30DDTT ENGINE MODELS)

1. Turn the ignition switch OFF.
2. Check the 10A fuse (#12).
3. Disconnect fuse block (J/B) harness connector.
4. Check the continuity between chassis control module harness connector and fuse block (J/B) harness connector.

Chassis control module		Fuse block (J/B)		Continuity
Connector	Terminal	Connector	Terminal	
E22	10	E65	11F	Existed

5. Check the continuity between chassis control module harness connector and the ground.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Chassis control module		—	Continuity
Connector	Terminal		
E22	10	Ground	Not existed

Is the inspection result normal?

YES >> Perform trouble diagnosis for ignition power supply.

NO >> Repair or replace error-detected parts.

3.CHECK CHASSIS CONTROL MODULE IGNITION POWER SUPPLY CIRCUIT (2.0L TURBO GASOLINE ENGINE MODELS)

1. Turn the ignition switch OFF.
2. Check the 10A fuse (#77).
3. Check the continuity and for short circuit between chassis control module harness connector terminal (10) and 10A fuse (#77).
4. Check the continuity between chassis control module harness connector and the ground.

Chassis control module		—	Continuity
Connector	Terminal		
E22	10	Ground	Not existed

Is the inspection result normal?

YES >> Perform trouble diagnosis for ignition power supply.

NO >> Repair or replace error-detected parts.

4.CHECK CHASSIS CONTROL MODULE GROUND CIRCUIT

1. Turn the ignition switch OFF.
2. Check the continuity between chassis control module harness connector and ground.

Chassis control module		—	Continuity
Connector	Terminal		
E22	12	Ground	Existed

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace error-detected parts.

5.CHECK TERMINAL

Check the chassis control module pin terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES >> INSPECTION END

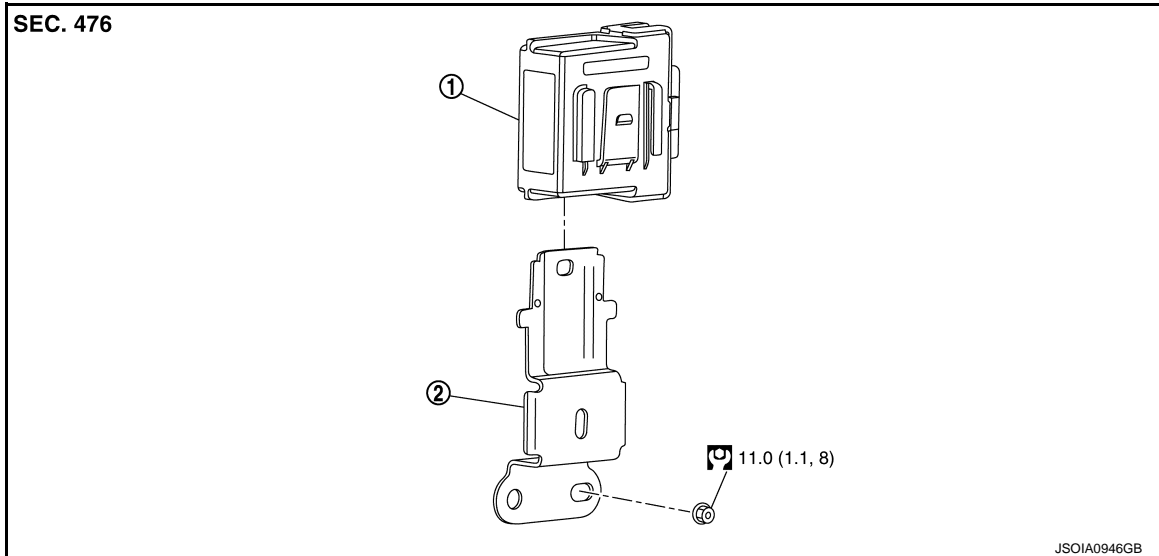
NO >> Repair or replace error-detected parts.

REMOVAL AND INSTALLATION

CHASSIS CONTROL MODULE

Exploded View

INFOID:0000000012796550



① Chassis control module

② Bracket

: N·m (kg-m, ft-lb)

Removal and Installation

INFOID:0000000012796551

REMOVAL

CAUTION:

When replacing chassis control module, configuration of chassis control module is required. Refer to [DAS-578, "Work Procedure"](#).

NOTE:

If the chassis control module is replaced, user registration information is erased, and all setting items for Infiniti InTuition related parts are erased.

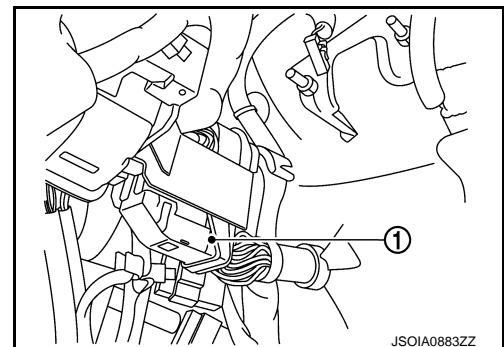
1. Remove the parking brake pedal assembly. Refer to [PB-9, "Removal and Installation"](#).

2. Separate the harness connector ①.

3. Remove the chassis control module.

CAUTION:

Never drop the chassis control module.



INSTALLATION

Note the following, install in the reverse order of removal.

- When replacing the chassis control module, be sure to perform the configuration of chassis control module. Refer to [DAS-578, "Work Procedure"](#).
- After replace the chassis control module, depress brake pedal and check that the stop lamp turns ON.

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PRECAUTION

PRECAUTIONS

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

INFOID:000000012796552

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

WARNING:

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, it is recommended that all maintenance and repair be performed by an authorized NISSAN/INFINITI dealer.
- Improper repair, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see "SRS AIR BAG".
- Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery or batteries, and wait at least 3 minutes before performing any service.

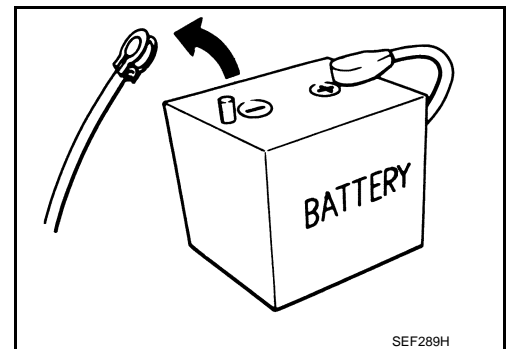
Precautions for Removing Battery Terminal

INFOID:000000013375967

When disconnecting the battery terminal, pay attention to the following.

- Always use a 12V battery as power source.
- Never disconnect battery terminal while engine is running.
- When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.
- For vehicles with the engine listed below, remove the battery terminal after a lapse of the specified time:

BR08DE	: 4 minutes	V9X engine	: 4 minutes
D4D engine	: 20 minutes	YD25DDTi	: 2 minutes
HR09DET	: 12 minutes	YS23DDT	: 4 minutes
HRA2DDT	: 12 minutes	YS23DDTT	: 4 minutes
K9K engine	: 4 minutes	ZD30DDTi	: 60 seconds
M9R engine	: 4 minutes	ZD30DDTT	: 60 seconds
R9M engine	: 4 minutes		



SEF289H

NOTE:

ECU may be active for several tens of seconds after the ignition switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption may occur.

- After high-load driving, if the vehicle is equipped with the V9X engine, turn the ignition switch OFF and wait for at least 15 minutes to remove the battery terminal.

NOTE:

PRECAUTIONS

[ACTIVE LANE CONTROL]

< PRECAUTION >

- Turbocharger cooling pump may operate in a few minutes after the ignition switch is turned OFF.
- Example of high-load driving
 - Driving for 30 minutes or more at 140 km/h (86 MPH) or more.
 - Driving for 30 minutes or more on a steep slope.
- For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch.

NOTE:

If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.

- After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC.

NOTE:

The removal of 12V battery may cause a DTC detection error.

Precautions For Harness Repair

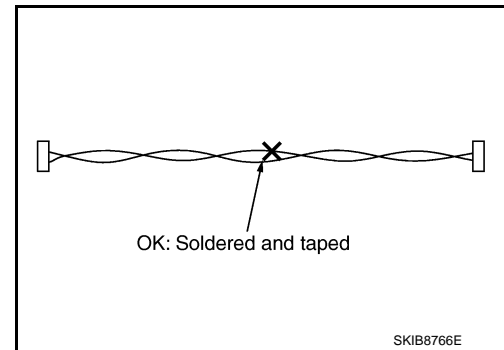
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Twisted pair line is used for communication lines. Be careful when repairing communication lines.

- Solder the repaired area and wrap tape around the soldered area.

NOTE:

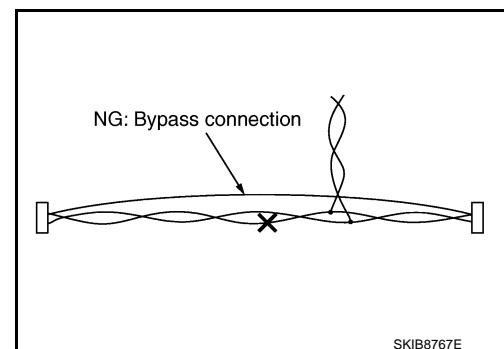
A fray of twisted lines must be within 110 mm (4.33 in).



- Bypass connection is never allowed at the repaired area.

NOTE:

Bypass connection may cause communication error. The spliced wire becomes separated and the characteristics of twisted line are lost.



Precaution for Active Lane Control Service

INFOID:000000012796555

WARNING:

Be careful of traffic conditions and safety around the vehicle when performing road test.

CAUTION:

- Never use the Active Lane Control when driving with free rollers or a chassis dynamometer.
- Never perform the active test while driving.
- Never disassemble and remodel the lane camera unit.
- Do not use the lane camera unit that is removed from the vehicle.

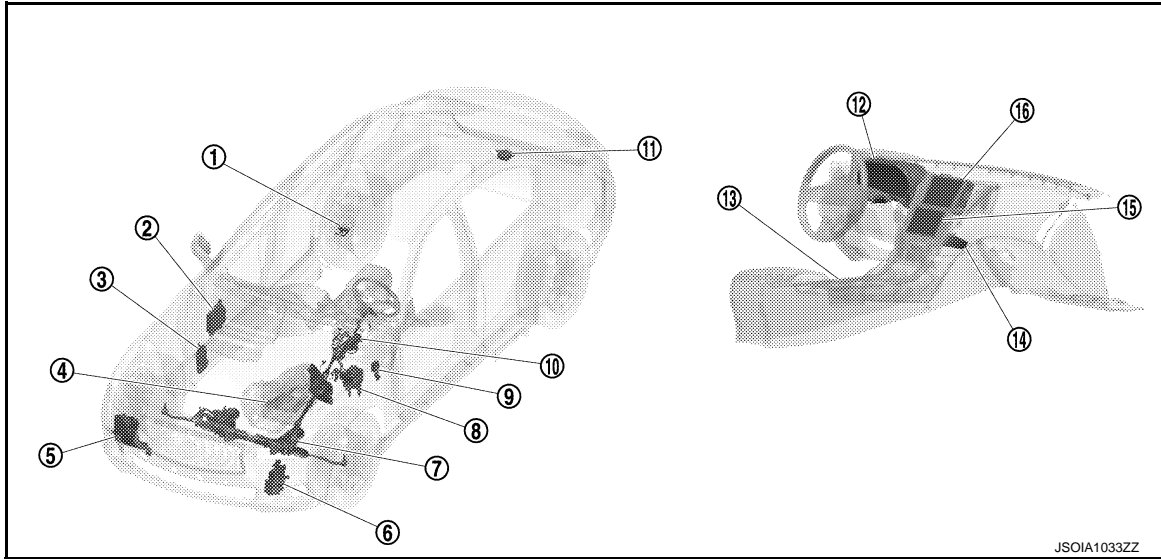
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SYSTEM DESCRIPTION

COMPONENT PARTS ACTIVE LANE CONTROL

ACTIVE LANE CONTROL : Component Parts Location

INFOID:000000012796556



JSOIA1033ZZ

No.	Component	Function
①	Lane camera unit	Refer to DAS-717, "Lane Camera Unit" .
②	Steering force control module	<ul style="list-style-type: none"> Direct Adaptive Steering is controlled by three control modules of steering force control module, steering angle main control module and steering angle sub control module. Receives steering reaction force request signal and controls the steering reaction force. For the details of the location, refer to STC-113, "Component Parts Location".
③	BCM	<ul style="list-style-type: none"> Transmits turn indicator signal and front wiper request signal to chassis control module via CAN communication. For the details of the location, refer to BCS-5, "BODY CONTROL SYSTEM : Component Parts Location".
④	TCM	Transmits the signal related to A/T control to chassis control module via CAN communication.
⑤	Steering angle sub control module	<ul style="list-style-type: none"> Direct Adaptive Steering is controlled by three control modules of steering force control module, steering angle main control module and steering angle sub control module. Receives steering angle request signal and controls the steering angle. For the details of the location, refer to STC-113, "Component Parts Location".
⑥	Steering angle main control module	<ul style="list-style-type: none"> Direct Adaptive Steering is controlled by three control modules of steering force control module, steering angle main control module and steering angle sub control module. Receives steering angle request signal and controls the steering angle. For the details of the location, refer to STC-113, "Component Parts Location".
⑦	Steering gear assembly (Steering angle actuator)	Drives steering gear depending on the control signal from Direct Adaptive Steering.
⑧	ABS actuator and electric unit (control unit)	<ul style="list-style-type: none"> Transmits the vehicle speed signal (wheel speed) to chassis control module via CAN communication. Transmits the yaw rate signal and side G sensor signal to chassis control module via CAN communication. For the details of the location, refer to BRC-10, "Component Parts Location".
⑨	Chassis control module	<ul style="list-style-type: none"> Performs Active Lane Control based on the detected lane condition signal received from lane camera unit and each signal received from each unit. For the details of the location, refer to DAS-516, "Component Parts Location".

COMPONENT PARTS

< SYSTEM DESCRIPTION >

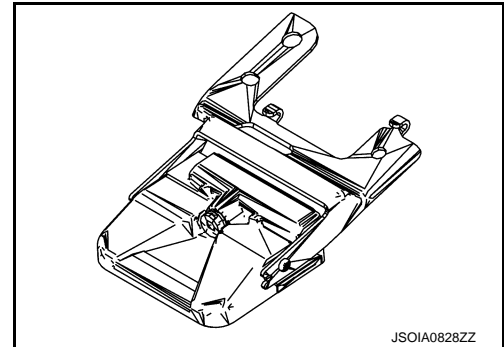
[ACTIVE LANE CONTROL]

No.	Component	Function
⑩	Steering column assembly (Steering force actuator)	Drives reaction force depending on the control signal from Direct Adaptive Steering.
⑪	ADAS control unit	<ul style="list-style-type: none"> Transmits LDP ON signal to chassis control module via chassis communication. For the details of the location, refer to DAS-219, "Component Parts Location".
⑫	Combination meter	<ul style="list-style-type: none"> Receives master warning signal and ALC system display signal to chassis control module via CAN communication to display the system on the information display.
⑬	Drive mode select switch	Inputs drive mode select switch signal to chassis control module.
⑭	A/C auto amp.	<ul style="list-style-type: none"> Transmits ambient temperature signal to chassis control module via CAN communication. For the details of the location, refer to HAC-6, "AUTOMATIC AIR CONDITIONING SYSTEM : Component Parts Location".
⑮	Integral switch	Changes setting of Active Lane Control and transmits the setting information to the display control unit.
⑯	Display control unit	<ul style="list-style-type: none"> Transmits the setting state of Active Lane Control to chassis control module via CAN communication. For the details of the location, refer to AV-14, "Component Parts Location".

Lane Camera Unit

INFOID:000000012796557

- Lane camera unit is located above the inside mirror and detects the lane marker in travel lane.
- Transmits lane marker signal to chassis control module via chassis communication.



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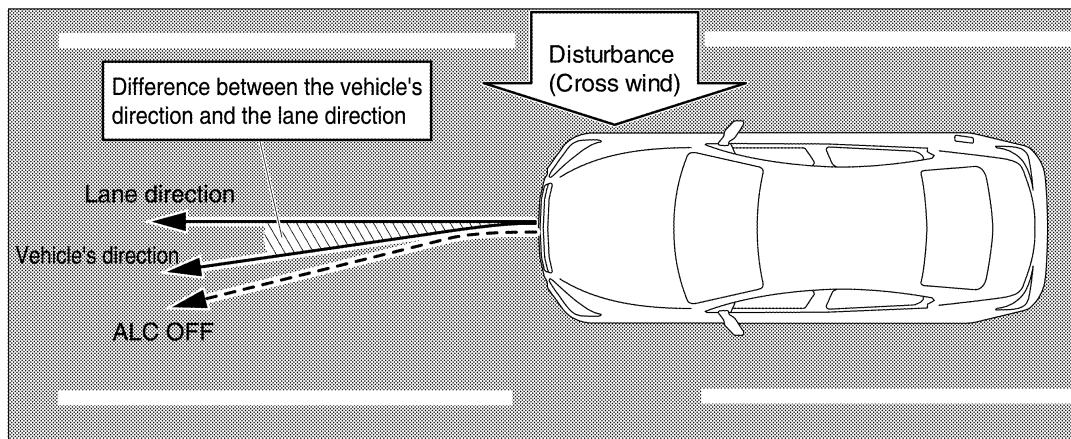
ACTIVE LANE CONTROL

ACTIVE LANE CONTROL : System Description

INFOID:000000012796558

OUTLINE

- Active Lane Control enables the driver to make fewer steering corrections on freeways.
- Active Lane Control slightly corrects front tire angles and steering wheel torque to reduce the difference between the vehicle's direction and the lane direction which is detected by using the lane camera unit located above the inside mirror.



JSOIA1068GB

NOTE:

- For the details of "Direct Adaptive Steering", Refer to [STC-118, "DIRECT ADAPTIVE STEERING : System Description"](#).
- Active Lane Control can be set to ON (enabled) or OFF (disabled). Refer to [DAS-727, "ACTIVE LANE CONTROL : Menu Displayed by Pressing Each Switch"](#).

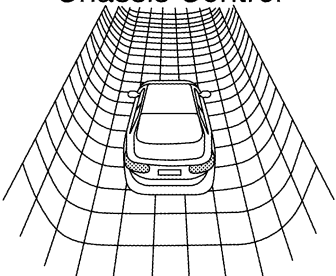
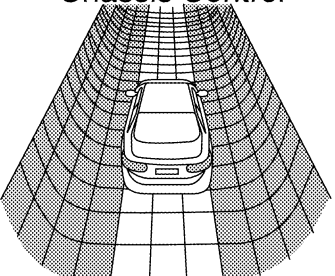
OPERATION DESCRIPTION

- Active Lane Control is controlled by chassis control module.
- Lane camera unit monitors lane markers of the traveling lane. It transmits the detected lane condition signal to chassis control module via chassis communication.
- Chassis control module calculates the difference between the vehicle's direction and the lane direction based on lane condition signal. And transmits steering angle request signal and steering reaction force request signal to steering angle main control module via chassis communication. In addition, transmits ALC system display signal to combination meter via CAN communication.
- Direct Adaptive Steering* corrects the control of steering angle and steering reaction force depending on received steering angle request signal and steering reaction force request signal.
 - *: Direct Adaptive Steering is controlled by three control modules of steering force control module, steering angle main control module and steering angle sub control module.
- Combination meter displays operating conditions in information display depending on received ALC system display signal.

SYSTEM

< SYSTEM DESCRIPTION >

[ACTIVE LANE CONTROL]

Active Lane Control is turned ON	Active Lane Control is operational or is operating
<p style="text-align: center;">Chassis Control</p>  <p style="text-align: right; font-size: small;">JSOIA0809ZZ</p>	<p style="text-align: center;">Chassis Control</p>  <p style="text-align: right; font-size: small;">JSOIA0810ZZ</p>

OPERATION AND CANCELLATION CONDITION

Item	Operating condition (When all of the following conditions are satisfied)	Cancellation condition (When any of the following conditions is satisfied)
LDP system setting	ON	OFF
Active Lane Control setting	ON	OFF
Vehicle speed	Approx. 70 km/h (45 MPH) or more	Less than approx. 70 km/h (45 MPH)
Direct Adaptive Steering	The control is admitted.	The control is prohibited.
Lane marker detection	<ul style="list-style-type: none"> • Both side lane markers are being detected. • Driving in lane 	Both side lane markers are lost.
Road curvature	Approx. R200 m (656 ft) or more	Less than approx. R200 m (656 ft)
VDC, EBD, ABS	Not operating	Operating
Lane camera temperature	Normal	High
VDC OFF switch	OFF	ON
Turn signal	After 2 seconds or more from turned OFF	Turned ON

NOTE:

- The effort of Active Lane Control gradually functions on approximately 80 km/h (50 MPH) from approximately 70 km/h (45 MPH).
- When all of the above conditions are satisfied after cancellation again, the system will resume operation automatically.
- Active Lane Control may not function properly, depending on the situation. Refer to [DAS-728, "Precautions for Active Lane Control"](#).

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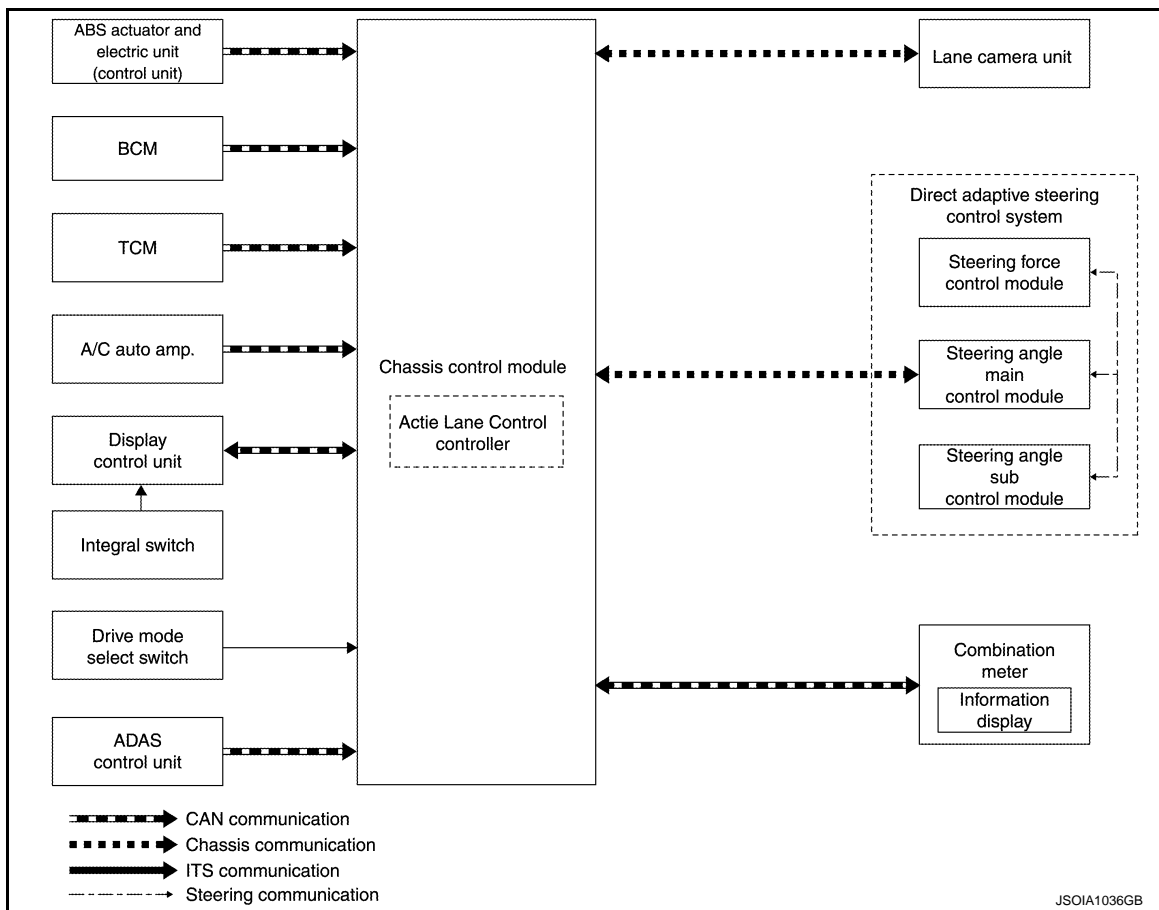
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SYSTEM

< SYSTEM DESCRIPTION >

[ACTIVE LANE CONTROL]

SYSTEM DIAGRAM



INPUT/OUTPUT SIGNAL ITEM

SYSTEM

< SYSTEM DESCRIPTION >

[ACTIVE LANE CONTROL]

Reception unit	Transmit unit	Signal name	Description		
Chassis control module	Lane camera unit	Chassis communication	Detected lane condition signal	Receives detection results of lane marker	A
			Lane camera unit condition signal	Receives lane camera unit condition	B
	Steering angle main control module	Chassis communication	Direct adaptive steering status signal	Receives status of Direct Adaptive Steering	C
			Direct adaptive steering malfunction signal	Receives a malfunction state of Direct Adaptive Steering	D
			Steering force actuator status signal	Receives torque state of steering force actuator.	E
			ALC permission signal	Receives a permission state of the ALC.	F
	ABS actuator and electric unit (control unit)	CAN communication	ABS malfunction signal	Receives a malfunction state of ABS	G
			ABS operation signal	Receives an operational state of ABS	H
			VDC OFF switch signal	Receives an ON/OFF state of VDC	I
			VDC malfunction signal	Receives a malfunction state of VDC	J
			VDC operation signal	Receives an operational state of VDC	K
			EBD operation signal	Receives an operational state of EBD	L
			Vehicle speed signal (ABS)	Receives wheel speeds of front wheels	M
			Yaw rate signal	Receives yaw rate acting on the vehicle	N
			Side G sensor signal	Receives lateral G acting on the vehicle	
	BCM	CAN communication	Turn indicator signal	Receives an operational state of the turn signal lamp and the hazard lamp	
			Front wiper request signal	Receives an operational state of the front wiper	
	TCM	CAN communication	Shift position signal	Receives a selector lever position	
	A/C auto amp.	CAN communication	Ambient temperature signal	Receives an ambient temperature	
	Display control unit	CAN communication	System selection signal	Receives a selection state of each item in "Driver Assistance"	
ADAS control unit	Chassis communication	LDP ON signal	Receives an ON/OFF state of LDP		
Drive mode select switch	Hard wire	Drive mode select switch signal	Detects the snow mode selection.		
Steering angle main control module	Chassis control module	Chassis communication	Steering angle request signal	Transmits steering angle request signal	
			Steering reaction force request signal	Transmits steering reaction force request signal	
Lane camera unit	Chassis control module	Chassis communication	Vehicle speed signal	Receives a vehicle speed calculated by the chassis control module	
			Snow mode signal	Receives a snow mode signal selected in the drive mode select switch.	
			Turn indicator signal	Receives a turn indicator signal received from BCM	
Combination meter	Chassis control module	CAN communication	Master warning signal	Transmits master warning signal to indicate.	
			ALC system display signal	Transmits a signal to display a state of the system on the information display	

DAS

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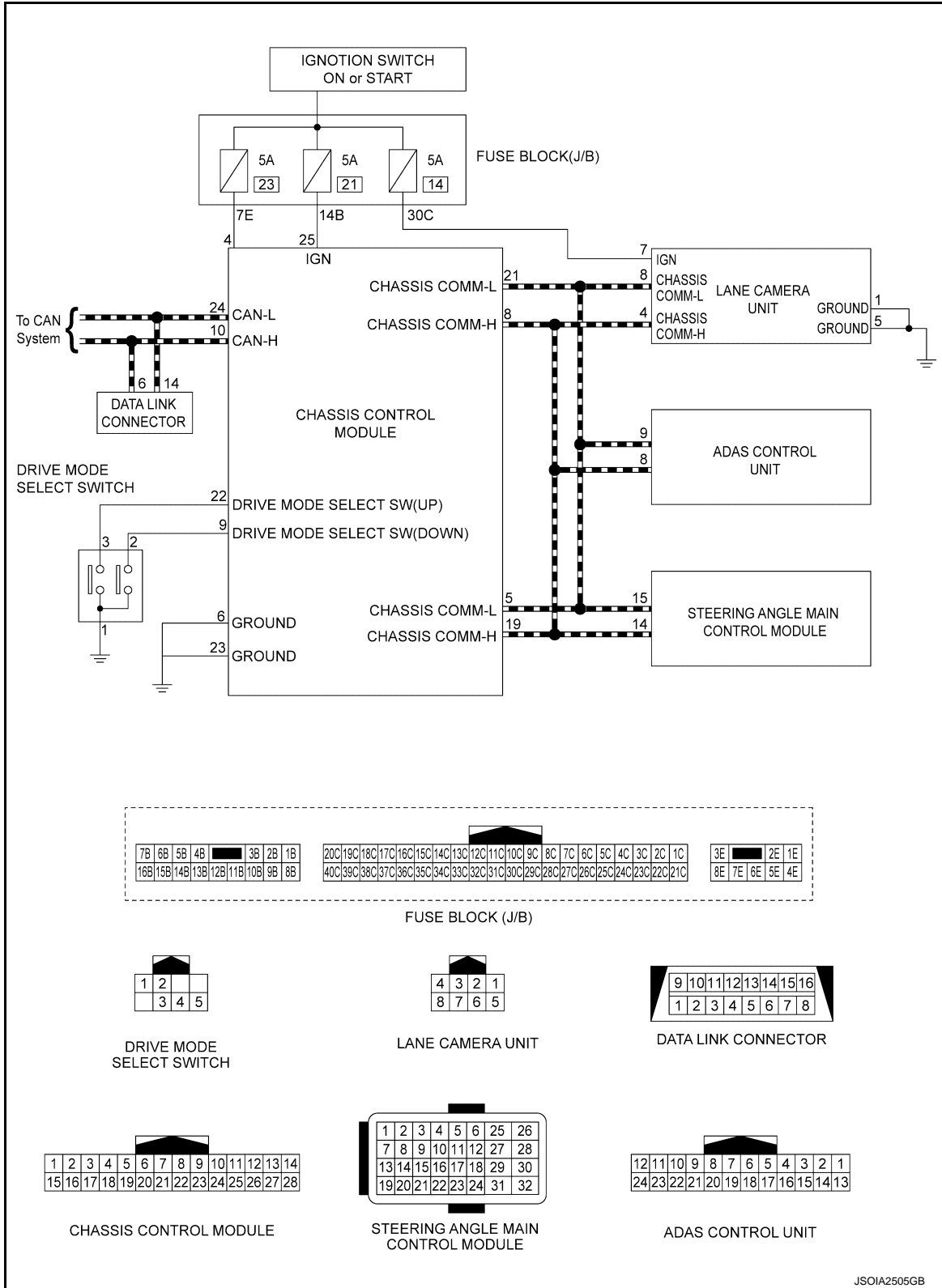
< SYSTEM DESCRIPTION >

[ACTIVE LANE CONTROL]

ACTIVE LANE CONTROL : Circuit Diagram

INFOID:000000012796559

MODELS WITH DIGITAL MOTION CONTROL

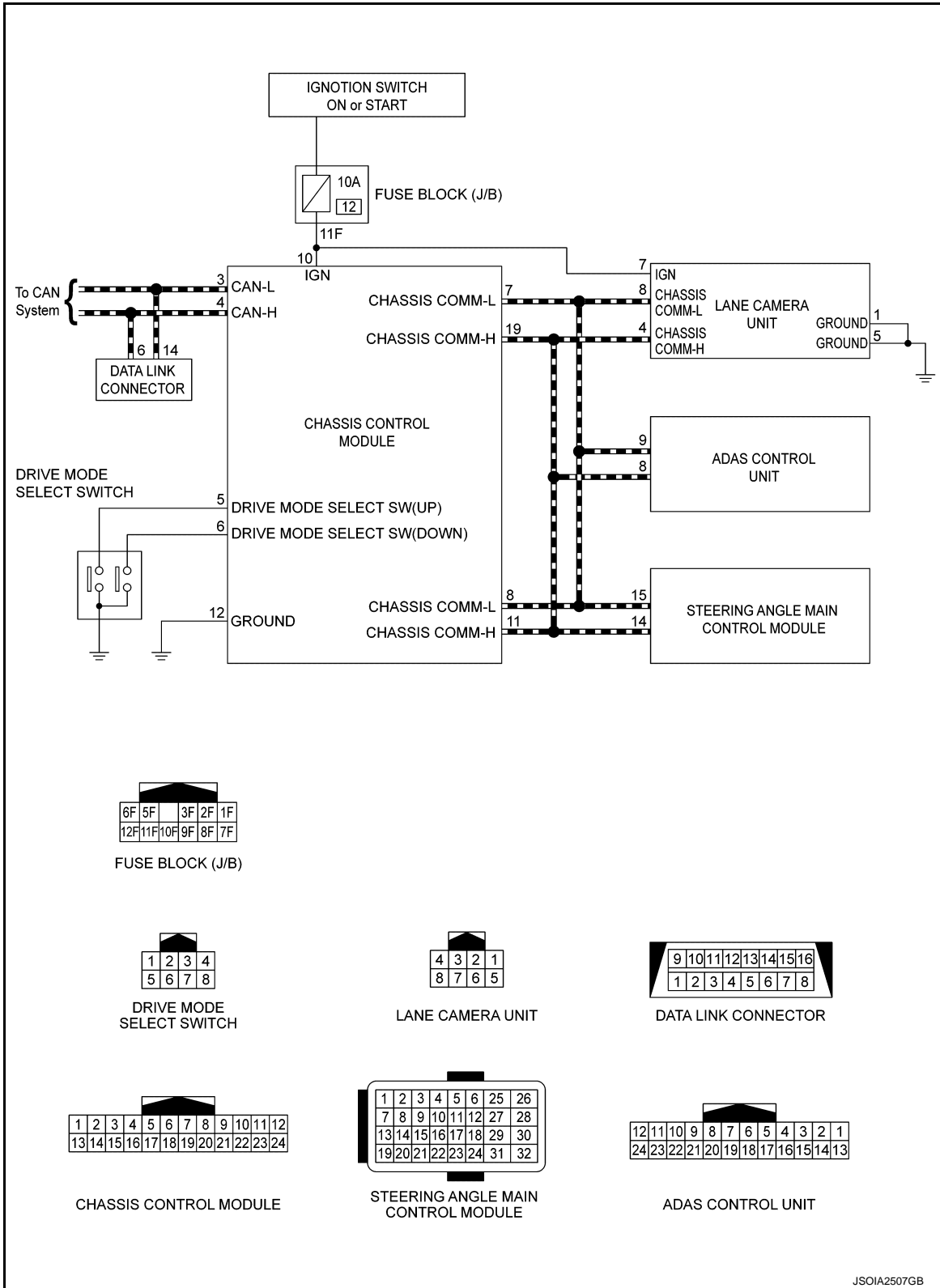


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[ACTIVE LANE CONTROL]

MODELS WITHOUT DIGITAL MOTION CONTROL



ACTIVE LANE CONTROL : Fail-safe (Lane Camera Unit with DAST)

INFOID:000000013376196

FAIL-SAFE CONTROL BY DTC

Active Lane Control

If a malfunction occurs in the lane camera unit, chassis control module cancels control, and turns ON the Chassis Control Module malfunction in information display.

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[ACTIVE LANE CONTROL]

< SYSTEM DESCRIPTION >

Lane Departure Warning (LDW)

If a malfunction occurs in the lane camera unit, chassis control module cancels control, and turns ON the LDW malfunction in information display.

Lane Departure Prevention (LDP)

If a malfunction occurs in the lane camera unit, chassis control module cancels control, sounds a beep, and turns ON the LDP malfunction in information display.

Blind Spot Intervention

If a malfunction occurs in the lane camera unit, chassis control module cancels control, sounds a beep, and turns ON the Blind Spot Intervention malfunction in information display.

TEMPORARY DISABLED STATUS AT HIGH TEMPERATURE

Lane Departure Warning (LDW)

- If the vehicle is parked in direct sunlight under high temperature conditions, the system may be deactivated automatically. And the LDW malfunction in information display.
- When interior temperature is reduced, the system will resume operation automatically and the LDW malfunction in the combination meter will stop blinking.

Lane Departure Prevention (LDP)

- If the vehicle is parked in direct sunlight under high temperature conditions, the system may be deactivated automatically. And the buzzer sounds and LDP malfunction in information display.
- When interior temperature is reduced, the system will resume when dynamic driver assistance switch is turned ON.

Blind Spot Intervention

- If the vehicle is parked in direct sunlight under high temperature conditions, the system may be deactivated automatically. And the buzzer sounds and Blind Spot Intervention malfunction in information display.
- When interior temperature is reduced, the system will resume when dynamic driver assistance switch is turned ON.

ACTIVE LANE CONTROL : Fail-Safe (Chassis Control Module)

INFOID:000000013508446

When a malfunction occurs in the chassis control module, the master warning lamp turns ON and an interrupt is displayed on the information display of the combination meter.

DTC	Vehicle condition
C1B90-00	The following functions are suspended.
C1B91-00	<ul style="list-style-type: none">• Active lane control function• LDW function• LDP function• Blind spot intervention function
C1B92-00	The following functions are suspended. <ul style="list-style-type: none">• Active trace control function• Active lane control function• LDW function• LDP function• Blind spot intervention function
C1B93-00	The following functions are suspended.
C1B94-00	<ul style="list-style-type: none">• Active trace control function• LDW function• LDP function• Blind spot intervention function
C1B96-00	The following functions are suspended. <ul style="list-style-type: none">• LDW function• LDP function• Blind spot intervention function• Intelligent cruise control function

SYSTEM

< SYSTEM DESCRIPTION >

[ACTIVE LANE CONTROL]

DTC	Vehicle condition	
C1B99-00	The following functions are suspended.	A
	• Active trace control function	
	• Active lane control function	B
	• LDW function	
	• LDP function	C
	• Blind spot intervention function	
C1BA6-00	The following functions are suspended.	
	• Infiniti InTuition function	
C1BA7-00	The following functions are suspended.	D
	• Active lane control function	
C1BA9-00	The following functions are suspended.	
C1BAA-00	• LDW function	E
	• LDP function	
	• Blind spot intervention function	
C1BAB-00	The following functions are suspended.	F
	• Active trace control function	
C1BAC-00	The following functions are suspended.	
C1BAD-00	• LDP function	G
C1BAE-00	• Blind spot intervention function	
C1BAF-00	The following functions are suspended.	H
	• Blind spot intervention function	
C1BB0-06	Normal control	
C1BB2-00	The following functions are suspended.	
C1BB3-00	• Active trace control function	I
	• Active lane control function	
	• LDW function	
C1BB4-00	• LDP function	J
	• Blind spot intervention function	
	• Infiniti InTuition function	
	• Digital motion control function	
C1BB5-00	The following functions are suspended.	K
	• Digital motion control function	
C1BB6-00	The following functions are suspended.	
C1BB7-00	• Active trace control function	L
	• Active lane control function	
C1BB8-00	• LDW function	
C1BB9-00	• LDP function	
	• Blind spot intervention function	M
C1BBA-00	• Infiniti InTuition function	
C1BBB-00	• Digital motion control function	
C1BBC-00	Normal control	N
C1BBD-00	The following functions are suspended.	
	• Active trace control function	
	• Active lane control function	DAS
	• LDW function	
	• LDP function	
	• Blind spot intervention function	
	• Infiniti InTuition function	
	• Digital motion control function	P

SYSTEM

< SYSTEM DESCRIPTION >

[ACTIVE LANE CONTROL]

DTC	Vehicle condition
C1BBE-11	The following functions are suspended. <ul style="list-style-type: none"> • Digital motion control function
C1BBE-12	
C1BBE-19	
C1BBE-1D	
C1BEE-39	
C1BEE-64	
C1BBF-11	
C1BBF-12	
C1BBF-19	
C1BBF-1D	
C1BBF-39	
C1BBF-64	
C1BC0-00	
C1BC1-00	
C1BC7-11	The following functions are suspended. <ul style="list-style-type: none"> • Digital motion control function
C1BC7-12	
C1BC7-19	
C1BC7-1D	
C1BC7-39	
C1BC7-64	
C1BC8-11	
C1BC8-12	
C1BC8-19	
C1BC8-1D	
C1BC8-39	
C1BC8-64	
U1000-00	
U1010-49	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • Active lane control function
U1A31-00	The following functions are suspended. <ul style="list-style-type: none"> • Active lane control function • LDW function • LDP function • Blind spot intervention function
U1A35-00	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function
U1A3E-00	Normal control

OPERATION
ACTIVE LANE CONTROL

ACTIVE LANE CONTROL : Menu Displayed by Pressing Each Switch

INFOID:0000000012796561

DESCRIPTION

Active Lane Control can be set to ON (enabled) or OFF (disabled) on the integral switch screen. in addition, function level (low / high) can be set and it functions in "PERSONAL" with "Infiniti Drive Mode Selector".

- Low: Small steering feedback to aid lane tracking
- High: Additional steering feedback to aid lane tracking

Active Lane Control (System setting)	Infiniti Drive Mode Selector (Mode selection)	Active Lane Control operation
ON	PERSONAL	Low / High
	Other than "PERSONAL"	Low
OFF	ALL	OFF

NOTE:

- When Lane departure prevention (LDP) is turned OFF, Active Lane Control is turned OFF automatically.
- Also, when Lane departure prevention (LDP) is canceled by the following conditions, Active Lane Control is turned OFF automatically.
 - Camera high temperature
 - Snow mode selection
 - VDC/ABS operation
 - VDC OFF

On the integral switch screen

1. Push the MENU button and touch "Infiniti Drive Mode Selector" on the lower display.
2. Touch "Edit personal mode".
3. Touch "Active Lane Control" and select "Low" or "High" to change the setting of Active Lane Control.

NOTE:

When "Lane Departure Prevention" is turned OFF, Active Lane Control is turned OFF automatically.

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HANDLING PRECAUTION

Precautions for Active Lane Control

INFOID:000000012796562

LANE CAMERA UNIT HANDLING

To keep the proper operation of Active Lane Control and prevent a system malfunction, be sure to observe the following:

- Always keep the windshield clean.
- Do not attach a sticker (including transparent material) or install an accessory near the lane camera unit.
- Do not place reflective materials, such as white paper or a mirror, on the instrument panel. The reflection of sunlight may adversely affect the lane camera unit capability of detecting the lane markers.
- Do not strike or damage the areas around the lane camera unit.
- Do not touch the camera lens.
- Do not remove the screw located on the lane camera unit.

ACTIVE LANE CONTROL

- If Active Lane Control malfunctions, it will cancel automatically. The chassis control warning will appear in the vehicle information display.
- Active Lane Control will not always steer the vehicle to keep it in the lane. It is not designed to prevent loss of control. It is the driver's responsibility to stay alert, drive safely, keep the vehicle in the traveling lane, and be in control of vehicle at all times.
- Active Lane Control is primarily intended for use on well-developed freeways or highways. It may not detect the lane markers for certain roads, weather or driving conditions.
- Using Active Lane Control under some conditions of road, lane marker or weather, or if driver attempt to change lanes without using the lane change signal could lead to an unexpected system operation. In such conditions, driver needs to correct the vehicle's direction with driver's steering operation to avoid accidents.
- Active Lane Control will not operate at speeds below approximately 70 km/h (45 MPH) or if it cannot detect lane markers.
- Active Lane Control may not operate properly under the following conditions, and do not use Active Lane Control:
 - During bad weather (rain, fog, snow, etc.).
 - When driving on slippery roads, such as on ice or snow, etc.
 - When driving on winding or uneven roads.
 - When there is a lane closure due to road repairs.
 - When driving in a makeshift or a temporary lane.
 - When driving on roads where the lane width is too narrow.
 - When driving with a tire that is not within normal tire conditions (for example, tire wear, low tire pressure, installation of spare tire, tire chains, non-standard wheels).
 - When the vehicle is equipped with non-original steering parts or suspension parts.
- The functions of Active Lane Control may or may not operate properly under the following conditions:
 - On roads where there are multiple parallel lane markers; lane markers that are faded or not painted clearly; yellow painted lane markers; non-standard lane markers or lane markers covered with water, dirt or snow, etc.
 - On roads where discontinued lane markers are still detectable.
 - On roads where there are sharp curves.
 - On roads where there are sharply contrasting objects, such as shadows, snow, water, wheel ruts, seams or lines remaining after road repairs (Active Lane Control could detect these items as lane markers.).
 - On roads where the traveling lane merges or separates.
 - When the vehicle's traveling direction does not align with the lane marker.
 - When traveling close to the vehicle in front of driver, which obstructs the lane camera unit detection range.
 - When rain, snow or dirt adheres to the windshield in front of the lane camera unit.
 - When the headlights are not bright due to dirt on the lens or if the aiming is not adjusted properly.
 - When strong light enters the lane camera unit (For example, the light directly shines on the front of the vehicle at sunrise or sunset.)
 - When a sudden change in brightness occurs (For example, when the vehicle enters or exits a tunnel or under a bridge.)
 - When entering or exiting tollgates.
 - When driving on roads with a widening or narrowing lane width.

DIAGNOSIS SYSTEM (LANE CAMERA UNIT)

< SYSTEM DESCRIPTION >

[ACTIVE LANE CONTROL]

DIAGNOSIS SYSTEM (LANE CAMERA UNIT)

CONSULT Function (LANE CAMERA)

INFOID:0000000012796563

APPLICATION ITEMS

CONSULT performs the following functions by communicating with the lane camera unit.

Diagnosis mode	Description
Work Support	Performs the camera aiming.
Self Diagnostic Result	Displays the name of a malfunctioning system stored in the lane camera unit
Data Monitor	Displays lane camera unit input/output data in real time
Ecu Identification	Displays lane camera unit part number
CAN Diag Support Monitor	Displays a reception/transmission state of chassis communication

WORK SUPPORT

Work support items	Description
AUTO AIM	Outputs camera unit, calculates dislocation of the camera, and displays adjustment direction.

SELF DIAGNOSTIC RESULT

Refer to [DAS-746, "DTC Index"](#).

FREEZE FRAME DATA (FFD)

Lane camera unit records the following vehicle condition at the time a particular DTC is detected, and displays on CONSULT.

CONSULT screen item	Indication/Unit	Description
Detailed Code	—	NOTE: The item is indicated, but not used.
Vehicle Speed	km/h	Vehicle speed of the moment a particular DTC is detected.
Steering Pinion Angle	deg	Steering pinion angle of the moment a particular DTC is detected.
Market Information & Camera Height	—	NOTE: The item is indicated, but not used.
Ambient Temperature & Snow Mode	—	NOTE: The item is indicated, but not used.
Image Processing Time	m/s	Image processing time of the moment a particular DTC is detected
Shutter Speed	—	Camera shutter speed of the moment a particular DTC is detected

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitored item [Unit]	Description
LDW SW PORT [On/Off]	NOTE: The item is indicated, but not used.
LDP ON IND [On/Off]	NOTE: The item is indicated, but not used.
LANE DPRT W/L [On/Off]	NOTE: The item is indicated, but not used.
CAM HIGH TEMP [NORMAL/HIGH]	Displays status of lane camera unit high temperature judgment
VHCL SPD SE [km/h] or [mph]	Displays vehicle speed received from chassis control module via chassis communication

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DIAGNOSIS SYSTEM (LANE CAMERA UNIT)

< SYSTEM DESCRIPTION >

[ACTIVE LANE CONTROL]

Monitored item [Unit]	Description
TURN SIGNAL [Off, LH, RH, LH/RH]	Displays status of "Turn signal" determined from chassis control module via chassis communication
LANE DETCT LH [On/Off]	Displays left side lane marker detection
LANE DETCT RH [On/Off]	Displays right side lane marker detection
CROSS LANE LH [On/Off]	Displays condition that the vehicle is crossing left lane marker
CROSS LANE RH [On/Off]	Displays condition that the vehicle is crossing right lane marker
WARN LANE LH [On/Off]	Displays warning for left lane marker
WARN LANE RH [On/Off]	Displays warning for right lane marker
VALID POS LH [VLD/INVLD]	Displays lateral position for left lane marker is valid
VALID POS RH [VLD/INVLD]	Displays lateral position for right lane marker is valid
LATERL POS LH [m]	Displays the distance from a lane camera to the left lane marker.
LATERL POS RH [m]	Displays the distance from a lane camera to the right lane marker.
CURVATURE [1/m]	Displays the road curvature that a lane camera detected.
LATERAL SPEED [m/s]	Displays lateral speed for the lane of the vehicle.
YAW ANGLE [deg]	Displays yaw angle for the lane of the vehicle.
CAM DTC CODE [—]	NOTE: The item is indicated, but not used.
AIMING DONE [OK/NG]	Displays status that camera aiming is done
AIMING RESULT [OK/NOK]	Displays result of camera aiming
AIM NG REASON [TARGET / YAW / ROLL / PITCH / IMAGE / LIGHT / 1-SIDE / OTHERS]	Displays the reason that can not complete the camera aiming.
RUNTIME AIM [On/Off]	NOTE: The item is indicated, but not used.
INITIALIZE [On/Off]	Displays an initialization state of lane camera.
RUNTIME AIM OFFSET (YAW) [deg]	NOTE: The item is indicated, but not used.
RUNTIME AIM WORK COND [NO-WRK/ GOOD]	NOTE: The item is indicated, but not used.
RUNTIME AIM MEMORIZING [NO-WRIT/ WRITING]	NOTE: The item is indicated, but not used.
XOFFSET [mm]	NOTE: The item is indicated, but not used.
RUNTIME AIM OFF-SET(PITCH) [deg]	NOTE: The item is indicated, but not used.
AIM CHECK YAW [deg]	NOTE: The item is indicated, but not used.
AIM CHECK ROLL [deg]	NOTE: The item is indicated, but not used.
AIM CHECK PITCH [deg]	NOTE: The item is indicated, but not used.
FOE X [deg]	NOTE: The item is indicated, but not used.
FOE Y [deg]	NOTE: The item is indicated, but not used.
RUNTIME FOE X [deg]	NOTE: The item is indicated, but not used.
RUNTIME FOE Y [deg]	NOTE: The item is indicated, but not used.

DIAGNOSIS SYSTEM (LANE CAMERA UNIT)

< SYSTEM DESCRIPTION >

[ACTIVE LANE CONTROL]

Monitored item [Unit]	Description
FCTRY AIM YAW [deg]	Displays check result of camera aiming
FCTRY AIM ROL [deg]	Displays check result of camera aiming
FCTRY AIM PIT [deg]	Displays check result of camera aiming
RUNTIME AIM COUNT [—]	NOTE: The item is indicated, but not used.
ROM WRITING COUNT [—]	NOTE: The item is indicated, but not used.
CAMERA START [START/COMP]	Displays a start state of the lane camera.
GIVE UP [OK/NG]	Displays a detection state of the lane marker.
READY [NOT/ COMP]	Displays a controllable state.
MARK TYPE LH [NONE / SOLID / DASHED / BOTT's / FORK / SLOW/ TAR / IRGLTY]	Displays the type of left side lane marker.
MARK TYPE RH [NONE / SOLID / DASHED / BOTT's / FORK / SLOW/ TAR / IRGLTY]	Displays the type of right side lane marker.
CAMERA OFFSET HEIGHT (Dh) [mm]	Displays camera height correction value (Dh).
TARGET HEIGHT (Ht) [mm]	Displays height (Ht) of the aiming target.
TARGET DISTANCE (Dt) [mm]	Displays the distance (Dt) from front axle to a target.

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DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

< SYSTEM DESCRIPTION >

[ACTIVE LANE CONTROL]

DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

CONSULT Function

INFOID:000000013508436

APPLICATION ITEM

CONSULT can display each diagnostic item using the diagnostic test modes as follows.

Mode	Function description
ECU identification	Parts number of chassis control module can be read.
Self Diagnostic Results	Self-diagnostic results and freeze frame data can be read and erased quickly.* ¹
DATA MONITOR	Input/Output data in chassis control module can be read.
ACTIVE TEST	Send the drive signal from CONSULT to the actuator. The operation check can be performed.
Work Support	Components can be quickly and accurately adjusted.
Re/programming, Configuration	<ul style="list-style-type: none"> Read and save the vehicle specification (TYPE ID). Write the vehicle specification (TYPE ID) when replacing chassis control module.

*¹: The following diagnosis information is erased by erasing.

- DTC
- Freeze frame data (FFD)

ECU IDENTIFICATION

Chassis control module part number can be read.

SELF DIAGNOSTIC RESULT

Refer to [DAS-761, "DTC Index"](#).

When "CRNT" is displayed on self-diagnosis result

- The system is presently malfunctioning.

When "PAST" is displayed on self-diagnosis result

- System malfunction in the past is detected, but the system is presently normal.

Freeze frame data (FFD)

When DTC is detected, a vehicle state shown below is recorded and displayed on CONSULT.

Item name	Indication/Unit	Display item
Odometer/Trip meter	km	Total mileage (Odometer value) of the moment a particular.
DTC LOCAL CODE	—	DTC code is displayed but not used.
CAN DIAG PERMIS CONDITION	Off / On	Displays CAN network diagnosis status.
BRAKE SWITCH 1	Off / On	Displays brake pedal operating status.
BRAKE SWITCH 2	Off / On	Displays brake pedal operating status.
ABS	NORMAL / ABNOR	Displays ABS function status.
TCS	NORMAL / ABNOR	Displays TCS function status.
VDC	NORMAL / ABNOR	Displays VDC function status.
VEHICLE SPEED	km	Displays the vehicle speed.
FR WHEEL SPEED	rpm	Displays the rotational speed of front RH tire.
FL WHEEL SPEED	rpm	Displays the rotational speed of front LH tire.
RR WHEEL SPEED	rpm	Displays the rotational speed of rear RH tire.
RL WHEEL SPEED	rpm	Displays the rotational speed of rear LH tire.
STEERING ANG SENSOR	deg	Displays the steering angle from the steering angle sensor.
SIDE G SENSOR	G	Displays the side G.
DECEL G SENSOR	G	Displays the decel G.
YAW RATE SENSOR	deg/s	Displays the yaw rate.
THRTL OPENING	%	Displays the electric throttle position.

DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

< SYSTEM DESCRIPTION >

[ACTIVE LANE CONTROL]

Item name	Indication/Unit	Display item	
SHIFT POSITION	Off / P / R / N / D (A) / S / L / B / 1 – 6 / M 1 – M 8 / A 1 – A 6	Displays the shift position.	A
PRESS SENSOR	bar	Displays the brake fluid pressure.	B
DRIVE MODE SELECTOR	STD / SPORT / ECO / SNOW / PERSO	Displays the drive mode select switch selection status.	C
LANE MARKER (LH) ^{*1}	NOT / DETECT	Displays the lane marker (LH) detection status.	D
LANE MARKER (RH) ^{*1}	NOT / DETECT	Displays the lane marker (RH) detection status.	D
TURN SIGNAL (LH) ^{*1}	Off / On	Displays the turn signal switch (LH) operating status.	E
TURN SIGNAL (RH) ^{*1}	Off / On	Displays the turn signal switch (RH) operating status.	E
TURN SIGNAL SWITCH ^{*1}	Off / LEFT / RIGHT / MALF	Displays the turn signal switch operating status.	E
DAST ^{*1}	Off / On	Displays the operation request status to Direct Adaptive Steering.	F
ROAD DISTORTION ^{*1}	1/m	Displays the road distortion rate radius.	F
ALC COMMAND ST ANG ^{*1}	rad	Displays the steering command value to Direct Adaptive Steering.	G
ST WHL FORCE TORQUE ^{*1}	Nm	Displays the estimated value for the steering wheel force torque.	G
ALC COMMAND ST WHL FORCE ^{*1}	N	Displays the steering reaction force command value to Direct Adaptive Steering.	H
ADAS COND ^{*1}	NORMAL / ABNOR	Displays the ADAS control unit function status.	H
WIPER STATUS ^{*1}	Off / LOW / HIGH / MALF	Displays the wiper operating status.	I
DDS operating condition ^{*2}	Off / On	Displays the dynamic digital suspension condition.	I
Engine rpm ^{*2}	rpm	Displays the engine speed.	J
DMC) CAN signal not receive ^{*2}	Non detection / De- tection	Displays the CAN signal not receive of digital motion control.	J
DMC) CAN signal irregularity 1 ^{*2}	Non detection / De- tection	Displays the CAN signal irregularity (message counter) of digital motion control.	K
DMC) CAN signal irregularity 2 ^{*2}	Non detection / De- tection	Displays the CAN signal irregularity (checksum) of digital motion control.	K
DMC) CAN signal invalid ^{*2}	Non detection / De- tection	Displays the CAN signal invalid of digital motion control.	L
Stop/Start ^{*2}	A	Displays the Stop/Start status.	M
FR shock ab command current ^{*2}	A	Displays the dynamic digital suspension (FR) command current.	M
FL shock ab command current ^{*2}	A	Displays the dynamic digital suspension (FL) command current.	N
RR shock ab command current ^{*2}	A	Displays the dynamic digital suspension (RR) command current.	N
RL shock ab command current ^{*2}	A	Displays the dynamic digital suspension (RL) command current.	N
DMC status ^{*2}	Inactive / Active 1 / Active 2 / Active 3 / Active 4 /Not connect current line / Active test 1 /Active test 2 / Other control unit / CAN com- munication / Control unit	Displays the digital motion control status.	P

*1: Models with Active Lane Control

*2: Models with Digital motion control

DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

[ACTIVE LANE CONTROL]

< SYSTEM DESCRIPTION >

DATA MONITOR

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Item [Unit]	Description
IGN VOLT [V]	Displays the ignition power supply voltage.
CONTROL MODULE MALF [Off / On]	Displays chassis control module malfunction.
CAN DIAG STATUS [Off / On]	Displays CAN network diagnosis status.
STP LAMP OFF RELAY 1 [Off / On]	Displayed but not used.
STP LAMP OFF RELAY 2 [Off / On]	Displayed but not used.
ESS RELAY [Off / On]	Displayed but not used.
VEHICLE SPEED [km/m]	Displays the vehicle speed.
FR WHEEL SPEED [rpm]	Displays the rotational speed of front RH tire.
FL WHEEL SPEED [rpm]	Displays the rotational speed of front LH tire.
RR WHEEL SPEED [rpm]	Displays the rotational speed of rear RH tire.
RL WHEEL SPEED [rpm]	Displays the rotational speed of rear LH tire.
STEERING ANG SENSOR [deg]	Displays the steering angle from the steering angle sensor.
DECEL G SENSOR [G]	Displays the decel G.
SIDE G SENSOR [G]	Displays the side G.
YAW RATE SENSOR [deg/s]	Displays the yaw rate.
ACCELE PEDAL POSITION [%]	Displays the accelerator pedal position.
THROTTLE CONTROL [NORMAL / INCORR / PREV / INPOSS]	Displays the electric throttle status.
SHIFT POSITION [Off / P / R / N / D (A) / S / L / B / 1-6 / M 1 -M 8 / A 1 - A 6]	Displays the shift position.
BRAKE SWITCH 2 [Off / On]	Displays brake pedal operating status.
BRAKE SWITCH 1 [Off / On]	Displays brake pedal operating status.
PRESS SENSOR [bar]	Displays the brake fluid pressure.
ABS [NORMAL / ABNOR]	Displays ABS function status.
ABS MALF [NORMAL / ABNOR]	Displays ABS function status.
EBD [NORMAL / ABNOR]	Displays EBD function status.
TCS [NORMAL / ABNOR]	Displays TCS function status.
TCS MALF [NORMAL / ABNOR]	Displays TCS function status.
VDC [NORMAL / ABNOR]	Displays VDC function status.
VDC MALF [NORMAL / ABNOR]	Displays VDC function status.
VDC OFF SWITCH [Off / On]	Displays VDC OFF switch status.
PARKING BRAKE [Off / On]	Displays the parking brake operating status.
ACCELE PEDAL MALF [NORMAL / ABNOR]	Displays the accelerator pedal status.
DRV TRQ CTRL MODE [INITIAL / NORMAL / STOP 1 / STOP 2 / LIMIT 1 / PROHIB]	Displays the status of correction to slightly increase/decrease the drive torque.
DRV TRQ CTRL PERMIS 1 [NO PER / PERMIS]	Displays the permission status (basic requirement) of correction to slightly increase/decrease drive torque.
DRV TRQ CTRL PERMIS 2 [NO PER / PERMIS]	Displays the permission status (system requirement) of correction to slightly increase/decrease drive torque.
DRV TRQ CTRL STOP [REQ / NO REQ]	Displays the stop request status of correction to slightly increase/decrease drive torque.

DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

< SYSTEM DESCRIPTION >

[ACTIVE LANE CONTROL]

Item [Unit]	Description
DRV TRQ CTRL PROHIBIT [REQ / NO REQ]	Displays the prohibition request status of correction to slightly increase/decrease drive torque.
DRIVE MODE SELECTOR [STD / SPORT / SNOW / ECO / SPORT+ / PERSO / NOT / NOT SET]	Displays the drive mode select switch selection status.
LOG-IN PERMIS [NO PER / PERMIS]	Displays the login authority status of Infiniti InTuition function.
I-KEY LINK [Off / On]	Displays the Intelligent Key linking status of Infiniti InTuition function.
USER [USER A / USER B / USER C / GUEST]	Displays the current user status of Infiniti InTuition function.
ENGINE/TM SETTING [SPORT / STD / ECO / SNOW]	Displays the engine/transmission setting status with Infiniti drive mode selector function.
ALC SETTING [Off / LOW / HIGH]	Displays Active Lane Control setting status with Infiniti drive mode selector function.
ATC SETTING [Off / On]	Displays active trace control function setting status with Infiniti drive mode selector function.
COMBI METER [STD / SPORT / SNOW / ECO / PERSO]	Displays the combination meter function setting status with Infiniti drive mode selector function.
ATC 1 [Off / On]	Displays active trace control function operating status.
ATC 2 [Off / On]	Displays active trace control function operating status.
ATC 4 [Off / On]	Displays active trace control function operating status.
FL TIRE DISP [DEF / 1]	Displays the status of front LH tire displayed on the information display in the combination meter.
FR TIRE DISP [DEF / 1]	Displays the status of front RH tire displayed on the information display in the combination meter.
RL TIRE DISP [DEF / 1]	Displays the status of rear LH tire displayed on the information display in the combination meter.
RR TIRE DISP [DEF / 1]	Displays the status of rear RH tire displayed on the information display in the combination meter.
TURN DISP [N STEER / LEFT / RIGHT]	Displays the turning direction of active trace control function on the information display in the combination meter.
ALC LEVEL [0 – 4]	Displays active/inactive status of Active Lane Control.
ALC STATUS [INACT / ACT]	Display Active Lane Control operating status.
ATC DISP [Off / On]	Displays the operating status of active trace control function on the information display in the combination meter.
ALC DISP [Off / On]	Displays the operating status of Active Lane Control on the information display in the combination meter.
ALC SYSTEM [Off / On]	Display Active Lane Control activation status.
LANE MARKER (LH) [NOT / DETECT]	Displays the lane marker (LH) detection status.
LANE MARKER (RH) [NOT / DETECT]	Displays the lane marker (RH) detection status.
TURN SIGNAL (LH) [Off / On]	Displays the turn signal switch (LH) operating status.
TURN SIGNAL (RH) [Off / On]	Displays the turn signal switch (RH) operating status.
TURN SIGNAL SWITCH [Off / LEFT / RIGHT / MALF]	Displays the turn signal switch operating status.
DAST [Off / On]	Displays Direct Adaptive Steering operating status.
ROAD DISTORTION [1/m]	Displays the road curvature.
COMMAND ST ANG [rad]	Displays the steering command value to Direct Adaptive Steering.
ST PINION ANG [rad]	Displays the steering pinion angle.
ST WHL FORCE TORQUE [Nm]	Displays the steering wheel force torque.
COMMAND ST WHL FORCE [N]	Displays the reaction force command value to Direct Adaptive Steering.

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DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

< SYSTEM DESCRIPTION >

[ACTIVE LANE CONTROL]

Item [Unit]	Description
LDW DISP	[On / MALF] Displays LDW status received from ADAS control unit.
LDP DISP	[On / MALF] Displays LDP status received from ADAS control unit.
BSI DISP	[On / MALF] Displays Blind spot intervention function status received from ADAS control unit.
ST SWITCH COND	[OK / NG 1 / NG 2] Displays the steering switch status received from ADAS control unit.
BSW COND	[NORMAL / ABNOR] Displays BSW status received from ADAS control unit.
ADAS COND	[NORMAL / ABNOR] Displays ADAS status received from ADAS control unit.
COLLISION WARN	[Off / On] Displays collision warning status received from ADAS control unit.
ICC ACTIVE	[Off / On] Displays ICC operating status received from ADAS control unit.
IBA ACTIVE	[Off / On] Displays intelligent brake assist operating status received from ADAS control unit.
DR BUZZER STATUS	[NO / 1 / 2 / 3 / 1, 2 / 2, 3 / 1, 3 / 4] Displayed but not used.
LDW COND	[On / MALF] Displays LDW status transmitted to ADAS control unit.
LDP COND	[On / MALF] Displays LDP status transmitted to ADAS control unit.
BSI COND	[On / MALF] Displays blind spot intervention function status transmitted to ADAS control unit.
LDP BRAKE CANCEL	[NONE / SLIP / SNOW / VDC OF] Displays LDP cancel cause transmitted to ADAS control unit.
BSI BRAKE CANCEL	[NONE / SLIP / SNOW / VDC OF] Displays blind spot intervention function cancel cause transmitted to ADAS control unit.
CAMERA COND	[NORMAL / ABNOR] Displays the lane camera unit status.
CAMERA TEMP COND	[NORMAL / ABNOR] Displays the lane camera unit status by temperature.
CAMERA COMM COND	[NORMAL / ABNOR] Displays the communication status with the lane camera unit status.
CAMERA AIMING	[INCOMP / COMP] Displays the lane camera unit aiming status.
CAMERA HIGH TEMP (LDW)	[NORMAL / ABNOR] Displays the lane camera unit system cancel request due to high temperature (LDW).
CAMERA HIGH TEMP (LDP)	[NORMAL / ABNOR] Displays the lane camera unit system cancel request due to high temperature (LDP)
CAMERA HIGH TEMP (BSI)	[NORMAL / ABNOR] Displays the lane camera unit system cancel request due to high temperature (Blind spot intervention)
SIDE RADAR BLOCK CANCEL	[NORMAL / BLOCK] Displays the side radar status.
BSI LAMP REQ (LH)	[Off / On] Displays blind spot intervention indicator blink request at blind spot intervention operation (LH).
BSI LAMP REQ (RH)	[Off / On] Displays blind spot intervention indicator blink request at blind spot intervention operation (RH).
LANE DEPARTURE DISP (LH)	[NO DISP / DEVIAT] Displays the deviating status on the LH side lane.
LANE DEPARTURE DISP (RH)	[NO DISP / DEVIAT] Displays the deviating status on the RH side lane.
LDP/BSI ACTIVE	[Off / On] Displays LDP/blind spot intervention function operation status.
ADAS COND	[NORMAL / ABNOR] Displayed, but not used
DR BUZZER COND	[NORMAL / ABNOR] Displayed, but not used
OUTSIDE TEMP	[°C] Displays the ambient temperature.
WIPER STATUS	[Off / LOW / HIGH / MALF] Displays the front wiper operating status.
Engine rpm	[rpm] Displays the engine speed.
FR shock ab drive current	[A] Displays the dynamic digital suspension (FR) drive current.
FL shock ab drive current	[A] Displays the dynamic digital suspension (FL) drive current.

DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

< SYSTEM DESCRIPTION >

[ACTIVE LANE CONTROL]

Item [Unit]	Description
RR shock ab drive current [A]	Displays the dynamic digital suspension (RR) drive current.
RL shock ab drive current [A]	Displays the dynamic digital suspension (RL) drive current.
Shock absorber control 1 [Off / On]	Displays the dynamic digital suspension control condition.
Shock absorber control 2 [Off / On]	Displays the dynamic digital suspension control condition.
Shock absorber control 3 [Off / On]	Displays the dynamic digital suspension control condition.
FR shock ab command current [A]	Displays the dynamic digital suspension (FR) command current.
FL shock ab command current [A]	Displays the dynamic digital suspension (FL) command current.
RR shock ab command current [A]	Displays the dynamic digital suspension (RR) command current.
RL shock ab command current [A]	Displays the dynamic digital suspension (RL) command current.

ACTIVE TEST

The active test is used to determine and identify details of a malfunction, based on self-diagnosis test results and data obtained in the DATA MONITOR. In response to instructions from CONSULT, instead of those from chassis control module on the vehicle, a drive signal is sent to the actuator to check its operation.

CAUTION:

- **Never perform ACTIVE TEST while driving the vehicle.**
- **Always bleed air from brake system before active test.**
- **Never perform active test when system is malfunctioning.**

NOTE:

- When active test is performed while depressing the brake pedal, the brake pedal depressing stroke may change. This is not a malfunction.
- During an active test, sometimes a chassis control warning is displayed and the master warning lamp illuminates on the information display in the combination meter; however, this is not a malfunction.

Test item	Operation	Description
BRAKE ACTUATOR 1 MODE 1	Start	Controls brake fluid pressure.
BRAKE ACTUATOR 1 MODE 2	Start	Controls brake fluid pressure.
BRAKE ACTUATOR 1 MODE 3	Start	Controls brake fluid pressure.
BRAKE ACTUATOR 2 MODE 1	Start	Controls brake fluid pressure.
BRAKE ACTUATOR 2 MODE 2	Start	Controls brake fluid pressure.
BRAKE ACTUATOR 2 MODE 3	Start	Controls brake fluid pressure.
BRAKE ACTUATOR 3 MODE 1	Start	Controls brake fluid pressure.
BRAKE ACTUATOR 3 MODE 2	Start	Controls brake fluid pressure.
BRAKE ACTUATOR 3 MODE 3	Start	Controls brake fluid pressure.
COMMAND STEERING ANGLE	Start	Transmits the steering command value 0 deg → 0.00349 deg (hold it for approximately 2 seconds) → 0 deg (hold it for approximately 2 seconds) → 0.00349 deg (hold it for approximately 2 seconds) → 0 deg to the steering force control module.
COMMAND ST WHL FORCE	Start	Transmits the steering reaction force command value 0 N → 0.6 N (hold it for approximately 2 seconds) → 0 N (hold it for approximately 2 seconds) → 0.6 N (hold it for approximately 2 seconds) → 0 N to the steering force control module.
MASTER WARNING ACTIVE	On	If touching "On" with the master warning lamp not illuminated, the master warning lamp illuminates. Stops in approximately 1 minute.
	Off	The master warning lamp turns OFF. (vehicle in normal state)
ALC DISP	On	Displays Active Lane Control active status on the information display in the combination meter.
	Off	Displays Active Lane Control inactive status on the information display in the combination meter.

DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

< SYSTEM DESCRIPTION >

[ACTIVE LANE CONTROL]

Test item	Operation	Description
FL TIRE DISP	On	Displays the front LH tire on the information display in the combination meter.
	Off	Does not display the front LH tire on the information display in the combination meter.
FR TIRE DISP	On	Displays the front RH tire on the information display in the combination meter.
	Off	Does not display the front RH tire on the information display in the combination meter.
RL TIRE DISP	On	Displays the rear LH tire on the information display in the combination meter.
	Off	Does not display the rear LH tire on the information display in the combination meter.
RR TIRE DISP	On	Displays the rear RH tire on the information display in the combination meter.
	Off	Does not display the rear RH tire on the information display in the combination meter.
TURN DISP	NO DISP	Does not display the turning status on the information display in the combination meter.
	LH	Displays the LH turning status on the information display in the combination meter.
	RH	Displays the RH turning status on the information display in the combination meter.
ALC LEVEL	LEVEL 1	Displays Active Lane Control corresponding to the selected level on the information display in the combination meter.
	LEVEL 2	
	LEVEL 3	
	LEVEL 4	
ALC SETTING	On	Displays Active Lane Control active status on the information display in the combination meter.
	Off	Displays Active Lane Control inactive status on the information display in the combination meter.
ATC 1 DISP	On	Displays active trace control function active status on the information display in the combination meter.
	Off	Displays active trace control function inactive status on the information display in the combination meter.
ATC 2 DISP	On	Displays active trace control function active status on the information display in the combination meter.
	Off	Displays active trace control function inactive status on the information display in the combination meter.
ATC 4 DISP	On	Displays active trace control function active status on the information display in the combination meter.
	Off	Displays active trace control function inactive status on the information display in the combination meter.
FR shock absorber*	Soft	Controls dynamic digital suspension (FR).
	Medium	
	Hard	
FL shock absorber*	Soft	Controls dynamic digital suspension (FL).
	Medium	
	Hard	

DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

< SYSTEM DESCRIPTION >

[ACTIVE LANE CONTROL]

Test item	Operation	Description
RR shock absorber*	Soft	Controls dynamic digital suspension (RR).
	Medium	
	Hard	
RL shock absorber*	Soft	Controls dynamic digital suspension (RL).
	Medium	
	Hard	
All shock absorber*	Soft	Controls all dynamic digital suspension.
	Medium	
	Hard	

*: Models with digital motion control

WORK SUPPORT

Work support items	Description
ERASE LAST DRIVER INFORMATION	Erases the information for the previous driver.
ERASE KEY ALLOTMENT USER	Erases all user information.
ERASE PERSONAL SETTINGS	Erases all user information (personal settings only).
CAUSE OF AUTO-CANCEL 1	Displays causes of automatic system cancellation occurred during control of the following systems <ul style="list-style-type: none"> • Lane Departure Prevention (LDP) • Blind Spot Intervention

NOTE:

- Causes of the maximum five cancellations (system cancel) are displayed.
- The displayed cancellation causes display the number of the ignition switch ON/OFF up to 254. It is fixed to 254 if it is over 254. It returns to 0 when the same cancellation cause is detected again.

Display Items for The Cause of Automatic Cancellation 1

Cause of cancellation	Lane departure prevention	Blind spot intervention	Description
OPE VDC/TCS/ABS 1	×		The activation of VDC, TCS, or ABS during LDP system control
Vehicle dynamics	×		Vehicle behavior exceeds specified value
Steering speed	×		Steering speed was more than the specified value in evasive direction
End by yaw angle	×		Yaw angle was the end of LDP control
Departure yaw large	×		Detected more than the specified value of yaw angle in departure direction
ICC WARNING	×		Target approach warning of ICC system, IBA system, or FCW system was activated
CURVATURE	×		Road curve was more than the specified value
Steering angle large	×		Steering angle was more than the specified value
Brake is operated	×		Brake pedal was operated
IGN LOW VOLT	×		Decrease in ADAS control unit IGN voltage
Lateral offset	×		Distance of vehicle and lane was detached in lateral direction more than the specified value
Lane marker lost	×		Lane camera unit lost the trace of lane marker
Lane marker unclear	×		Detected lane marker was unclear

DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

< SYSTEM DESCRIPTION >

[ACTIVE LANE CONTROL]

Cause of cancellation	Lane departure prevention	Blind spot intervention	Description
Yaw acceleration	×		Detected yawing speed was more than the specified value
Deceleration large	×		Deceleration in a longitudinal direction was more than the specified value
Accel is operated	×		Accelerator pedal was depressed
Departure steering	×		Steering wheel was steered more than the specified value in departure direction
Evasive steering	×		Steering wheel was steered more than the specified value in the evasive direction
R range	×		Selector lever was operated to R range
Parking brake drift	×		Rear wheels lock was detected
Not operating condition	×		Did not meet the operating condition (vehicle speed, turn signal operation, etc.)
SNOW MODE SW	×		Shifting of the drive mode selector to SNOW position
VDC OFF SW	×		VDC OFF switch was pressed
OPE VDC/ABS 2	×		The activation of VDC or ABS during a standby time of LDP or blind spot intervention system control
BSI) OPE VDC/TCS/ABS 1		×	The activation of VDC, TCS, or ABS during blind spot intervention system control
BSI) Vehicle dynamics		×	Vehicle behavior exceeds specified value
BSI) Steering speed		×	Steering speed was more than the specified value in evasive direction
BSI) End by yaw angle		×	Yaw angle was the end of blind spot intervention control
BSI) Departure yaw large		×	Detected more than the specified value of yaw angle in departure direction
BSI) ICC WARNING		×	Target approach warning of ICC system, FEB system or FCW system was activated
BSI) CURVATURE		×	Road curve was more than the specified value
BSI) Steering angle large		×	Steering angle was more than the specified value
BSI) Brake is operated		×	Brake pedal was operated
BSI) IGN LOW VOLT		×	Decrease in chassis control module IGN voltage
BSI) Lateral offset		×	Distance of vehicle and lane was detached in lateral direction more than the specified
BSI) Lane marker lost		×	Lane camera unit lost the trace of lane marker
BSI) Lane marker unclear		×	Detected lane marker was unclear
BSI) Yaw acceleration		×	Detected yawing speed was more than the specified value
BSI) Deceleration large		×	Deceleration in a longitudinal direction was more than the specified value
BSI) Accel is operated		×	Accelerator pedal was depressed
BSI) Departure steering		×	Steering wheel was steered more than the specified value in departure direction
BSI) Evasive steering		×	Steering wheel was steered more than the specified value in the evasive direction
BSI) R range		×	Selector lever was operated to R range
BSI) Parking brake drift		×	Rear wheels lock was detected
BSI) SNOW MODE SW		×	Shifting of the drive mode selector to SNOW position
BSI) VDC OFF SW		×	VDC OFF switch was pressed
BSI) OPE VDC/ABS 2		×	The activation of VDC or ABS during a standby time of blind spot intervention system control

DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

< SYSTEM DESCRIPTION >

[ACTIVE LANE CONTROL]

Cause of cancellation	Lane departure prevention	Blind spot intervention	Description
BSI) Not operating condition		×	Did not meet the operating condition (vehicle speed, turn signal operation, etc.)
Side Radar Lost		×	Unrecognized side radar LH or RH by the ADAS control unit
NO RECORD	×	×	—

RE/PROGRAMMING, CONFIGURATION

Configuration includes the following functions.

Function	Description
Read/Write Configuration	Before replacing ECU Allows the reading of vehicle specification (Type ID) written in chassis control module to store the specification in CONSULT.
	After replacing ECU Allows the writing of vehicle information (Type ID) stored in CONSULT into the chassis control module.
Manual Configuration	Allows the writing of vehicle specification (Type ID) into the chassis control module by hand.

CAUTION:

Use “Manual Configuration” only when “TYPE ID” of chassis control module cannot be read.

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LANE CAMERA UNIT

< ECU DIAGNOSIS INFORMATION >

[ACTIVE LANE CONTROL]

ECU DIAGNOSIS INFORMATION

LANE CAMERA UNIT

Reference Value

INFOID:0000000012796565

VALUES ON THE DIAGNOSIS TOOL

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor Item	Condition	Value/Status
LDW SW PORT	NOTE: The item is indicated, but not used.	—
LDP ON IND	NOTE: The item is indicated, but not used.	—
LANE DPRT W/L	NOTE: The item is indicated, but not used.	—
CAM HIGH TEMP	When the temperature around lane camera unit is adequate.	NORMAL
	When the temperature around the lane camera unit is high.	High
VHCL SPD SE	While driving	Approximately equivalent to speedometer reading
TURN SIGNAL	Turn signal lamp LH and RH blinking	LH/RH
	Turn signal lamp LH blinking	LH
	Turn signal lamp RH blinking	RH
	Turn signal lamps OFF	Off
LANE DETCT LH	Left side lane marker is detected.	On
	Left side lane marker is not detected.	Off
LANE DETCT RH	Right side lane marker is detected.	On
	Right side lane marker is not detected.	Off
CROSS LANE LH	The vehicle is crossing left side lane marker.	On
	The vehicle is not crossing left side lane marker.	Off
CROSS LANE RH	The vehicle is crossing right side lane marker.	On
	The vehicle is not crossing right side lane marker.	Off
WARN LANE LH	The vehicle is traveling on the left side lane marker.	On
	The vehicle is traveling the center of traffic lane.	Off
WARN LANE RH	The vehicle is traveling on the right side lane marker.	On
	The vehicle is traveling the center of traffic lane.	Off
VALID POS LH	Lateral position for left side lane marker is valid	VLD
	Lateral position for left side lane marker is invalid.	INVLD
VALID POS RH	Lateral position for right side lane marker is valid.	VLD
	Lateral position for right side lane marker is invalid.	INVLD
LATERL POS LH	Left side lane marker is detecting.	Displays the distance from a lane camera to the left lane marker.
LATERL POS RH	Right side lane marker is detecting.	Displays the distance from a lane camera to the right lane marker.
CURVATURE	Lane marker is detecting.	Displays the road curvature that a lane camera detected.

LANE CAMERA UNIT

< ECU DIAGNOSIS INFORMATION >

[ACTIVE LANE CONTROL]

Monitor Item	Condition	Value/Status	
LATERAL SPEED	Lane marker is detecting.	Displays lateral speed for the lane of the vehicle.	A
YAW ANGLE	Lane marker is detecting.	Displays yaw angle for the lane of the vehicle.	B
CAM DTC CODE	NOTE: The item is indicated, but not used.		
AIMING DONE	Camera aiming is completed.	OK	C
	Camera aiming is not adjusted.	NG	
AIMING RESULT	Camera aiming is completed.	OK	D
	Camera aiming is not completed.	NOK	
AIM NG REASON	No target is detected.	TARGET	
	Yaw angle beyond the allowable range is detected.	YAW	E
	Roll angle beyond the allowable range is detected.	ROLL	
	Pitch angle beyond the allowable range is detected.	PITCH	F
	The target is unclear.	IMAGE	
	Lighting is insufficient.	LIGHT	
	One side target is not detected.	1-SIDE	G
	Other NG is detected.	OTHERS	
RUNTIME AIM	NOTE: The item is indicated, but not used.	—	H
INITIALIZE	NOTE: The item is indicated, but not used.	—	
RUNTIME AIM OFFSET (YAW)	NOTE: The item is indicated, but not used.	—	I
RUNTIME AIM WORK COND	NOTE: The item is indicated, but not used.	—	J
RUNTIME AIM MEMORIZING	NOTE: The item is indicated, but not used.	—	
XOFFSET	NOTE: The item is indicated, but not used.	—	K
RUNTIME AIM OFFSET(PITCH)	NOTE: The item is indicated, but not used.	—	L
AIM CHECK YAW	NOTE: The item is indicated, but not used.	—	
AIM CHECK ROLL	NOTE: The item is indicated, but not used.	—	M
AIM CHECK PITCH	NOTE: The item is indicated, but not used.	—	N
FOE X	NOTE: The item is indicated, but not used.	—	
FOE Y	NOTE: The item is indicated, but not used.	—	DAS
RUNTIME FOE X	NOTE: The item is indicated, but not used.	—	
RUNTIME FOE Y	NOTE: The item is indicated, but not used.	—	P
FCTRY AIM YAW	Camera aiming is completed.	0 ± 2.0 deg	
FCTRY AIM ROL	Camera aiming is completed.	0 ± 2.0 deg	
FCTRY AIM PIT	Camera aiming is completed.	0 ± 2.0 deg	

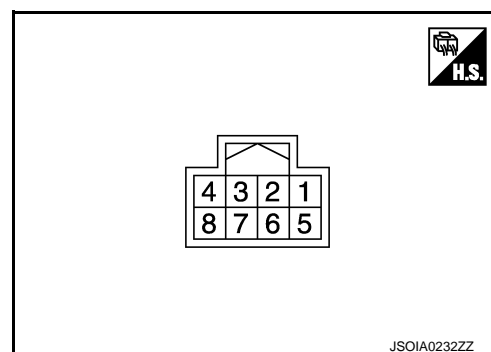
LANE CAMERA UNIT

< ECU DIAGNOSIS INFORMATION >

[ACTIVE LANE CONTROL]

Monitor Item	Condition	Value/Status
RUNTIME AIM COUNT	NOTE: The item is indicated, but not used.	—
ROM WRITING COUNT	NOTE: The item is indicated, but not used.	—
CAMERA START	Lane camera unit is starting.	START
	Lane camera unit starting is completed.	COMP
GIVE UP	Lane marker can be detected.	OK
	Lane marker can not be detected.	NG
READY	Operating conditions are not satisfied.	NOT
	Operating conditions are satisfied.	COMP
MARK TYPE LH	Lane marker is not detected.	NONE
	Solid line is detected.	SOLID
	Dashed line is detected.	DASHED
	Bott's dots is detected.	BOTT's
	Fork road (bifurcation) is detected.	FORK
	Slow down area is detected.	SLOW
	Tar strips is detected.	TAR
	Irregularity road is detected.	IRGLTY
MARK TYPE RH	Lane marker is not detected	NONE
	Solid line is detected.	SOLID
	Dashed line is detected.	DASHED
	Bott's dots is detected.	BOTT's
	Fork road (bifurcation) is detected.	FORK
	Slow down area is detected.	SLOW
	Tar strips is detected.	TAR
	Irregularity road is detected.	IRGLTY
CAMERA OFFSET HEIGHT (Dh)	Camera aiming is completed.	Displays camera height correction value (Dh).
TARGET HEIGHT (Ht)	Camera aiming is completed.	Displays height (Ht) of the aiming target.
TARGET DISTANCE (Dt)	Camera aiming is completed.	Displays the distance (Dt) from front axle to a target.

TERMINAL LAYOUT



PHYSICAL VALUES

LANE CAMERA UNIT

< ECU DIAGNOSIS INFORMATION >

[ACTIVE LANE CONTROL]

Terminal No. (Wire color)		Description		Condition	Standard value	Reference value
+	-	Signal name	Input/ Output			
1 (B)		Ground	—	—	0 - 0.1 V	Approx. 0 V
4 (L)		CAN-H	—	—	—	—
5 (B)	Ground	Ground	—	—	0 - 0.1 V	Approx. 0 V
7 (V)		Ignition power supply	Input	Ignition switch	10 - 16 V	Battery voltage
8 (W)		CAN-L	—	—	—	—

Fail-safe (Lane Camera Unit with DAST)

INFOID:000000012796566

FAIL-SAFE CONTROL BY DTC

Active Lane Control

If a malfunction occurs in the lane camera unit, chassis control module cancels control, and turns ON the Chassis Control Module malfunction in information display.

Lane Departure Warning (LDW)

If a malfunction occurs in the lane camera unit, chassis control module cancels control, and turns ON the LDW malfunction in information display.

Lane Departure Prevention (LDP)

If a malfunction occurs in the lane camera unit, chassis control module cancels control, sounds a beep, and turns ON the LDP malfunction in information display.

Blind Spot Intervention

If a malfunction occurs in the lane camera unit, chassis control module cancels control, sounds a beep, and turns ON the Blind Spot Intervention malfunction in information display.

TEMPORARY DISABLED STATUS AT HIGH TEMPERATURE

Lane Departure Warning (LDW)

- If the vehicle is parked in direct sunlight under high temperature conditions, the system may be deactivated automatically. And the LDW malfunction in information display.
- When interior temperature is reduced, the system will resume operation automatically and the LDW malfunction in the combination meter will stop blinking.

Lane Departure Prevention (LDP)

- If the vehicle is parked in direct sunlight under high temperature conditions, the system may be deactivated automatically. And the buzzer sounds and LDP malfunction in information display.
- When interior temperature is reduced, the system will resume when dynamic driver assistance switch is turned ON.

Blind Spot Intervention

- If the vehicle is parked in direct sunlight under high temperature conditions, the system may be deactivated automatically. And the buzzer sounds and Blind Spot Intervention malfunction in information display.
- When interior temperature is reduced, the system will resume when dynamic driver assistance switch is turned ON.

DAS

DTC Inspection Priority Chart

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If multiple DTCs are detected simultaneously, check them one by one depending on the following DTC inspection priority chart.

LANE CAMERA UNIT

< ECU DIAGNOSIS INFORMATION >

[ACTIVE LANE CONTROL]

Priority	Detected items (DTC)
1	<ul style="list-style-type: none"> • U1000: CAN COMM CIRCUIT • U1010: CONTROL UNIT (CAN)
2	<ul style="list-style-type: none"> • C1B01: CAM AIMING INCOMP • C1B03: ABNRML TEMP DETECT
3	C1B00: CAMERA UNIT MALF

DTC Index

INFOID:000000012796568

×: Applicable

DTC		Warning display				Fail-safe			Reference
		Chassis control warning message	LDW system warning	LDP system warning	Blind Spot Intervention system warning	Active Lane Control	LDW/LDP	Blind Spot Intervention	
C1B00	CAMERA UNIT MALF	ON	ON	ON	ON	×	×	×	DAS-801
C1B01	CAM AIMING INCOMP	ON	ON	ON	ON	×	×	×	DAS-802
C1B03	ABNRML TEMP DETECT	—	Message ↓ Blink	Message ↓ OFF	Message ↓ OFF	×	×	×	DAS-803
U1000	CAN COMM CIRCUIT	ON	ON	ON	ON	×	×	×	DAS-799
U1010	CONTROL UNIT (CAN)	ON	ON	ON	ON	×	×	×	DAS-800

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[ACTIVE LANE CONTROL]

CHASSIS CONTROL MODULE

Reference Value

INFOID:000000013508437

CONSULT DATA MONITOR STANDARD VALUE

NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor item	Condition	Reference values in normal operation
IGN VOLT	Ignition switch ON	10 – 16 V
CONTROL MODULE MALF	When chassis control module is normal	Off
	When chassis control module malfunction is detected	On
CAN DIAG STATUS	When diagnosis of CAN communication malfunction is detected	Off
	When diagnosis of CAN communication is normal	On
STP LAMP OFF RELAY 1	Displayed but not used.	—
STP LAMP OFF RELAY 2	Displayed but not used.	—
ESS RELAY	Displayed but not used.	—
VEHICLE SPEED	Vehicle Stopped	0 km/h (0 MPH)
	Driving*	Almost same reading as speedometer (within ±10%)
FR WHEEL SPEED	Vehicle stopped	0 rpm
	Driving*	Increases according to vehicle speed
FL WHEEL SPEED	Vehicle stopped	0 rpm
	Driving*	Increases according to vehicle speed
RR WHEEL SPEED	Vehicle stopped	0 rpm
	Driving*	Increases according to vehicle speed
RL WHEEL SPEED	Vehicle stopped	0 rpm
	Driving*	Increases according to vehicle speed
STEERING ANG SENSOR	When driving straight	0±3.5 deg
	When steering wheel is steered to RH by 90°	Approx. +90 deg
	When steering wheel is steered to LH by 90°	Approx. -90 deg
DECEL G SENSOR	Vehicle stopped	Approx. 0 G
	When during acceleration	Positive value
	When during deceleration	Negative value
SIDE G SENSOR	Vehicle stopped	Approx. 0 G
	When right turn	Negative value
	When left turn	Positive value
YAW RATE SENSOR	Vehicle stopped	Approx. 0 deg/s
	When right turn	Negative value
	When left turn	Positive value
ACCELE PEDAL POSITION	When accelerator pedal is released	0%
	When accelerator pedal is depressed	0 – 100%

DAS

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[ACTIVE LANE CONTROL]

Monitor item	Condition	Reference values in normal operation
THROTTLE CONTROL	When electric throttle control actuator is normal	NORMAL
	When the electric throttle control actuator does not achieve the requirement (measured value is inaccurate)	INCORR
	When the electric throttle control actuator does not achieve the requirement (temporary prevention)	PREV
	When the electric throttle control actuator does not achieve the requirement (impossible)	INPOSSI
SHIFT POSITION	Selector lever in any position	Indicates selected selector lever position
BRAKE SWITCH 2	When brake pedal is not depressed	Off
	When brake pedal is depressed	On
BRAKE SWITCH 1	When brake pedal is not depressed	Off
	When brake pedal is depressed	On
PRESS SENSOR	When brake pedal is not depressed	Approx. 0 bar
	when brake pedal is depressed	0 – 255 bar
ABS	When ABS function is normal	NORMAL
	When ABS function malfunction is detected	ABNOR
ABS MALF	When ABS function is normal	NORMAL
	When ABS function malfunction is detected	ABNOR
EBD	When EBD function is normal	NORMAL
	When EBD function malfunction is detected	ABNOR
ACCELE PEDAL MALF	When accelerator pedal is normal	NORMAL
	When accelerator pedal malfunction is detected	ABNOR
TCS	When TCS function is normal	NORMAL
	When TCS function malfunction is detected	ABNOR
TCS MALF	When TCS function is normal	NORMAL
	When TCS function malfunction is detected	ABNOR
VDC	When VDC function is normal	NORMAL
	When VDC function malfunction is detected	ABNOR
VDC MALF	When VDC function is normal	NORMAL
	When VDC function malfunction is detected	ABNOR
VDC OFF SWITCH	When VDC OFF switch is OFF	Off
	When VDC OFF switch is ON	On
PARKING BRAKE	When parking brake is inactive	Off
	When parking brake is active	On
DRV TRQ CTRL MODE	When correction coefficients are initialized	INITIAL
	When correction is executed	NORMAL
	When correction is stopped (computing is impossible)	STOP 1
	When correction is stopped (computing is possible)	STOP 2
	When correction is limited	LIMIT 1
	When correction is prohibited	PROHIBI

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[ACTIVE LANE CONTROL]

Monitor item	Condition	Reference values in normal operation	
DRV TRQ CTRL PERMIS 1	When correction is permitted (basic requirement)	PERMIS	A
	When correction is not permitted (basic requirement)	NO PER	B
DRV TRQ CTRL PERMIS 2	When correction is permitted (system requirement)	PERMIS	C
	When correction is not permitted (system requirement)	NO PER	
DRV TRQ CTRL STOP	When correction is requested to stop	REQ	D
	When correction is not requested to stop	NO REQ	
DRV TRQ CTRL PROHIBIT	When prohibition of correction is requested	REQ	E
	When prohibition of correction is not requested	NO REQ	
DRIVE MODE SELECTOR	When drive mode select switch is "STANDARD" mode	STD	F
	When drive mode select switch is "SPORT" mode	SPORT	G
	When drive mode select switch is "SNOW" mode	SNOW	H
	When drive mode select switch is "ECO" mode	ECO	I
	When drive mode select switch is "SPORT+" mode	SPORT+	J
	When drive mode select switch is "PERSONAL" mode	PERSO	K
	When drive mode select switch is not use	NOT	L
	When drive mode select switch is not select	NOT SET	M
LOG-IN PERMIS	When log-in is possible	NO PER	N
	When log-in is not possible	PERMIS	
I-KEY LINK	When Intelligent Key is not linked	Off	O
	When Intelligent Key is linked	On	P
USER	When logged in with "USER A" Intelligent Key	USER A	Q
	When logged in with "USER B" Intelligent Key	USER B	R
	When logged in with "USER C" Intelligent Key	USER C	S
	When logged in with an Intelligent Key without user registration	GUEST	T
ENGINE/TM SETTING	When the engine/transmission setting with drive mode select switch is in "SPORT" mode	SPORT	U
	When the engine/transmission setting with drive mode select switch is in "STANDARD" mode	STD	V
	When the engine/transmission setting with drive mode select switch is in "ECO" mode	ECO	W
	When the engine/transmission setting with drive mode select switch is in "SNOW" mode	SNOW	X
ALC SETTING	When Active Lane Control setting with drive mode select switch is "OFF"	Off	Y
	When Active Lane Control setting with drive mode select switch is "LOW"	LOW	Z
	When Active Lane Control setting with drive mode select switch is "HIGH"	HIGH	AA

DAS

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[ACTIVE LANE CONTROL]

Monitor item	Condition	Reference values in normal operation
ATC SETTING	When active trace control function setting with drive mode select switch is "OFF"	Off
	When active trace control function setting with drive mode select switch is "ON"	On
COMBI METER	When drive mode select switch is "STANDARD" mode	STD
	When drive mode select switch is "SNOW" mode	SNOW
	When drive mode select switch is "PERSONAL" mode	PERSO
	When drive mode select switch is "SPORT" mode	SPORT
	When drive mode select switch is "ECO" mode	ECO
ATC 1	When active trace control function is inactive	Off
	When active trace control function is active	On
ATC 2	When active trace control function is inactive	Off
	When active trace control function is active	On
ATC 4	When active trace control function is inactive	Off
	When active trace control function is active	On
FL TIRE DISP	When the front LH tire is not displayed on the information display in the combination meter	DEF
	When the front LH tire is displayed on the information display in the combination meter	1
FR TIRE DISP	When the front RH tire is not displayed on the information display in the combination meter	DEF
	When the front RH tire is displayed on the information display in the combination meter	1
RL TIRE DISP	When the rear LH tire is not displayed on the information display in the combination meter	DEF
	When the rear LH tire is displayed on the information display in the combination meter	1
RR TIRE DISP	When the rear RH tire is not displayed on the information display in the combination meter	DEF
	When the rear RH tire is displayed on the information display in the combination meter	1
TURN DISP	When the straight-ahead status is displayed on the information display in the combination meter	N STEER
	When the left turning status is displayed on the information display in the combination meter	LEFT
	When the right turning status is displayed on the information display in the combination meter	RIGHT
ALC LEVEL	When Active Lane Control is turned ON.	0
	When Active Lane Control is operational or is operating.	1 – 4
ALC STATUS	When Active Lane Control is OFF	INACT
	When Active Lane Control is ON	ACT

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[ACTIVE LANE CONTROL]

Monitor item	Condition	Reference values in normal operation	
ATC DISP	When the activation of active trace control function is not displayed on the information display in the combination meter	Off	A
	When the activation of active trace control function is displayed on the information display in the combination meter	On	B
ALC DISP	When the activation of Active Lane Control is not displayed on the information display in the combination meter	Off	C
	When the activation of Active Lane Control is displayed on the information display in the combination meter	On	D
ALC SYSTEM	When Active Lane Control is OFF	Off	E
	When Active Lane Control is ON	On	
LANE MARKER (LH)	When left side lane marker is not detected.	NOT	
	when left side lane marker is detected.	DETECT	F
LANE MARKER (RH)	When right side lane marker is not detected.	NOT	
	When right side lane marker is detected.	DETECT	
TURN SIGNAL (LH)	When turn signal lamps is OFF	Off	G
	When turn signal lamp LH is blinking	On	
TURN SIGNAL (RH)	When turn signal lamps is OFF	Off	H
	When turn signal lamp RH is blinking	On	
TURN SIGNAL SWITCH	When turn signal lamps is OFF	Off	
	When turn signal lamp LH is blinking	LEFT	I
	When turn signal lamp RH is blinking	RIGHT	
	When turn signal lamp system malfunction is detected.	MALF	J
DAST	When the Active Lane Control request to transmit to the steering force control module is OFF	Off	K
	When the Active Lane Control request to transmit to the steering force control module is ON	On	
ROAD DISTORTION	Driving	Depends on the radius of curve	L
COMMAND ST ANG	When the Active Lane Control is inactive or when the Active Lane Control is active and the vehicle is driving straight around the center of the lane	Approx. 0 rad	M
	Active Lane Control is active with yaw angle formed on the left of the lane.	Max 0.05 rad	
	Active Lane Control is active with yaw angle formed on the right of the lane.	Max -0.05 rad	N
ST PINION ANG	When driving straight	Approx. 0 rad	
	when steering wheel is steered to LH by 90°	Approx. -1.6 rad	DAS
	when steering wheel is steered to RH by 90°	Approx. 1.6 rad	
ST WHL FORCE TORQUE	When driving straight	0 N·m	P
	When steering wheel is steered	MAX ± 32 N·m	

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[ACTIVE LANE CONTROL]

Monitor item	Condition	Reference values in normal operation
COMMAND ST WHL FORCE	When the Active Lane Control is inactive or when the Active Lane Control is active and the vehicle is driving straight around the center of the lane	0 N·m
	When the Active Lane Control is active and the vehicle is drifting to the left end of the lane	Approx. -6 N
	When the Active Lane Control is active and the vehicle is drifting to the right end of the lane	Approx. 6 N
LDW DISP	When LDW function is ON	On
	When LDW function malfunction is detected	MALF
LDP DISP	When LDP function is ON	On
	When LDP function malfunction is detected	MALF
BSI DISP	When blind spot intervention function is ON	On
	When blind spot intervention function malfunction is detected	MALF
ST SWITCH COND	When steering switch is normal	OK
	ADAS control unit sends malfunction information of the steering switch to the chassis control module. (During the judgment of malfunction.)	NG 1
	ADAS control unit sends malfunction information of the steering switch to the chassis control module. (Malfunction confirmed)	NG 2
BSW COND	When BSW function is normal	NORMAL
	When BSW function malfunction is detected	ABNOR
ADAS COND	When ADAS control unit is normal	NORMAL
	When ADAS control malfunction is detected	ABNOR
COLLISION WARN	When the collision warning is OFF	Off
	When the collision warning is ON	On
ICC ACTIVE	When ICC function is inactive	Off
	When ICC function is active	On
IBA ACTIVE	When forward emergency brake function is inactive	Off
	When forward emergency brake function is active	On
DR BUZZER STATUS	Displayed but not used	—
LDW COND	When LDW function is ON	On
	When LDW function malfunction is detected	MALF
LDP COND	When LDP function is ON	On
	When LDP function malfunction is detected	MALF
BSI COND	When blind spot intervention function is ON	On
	When blind spot intervention function malfunction is detected	MALF
LDP BRAKE CANCEL	When not cancel	NONE
	When slippery road	SLIP
	When drive mode select switch is "SNOW" mode	SNOW
	When VDC OFF switch is OFF	VDC OF

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[ACTIVE LANE CONTROL]

Monitor item	Condition	Reference values in normal operation	
BSI BRAKE CANCEL	When not cancel	NONE	A
	When slippery road	SLIP	
	When drive mode select switch is "SNOW" mode	SNOW	B
	When VDC OFF switch is OFF	VDC OF	
CAMERA COND	When Lane camera unit is normal	NORMAL	C
	When Lane camera unit malfunction is detected.	ABNOR	
CAMERA TEMP COND	When the temperature around lane camera unit is normal	NORMAL	D
	When the temperature around the lane camera unit is high	ABNOR	E
CAMERA COMM COND	When communication between chassis control module and lane camera unit is normal	NORMAL	
	When communication between chassis control module and lane camera unit malfunction is detected	ABNOR	F
CAMERA AIMING	When lane camera aiming is completed	COMP	G
	When lane camera aiming is not completed	INCOMP	
CAMERA HIGH TEMP (LDW)	When the temperature around lane camera unit is normal. (LDW ON)	NORMAL	H
	When the temperature around the lane camera unit is high. (LDW ON)	ABNOR	
CAMERA HIGH TEMP (LDP)	When the temperature around lane camera unit is normal. (LDP ON)	NORMAL	I
	When the temperature around the lane camera unit is high. (LDP ON)	ABNOR	J
CAMERA HIGH TEMP (BSI)	When the temperature around lane camera unit is normal. (Blind spot intervention ON)	NORMAL	
	When the temperature around the lane camera unit is high. (Blind spot intervention ON)	ABNOR	K
SIDE RADAR BLOCK CANCEL	When the side radar is normal	NORMAL	
	Side radar is blocked and temporarily deactivated.	BLOCK	L
BSI LAMP REQ (LH)	When blind spot intervention function (LH) is inactive	Off	M
	When blind spot intervention function (LH) is active	On	
BSI LAMP REQ (RH)	When blind spot intervention function (RH) is inactive	Off	N
	When blind spot intervention function (RH) is active	On	
LANE DEPARTURE DISP (LH)	When not deviating the LH side lane	NO DISP	
	When deviating the LH side lane	DEVIAT	
LANE DEPARTURE DISP (RH)	When not deviating the RH side lane	NO DISP	P
	When deviating the RH side lane	DEVIAT	
LDP/BSI ACTIVE	When LDP function and blind spot intervention function are inactive	Off	
	When LDP function or blind spot intervention function are active	On	

DAS

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[ACTIVE LANE CONTROL]

Monitor item	Condition	Reference values in normal operation
ADAS COND	When diagnosis of ADAS control unit is normal	NORMAL
	When diagnosis of ADAS control unit malfunction is detected	ABNOR
DR BUZZER COND	When driver assistance buzzer is normal	NORMAL
	When driver assistance buzzer malfunction is detected	ABNOR
OUTSIDE TEMP	Ignition switch ON	(-40°C) – (+72°C)
WIPER STATUS	When front wiper is inactive	Off
	When front wiper is active (low and intermittent)	LOW
	When front wiper is active (high)	HIGH
	When front wiper malfunction is detected	MALF
Engine rpm	Engine stopped	0 rpm
	Engine running	Almost same reading as tachometer
FR shock ab drive current	When select the "Soft" in "FR shock absorber" of "ACTIVE TEST"	Approx. 0.38 A
	When select the "Medium" "FR shock absorber" in of "ACTIVE TEST"	Approx. 0.85 A
	When select the "Hard" in "FR shock absorber" of "ACTIVE TEST"	Approx. 1.15 A
FL shock ab drive current	When select the "Soft" in "FL shock absorber" of "ACTIVE TEST"	Approx. 0.38 A
	When select the "Medium" in "FL shock absorber" of "ACTIVE TEST"	Approx. 0.85 A
	When select the "Hard" in "FL shock absorber" of "ACTIVE TEST"	Approx. 1.15 A
RR shock ab drive current	When select the "Soft" in "RR shock absorber" of "ACTIVE TEST"	Approx. 0.38 A
	When select the "Medium" in "RR shock absorber" of "ACTIVE TEST"	Approx. 0.85 A
	When select the "Hard" in "RR shock absorber" of "ACTIVE TEST"	Approx. 1.15 A
RL shock ab drive current	When select the "Soft" in "RL shock absorber" of "ACTIVE TEST"	Approx. 0.38 A
	When select the "Medium" in "RL shock absorber" of "ACTIVE TEST"	Approx. 0.85 A
	When select the "Hard" in "RL shock absorber" of "ACTIVE TEST"	Approx. 1.15 A
Shock absorber control 1	When vehicle estimation (control 1) is normal	Off
	When vehicle estimation (control 1) is canceled	On
Shock absorber control 2	When vehicle estimation (control 2) is normal	Off
	When vehicle estimation (control 2) is canceled	On
Shock absorber control 3	When vehicle estimation (control 3) is normal	Off
	When vehicle estimation (control 3) is canceled	On

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

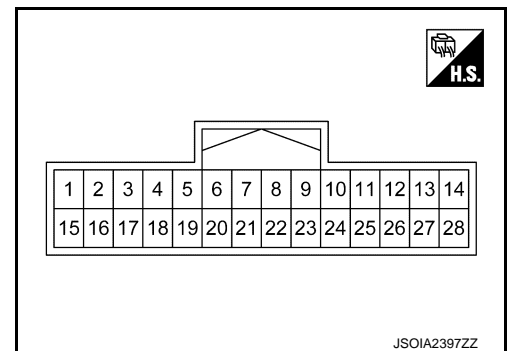
[ACTIVE LANE CONTROL]

Monitor item	Condition	Reference values in normal operation
FR shock ab command current	When select the "Soft" in "FR shock absorber" of "ACTIVE TEST"	Approx. 0.38 A
	When select the "Medium" in "FR shock absorber" of "ACTIVE TEST"	Approx. 0.85 A
	When select the "Hard" in "FR shock absorber" of "ACTIVE TEST"	Approx. 1.15 A
FL shock ab command current	When select the "Soft" in "FL shock absorber" of "ACTIVE TEST"	Approx. 0.38 A
	When select the "Medium" in "FL shock absorber" of "ACTIVE TEST"	Approx. 0.85 A
	When select the "Hard" in "FL shock absorber" of "ACTIVE TEST"	Approx. 1.15 A
RR shock ab command current	When select the "Soft" in "RR shock absorber" of "ACTIVE TEST"	Approx. 0.38 A
	When select the "Medium" in "RR shock absorber" of "ACTIVE TEST"	Approx. 0.85 A
	When select the "Hard" in "RR shock absorber" of "ACTIVE TEST"	Approx. 1.15 A
RL shock ab command current	When select the "Soft" in "RL shock absorber" of "ACTIVE TEST"	Approx. 0.38 A
	When select the "Medium" in "RL shock absorber" of "ACTIVE TEST"	Approx. 0.85 A
	When select the "Hard" in "RL shock absorber" of "ACTIVE TEST"	Approx. 1.15 A

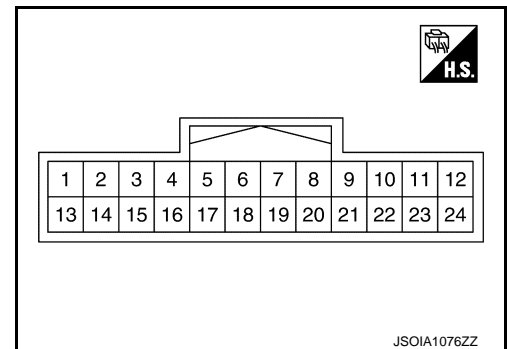
*: Check tire pressure under normal conditions.

TERMINAL LAYOUT

Models with Digital Motion Control



Models without Digital Motion Control



PHYSICAL VALUES

Models with Digital Motion Control

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[ACTIVE LANE CONTROL]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
1 (LG)	—	ACTUATOR (FL)-L	—	—	—	—
3 (BR)	—	ACTUATOR (RR)-H	—	—	—	—
4 (BG)	Ground	IGNITION POWER SUPPLY	Input	Ignition switch ON		6.4 – 16 V
5 (W)	Ground	CHASSIS COMM-L	—	—	—	—
6 (B)	Ground	GROUND	—	Ignition switch ON	—	0 V
8 (BR) ^{*1} (L) ^{*1}	Ground	CHASSIS COMM-H	—	—	—	—
9 (G) ^{*1} (Y) ^{*1}	Ground	DRIVE MODE SELECT SWITCH (DOWN)	Input	Ignition switch ON	Down switch is not pressed	6.4 – 16 V
					Down switch is pressed	0 V
10 (L)	Ground	CAN-H	—	—	—	—
12 (G)	—	ACTUATOR (FR)-H	—	—	—	—
13 ^{*2} (G)	Ground	ESS RELAY	Output	Ignition switch ON		6.4 – 16 V
14 (L)	—	ACTUATOR (RL)-L	—	—	—	—
15 (Y)	—	ACTUATOR (RR)-L	—	—	—	—
17 (V)	—	ACTUATOR (FL)-H	—	—	—	—
19 (L)	Ground	CHASSIS COMM-H	—	—	—	—
21 (W)	Ground	CHASSIS COMM-L	—	—	—	—
22 (V)	Ground	DRIVE MODE SELECT SWITCH (UP)	Input	Ignition switch ON	Up switch is not pressed	6.4 – 16 V
					Up switch is pressed	0 V
23 (B)	Ground	GROUND	—	Ignition switch ON	—	0 V
24 (R) ^{*3} (P) ^{*4}	Ground	CAN-L	—	—	—	—
25 (G)	Ground	IGNITION POWER SUPPLY	Input	Ignition switch ON		6.4 – 16 V
26 (V)	—	ACTUATOR (RL)-H	—	—	—	—
28 (R)	—	ACTUATOR (FR)-L	—	—	—	—

*1: Color of wire differs depending on production.

CHASSIS CONTROL MODULE

[ACTIVE LANE CONTROL]

< ECU DIAGNOSIS INFORMATION >

*2: Although the harness is connected, it is not functioning.

*3: With Gateway

*4: Without Gateway

Models without Digital Motion Control

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
3 (R) ^{*1} (P) ^{*2}	Ground	CAN-L	—	—	—	—
4 (L)	Ground	CAN-H	—	—	—	—
5 (V) ^{*3} (Y) ^{*4}	Ground	DRIVE MODE SELECT SWITCH (UP)	Input	Ignition switch ON	Up switch is not pressed	6.4 – 16 V
					Up switch is pressed	0 V
6 (Y) ^{*3} (G) ^{*4}	Ground	DRIVE MODE SELECT SWITCH (DOWN)	Input	Ignition switch ON	Down switch is not pressed	6.4 – 16 V
					Down switch is pressed	0 V
7 (W)	Ground	CHASSIS COMM-L	—	—	—	—
8 (W)	Ground	CHASSIS COMM-L	—	—	—	—
10 (G) ^{*3} (BG) ^{*4}	Ground	IGNITION POWER SUPPLY	Input	Ignition switch ON		6.4 – 16 V
11 (L)	Ground	CHASSIS COMM-H	—	—	—	—
12 (B) ^{*3} (B/W) ^{*4}	Ground	GROUND	—	Ignition switch ON	—	0 V
19 (BR) ^{*3} (L) ^{*4}	Ground	CHASSIS COMM-H	—	—	—	—
23 ^{*5} (G) ^{*3} (R) ^{*4}	Ground	ESS RELAY	Output	Ignition switch ON		6.4 – 16 V

*1: With Gateway

*2: Without Gateway

*3: VR30DDTT engine models

*4: 2.0L turbo gasoline engine models

*5: Although the harness is connected, it is not functioning.

Fail-Safe (Chassis Control Module)

INFOID:0000000013508438

When a malfunction occurs in the chassis control module, the master warning lamp turns ON and an interrupt is displayed on the information display of the combination meter.

DTC	Vehicle condition
C1B90-00	The following functions are suspended. <ul style="list-style-type: none"> • Active lane control function • LDW function • LDP function • Blind spot intervention function
C1B91-00	

A
B
C
D
E
F
G
H
I
J
K
L
M
N
P

DAS

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[ACTIVE LANE CONTROL]

DTC	Vehicle condition
C1B92-00	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function
C1B93-00	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • LDW function • LDP function • Blind spot intervention function
C1B94-00	
C1B96-00	The following functions are suspended. <ul style="list-style-type: none"> • LDW function • LDP function • Blind spot intervention function • Intelligent cruise control function
C1B99-00	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function • Infiniti InTuition function • Digital motion control function
C1BA6-00	The following functions are suspended. <ul style="list-style-type: none"> • Infiniti InTuition function
C1BA7-00	The following functions are suspended. <ul style="list-style-type: none"> • Active lane control function
C1BA9-00	The following functions are suspended. <ul style="list-style-type: none"> • LDW function • LDP function • Blind spot intervention function
C1BAA-00	
C1BAB-00	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function
C1BAC-00	The following functions are suspended. <ul style="list-style-type: none"> • LDP function • Blind spot intervention function
C1BAD-00	
C1BAE-00	
C1BAF-00	The following functions are suspended. <ul style="list-style-type: none"> • Blind spot intervention function
C1BB0-06	Normal control
C1BB2-00	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function • Infiniti InTuition function • Digital motion control function
C1BB3-00	
C1BB4-00	
C1BB5-00	
C1BB6-00	The following functions are suspended. <ul style="list-style-type: none"> • Digital motion control function
C1BB7-00	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function • Infiniti InTuition function • Digital motion control function
C1BB8-00	
C1BB9-00	
C1BBA-00	
C1BBB-00	

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[ACTIVE LANE CONTROL]

DTC	Vehicle condition		
C1BBC-00	Normal control	A	
C1BBD-00	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function • Infiniti InTuition function • Digital motion control function 	B C	
C1BBE-11		D	
C1BBE-12		E	
C1BBE-19		F	
C1BBE-1D		G	
C1BEE-39		H	
C1BEE-64		I	
C1BBF-11		J	
C1BBF-12		K	
C1BBF-19		L	
C1BBF-1D		M	
C1BBF-39		N	
C1BBF-64		O	
C1BC0-00		The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • Active lane control function 	P
C1BC1-00			Q
C1BC7-11			R
C1BC7-12	S		
C1BC7-19	T		
C1BC7-1D	U		
C1BC7-39	V		
C1BC7-64	W		
C1BC8-11	X		
C1BC8-12	Y		
C1BC8-19	Z		
C1BC8-1D	AA		
C1BC8-39		AB	
C1BC8-64		AC	
U1000-00		The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function 	AD
U1010-49	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • Active lane control function 	AE	
U1A31-00	The following functions are suspended. <ul style="list-style-type: none"> • Active lane control function • LDW function • LDP function • Blind spot intervention function 	AF	

DAS

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[ACTIVE LANE CONTROL]

DTC	Vehicle condition
U1A35-00	The following functions are suspended. <ul style="list-style-type: none"> • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function
U1A3E-00	Normal control

DTC Inspection Priority Chart

INFOID:0000000013508439

When multiple DTCs are displayed simultaneously, check them one by one according to the following priority list.

Priority	Detected item (DTC)
1	<ul style="list-style-type: none"> • U1000-00 CAN COMM CIRCUIT • U1010-49 CONTROL UNIT (CAN)
2	<ul style="list-style-type: none"> • U1A31-00 DAST COMM • U1A35-00 BRAKE CONTROL COMM • U1A3E-00 ADAS COMM
3	<ul style="list-style-type: none"> • C1BBD-00 VARIANT CODING
4	<ul style="list-style-type: none"> • C1B90-00 DAST SYSTEM • C1B91-00 CAMERA SYSTEM • C1B92-00 BRAKE CONTROL SYSTEM • C1B93-00 ENGINE/HEV SYSTEM • C1B94-00 TM SYSTEM • C1B96-00 ADAS SYSTEM • C1BA6-00 AV SYSTEM • C1BA7-00 ALC SYSTEM • C1BA9-00 NP RANGE • C1BAA-00 GEAR POSITION • C1BAB-00 STOP LAMP SW • C1BAC-00 OPERATION SW CIRC • C1BAD-00 ACCELERATER PEDAL • C1BAE-00 ACCELERATER PEDAL • C1BAF-00 BSW SYSTEM • C1BB0-06 DR BUZZER SYSTEM • C1BBE-11 Front right shock absorber circuit • C1BBE-12 Front right shock absorber circuit • C1BBE-19 Front right shock absorber circuit • C1BBE-1D Front right shock absorber circuit • C1BBE-39 Front right shock absorber circuit • C1BBE-64 Front right shock absorber circuit • C1BBF-11 Front left shock absorber circuit • C1BBF-12 Front left shock absorber circuit • C1BBF-19 Front left shock absorber circuit • C1BBF-1D Front left shock absorber circuit • C1BBF-39 Front left shock absorber circuit • C1BBF-64 Front left shock absorber circuit • C1BC0-00 FR WHEEL SENSOR • C1BC1-00 FL WHEEL SENSOR • C1BC7-11 Rear right shock absorber circuit • C1BC7-12 Rear right shock absorber circuit • C1BC7-19 Rear right shock absorber circuit • C1BC7-1D Rear right shock absorber circuit • C1BC7-39 Rear right shock absorber circuit • C1BC7-64 Rear right shock absorber circuit • C1BC8-11 Rear left shock absorber circuit • C1BC8-12 Rear left shock absorber circuit • C1BC8-19 Rear left shock absorber circuit • C1BC8-1D Rear left shock absorber circuit • C1BC8-39 Rear left shock absorber circuit • C1BC8-64 Rear left shock absorber circuit

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[ACTIVE LANE CONTROL]

Priority	Detected item (DTC)
5	<ul style="list-style-type: none"> • C1BB5-00 IGN POWER SUPPLY • C1BB6-00 IGN POWER SUPPLY
6	<ul style="list-style-type: none"> • C1B99-00 CONTROL MODULE • C1BB2-00 CONTROL MODULE • C1BB3-00 CONTROL MODULE • C1BB4-00 CONTROL MODULE • C1BB7-00 CONTROL MODULE • C1BB8-00 CONTROL MODULE • C1BB9-00 CONTROL MODULE • C1BBA-00 CONTROL MODULE • C1BBB-00 CONTROL MODULE • C1BBC-00 CONTROL MODULE

DTC Index

INFOID:000000013508440

DTC	Display item	Refer to
C1B90-00	DAST SYSTEM	DAS-580, "DTC Description"
C1B91-00	CAMERA SYSTEM	DAS-582, "DTC Description"
C1B92-00	BRAKE CONTROL SYSTEM	DAS-584, "DTC Description"
C1B93-00	ENGINE/HEV SYSTEM	DAS-586, "DTC Description"
C1B94-00	TM SYSTEM	DAS-588, "DTC Description"
C1B96-00	ADAS SYSTEM	DAS-590, "DTC Description"
C1B99-00	CONTROL NODULE	DAS-592, "DTC Description"
C1BA6-00	AV SYSTEM	DAS-593, "DTC Description"
C1BA7-00	ALC SYSTEM	DAS-595, "DTC Description"
C1BA9-00	NP RANGE	DAS-597, "DTC Description"
C1BAA-00	GEAR POSITION	DAS-599, "DTC Description"
C1BAB-00	STOP LAMP SW	DAS-601, "DTC Description"
C1BAC-00	OPERATION SW CIRC	DAS-603, "DTC Description"
C1BAD-00	ACCELERATER PEDAL	DAS-605, "DTC Description"
C1BAE-00	ACCELERATER PEDAL	DAS-607, "DTC Description"
C1BAF-00	BSW SYSTEM	DAS-609, "DTC Description"
C1BB0-06	DR BUZZER SYSTEM	DAS-611, "DTC Description"
C1BB2-00	CONTROL MODULE	DAS-612, "DTC Description"
C1BB3-00	CONTROL MODULE	DAS-613, "DTC Description"
C1BB4-00	CONTROL MODULE	DAS-614, "DTC Description"
C1BB5-00	IGN POWER SUPPLY	DAS-615, "DTC Description"
C1BB6-00	IGN POWER SUPPLY	DAS-620, "DTC Description"
C1BB7-00	CONTROL MODULE	DAS-623, "DTC Description"
C1BB8-00	CONTROL MODULE	DAS-624, "DTC Description"
C1BB9-00	CONTROL MODULE	DAS-625, "DTC Description"
C1BBA-00	CONTROL MODULE	DAS-626, "DTC Description"
C1BBB-00	CONTROL MODULE	DAS-627, "DTC Description"
C1BBC-00	CONTROL MODULE	DAS-628, "DTC Description"
C1BBD-00	VARIANT CODING	DAS-629, "DTC Description"
C1BBE-11	Front right shock absorber circuit	DAS-630, "DTC Description"
C1BBE-12	Front right shock absorber circuit	DAS-633, "DTC Description"
C1BBE-19	Front right shock absorber circuit	DAS-636, "DTC Description"

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[ACTIVE LANE CONTROL]

DTC	Display item	Refer to
C1BBE-1D	Front right shock absorber circuit	DAS-639, "DTC Description"
C1BBE-39	Front right shock absorber circuit	DAS-642, "DTC Description"
C1BBE-64	Front right shock absorber circuit	DAS-644, "DTC Description"
C1BBF-11	Front left shock absorber circuit	DAS-647, "DTC Description"
C1BBF-12	Front left shock absorber circuit	DAS-650, "DTC Description"
C1BBF-19	Front left shock absorber circuit	DAS-653, "DTC Description"
C1BBF-1D	Front left shock absorber circuit	DAS-656, "DTC Description"
C1BBF-39	Front left shock absorber circuit	DAS-659, "DTC Description"
C1BBF-64	Front left shock absorber circuit	DAS-661, "DTC Description"
C1BC0-00	FR WHEEL SENSOR	DAS-664, "DTC Description"
C1BC1-00	FL WHEEL SENSOR	DAS-666, "DTC Description"
C1BC7-11	Rear right shock absorber circuit	DAS-668, "DTC Description"
C1BC7-12	Rear right shock absorber circuit	DAS-671, "DTC Description"
C1BC7-19	Rear right shock absorber circuit	DAS-674, "DTC Description"
C1BC7-1D	Rear right shock absorber circuit	DAS-677, "DTC Description"
C1BC7-39	Rear right shock absorber circuit	DAS-680, "DTC Description"
C1BC7-64	Rear right shock absorber circuit	DAS-682, "DTC Description"
C1BC8-11	Rear left shock absorber circuit	DAS-685, "DTC Description"
C1BC8-12	Rear left shock absorber circuit	DAS-688, "DTC Description"
C1BC8-19	Rear left shock absorber circuit	DAS-691, "DTC Description"
C1BC8-1D	Rear left shock absorber circuit	DAS-694, "DTC Description"
C1BC8-39	Rear left shock absorber circuit	DAS-697, "DTC Description"
C1BC8-64	Rear left shock absorber circuit	DAS-699, "DTC Description"
U1000-00	CAN COMM CIRCUIT	DAS-702, "DTC Description"
U1010-49	CONTROL UNIT (CAN)	DAS-703, "DTC Description"
U1A31-00	DAST COMM	DAS-704, "DTC Description"
U1A35-00	BRAKE CONTROL COMM	DAS-706, "DTC Description"
U1A3E-00	ADAS COMM	DAS-708, "DTC Description"

ACTIVE LANE CONTROL WITH DIGITAL MOTION CONTROL

< WIRING DIAGRAM >

[ACTIVE LANE CONTROL]

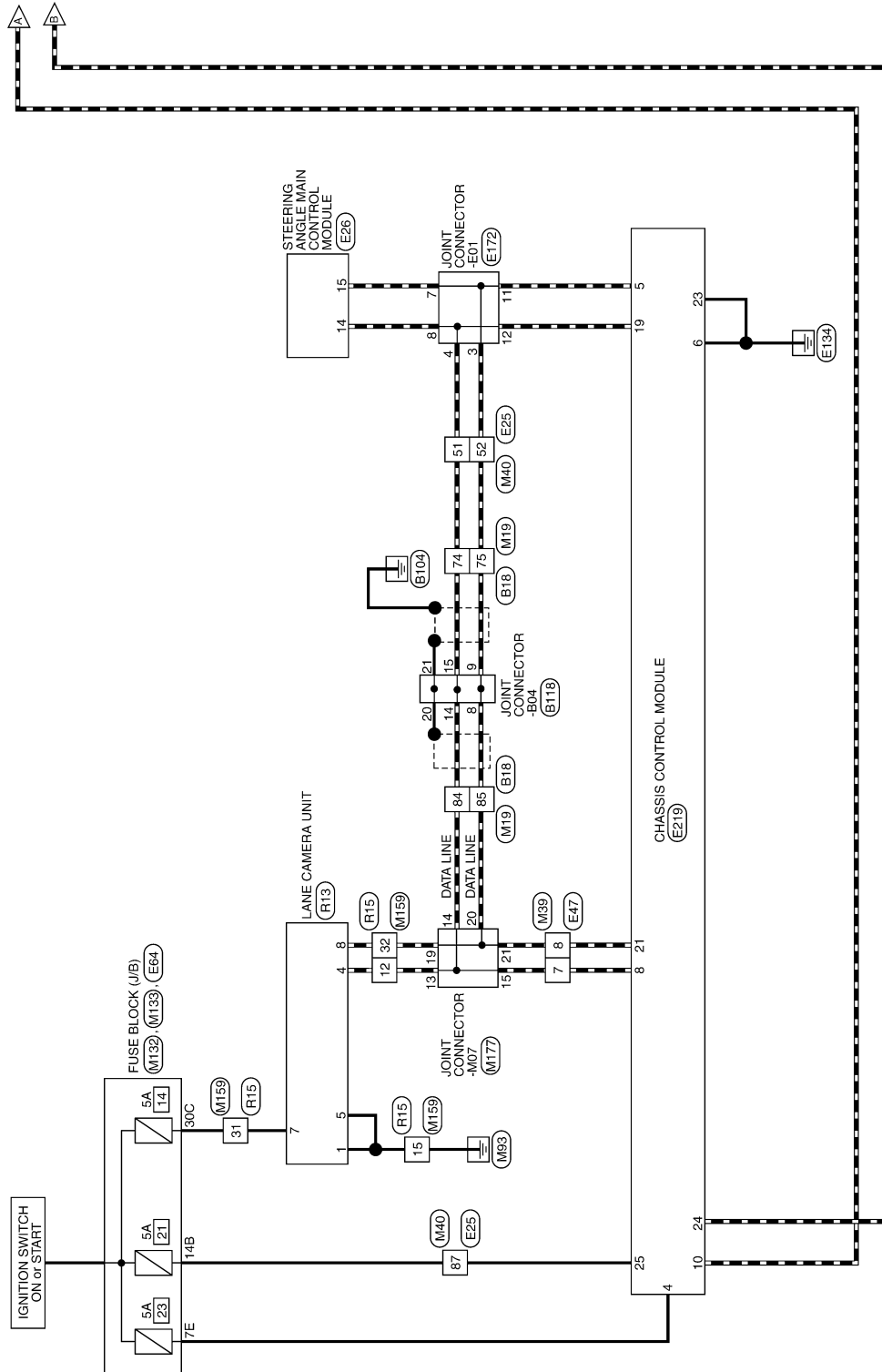
WIRING DIAGRAM

ACTIVE LANE CONTROL WITH DIGITAL MOTION CONTROL

Wiring Diagram

INFOID:000000012796573

ACTIVE LANE CONTROL (WITH DIGITAL MOTION CONTROL)



*: This connector is not shown in "Harness Layout".

2016/02/15

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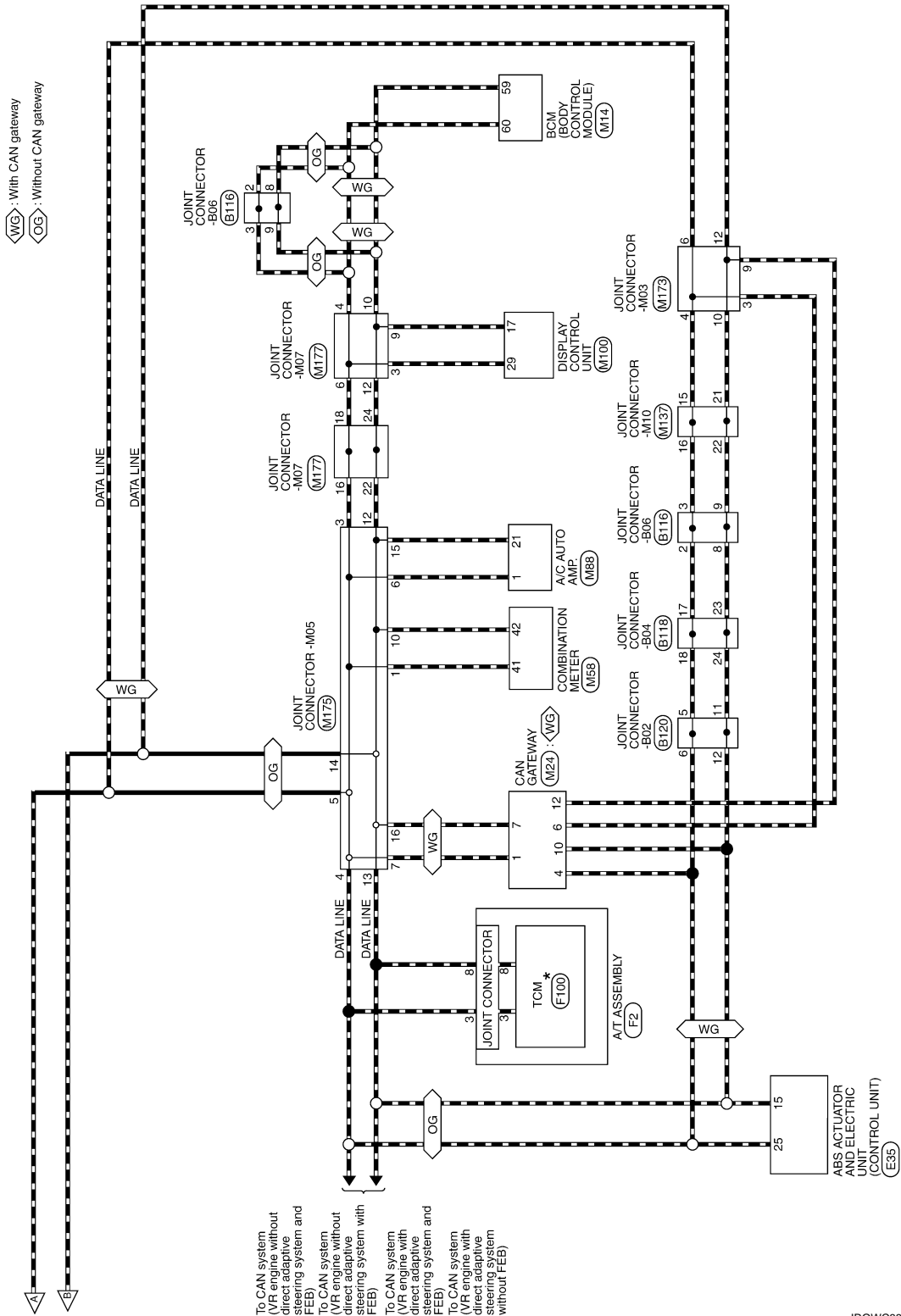
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ACTIVE LANE CONTROL WITH DIGITAL MOTION CONTROL

< WIRING DIAGRAM >

[ACTIVE LANE CONTROL]



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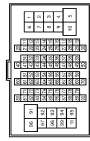
ACTIVE LANE CONTROL WITH DIGITAL MOTION CONTROL

< WIRING DIAGRAM >

[ACTIVE LANE CONTROL]

ACTIVE LANE CONTROL (WITH DIGITAL MOTION CONTROL)

Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-C516-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	G	-
3	L	-
4	LG	-
5	Y	-
6	R	-
7	V	-
8	LG	-
10	BG	-
11	BG	-
12	LG	-
13	GR	-
14	R	-
15	L	-
16	V	-
18	BR	-
19	BR	-
20	W	-
22	R	-
23	V	-
24	R	- [With 2.0L turbo gasoline engine]
25	P	- [With VR30 engine]
26	V	- [With 2.0L turbo gasoline engine and without gateway]
27	W	- [With 2.0L turbo gasoline engine and with gateway]
28	R	-
31	B	-
31	BR	- [With VR30 engine]
32	B	-
33	B	-
34	LG	-
35	P	-
36	W	-

37	SB	-
38	LG	-
40	P	-
41	SB	-
42	BR	-
43	BG	-
44	BG	-
46	R	-
50	W	-
51	SB	-
52	V	-
53	LG	-
54	R	-
55	R	-
57	W	-
58	V	-
59	GR	-
60	G	-
61	G	-
62	BG	-
63	BR	-
64	Y	-
66	R	-
70	R	-
71	W	-
72	B	-
73	W	-
74	L	-
75	R	- [Without paddle shift]
76	BR	- [With paddle shift]
77	B	-
78	SB	-
79	V	-
79	W	- [With VR30 engine]
81	B	-
82	R	-
83	BG	-
84	L	-
85	R	-
85	V	- [Without paddle shift]
17	L	- [With paddle shift]
86	B	-
88	G	-
89	V	-
89	W	- [With 2.0L turbo gasoline engine]
91	GR	- [With VR30 engine]
94	GR	-
96	Y	-
97	V	-

98	BR	- [With VR30 engine and with BOSE system]
98	Y	- [Except with VR30 engine and with BOSE system]

Connector No.	B116
Connector Name	JOINT CONNECTOR-B06
Connector Type	24342_4G32A



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	L	-
3	L	-
4	L	-
5	L	-
6	L	-
7	R	-
8	R	- [With Gateway]
9	R	- [Without Gateway]
9	V	- [Without Gateway]
10	V	- [With VR30 engine]
10	V	- [With 2.0L turbo gasoline engine]
11	V	-
12	P	- [With Gateway]
13	R	-
14	SHIELD	- [Without Gateway]
15	B	-
15	SHIELD	- [With 2.0L turbo gasoline engine]
16	SHIELD	- [With VR30 engine]
17	SHIELD	- [With 2.0L turbo gasoline engine]
17	L	- [With VR30 engine]
17	SHIELD	- [With 2.0L turbo gasoline engine]
18	L	-
18	SHIELD	- [With 2.0L turbo gasoline engine]
19	SHIELD	- [With VR30 engine]
20	L	-
20	SHIELD	- [With 2.0L turbo gasoline engine]
21	L	-
21	SHIELD	- [With VR30 engine]

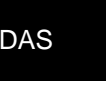
22	P	-
23	P	-
24	P	- [With VR30 engine]
24	Y	- [With 2.0L turbo gasoline engine]

Connector No.	B118
Connector Name	JOINT CONNECTOR-B04
Connector Type	24342_4G32A



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	- [With VR30 engine]
1	SHIELD	- [With 2.0L turbo gasoline engine]
2	LG	- [With VR30 engine]
2	SHIELD	- [With 2.0L turbo gasoline engine]
3	SHIELD	-
4	LG	- [With VR30 engine]
4	SHIELD	- [With 2.0L turbo gasoline engine]
5	LG	- [With VR30 engine]
5	SHIELD	- [With 2.0L turbo gasoline engine]
6	LG	- [With VR30 engine]
6	SHIELD	- [With 2.0L turbo gasoline engine]
7	R	- [Color of wire differs depending on production]
7	V	- [Color of wire differs depending on production]
8	LG	- [With 2.0L turbo gasoline engine]
8	R	- [With VR30 engine and without paddle shift]
8	V	- [With VR30 engine and with paddle shift]
9	LG	- [With 2.0L turbo gasoline engine]
9	R	- [With VR30 engine and without paddle shift]
9	V	- [With VR30 engine and with paddle shift]
10	LG	- [With 2.0L turbo gasoline engine]
10	SHIELD	- [With VR30 engine]
11	LG	- [With 2.0L turbo gasoline engine]
11	SHIELD	- [With VR30 engine]
12	LG	- [With 2.0L turbo gasoline engine]
12	SHIELD	- [With VR30 engine]
13	L	-
13	P	- [With 2.0L turbo gasoline engine and without gateway]
13	R	- [With 2.0L turbo gasoline engine and with gateway]
14	L	-
14	SHIELD	- [With VR30 engine]

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ACTIVE LANE CONTROL WITH DIGITAL MOTION CONTROL

< WIRING DIAGRAM >

[ACTIVE LANE CONTROL]

ACTIVE LANE CONTROL (WITH DIGITAL MOTION CONTROL)

14	P	- [With 2.0L turbo gasoline engine and without gateway] - [With 2.0L turbo gasoline engine and with gateway]
15	R	- [With 2.0L turbo gasoline engine and without gateway] - [With 2.0L turbo gasoline engine and with gateway]
16	L	- [With 2.0L turbo gasoline engine]
17	L	- [With 2.0L turbo gasoline engine]
18	L	- [With 2.0L turbo gasoline engine]
19	L	- [With 2.0L turbo gasoline engine]
20	SHIELD	- [With 2.0L turbo gasoline engine]
21	SHIELD	- [With 2.0L turbo gasoline engine]
22	R	- [With 2.0L turbo gasoline engine]
23	R	- [With 2.0L turbo gasoline engine]
24	R	- [With 2.0L turbo gasoline engine]

Connector No.	B120
Connector Name	JOINT CONNECTOR-B120
Connector Type	24342-46A2A



15	W	- [With VR30 engine]
17	SHIELD	- [With 2.0L turbo gasoline engine]
18	B	- [With 2.0L turbo gasoline engine]
19	B	- [With 2.0L turbo gasoline engine]
20	GR	- [With VR30 engine]
21	GR	- [With 2.0L turbo gasoline engine]
22	W	- [With VR30 engine]
23	W	- [With 2.0L turbo gasoline engine]
24	W	- [With 2.0L turbo gasoline engine]

Connector No.	B25
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-LS1E-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	BG	- [With VR30 engine]
2	L	- [With 2.0L turbo gasoline engine]
3	BG	- [With VR30 engine]
4	BR	- [With 2.0L turbo gasoline engine]
5	B	- [With 2.0L turbo gasoline engine]
6	GR	- [With VR30 engine] - [With 2.0L turbo gasoline engine]
7	LG	- [With VR30 engine] - [With 2.0L turbo gasoline engine]
8	BR	- [With VR30 engine] - [With 2.0L turbo gasoline engine]
9	LG	- [With VR30 engine] - [With 2.0L turbo gasoline engine]
10	BR	- [With VR30 engine] - [With 2.0L turbo gasoline engine]
11	L	- [With 2.0L turbo gasoline engine]
12	GR	- [With VR30 engine]
13	SHIELD	- [With 2.0L turbo gasoline engine]
14	B	- [With 2.0L turbo gasoline engine]
15	GR	- [With VR30 engine]
16	BR	- [With 2.0L turbo gasoline engine]
17	BR	- [With VR30 engine]
18	G	- [With 2.0L turbo gasoline engine]

Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	- [With VR30 engine]
2	R	- [With VR30 engine]
3	L	- [With 2.0L turbo gasoline engine]
4	L	- [With 2.0L turbo gasoline engine]
5	L	- [With 2.0L turbo gasoline engine]
6	L	- [With 2.0L turbo gasoline engine]
7	L	- [With 2.0L turbo gasoline engine]
8	L	- [With 2.0L turbo gasoline engine]
9	R	- [With VR30 engine]
10	L	- [With 2.0L turbo gasoline engine]
11	R	- [With VR30 engine]
12	R	- [With VR30 engine]
13	W	- [With 2.0L turbo gasoline engine]
14	W	- [With 2.0L turbo gasoline engine]
15	R	- [With VR30 engine]
16	R	- [With VR30 engine]
17	R	- [With VR30 engine]
18	W	- [With 2.0L turbo gasoline engine]
19	W	- [With 2.0L turbo gasoline engine]

68	BG	- [With VR30 engine]
69	L	- [With 2.0L turbo gasoline engine]
70	R	- [With 2.0L turbo gasoline engine]
71	LG	- [With VR30 engine]
72	L	- [With 2.0L turbo gasoline engine]
73	G	- [With VR30 engine]
74	BR	- [With 2.0L turbo gasoline engine]
75	P	- [With 2.0L turbo gasoline engine]
76	R	- [With 2.0L turbo gasoline engine and with gateway]
77	G	- [With VR30 engine]
78	LG	- [With 2.0L turbo gasoline engine and with ADS]
79	V	- [With 2.0L turbo gasoline engine and without ADS]
80	G	- [With VR30 engine]
81	R	- [With 2.0L turbo gasoline engine]
82	V	- [With VR30 engine]
83	BR	- [With 2.0L turbo gasoline engine]
84	LG	- [With 2.0L turbo gasoline engine]
86	BG	- [With VR30 engine]
87	G	- [With VR30 engine]
89	LG	- [With VR30 engine]
90	G	- [With 2.0L turbo gasoline engine]
91	G	- [With VR30 engine]
93	BG	- [With VR30 engine]
94	GR	- [With 2.0L turbo gasoline engine]
95	BG	- [With VR30 engine]
95	P	- [With 2.0L turbo gasoline engine and without gateway]
96	W	- [With 2.0L turbo gasoline engine and with gateway]
97	LG	- [With VR30 engine]
98	L	- [With 2.0L turbo gasoline engine]
99	P	- [With 2.0L turbo gasoline engine]
100	SHIELD	- [With VR30 engine]

18	P	- [With VR30 engine]
19	Y	- [With 2.0L turbo gasoline engine]
31	W	- [With 2.0L turbo gasoline engine]
32	Y	- [With VR30 engine]
32	G	- [With 2.0L turbo gasoline engine]
33	L	- [With VR30 engine]
33	Y	- [With 2.0L turbo gasoline engine]
34	P	- [With 2.0L turbo gasoline engine]
35	GR	- [With VR30 engine]
36	R	- [With 2.0L turbo gasoline engine]
37	V	- [With 2.0L turbo gasoline engine]
37	L	- [With VR30 engine]
38	L	- [With 2.0L turbo gasoline engine and without gateway]
38	P	- [With 2.0L turbo gasoline engine and with gateway]
39	BR	- [With 2.0L turbo gasoline engine]
39	Y	- [With VR30 engine]
40	SB	- [With 2.0L turbo gasoline engine]
41	LG	- [With VR30 engine]
44	Y	- [With 2.0L turbo gasoline engine]
45	L	- [With 2.0L turbo gasoline engine]
45	W	- [With VR30 engine]
46	B	- [With 2.0L turbo gasoline engine]
46	Y	- [With 2.0L turbo gasoline engine]
47	G	- [With VR30 engine]
48	SHIELD	- [With VR30 engine]
49	R	- [With VR30 engine]
50	BR	- [With 2.0L turbo gasoline engine]
51	L	- [With VR30 engine]
52	W	- [With VR30 engine]
53	V	- [With VR30 engine]
54	P	- [With 2.0L turbo gasoline engine]
54	W	- [With 2.0L turbo gasoline engine]
55	B	- [With 2.0L turbo gasoline engine]
55	W	- [With VR30 engine]
56	BG	- [With 2.0L turbo gasoline engine]
56	SB	- [With VR30 engine]
57	BG	- [With VR30 engine]
57	W	- [With 2.0L turbo gasoline engine]
58	B	- [Color of wire differs depending on production]
58	BR/W	- [Color of wire differs depending on production]
59	W	- [With 2.0L turbo gasoline engine]
61	R	- [With VR30 engine]
64	Y	- [With 2.0L turbo gasoline engine]
65	BR	- [Color of wire differs depending on production]
65	GR	- [Color of wire differs depending on production]
66	GR	- [With 2.0L turbo gasoline engine]
67	LG	- [With 2.0L turbo gasoline engine]

ACTIVE LANE CONTROL WITH DIGITAL MOTION CONTROL

< WIRING DIAGRAM >

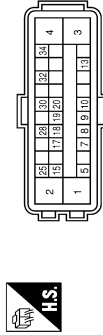
[ACTIVE LANE CONTROL]

ACTIVE LANE CONTROL (WITH DIGITAL MOTION CONTROL)

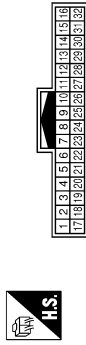
Connector No.	E26
Connector Name	STEERING ANGLE MAIN CONTROL MODULE
Connector Type	RH24FB-R284-L4H



Connector No.	E35
Connector Name	ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)
Connector Type	SAZ30FB-S124-U



Connector No.	E47
Connector Name	WIRE TO WIRE
Connector Type	TH32MAW-AH



Connector No.	E64
Connector Name	FUSE BLOCK (I/B)
Connector Type	NS08FW-C5

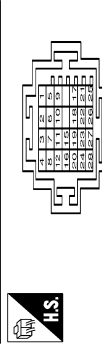


Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	TORQUE SENSOR MAIN SIGNAL
2	Y	STEERING ANGLE MAIN MOTOR RESOLVER SIGNAL (S1-S3)
3	LG	TORQUE SENSOR SUB SIGNAL
4	G	STEERING ANGLE MAIN MOTOR RESOLVER SIGNAL (S1-S3)
5	W	STEERING ANGLE MAIN MOTOR RESOLVER SIGNAL (S2-S4)
6	L	STEERING ANGLE MAIN MOTOR RESOLVER SIGNAL (S2-S4)
7	SB	TORQUE SENSOR GROUND
8	P	TORQUE SENSOR POWER SUPPLY
10	R	STEERING ANGLE MAIN MOTOR RESOLVER SIGNAL (R1-R2)
11	BR	STEERING ANGLE MAIN MOTOR RESOLVER SIGNAL (R1-R2)
14	L	CHASSIS COMMUNICATION-H
15	W	CHASSIS COMMUNICATION-L
17	BG	BACK UP SIGNAL (FROM STEERING ANGLE SUB CONTROL MODULE)
18	SB	BACK UP SIGNAL (FROM STEERING ANGLE SUB CONTROL MODULE)
19	Y	FLEXWAY COMMUNICATION-H
20	GR	FLEXWAY COMMUNICATION-L
22	GR	BACK UP SIGNAL (TO STEERING ANGLE SUB CONTROL MODULE)
23	BR	CAN WAKE UP
24	P	BACK UP SIGNAL (TO STEERING ANGLE SUB CONTROL MODULE)
25	G	EARTH POWER SUPPLY (FROM STEERING ANGLE SUB CONTROL MODULE)
30	R	GROUND
32	GR	GROUND

Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GND
2	B	GND
3	P	VALVE BATTERY (WITH VR30 engine)
3	G	VALVE BATTERY (WITH 2.0L turbo gasoline engine)
4	Y	MOTOR BATTERY
5	LG	STOP LAMP SW SIGNAL (WITH ADAS)
5	V	STOP LAMP SW SIGNAL (WITH ASCD)
7	GR	RR LH WHEEL SENSOR SIGNAL
8	G	RR LH WHEEL SENSOR POWER SUPPLY
9	BR	FR RH WHEEL SENSOR SIGNAL
10	GR	FR RH WHEEL SENSOR POWER SUPPLY
13	R	VACUUM SENSOR SIGNAL
15	R	CAN-L (Without Gateway)
15	R	CAN-L (With Gateway)
17	Y	RR RH WHEEL SENSOR SIGNAL
18	LG	RR RH WHEEL SENSOR POWER SUPPLY (With VR30 engine)
18	Y	RR RH WHEEL SENSOR POWER SUPPLY (With 2.0L turbo gasoline engine)
19	SB	FR LH WHEEL SENSOR SIGNAL
20	BG	FR LH WHEEL SENSOR POWER SUPPLY
25	L	CAN-H
28	G	VACUUM SENSOR POWER SUPPLY
30	R	VDC OFF SW SIGNAL
32	SHIELD	VACUUM SENSOR GROUND
34	G	IGN

Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	- [Color of wire differs depending on production]
1	Y	- [Color of wire differs depending on production]
2	V	-
3	L	-
4	P	- [Without Gateway]
4	R	- [With Gateway]
5	W	-
6	SB	-
7	BR	- [Color of wire differs depending on production]
7	L	- [Color of wire differs depending on production]
8	W	-
9	BG	- [Without BOSE system]
9	V	- [With BOSE system]
10	V	-
11	SB	-
12	G	-
13	G	-
15	BR	-
16	P	-
17	SHIELD	-
18	L	-
19	Y	-
20	W	-
21	G	-
22	R	-
23	BR	-
24	R	-
25	L	-
26	BG	-
27	LG	-
28	BR	-
29	W	-
30	Y	-
31	G	-
32	GR	-

Terminal No.	Color Of Wire	Signal Name [Specification]
1E	G	-
2E	P	-
3E	V	-
4E	GR	-
6E	L	-
7E	BG	-



Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	-
2	Y	-
3	W	-
4	L	-
5	GR	-
6	Y	-
7	W	-
8	L	-
9	GR	-
10	Y	-
11	W	-
12	L	-
15	W	-
16	BG	-

A
B
C
D
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DAS

JROWC8824GB

ACTIVE LANE CONTROL WITH DIGITAL MOTION CONTROL

< WIRING DIAGRAM >

[ACTIVE LANE CONTROL]

ACTIVE LANE CONTROL (WITH DIGITAL MOTION CONTROL)

17	P	-	CAN-L [With Gateway]
18	W	-	IGN
19	L	-	ACTUATOR (RLH)
20	BG	-	ACTUATOR (FR-L)
21	P	-	-
22	L	-	-
23	SB	-	[Color of wire differs depending on production]
23	W	-	[Color of wire differs depending on production]
24	BG	-	[Color of wire differs depending on production]
24	LG	-	[Color of wire differs depending on production]
25	P	-	-
26	L	-	-
27	Y	-	-
28	L	-	-

Connector No.	E219
Connector Name	CHASSIS CONTROL MODULE
Connector Type	TH28FW



1	3	4	5	6	8	9	10	12	13	14
15	17	19	21	22	23	24	25	26	28	

24	R	-	CAN-L [With Gateway]
25	G	-	IGN
26	V	-	ACTUATOR (RLH)
28	R	-	ACTUATOR (FR-L)

Connector No.	E2
Connector Name	A/T ASSEMBLY
Connector Type	RK1DFG-DG7



5	4	3	2	1
10	9	8	7	6

Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	IGNITION POWER SUPPLY [With 2.0L turbo gasoline engine]
1	L	IGNITION POWER SUPPLY [With VR30 engine]
2	P	BATTERY POWER SUPPLY [MEMORY BACK-UP]
3	L	CAN-H
4	R	K-LINE
5	B	GROUND [With 2.0L turbo gasoline engine]
6	GR	GROUND [With VR30 engine]
7	BG	IGNITION POWER SUPPLY
8	P	BACK-UP LAMP RELAY
9	V	CAN-L
10	B	STARTER RELAY
10	B	GROUND

Connector No.	F100
Connector Name	TCM
Connector Type	SPI1DFG



1	2	3	4	5
6	7	8	9	10

Terminal No.	Color Of Wire	Signal Name [Specification]
1	-	IGNITION POWER SUPPLY
2	-	BATTERY POWER SUPPLY [MEMORY BACK-UP]
3	-	CAN-H
4	-	K-LINE
5	-	GROUND
6	-	IGNITION POWER SUPPLY
7	-	BACK-UP LAMP RELAY
8	-	CAN-L
9	-	STARTER RELAY
10	-	GROUND

Connector No.	IM14
Connector Name	BCM [BODY CONTROL MODULE]
Connector Type	TH40FB-NH



6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Terminal No.	Color Of Wire	Signal Name [Specification]
48	R	PUSH-BTN IGN SW ILL PWR
52	G	DONGLE LINK
54	V	COMM LINE
55	R	RAIN SENSOR
59	P	CAN-L
60	L	CAN-H
61	G	REAR WINDOW DEF RLY CONT
62	R	STARTER RLY CONT
64	V	1-KEY WARN BUZZER
65	B	OUTS HD LAMP CONT
66	B	BLOWER FAN RLY CONT [With VR30 engine]
66	V	BLOWER FAN RLY CONT [With 2.0L turbo gasoline engine]
67	W/B	IGN RLY X1 (7B) CONT
68	R	DIMMER
69	GR	A/T SHIFT SELECT PWR SPLY
70	B	IGN RELAY [IPDM/ERN] CONT
71	G	DR DOOR RECD SW
72	SB	PASS DOOR RECD SW
75	BR	COMBI SW INPUT 5
76	BG	COMBI SW INPUT 4
77	V	COMBI SW INPUT 3
78	Y	COMBI SW INPUT 2

79	LG	COMBI SW INPUT 1
80	L	TR LID OPNR SW

Connector No.	IM19
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-IM4



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	G	-
3	SB	-
4	BR	-
5	Y	-
6	R	-
7	W	-
8	V	-
10	BG	-
11	BR	-
12	LG	-
13	GR	-
14	R	-
15	L	-
16	V	-
18	W	-
19	BR	-
20	W	-
22	SB	-
23	R	-
34	R	- [With 2.0L turbo gasoline engine]
34	Y	- [With VR30 engine]
35	B	- [With 2.0L turbo gasoline engine]
35	W	- [With VR30 engine]
26	G	-
27	R	-
28	R	-
31	BR	-
32	B	-
33	B	-
34	V	-
35	P	-

ACTIVE LANE CONTROL WITH DIGITAL MOTION CONTROL

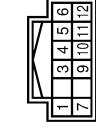
< WIRING DIAGRAM >

[ACTIVE LANE CONTROL]

ACTIVE LANE CONTROL (WITH DIGITAL MOTION CONTROL)

Terminal No.	Wire	Signal Name [Specification]
36	W	-
37	SB	-
38	LG	-
40	P	-
41	G	-
42	BR	-
43	BR	-
44	BR	-
46	BG	-
50	W	-
51	Y	-
52	V	-
53	LG	-
54	R	-
55	R	-
57	W	-
58	V	-
59	BG	-
60	G	-
61	G	-
62	BG	-
63	BR	-
64	Y	-
66	R	-
70	LG	-
71	W	-
72	B	-
73	W	-
74	L	-
75	W	-
76	BR	-
77	B	-
78	SB	-
79	P	- [With VR30 engine]
79	W	- [With 2.0L turbo gasoline engine]
81	B	-
82	B	-
83	BG	-
84	L	-
85	W	-
86	B	-
88	G	-
89	V	- [With 2.0L turbo gasoline engine]
89	W	- [With VR30 engine]
91	GR	-
94	GR	-
96	W	-
97	V	-
98	BR	- [With VR30 engine and with BOSE system]
98	Y	- [Except with VR30 engine and with BOSE system]

Connector No.	Signal Name [Specification]
M24	CAN GATEWAY
TH32FW-AH	TH32FW-AH



Terminal No.	Wire	Signal Name [Specification]
1	L	CAN-H (CAN COMMUNICATION CIRCUIT 1)
3	W	BATTERY POWER SUPPLY
4	L	CAN-H (CAN COMMUNICATION CIRCUIT 2)
5	B	GROUND
6	L	CAN-L (CAN COMMUNICATION CIRCUIT 2)
7	P	CAN-L (CAN COMMUNICATION CIRCUIT 1)
9	R	IGNITION POWER SUPPLY (Except with VR30 engine and without ISS)
9	W	IGNITION POWER SUPPLY (With VR30 engine and without ISS)
10	R	CAN-L (CAN COMMUNICATION CIRCUIT 2)
11	B	GROUND
12	R	CAN-L (CAN COMMUNICATION CIRCUIT 2)



Connector No.	Signal Name [Specification]
M39	WIRE TO WIRE
TH32FW-AH	TH32FW-AH

Terminal No.	Wire	Signal Name [Specification]
9	P	- [Without BOSE system]
9	V	- [With BOSE system]
10	V	-
11	SB	-
12	G	-
13	G	-
15	R	-
16	SB	-
17	SHIELD	-
18	W	-
19	Y	-
20	L	-
21	G	-
22	R	-
23	BR	-
24	R	-
25	L	-
26	Y	-
27	LG	-
28	BR	-
29	W/B	-
30	Y	-
31	W	-
32	L	- [With Anti-theft diode]
32	LG	- [Without Anti-theft diode]



Connector No.	Signal Name [Specification]
M40	WIRE TO WIRE
TH80MW-CS16-TM4	TH80MW-CS16-TM4

Terminal No.	Wire	Signal Name [Specification]
11	Y	- [With 2.0L turbo gasoline engine]
12	B	- [With VR30 engine]
12	BR	- [With 2.0L turbo gasoline engine]
13	GR	- [With VR30 engine]
13	SHIELD	- [With 2.0L turbo gasoline engine]
14	B	-
15	BG	- [With 2.0L turbo gasoline engine]
15	SB	- [With VR30 engine]
16	B	- [With VR30 engine]
16	BR	- [With 2.0L turbo gasoline engine]
17	LG	-
18	B	- [With VR30 engine]
18	W/B	- [With 2.0L turbo gasoline engine]
19	Y	-
31	W	-
32	G	- [With 2.0L turbo gasoline engine]
32	V	- [With VR30 engine]
33	L	- [With 2.0L turbo gasoline engine]
34	Y	-
34	P	-
35	BG	-
36	G	-
37	B	- [With VR30 engine]
37	L	- [With 2.0L turbo gasoline engine]
38	P	- [With VR30 engine]
38	P	- [With 2.0L turbo gasoline engine and without gateway]
38	R	- [With 2.0L turbo gasoline engine and with gateway]
39	Y	- [With VR30 engine]
40	GR	-
41	L	-
44	BR	-
45	L	- [With 2.0L turbo gasoline engine]
45	W	- [With VR30 engine]
46	G	- [With VR30 engine]
46	Y	- [With 2.0L turbo gasoline engine]
47	BG	- [With 2.0L turbo gasoline engine]
47	R	- [With VR30 engine]
48	SHIELD	-
49	B	- [With VR30 engine]
49	G	- [With 2.0L turbo gasoline engine]
50	B	- [With 2.0L turbo gasoline engine]
50	BR	- [With VR30 engine]
51	L	-
52	W	-
53	G	-
54	SB	- [With 2.0L turbo gasoline engine]
54	Y	- [With VR30 engine]
55	B	- [With 2.0L turbo gasoline engine]
55	P	- [With VR30 engine]

Terminal No.	Wire	Signal Name [Specification]
1	BG	-
6	W/B	-
7	V	-
8	BG	- [With VR30 engine]
8	BR	- [With 2.0L turbo gasoline engine]
9	LG	- [With VR30 engine]
9	P	- [With 2.0L turbo gasoline engine]
10	W	-
11	W	- [With VR30 engine]

A B C D E F G H I J K L M N P

ACTIVE LANE CONTROL WITH DIGITAL MOTION CONTROL

< WIRING DIAGRAM >

[ACTIVE LANE CONTROL]

ACTIVE LANE CONTROL (WITH DIGITAL MOTION CONTROL)

56	BG	-	[With VR30 engine]
56	GR	-	[With 2.0L turbo gasoline engine]
57	GR	Y	- [With VR30 engine]
57	P	BR	- [With 2.0L turbo gasoline engine]
58	B	LG	- [With 2.0L turbo gasoline engine]
59	SB	LG	- [With 2.0L turbo gasoline engine]
61	W/B	-	-
64	Y	-	-
65	R	-	-
66	P	-	[Color of wire differs depending on production]
66	V	-	[Color of wire differs depending on production]
67	LG	-	-
68	BG	-	-
69	L	-	-
70	R	-	-
71	V	-	- [With VR30 engine]
72	L	-	- [With 2.0L turbo gasoline engine]
72	L	-	- [With 2.0L turbo gasoline engine]
72	LG	-	- [With VR30 engine]
73	R	-	- [With VR30 engine]
73	W	-	- [With 2.0L turbo gasoline engine]
74	BR	-	- [With VR30 engine]
74	L	-	- [With 2.0L turbo gasoline engine]
75	B	-	- [With VR30 engine]
75	P	-	- [With 2.0L turbo gasoline engine and without gateway]
75	R	-	- [With 2.0L turbo gasoline engine and with gateway]
76	W/B	-	-
77	SB	-	- [With VR30 engine]
78	LG	-	- [With 2.0L turbo gasoline engine]
79	R	-	-
80	G	-	-
81	R	-	-
82	LG	-	-
83	BR	-	- [With 2.0L turbo gasoline engine]
83	R	-	- [With VR30 engine]
84	V	-	- [With VR30 engine]
86	V	-	-
87	G	-	-
89	V	-	-
90	G	-	- [With VR30 engine]
90	V	-	- [With 2.0L turbo gasoline engine]
91	W	-	-
92	G	-	-
93	BR	-	-
94	GR	-	- [With VR30 engine]
94	L	-	- [With 2.0L turbo gasoline engine]
95	BR	-	- [With VR30 engine]
95	P	-	- [With 2.0L turbo gasoline engine and without gateway]
95	R	-	- [With 2.0L turbo gasoline engine and with gateway]

96	W	-	-
97	LG	-	-
98	Y	-	- [With VR30 engine]
99	BR	-	- [With 2.0L turbo gasoline engine]
99	LG	-	- [With 2.0L turbo gasoline engine]
100	SHIELD	-	-

Connector No.	M858
Connector Name	COMBINATION METER
Connector Type	TH12FM-NH



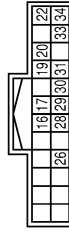
Terminal No.	Color Of Wire	Signal Name [Specification]
41	L	CAN-H
42	P	CAN-L
43	B	ILLUMINATION CONTROL SIGNAL
44	Y	FUEL LEVEL SENSOR GROUND
45	W	BATTERY POWER SUPPLY
46	BG	IGNITION SIGNAL (Except with VR30 engine and without ESS)
47	SB	AV COMMUNICATION SIGNAL (H)
48	LG	AV COMMUNICATION SIGNAL (L)
51	BR	FUEL LEVEL SENSOR SIGNAL
52	B	GROUND

Connector No.	M888
Connector Name	A/C AUTO AMP.
Connector Type	TH40FM-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	CAN-H
2	B	GROUND
3	W	BATTERY POWER SUPPLY
7	G	AMBIENT SENSOR SIGNAL
9	R	SUNLOAD SENSOR SIGNAL
13	SA	ACC-POWER SUPPLY (With 2.0L turbo gasoline engine)
13	V	ACC-POWER SUPPLY (With VR30 engine)
16	P	IGN SIGNAL
17	R	DOOR MOTOR POWER SUPPLY
18	P	BLUWHER MOTOR CONTROL SIGNAL
20	L	HEATED STEERING WHEEL HEAT CONTROL SIGNAL
21	P	CAN-L
21	B	GROUND
23	R	IGNITION POWER SUPPLY (With VR30 engine and with ESS)
23	W	IGNITION POWER SUPPLY (Except with VR30 engine and with ESS)
26	B	SENSOR GROUND
27	LG	IN-VEHICLE SENSOR SIGNAL
28	BR	INTAKE SENSOR SIGNAL
30	BG	EXHAUST GAS / OUTSIDE ODOR DETECTING SENSOR SIGNAL
37	B	GROUND
38	BG	IONIZER (ON/OFF) CONTROL SIGNAL
40	BG	ECV CONTROL SIGNAL

Connector No.	M100
Connector Name	DISPLAY CONTROL UNIT
Connector Type	TH24FM-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
16	LG	AV COMM (L)
17	P	CANCEL
19	R	DIMMER SIGNAL
20	BR	REVERSE SIGNAL
22	B	GNL
26	BR	CAMERA SWITCH SIGNAL
28	SB	AV COMM (H)
29	L	CAN-H
30	R	IGN [For VR30 engine]
30	W	IGN [For 2.0L turbo gasoline engine]

31	R	VEHICLE SPEED SIGNAL (B-PULSE)
33	SB	ACC (Except for VR30 engine and with ESS)
33	V	ACC (For VR30 engine and with ESS)
34	Y	BAT

Connector No.	M132
Connector Name	FUSE BLOCK (I/B)
Connector Type	NS16FW-C5



Terminal No.	Color Of Wire	Signal Name [Specification]
11B	LG	-
13B	P	-
14B	G	-
15B	Y	-
16B	Y	-
2B	B	-
4B	W	-
5B	R	-
9B	Y	-

Connector No.	M133
Connector Name	FUSE BLOCK (I/B)
Connector Type	TH40FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
10C	V	-
12C	L	-
13C	L	-
14C	Y	-
15C	R	-

ACTIVE LANE CONTROL WITH DIGITAL MOTION CONTROL

< WIRING DIAGRAM >

[ACTIVE LANE CONTROL]

ACTIVE LANE CONTROL (WITH DIGITAL MOTION CONTROL)

16C	R	-	-
17C	L	-	-
18C	BG	- [Without DRPO]	-
18C	P	- [With DRPO]	-
19C	B	-	-
19C	R	-	-
20C	W	-	-
21C	L	-	-
22C	L	-	-
23C	L	-	-
23C	LG	-	-
24C	SB	-	-
27C	P	-	-
28C	W	-	-
29C	W	-	-
29C	R	-	-
30C	R	-	-
31C	W	-	-
32C	R	-	-
33C	B	- [With VR30 engine]	-
33C	R	- [With 2.0L turbo gasoline engine]	-
34C	W/B	-	-
35C	SB	-	-
36C	R	-	-
37C	W	-	-
38C	SB	-	-
39C	V	-	-
3C	P	-	-
40C	G	-	-
4C	P	-	-
5C	P	-	-
6C	G	-	-
7C	G	-	-
8C	G	-	-
9C	V	-	-

Connector No.	M137
Connector Name	JOINT CONNECTOR-M10
Connector Type	24342_4GA2A



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	B	-
3	B	-
4	B	-
5	B	-
7	B	-
8	B	-
9	B	-
10	B	-
11	B	-
13	L	-
14	L	-
15	L	-
16	L	-
17	L	-
18	L	-
19	R	-
20	R	-
21	R	-
22	R	-

Connector No.	M159
Connector Name	WIRE TO WIRE
Connector Type	TH40FM-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	B	-
3	BR	-
4	R	-
5	GR	-
6	R	- [With VR30 engine and with ISS]
6	W	- [Except with VR30 engine and with ISS]
7	V	-
9	SHIELD	-
10	W	-
11	R	-
12	L	-
13	G	-
14	Y	-
15	B	-
17	B	-
19	R	-
20	BG	- [Except with VR30 engine and with BOSE system]
20	BR	- [With VR30 engine and with BOSE system]
21	R	-
22	G	-
24	B	-
25	W	-
26	R	-
27	P	-
28	B	-
29	G	-
30	L	-
31	W	-
32	W	-
33	L	-
36	V	-
38	LG	-
40	W	-

Connector No.	M173
Connector Name	JOINT CONNECTOR-M03
Connector Type	24342_4GA2A



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	L	-
3	L	-
4	L	-
5	L	-
6	L	-
7	R	-
8	R	-
9	R	-
10	R	-
11	R	-
12	R	-
13	SB	-
14	SB	-
15	SB	-
16	L	- [With 2.0L turbo gasoline engine]
16	SB	- [With VR30 engine]
17	L	- [With 2.0L turbo gasoline engine]
17	SB	- [With VR30 engine]
18	L	- [With 2.0L turbo gasoline engine]
18	SB	- [With VR30 engine]
19	BR	- [With VR30 engine]
19	LG	- [With 2.0L turbo gasoline engine]
20	BR	- [With VR30 engine]
20	LG	- [With 2.0L turbo gasoline engine]
21	BR	- [With VR30 engine]
21	LG	- [With 2.0L turbo gasoline engine]
22	R	- [With VR30 engine and without ISS]
22	SB	- [With VR30 engine and with ISS]
22	V	- [With VR30 engine and without ISS]
23	R	- [With VR30 engine and with ISS]
23	SB	- [With VR30 engine and without ISS]
23	V	- [With VR30 engine and with ISS]
24	R	- [With VR30 engine and without ISS]
24	SB	- [With VR30 engine and with ISS]
24	V	- [With VR30 engine and with ISS]

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ACTIVE LANE CONTROL WITH DIGITAL MOTION CONTROL

< WIRING DIAGRAM >

[ACTIVE LANE CONTROL]

ACTIVE LANE CONTROL (WITH DIGITAL MOTION CONTROL)

Connector No.	M175
Connector Name	JOINT CONNECTOR-M05
Connector Type	NH20FLDC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	L	-
3	L	-
4	L	-
5	L	-
6	L	-
7	L	-
8	L	-
10	P	-
11	P	-
12	P	-
13	P	-
14	P	-
15	P	-
16	R	- [With VR30 engine] - [With 2.0L turbo gasoline engine]
17	P	- [With VR30 engine]
17	R	- [With 2.0L turbo gasoline engine]
19	R	- [With VR30 engine and with (SS)]
19	W	- [Except with VR30 engine and with (SS)]
20	R	- [With VR30 engine and with (SS)]
20	W	- [Except with VR30 engine and with (SS)]

Connector No.	M177
Connector Name	JOINT CONNECTOR-M07
Connector Type	24342_4GA2A



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	L	-
3	L	-
4	L	-
5	L	-
6	L	-
7	P	-
8	P	-
9	P	-
10	P	-
11	P	-
12	P	-
13	L	-
14	L	-
15	L	-
16	L	-
17	L	-
18	L	-
19	W	-
20	W	-
21	W	-
22	P	-
23	P	-
24	P	-

Connector No.	RL3
Connector Name	LANE CAMERA UNIT
Connector Type	TH08FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	CAN_GND
4	L	CAN-H
5	B	GND
7	V	IGN
8	W	CAN-L

Connector No.	RL5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	LG	-
3	BR	-
4	V	-
5	BG	-
6	GR	-
7	BR	-
9	SHIELD	-
10	GR	-
11	R	-
12	L	-
13	G	-
14	Y	-
15	B	-
17	SB	-

19	BG	-
20	BG	- [Without BOSE system] - [With BOSE system]
20	BR	-
21	R	-
22	G	-
24	B	-
25	BG	- [Color of wire differs depending on production]
25	P	- [Color of wire differs depending on production]
26	BR	-
27	GR	-
28	B	-
29	R	-
30	L	-
31	V	-
32	W	-
33	L	-
36	BR	-
38	SB	-
40	W	-

ACTIVE LANE CONTROL WITHOUT DIGITAL MOTION CONTROL

< WIRING DIAGRAM >

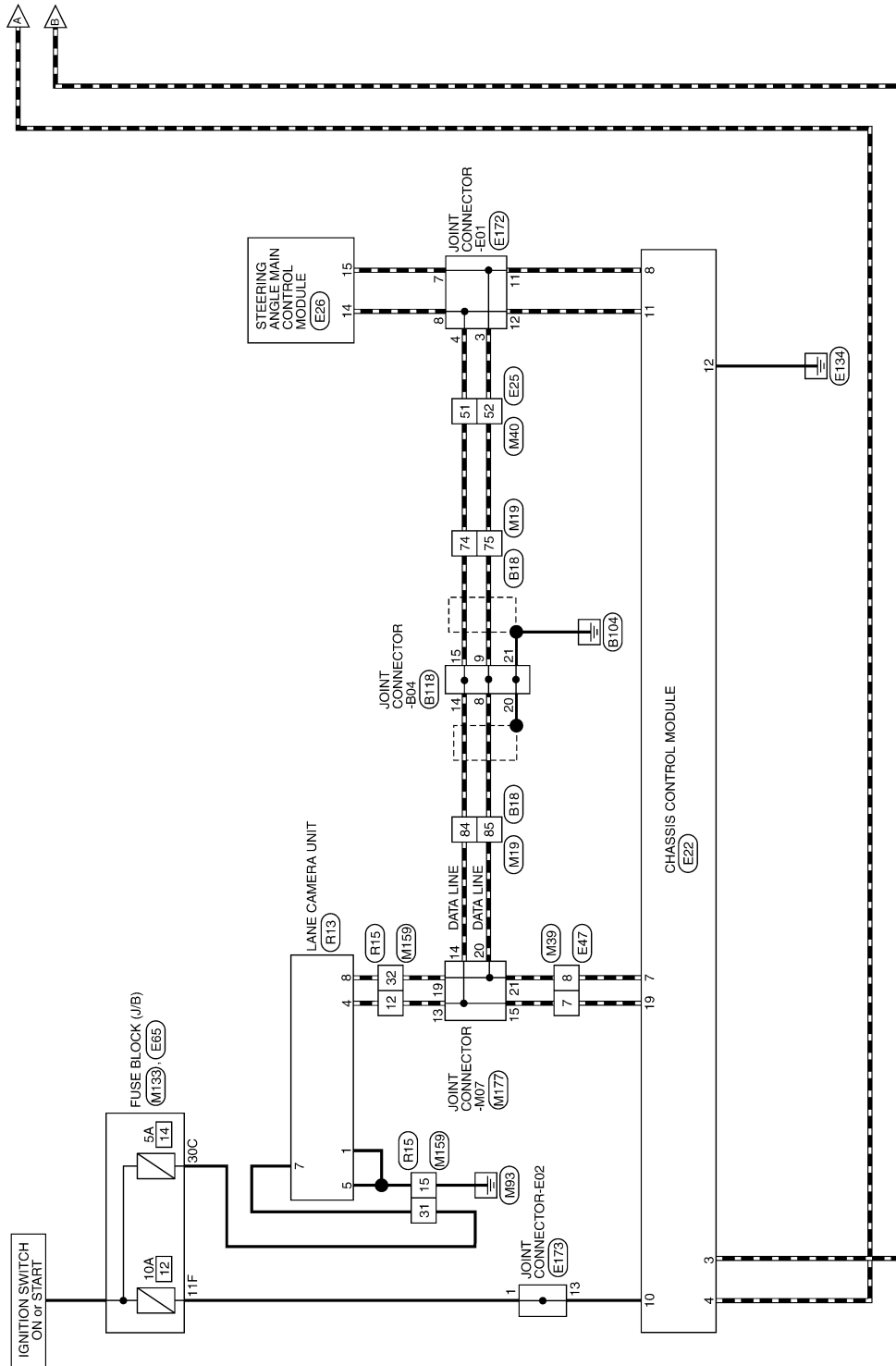
[ACTIVE LANE CONTROL]

ACTIVE LANE CONTROL WITHOUT DIGITAL MOTION CONTROL

Wiring Diagram

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ACTIVE LANE CONTROL (WITHOUT DIGITAL MOTION CONTROL)



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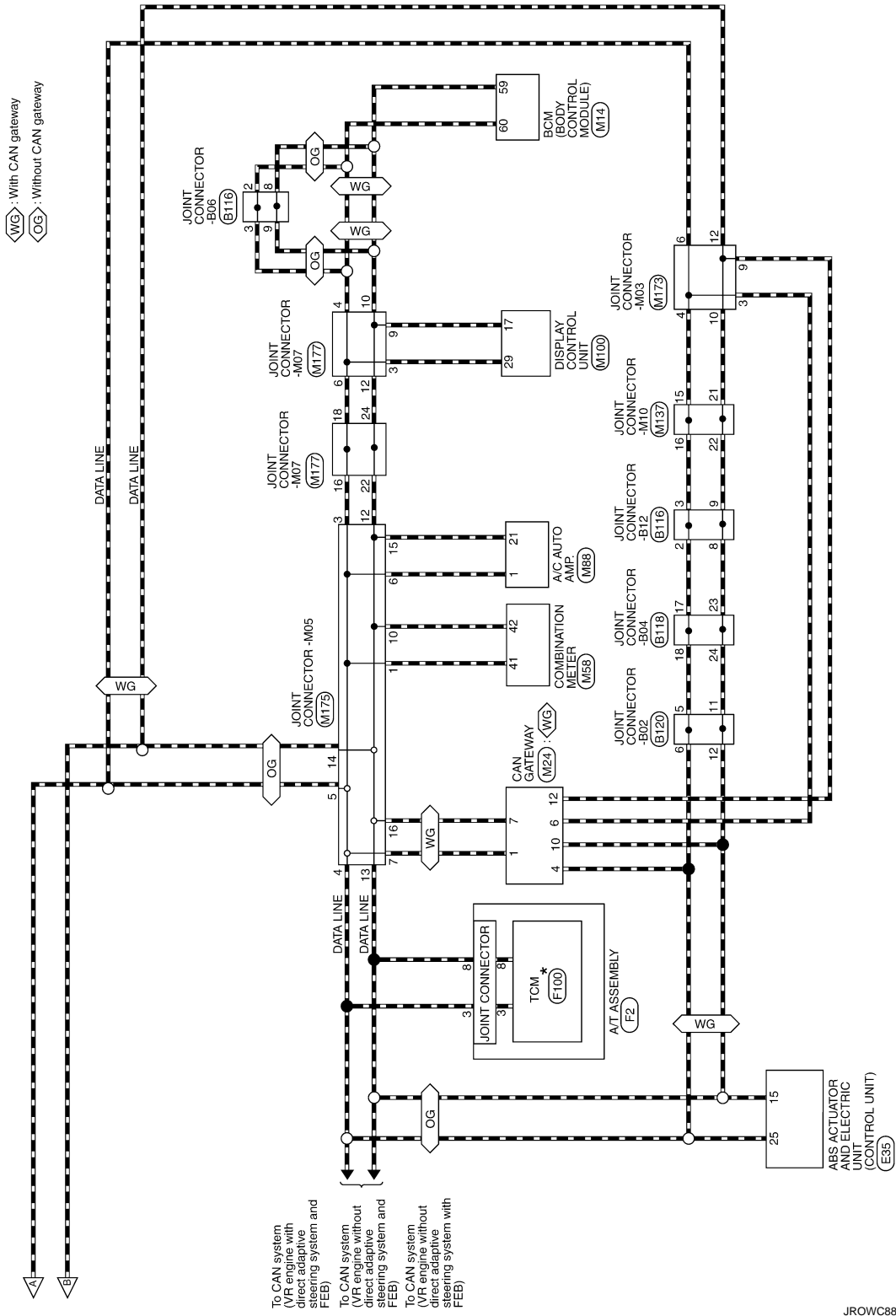
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ACTIVE LANE CONTROL WITHOUT DIGITAL MOTION CONTROL

< WIRING DIAGRAM >

[ACTIVE LANE CONTROL]



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ACTIVE LANE CONTROL WITHOUT DIGITAL MOTION CONTROL

< WIRING DIAGRAM >

[ACTIVE LANE CONTROL]

ACTIVE LANE CONTROL (WITHOUT DIGITAL MOTION CONTROL)

Connector No.	B18
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-C516-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	G	-
3	L	-
4	LG	-
5	Y	-
6	R	-
7	V	-
8	LG	-
10	BG	-
11	BG	-
12	LG	-
13	GR	-
14	R	-
15	L	-
16	V	-
18	BR	-
19	BR	-
20	W	-
22	R	-
23	V	-
24	R	- [With 2.0L turbo gasoline engine]
25	P	- [With VR30 engine]
26	V	- [With 2.0L turbo gasoline engine and without gateway]
27	W	- [With 2.0L turbo gasoline engine and with gateway]
28	R	-
31	B	- [With VR30 engine]
31	BR	- [With 2.0L turbo gasoline engine]
33	B	-
34	LG	-
35	P	-
36	W	-

37	SB	-
38	LG	-
40	P	-
41	SB	-
42	BR	-
43	BG	-
44	BG	-
46	R	-
50	W	-
51	SB	-
52	V	-
53	LG	-
54	R	-
55	R	-
57	W	-
58	V	-
59	GR	-
60	G	-
61	G	-
62	BG	-
63	BR	-
64	Y	-
66	R	-
70	R	-
71	W	-
72	B	-
73	W	-
74	L	-
75	R	- [Without paddle shift]
76	V	- [With paddle shift]
77	B	-
78	SB	-
79	V	- [With VR30 engine]
79	W	- [With 2.0L turbo gasoline engine]
81	B	-
82	R	-
83	BG	-
84	L	-
85	R	- [Without paddle shift]
85	V	- [With paddle shift]
86	B	-
88	G	-
89	V	- [With 2.0L turbo gasoline engine]
89	W	- [With VR30 engine]
91	GR	-
94	GR	-
96	Y	-
97	V	-

98	BR	- [With VR30 engine and with BOSE system]
98	Y	- [Except with VR30 engine and with BOSE system]

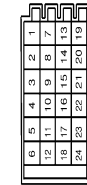
Connector No.	B116
Connector Name	JOINT CONNECTOR-B06
Connector Type	24342_4G32A



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	L	-
3	L	-
4	L	-
5	L	-
6	L	-
7	R	-
8	R	- [With Gateway]
8	V	- [Without Gateway]
9	V	- [Without Gateway]
10	R	- [With VR30 engine]
10	V	- [With 2.0L turbo gasoline engine]
11	V	-
12	P	- [With Gateway]
13	R	-
14	SHIELD	-
15	B	- [With 2.0L turbo gasoline engine]
16	SHIELD	- [With VR30 engine]
17	SHIELD	- [With 2.0L turbo gasoline engine]
17	L	- [With VR30 engine]
17	SHIELD	- [With 2.0L turbo gasoline engine]
18	L	- [With 2.0L turbo gasoline engine]
18	SHIELD	- [With VR30 engine]
19	SHIELD	- [With 2.0L turbo gasoline engine]
20	L	- [With 2.0L turbo gasoline engine]
20	SHIELD	- [With VR30 engine]
21	L	-

22	P	-
23	P	- [With VR30 engine]
24	P	- [With 2.0L turbo gasoline engine]
24	Y	-

Connector No.	B118
Connector Name	JOINT CONNECTOR-B04
Connector Type	24342_4G32A



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	- [With VR30 engine]
1	SHIELD	- [With 2.0L turbo gasoline engine]
2	LG	- [With VR30 engine]
2	SHIELD	- [With 2.0L turbo gasoline engine]
3	SHIELD	-
4	LG	- [With VR30 engine]
4	SHIELD	- [With 2.0L turbo gasoline engine]
5	LG	- [With VR30 engine]
5	SHIELD	- [With 2.0L turbo gasoline engine]
6	LG	- [With VR30 engine]
6	SHIELD	- [With 2.0L turbo gasoline engine]
7	R	- [Color of wire differs depending on production]
7	V	- [Color of wire differs depending on production]
8	LG	- [With 2.0L turbo gasoline engine]
8	R	- [With VR30 engine and without paddle shift]
8	V	- [With VR30 engine and with paddle shift]
9	LG	- [With 2.0L turbo gasoline engine]
9	R	- [With VR30 engine and without paddle shift]
9	V	- [With VR30 engine and with paddle shift]
10	LG	- [With 2.0L turbo gasoline engine]
10	SHIELD	- [With VR30 engine]
11	LG	- [With 2.0L turbo gasoline engine]
11	SHIELD	- [With VR30 engine]
12	LG	- [With 2.0L turbo gasoline engine]
12	SHIELD	- [With VR30 engine]
13	L	-
13	P	- [With 2.0L turbo gasoline engine and without gateway]
13	R	- [With 2.0L turbo gasoline engine and with gateway]
14	L	- [With VR30 engine]

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ACTIVE LANE CONTROL WITHOUT DIGITAL MOTION CONTROL

< WIRING DIAGRAM >

[ACTIVE LANE CONTROL]

ACTIVE LANE CONTROL (WITHOUT DIGITAL MOTION CONTROL)

14	P	- [With 2.0L turbo gasoline engine and without gateway] - [With 2.0L turbo gasoline engine and with gateway]
14	R	- [With 2.0L turbo gasoline engine and without gateway] - [With VR30 engine]
15	R	- [With 2.0L turbo gasoline engine]
16	L	- [With 2.0L turbo gasoline engine]
17	L	- [With VR30 engine]
18	L	- [With 2.0L turbo gasoline engine]
19	L	- [With VR30 engine]
20	L	- [With 2.0L turbo gasoline engine]
21	SHIELD	- [With VR30 engine]
22	W	- [With 2.0L turbo gasoline engine]
23	W	- [With VR30 engine]
24	W	- [With 2.0L turbo gasoline engine]

Connector No.	B120
Connector Name	JOINT CONNECTOR-B120
Connector Type	24342-46A2A



6	5	4	3	2	1
12	11	10	9	8	7
18	17	16	15	14	13
24	23	22	21	20	19

15	W	- [With 2.0L turbo gasoline engine and without gateway] - [With 2.0L turbo gasoline engine and with gateway]
17	SHIELD	- [With VR30 engine]
18	B	- [With 2.0L turbo gasoline engine]
19	B	- [With VR30 engine]
20	SHIELD	- [With 2.0L turbo gasoline engine]
21	B	- [With 2.0L turbo gasoline engine]
22	W	- [With VR30 engine]
23	W	- [With 2.0L turbo gasoline engine]
24	W	- [With VR30 engine]

Connector No.	E22
Connector Name	CHASSIS CONTROL MODULE
Connector Type	TH24FW-AH



3	4	5	6	7	8	10	11	12
19	18	17	16	15	14	13	12	11

Terminal No.	Color Of Wire	Signal Name [Specification]
3	P	CAN-L [Without Gateway]
3	R	CAN-L [With Gateway]
4	L	CAN-H
5	V	DRIVE MODE SELECT SWITCH (UP) [With VR30 engine]
5	Y	DRIVE MODE SELECT SWITCH (UP) [With 2.0L turbo gasoline engine]
6	G	DRIVE MODE SELECT SW (DOWN) [With 2.0L turbo gasoline engine]
6	W	DRIVE MODE SELECT SW (DOWN) [With VR30 engine]
7	W	CHASSIS COMM-L
8	W	CHASSIS COMM-L
10	B/G	IGN [With 2.0L turbo gasoline engine]
10	G	IGN [With VR30 engine]
11	L	CHASSIS COMM-H
12	L	GROUND [With VR30 engine]
12	B/W	GROUND [With 2.0L turbo gasoline engine]
19	BR	CHASSIS COMM-H [With VR30 engine]
19	L	CHASSIS COMM-H [With 2.0L turbo gasoline engine]
23	G	ESS RELAY [With VR30 engine]
23	R	ESS RELAY [With 2.0L turbo gasoline engine]

Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	- [With VR30 engine]
2	R	- [With VR30 engine]
3	L	- [With 2.0L turbo gasoline engine]
3	R	- [With VR30 engine]
4	L	- [With 2.0L turbo gasoline engine]
5	L	- [With VR30 engine]
6	L	- [With VR30 engine]
7	L	- [With 2.0L turbo gasoline engine]
9	L	- [With VR30 engine]
9	R	- [With 2.0L turbo gasoline engine]
10	L	- [With VR30 engine]
10	R	- [With 2.0L turbo gasoline engine]
11	R	- [With VR30 engine]
12	R	- [With VR30 engine]
13	W	- [With VR30 engine]
14	W	- [With VR30 engine]

Connector No.	E25
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
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Terminal No.	Color Of Wire	Signal Name [Specification]
1	B/G	- [With VR30 engine] (Color of wire differs depending on production)
6	V	- [With VR30 engine]
7	L	- [With VR30 engine]
8	B/G	- [With VR30 engine]
8	BR	- [With 2.0L turbo gasoline engine]
9	B	- [With 2.0L turbo gasoline engine]
9	GR	- [With VR30 engine] (Color of wire differs depending on production)
9	LG	- [With VR30 engine] (Color of wire differs depending on production)
10	BR	- [With VR30 engine]
11	L	- [With VR30 engine]
12	GR	- [With VR30 engine]
12	P	- [With 2.0L turbo gasoline engine]
13	SHIELD	- [With 2.0L turbo gasoline engine]
13	W	- [With VR30 engine]
14	B	- [With 2.0L turbo gasoline engine]
15	GR	- [With 2.0L turbo gasoline engine]
15	S/B	- [With VR30 engine]
16	BR	- [With 2.0L turbo gasoline engine]
16	Y	- [With VR30 engine]
17	BR	- [With VR30 engine]
17	GR	- [With 2.0L turbo gasoline engine]
18	G	- [With 2.0L turbo gasoline engine]
18	P	- [With VR30 engine]
19	V	- [With 2.0L turbo gasoline engine]
21	W	- [With VR30 engine]
31	Y	- [With VR30 engine]
32	G	- [With 2.0L turbo gasoline engine]
32	GR	- [With VR30 engine]
33	L	- [With VR30 engine]
33	Y	- [With 2.0L turbo gasoline engine]
34	P	- [With VR30 engine]
35	GR	- [With VR30 engine]
36	R	- [With VR30 engine]
37	V	- [With 2.0L turbo gasoline engine]
37	V	- [With VR30 engine]
38	L	- [With VR30 engine]

38	P	- [With 2.0L turbo gasoline engine and without gateway] - [With 2.0L turbo gasoline engine and with gateway]
39	BR	- [With 2.0L turbo gasoline engine]
39	R	- [With VR30 engine]
40	S/B	- [With VR30 engine]
41	LG	- [With VR30 engine]
44	Y	- [With 2.0L turbo gasoline engine]
45	L	- [With 2.0L turbo gasoline engine]
45	W	- [With VR30 engine]
46	B	- [With VR30 engine]
46	Y	- [With 2.0L turbo gasoline engine]
47	G	- [With VR30 engine]
48	SHIELD	- [With VR30 engine]
49	R	- [With VR30 engine]
50	BR	- [With VR30 engine]
50	GR	- [With 2.0L turbo gasoline engine]
51	L	- [With VR30 engine]
52	W	- [With VR30 engine]
53	V	- [With VR30 engine]
54	P	- [With 2.0L turbo gasoline engine]
54	W	- [With VR30 engine]
55	B	- [With 2.0L turbo gasoline engine]
55	W	- [With VR30 engine]
56	B/G	- [With 2.0L turbo gasoline engine]
56	S/B	- [With VR30 engine]
57	B/G	- [With VR30 engine]
57	W	- [With 2.0L turbo gasoline engine]
58	B	- [Color of wire differs depending on production]
58	B/W	- [Color of wire differs depending on production]
59	W	- [With VR30 engine]
61	R	- [With VR30 engine]
64	Y	- [With VR30 engine]
65	BR	- [Color of wire differs depending on production]
65	GR	- [Color of wire differs depending on production]
66	GR	- [With VR30 engine]
67	LG	- [With VR30 engine]
68	B/G	- [With VR30 engine]
69	L	- [With VR30 engine]
70	R	- [With 2.0L turbo gasoline engine]
71	G	- [With VR30 engine]
71	LG	- [With VR30 engine]
72	L	- [With 2.0L turbo gasoline engine]
72	V	- [With VR30 engine]
73	G	- [With VR30 engine]
73	W	- [With 2.0L turbo gasoline engine]
74	BR	- [With VR30 engine]
74	L	- [With 2.0L turbo gasoline engine]
75	P	- [With 2.0L turbo gasoline engine and without gateway] - [With 2.0L turbo gasoline engine and with gateway]
75	R	- [With VR30 engine]
75	V	- [With VR30 engine]

ACTIVE LANE CONTROL WITHOUT DIGITAL MOTION CONTROL

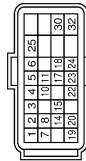
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[ACTIVE LANE CONTROL]

ACTIVE LANE CONTROL (WITHOUT DIGITAL MOTION CONTROL)

76	G	-	-
77	Y	-	-
78	LG	-	-
78	P	-	-
78	V	-	-
79	SB	-	-
80	G	-	-
81	R	-	-
82	V	-	-
83	BR	-	-
83	R	-	-
84	LG	-	-
85	BG	-	-
87	G	-	-
89	LG	-	-
90	GR	-	-
91	G	-	-
93	BG	-	-
94	GR	-	-
94	L	-	-
95	BG	-	-
95	P	-	-
95	R	-	-
96	W	-	-
97	LG	-	-
98	L	-	-
99	LG	-	-
99	P	-	-
100	SHIELD	-	-

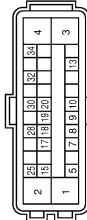
Connector No.	E25
Connector Name	STEERING ANGLE MAIN CONTROL MODULE
Connector Type	RH24HER284-L4H



Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	TORQUE SENSOR MAIN SIGNAL
2	Y	STEERING ANGLE MAIN MOTOR RESOLVER SIGNAL (S4-S3)
3	LG	TORQUE SENSOR SUB SIGNAL
4	G	STEERING ANGLE MAIN MOTOR RESOLVER SIGNAL (S4-S3)

5	W	STEERING ANGLE MAIN MOTOR RESOLVER SIGNAL (S2-S4)
6	L	STEERING ANGLE MAIN MOTOR RESOLVER SIGNAL (S2-S4)
7	SB	TORQUE SENSOR GROUND
8	P	TORQUE SENSOR POWER SUPPLY
10	R	STEERING ANGLE MAIN MOTOR RESOLVER SIGNAL (R1-R3)
11	BR	STEERING ANGLE MAIN MOTOR RESOLVER SIGNAL (R1-R3)
14	L	CHASSIS COMMUNICATION-H
15	W	CHASSIS COMMUNICATION-L
17	BG	BACK UP SIGNAL (BRAKE STEERING FORCE CONTROL MODULE)
18	SB	BACK SIGNAL (BRAKE STEERING FORCE CONTROL MODULE)
19	Y	FLEXRAY COMMUNICATION-H
20	GR	FLEXRAY COMMUNICATION-L
22	GR	BACK UP SIGNAL (TO STEERING ANGLE CONTROL MODULE)
23	BR	CAN WAKE UP
24	P	BACK UP SIGNAL (TO STEERING FORCE CONTROL MODULE)
25	G	IGNITION POWER SUPPLY (BRAKE STEERING ANGLE CONTROL MODULE)
30	B	GROUND
32	GR	GROUND

Connector No.	E35
Connector Name	ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)
Connector Type	SAZ30FB-S4Z-U



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GND
2	B	GND
3	G	VALVE BATTERY (WITH VR30 engine)
3	D	VALVE BATTERY (WITH 2.0L turbo gasoline engine)
4	V	MOTOR BATTERY
5	LG	STOP LAMP SW SIGNAL (WITH ADAS)
5	V	STOP LAMP SW SIGNAL (WITH ASCD)
7	GR	RR LH WHEEL SENSOR SIGNAL
8	G	RR LH WHEEL SENSOR POWER SUPPLY
9	BR	FR RH WHEEL SENSOR SIGNAL
10	GR	FR RH WHEEL SENSOR POWER SUPPLY
13	R	VACUUM SENSOR SIGNAL
15	P	CAN-L [Without Gateway]
15	R	CAN-L [With gateway]
17	Y	RR RH WHEEL SENSOR SIGNAL
18	LG	RR RH WHEEL SENSOR POWER SUPPLY (WITH 2.0L turbo gasoline engine)

18	V	RR RH WHEEL SENSOR POWER SUPPLY (WITH VR30 engine)
19	SB	FR LH WHEEL SENSOR SIGNAL
20	BG	FR LH WHEEL SENSOR POWER SUPPLY
25	L	CAN-H
28	G	VACUUM SENSOR POWER SUPPLY
30	R	VOC OFF SW SIGNAL
32	SHIELD	VACUUM SENSOR GROUND
34	G	IGN

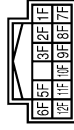
Connector No.	E47
Connector Name	WIRE TO WIRE
Connector Type	TH22MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	- [Color of wire differs depending on production]
1	Y	- [Color of wire differs depending on production]
2	V	-
3	L	-
4	P	- [Without Gateway]
4	R	- [With Gateway]
5	W	-
6	SB	-
7	BR	- [Color of wire differs depending on production]
7	L	- [Color of wire differs depending on production]
8	W	-
9	BG	-
9	V	- [Without BOSE system]
10	V	- [With BOSE system]
11	SB	-
12	G	-
13	G	-
15	BR	-
16	P	-
17	SHIELD	-
18	L	-
19	Y	-
20	W	-
21	G	-
22	R	-
22	R	-
23	BR	-

24	R	-
25	L	-
26	BG	-
27	LG	-
28	BR	-
30	W	-
30	Y	-
31	G	-
32	GR	-

Connector No.	E65
Connector Name	FUSE BLOCK (U/B)
Connector Type	TH12FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
10F	W	-
11F	G	- [Color of wire differs depending on production]
11F	R	- [Color of wire differs depending on production]
12F	W	- [With VR30 engine]
12F	Y	- [With 2.0L turbo gasoline engine]
1F	R	-
2F	BR	-
3F	P	-
5F	P	-
6F	L	-
7F	R	-
8F	L	-
9F	L	-

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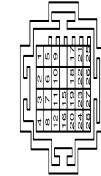
ACTIVE LANE CONTROL WITHOUT DIGITAL MOTION CONTROL

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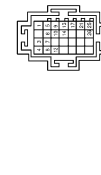
[ACTIVE LANE CONTROL]

ACTIVE LANE CONTROL (WITHOUT DIGITAL MOTION CONTROL)

Connector No.	E172
Connector Name	JOINT CONNECTOR-E01
Connector Type	SGA28FLBF-J



Connector No.	E173
Connector Name	JOINT CONNECTOR-E02
Connector Type	SGA28FDG-J



3	L	CAN-H
4	R	K-LINE
5	B	GROUND [With 2.0L turbo gasoline engine]
6	BR	GROUND [With VR30 engine]
7	GR	IGNITION POWER SUPPLY
8	BG	BACK-UP LAMP RELAY
9	V	CAN-L
10	B	STARTER RELAY
		GROUND

Connector No.	F100
Connector Name	TCM
Connector Type	SF10FG



Terminal No.	Color Of Wire	Signal Name [Specification]
1	-	IGNITION POWER SUPPLY
2	-	BATTERY POWER SUPPLY (MEMORY BACK-UP)
3	-	CAN-H
4	-	K-LINE
5	-	GROUND
6	-	IGNITION POWER SUPPLY
7	-	BACK-UP LAMP RELAY
8	-	CAN-L
9	-	STARTER RELAY
10	-	GROUND

Connector No.	M14
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
48	R	PUSH-BTN IGN SW (L/PWR)
52	G	DONGLE LINK
54	V	COMM LINK
55	R	RAIN SENSOR
59	P	CAN-L
60	L	CAN-H
61	G	REAR WINDOW DEF RLY CONT
62	R	STARTER RLY CONT
64	V	I-KEY WARN BUZZER
65	B	OUTS HD LAMP CONT
66	B	BLOWER FAN RLY CONT [With VR30 engine]
66	Y	BLOWER FAN RLY CONT [With 2.0L turbo gasoline engine]
67	W/B	IGN RLYAY (F/B) CONT
68	R	DIMMER
69	GR	A/T SHFT SELECT PWR SPLY
70	B	IGN RLYAY (PDM F/R) CONT
71	G	DR DOOR REQ SW
72	SR	PASS DOOR REQ SW
75	BR	COMBI SW INRUT 5
76	BG	COMBI SW INRUT 4
77	V	COMBI SW INRUT 3
78	Y	COMBI SW INRUT 2
79	LG	COMBI SW INRUT 1
80	L	TR LID OPNR SW

Connector No.	F2
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-D0GY



Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	IGNITION POWER SUPPLY [With 2.0L turbo gasoline engine]
1	L	IGNITION POWER SUPPLY [With VR30 engine]
2	P	BATTERY POWER SUPPLY (MEMORY BACK-UP)

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ACTIVE LANE CONTROL WITHOUT DIGITAL MOTION CONTROL

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[ACTIVE LANE CONTROL]

ACTIVE LANE CONTROL (WITHOUT DIGITAL MOTION CONTROL)

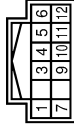
Connector No.	M19
Connector Name	WIRE TO WIRE
Connector Type	TH80MM-C316-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	G	-
3	SB	-
4	BR	-
5	Y	-
6	R	-
7	W	-
8	V	-
10	BG	-
11	BR	-
12	LG	-
13	GR	-
14	R	-
15	L	-
16	V	-
18	W	-
19	BR	-
20	W	-
22	SB	-
23	R	-
24	R	- [With 2.0L turbo gasoline engine]
24	Y	- [With VR30 engine]
25	P	- [With 2.0L turbo gasoline engine]
25	W	- [With VR30 engine]
26	G	-
27	R	-
28	R	-
31	BR	-
32	B	-
33	B	-
34	V	-
35	P	-
36	W	-
37	SB	-
38	LG	-
40	P	-

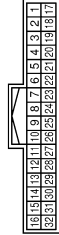
41	G	-
42	BR	-
43	BR	-
44	BR	-
46	BG	-
50	W	-
51	Y	-
52	V	-
53	LG	-
54	R	-
55	R	-
57	W	-
58	V	-
59	BG	-
60	G	-
61	G	-
62	BG	-
63	BR	-
64	Y	-
66	R	-
70	LG	-
71	W	-
72	B	-
73	W	-
74	L	-
75	W	-
76	BR	-
77	B	-
78	SB	-
79	P	- [With VR30 engine]
79	W	- [With 2.0L turbo gasoline engine]
81	B	-
82	R	-
83	BG	-
84	L	-
85	W	-
86	B	-
88	G	-
89	V	- [With 2.0L turbo gasoline engine]
89	W	- [With VR30 engine]
91	GR	-
94	GR	-
96	W	-
97	V	-
98	BR	- [With VR30 engine and with BOSE system]
98	Y	- [Except with VR30 engine and with BOSE system]

Connector No.	M24
Connector Name	CAN GATEWAY
Connector Type	TH12FW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	CAN-H [CAN COMMUNICATION CIRCUIT 1]
3	W	BATTERY POWER SUPPLY
4	L	CAN-H [CAN COMMUNICATION CIRCUIT 2]
5	B	GROUND
6	L	CAN-H [CAN COMMUNICATION CIRCUIT 2]
7	P	CAN-L [CAN COMMUNICATION CIRCUIT 1]
9	R	IGNITION POWER SUPPLY [With VR30 engine and without ISG]
9	W	IGNITION POWER SUPPLY [Except with VR30 engine and without ISG]
10	R	CAN-L [CAN COMMUNICATION CIRCUIT 2]
11	B	GROUND
12	R	CAN-L [CAN COMMUNICATION CIRCUIT 2]

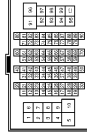
Connector No.	M39
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W/B	-
2	SB	-
3	L	-
4	P	- [Without Gateway]
4	R	- [With Gateway]
5	BR	-
6	SB	-
7	L	-
8	W	-

9	P	- [Without BOSE system]
9	V	- [With BOSE system]
10	V	-
11	SB	-
12	G	-
13	G	-
15	R	-
16	SB	-
17	SHIELD	-
18	W	-
19	Y	-
20	L	-
21	G	-
22	R	-
23	BR	-
24	R	-
25	L	-
26	Y	-
27	LG	-
28	BR	-
29	W/B	-
30	Y	-
31	W	-
32	L	- [With Anti-theft diode]
32	LG	- [Without Anti-theft diode]

Connector No.	M40
Connector Name	WIRE TO WIRE
Connector Type	TH80MM-C316-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	BG	-
6	W/B	-
7	V	-
8	BG	- [With VR30 engine]
8	BR	- [With 2.0L turbo gasoline engine]
9	LG	- [With VR30 engine]
9	P	- [With 2.0L turbo gasoline engine]
10	W	-
11	W	- [With VR30 engine]

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ACTIVE LANE CONTROL WITHOUT DIGITAL MOTION CONTROL

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[ACTIVE LANE CONTROL]

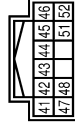
ACTIVE LANE CONTROL (WITHOUT DIGITAL MOTION CONTROL)

11	Y	-	[With 2.0L turbo gasoline engine]
12	B	-	[With VR30 engine]
13	GR	-	[With 2.0L turbo gasoline engine]
14	B	-	[With VR30 engine]
15	SB	-	[With 2.0L turbo gasoline engine]
16	B	-	[With VR30 engine]
17	LG	-	[With 2.0L turbo gasoline engine]
18	W/B	-	[With VR30 engine]
19	Y	-	[With 2.0L turbo gasoline engine]
20	W	-	[With VR30 engine]
21	G	-	[With 2.0L turbo gasoline engine]
22	V	-	[With VR30 engine]
23	L	-	[With 2.0L turbo gasoline engine]
24	Y	-	[With VR30 engine]
25	BG	-	[With VR30 engine]
26	G	-	[With VR30 engine]
27	B	-	[With VR30 engine]
28	L	-	[With VR30 engine]
29	P	-	[With VR30 engine]
30	GR	-	[With VR30 engine]
31	L	-	[With VR30 engine]
32	G	-	[With VR30 engine]
33	V	-	[With VR30 engine]
34	L	-	[With VR30 engine]
35	GR	-	[With VR30 engine]
36	G	-	[With VR30 engine]
37	B	-	[With VR30 engine]
38	L	-	[With VR30 engine]
39	R	-	[With VR30 engine]
40	GR	-	[With VR30 engine]
41	L	-	[With VR30 engine]
42	BR	-	[With VR30 engine]
43	L	-	[With VR30 engine]
44	W	-	[With VR30 engine]
45	G	-	[With VR30 engine]
46	Y	-	[With VR30 engine]
47	BG	-	[With VR30 engine]
48	R	-	[With VR30 engine]
49	SHIELD	-	[With VR30 engine]
50	B	-	[With VR30 engine]
51	BR	-	[With VR30 engine]
52	L	-	[With VR30 engine]
53	G	-	[With VR30 engine]
54	SB	-	[With VR30 engine]
55	B	-	[With VR30 engine]
56	P	-	[With VR30 engine]

56	BG	-	[With VR30 engine]
57	GR	-	[With 2.0L turbo gasoline engine]
58	GR	-	[With VR30 engine]
59	B	-	[With 2.0L turbo gasoline engine]
60	SB	-	[With VR30 engine]
61	W/B	-	[With VR30 engine]
62	Y	-	[With VR30 engine]
63	R	-	[With VR30 engine]
64	V	-	[With VR30 engine]
65	P	-	[With VR30 engine]
66	B	-	[With VR30 engine]
67	LG	-	[With VR30 engine]
68	BG	-	[With VR30 engine]
69	L	-	[With VR30 engine]
70	R	-	[With VR30 engine]
71	V	-	[With VR30 engine]
72	W	-	[With VR30 engine]
73	L	-	[With VR30 engine]
74	LG	-	[With VR30 engine]
75	R	-	[With VR30 engine]
76	W/B	-	[With VR30 engine]
77	SB	-	[With VR30 engine]
78	G	-	[With VR30 engine]
79	LG	-	[With VR30 engine]
80	R	-	[With VR30 engine]
81	R	-	[With VR30 engine]
82	LG	-	[With VR30 engine]
83	BR	-	[With VR30 engine]
84	V	-	[With VR30 engine]
85	V	-	[With VR30 engine]
86	V	-	[With VR30 engine]
87	G	-	[With VR30 engine]
88	V	-	[With VR30 engine]
89	G	-	[With VR30 engine]
90	V	-	[With VR30 engine]
91	W	-	[With VR30 engine]
92	G	-	[With VR30 engine]
93	BR	-	[With VR30 engine]
94	GR	-	[With VR30 engine]
95	L	-	[With VR30 engine]
96	BR	-	[With VR30 engine]
97	P	-	[With VR30 engine]
98	R	-	[With VR30 engine]

96	W	-	[With VR30 engine]
97	LG	-	[With VR30 engine]
98	Y	-	[With VR30 engine]
99	BR	-	[With VR30 engine]
100	SHIELD	-	[With VR30 engine]

Connector No.	M88
Connector Name	COMBINATION METER
Connector Type	TH12FW-NH



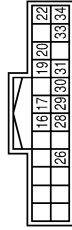
Terminal No.	Color Of Wire	Signal Name [Specification]
41	L	CAN-H
42	P	CAN-L
43	B	ILLUMINATION CONTROL SIGNAL
44	Y	FUEL LEVEL SENSOR GROUND
45	W	BATTERY POWER SUPPLY
46	BG	IGNITION SIGNAL (Except with VR30 engine and without IS)
47	R	IGNITION SIGNAL (With VR30 engine and without IS)
48	LG	AV COMMUNICATION SIGNAL (H)
49	BR	AV COMMUNICATION SIGNAL (L)
50	B	GROUND
51	BR	FUEL LEVEL SENSOR SIGNAL
52	B	GROUND

Connector No.	M88
Connector Name	A/C AUTO AMP.
Connector Type	TH40FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	CAN-H
2	B	GROUND
3	W	BATTERY POWER SUPPLY
4	G	AMBIENT SENSOR SIGNAL
5	R	SUNLOAD SENSOR SIGNAL
6	SR	ACC POWER SUPPLY (With 2.0L turbo gasoline engine)
7	V	ACC POWER SUPPLY (With VR30 engine)
8	P	IGN SIGNAL
9	R	DOOR ACTUATOR POWER SUPPLY
10	P	BLOWER MOTOR CONTROL SIGNAL
11	L	HEATED STEERING WHEEL HEAT CONTROL SIGNAL
12	P	CAN-L
13	B	GROUND
14	R	IGNITION POWER SUPPLY (With VR30 engine and with IS)
15	W	IGNITION POWER SUPPLY (Except with VR30 engine and with IS)
16	B	SENSOR GROUND
17	LG	IN-VEHICLE SENSOR SIGNAL
18	BR	INTAKE SENSOR SIGNAL
19	BG	EXHAUST GAS / OUTSIDE DOOR DETECTING SENSOR SIGNAL
20	B	GROUND
21	BR	IONIZER (ON/OFF) CONTROL SIGNAL
22	BG	ECV CONTROL SIGNAL

Connector No.	M100
Connector Name	DISPLAY CONTROL UNIT
Connector Type	TH24FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
15	LG	AV COMM (L)
17	P	CAN-L
19	R	DIMMER SIGNAL
20	BR	REVERSE SIGNAL
22	B	IGN
26	BR	CAMERA SWITCH SIGNAL
28	SR	AV COMM (H)
29	L	CAN-H
30	R	IGN (For VR30 engine)
30	W	IGN (For 2.0L turbo gasoline engine)

ACTIVE LANE CONTROL WITHOUT DIGITAL MOTION CONTROL

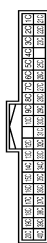
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[ACTIVE LANE CONTROL]

ACTIVE LANE CONTROL (WITHOUT DIGITAL MOTION CONTROL)

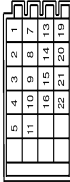
31	R	VEHICLE SPEED SIGNAL (8-PULSE)
33	SB	ACC [Except for VR30 engine and with ISS]
33	V	ACC [For VR30 engine and with ISS]
34	Y	BAT

Connector No.	M133
Connector Name	FUSE BLOCK (1/B)
Connector Type	TH40P1V/NH



39C	SB	-
39C	V	-
40C	P	-
40C	G	-
4C	P	-
5C	P	-
6C	G	-
7C	G	-
8C	G	-
9C	V	-

Connector No.	M137
Connector Name	JOINT CONNECTOR-M10
Connector Type	24342_4G42A



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	B	-
3	B	-
4	B	-
5	B	-
7	B	-
8	B	-
9	B	-
10	B	-
11	B	-
13	L	-
14	L	-
15	L	-
16	L	-
17	L	-
18	L	-
19	L	-
20	W	-
21	B	-
22	R	-

Connector No.	M159
Connector Name	WIRE TO WIRE
Connector Type	TH40P1V/NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	B	-
3	BR	-
4	R	-
5	GR	-
6	R	- [With VR30 engine and with ISS]
6	W	- [Except with VR30 engine and with ISS]
7	L	-
9	SHIELD	-
10	W	-
11	R	-
12	L	-
13	G	-
14	Y	-
15	B	-
17	B	-
19	R	-
20	BG	- [Except with VR30 engine and with BOSE system]
20	BR	- [With VR30 engine and with BOSE system]
21	R	-
22	G	-
24	B	-
25	W	-
26	R	-
27	P	-
28	B	-
29	G	-
30	L	-
31	W	-
32	W	-
33	L	-
36	V	-
38	LG	-
40	W	-

Connector No.	M173
Connector Name	JOINT CONNECTOR-M03
Connector Type	24342_4G42A



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	L	-
3	L	-
4	L	-
5	L	-
6	L	-
7	R	-
8	R	-
9	R	-
10	R	-
11	R	-
12	R	-
13	SB	-
14	SB	-
15	SB	-
16	L	- [With 2.0L turbo gasoline engine]
16	SB	- [With VR30 engine]
17	L	- [With 2.0L turbo gasoline engine]
17	SB	- [With VR30 engine]
18	L	- [With 2.0L turbo gasoline engine]
18	SB	- [With VR30 engine]
19	BR	- [With VR30 engine]
19	LG	- [With 2.0L turbo gasoline engine]
20	BR	- [With VR30 engine]
20	LG	- [With 2.0L turbo gasoline engine]
21	BR	- [With VR30 engine]
21	LG	- [With 2.0L turbo gasoline engine]
22	R	- [With VR30 engine and without ISS]
22	SB	- [With VR30 engine and with ISS]
22	V	- [With 2.0L turbo gasoline engine]
23	R	- [With VR30 engine and without ISS]
23	SB	- [With VR30 engine and with ISS]
23	V	- [With 2.0L turbo gasoline engine]
24	R	- [With VR30 engine and without ISS]
24	SB	- [With VR30 engine and with ISS]
24	V	- [With 2.0L turbo gasoline engine]

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ACTIVE LANE CONTROL WITHOUT DIGITAL MOTION CONTROL

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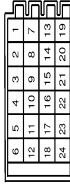
[ACTIVE LANE CONTROL]

ACTIVE LANE CONTROL (WITHOUT DIGITAL MOTION CONTROL)

Connector No.	M175
Connector Name	JOINT CONNECTOR-M05
Connector Type	NH20FL-DC



Connector No.	M177
Connector Name	JOINT CONNECTOR-M07
Connector Type	24342_4GA2A



Connector No.	RL3
Connector Name	LANE CAMERA UNIT
Connector Type	TH08FW-NH



19	BG	-
20	BG	- [Without BOSE system] - [With BOSE system]
21	BR	-
22	R	-
23	G	-
24	B	-
25	BG	- [Color of wire differs, depending on production]
26	P	- [Color of wire differs, depending on production]
27	GR	-
28	R	-
29	R	-
30	L	-
31	V	-
32	W	-
33	L	-
34	L	-
35	BR	-
36	BR	-
37	GR	-
38	SB	-
39	W	-
40	W	-

Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	L	-
3	L	-
4	L	-
5	L	-
6	L	-
7	L	-
8	L	-
9	P	-
10	P	-
11	P	-
12	P	-
13	P	-
14	P	-
15	P	-
16	R	- [With VR30 engine] - [With 2.0L turbo gasoline engine]
17	P	- [With VR30 engine]
18	R	- [With 2.0L turbo gasoline engine]
19	R	- [With VR30 engine and with (SS)]
19	W	- [Except with VR30 engine and with (SS)]
20	R	- [With VR30 engine and with (SS)]
20	W	- [Except with VR30 engine and with (SS)]

Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	L	-
3	L	-
4	L	-
5	L	-
6	L	-
7	P	-
8	P	-
9	P	-
10	P	-
11	P	-
12	P	-
13	L	-
14	L	-
15	L	-
16	L	-
17	L	-
18	L	-
19	W	-
20	W	-
21	W	-
22	P	-
23	P	-
24	P	-

Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	CAN_GND
4	L	CAN-H
5	B	GND
7	V	IGN
8	W	CAN-L

Connector No.	RL5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	LG	-
3	BR	-
4	V	-
5	BG	-
6	GR	-
7	BR	-
9	SHIELD	-
10	GR	-
11	R	-
12	L	-
13	G	-
14	Y	-
15	B	-
17	SB	-

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[ACTIVE LANE CONTROL]

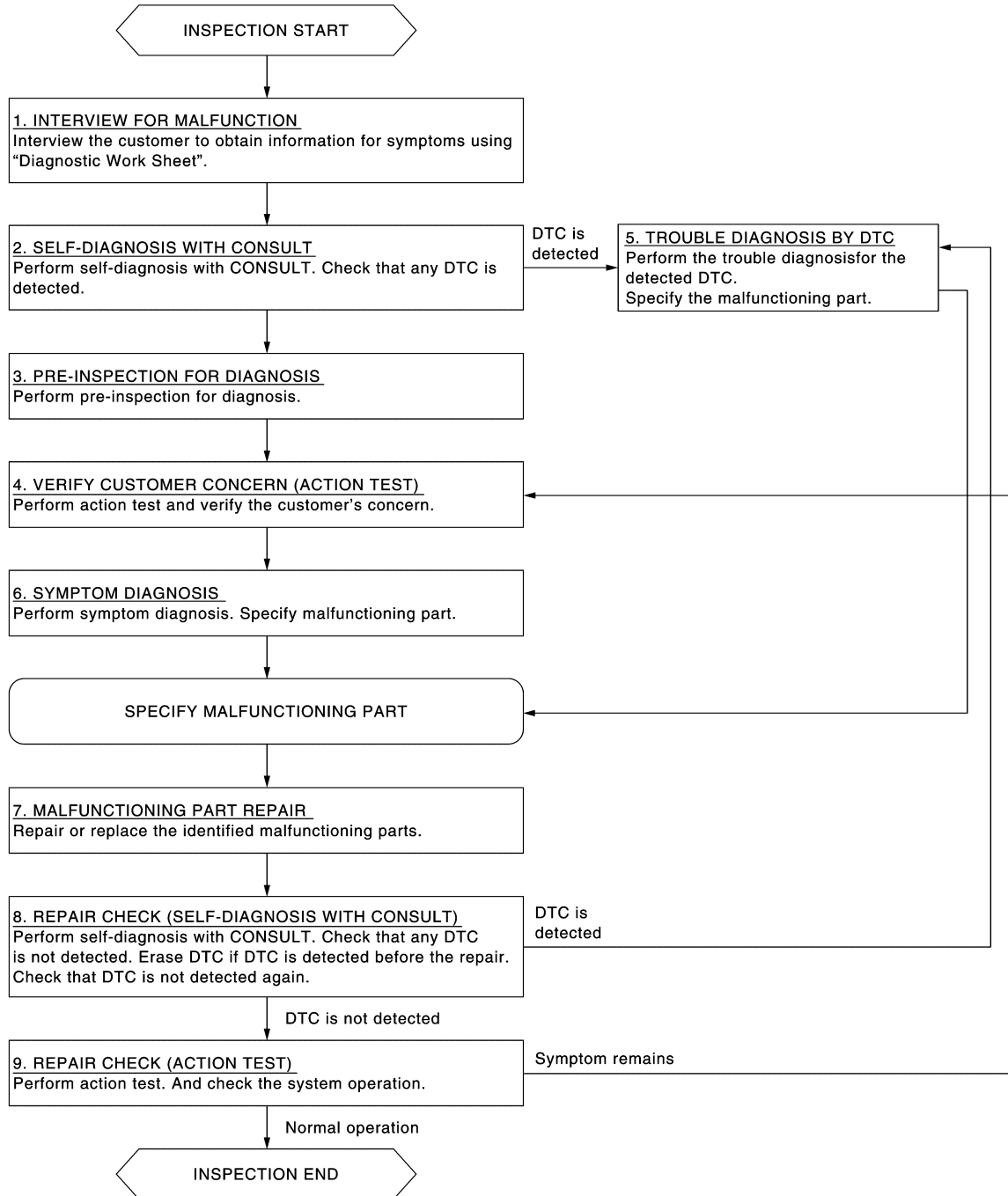
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:000000012796574

OVERALL SEQUENCE



DETAILED FLOW

1. INTERVIEW FOR MALFUNCTION

Interview the customer to obtain information about symptoms using "Diagnostic Work Sheet". (Refer to [DAS-785, "Diagnostic Work Sheet"](#).)

NOTE:

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DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[ACTIVE LANE CONTROL]

The customers are not professionals. Never assume that “maybe the customer means...” or “maybe the customer mentioned this symptom”.

>> GO TO 2.

2. SELF-DIAGNOSIS WITH CONSULT

1. Perform “All DTC Reading” with CONSULT.
2. Check if the DTC is detected on the self-diagnosis results of following.
 - “CHASSIS CONTROL”
 - “LANE CAMERA”

Is any DTC detected?

- YES >> GO TO 5.
NO >> GO TO 3.

3. PRE-INSPECTION FOR DIAGNOSIS

Perform pre-inspection for diagnosis. Refer to [DAS-787. "Inspection Procedure"](#).

>> GO TO 4.

4. ACTION TEST

Perform Active Lane Control action test to check the operation status. Refer to [DAS-788. "Description"](#).

>> GO TO 6.

5. TROUBLE DIAGNOSIS BY DTC

1. Check the DTC in the self-diagnosis results.
2. Perform trouble diagnosis for the detected DTC following.
 - “CHASSIS CONTROL”: Refer to [DAS-746. "DTC Index"](#).
 - “LANE CAMERA”: Refer to [DAS-746. "DTC Index"](#).

NOTE:

If “DTC: U1000” is detected, first diagnose the CAN communication system, chassis communication system or ITS communication system.

>> GO TO 7.

6. SYMPTOM DIAGNOSIS

Perform symptom diagnosis. Specify malfunctioning part. Refer to [DAS-804. "Symptom Table"](#).

>> GO TO 7.

7. MALFUNCTION PART REPAIR

Repair or replace the identified malfunctioning parts.

>> GO TO 8.

8. REPAIR CHECK (SELF-DIAGNOSIS WITH CONSULT)

1. Erases self-diagnosis results.
2. Perform “All DTC Reading” again after repairing or replacing the specific items.
3. Check if any DTC is detected in self-diagnosis results of following.
 - “CHASSIS CONTROL”
 - “LANE CAMERA”

Is any DTC detected?

- YES >> GO TO 5.
NO >> GO TO 9.

9. REPAIR CHECK (ACTION TEST)

1. Perform the action test. Refer to [DAS-788. "Description"](#).

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[ACTIVE LANE CONTROL]

2. Check that the malfunction symptom is solved or no other symptoms occur.

Is there a malfunction symptom?

YES >> GO TO 4.

NO >> INSPECTION END

Diagnostic Work Sheet

INFOID:000000012796575

DESCRIPTION

In general, each customer feels differently about an incident. It is important to fully understand the symptoms or conditions for a customer complaint.

There are many operating conditions that lead to the malfunction. A good grasp of such conditions can make troubleshooting faster and more accurate.

Some conditions may cause the lane departure warning lamp to stay ON.

Utilize a work sheet sample to organize all of the information for troubleshooting.

KEY POINTS

- WHAT..... System and functions
- WHEN..... Date, Frequencies
- WHERE..... Road conditions
- HOW..... Operating conditions, Symptoms

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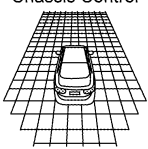
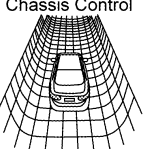
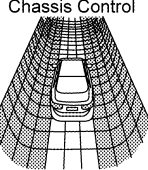
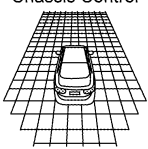
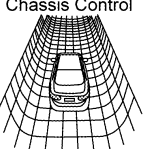
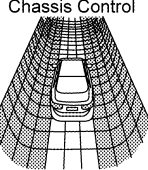
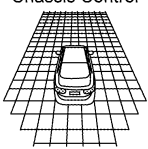
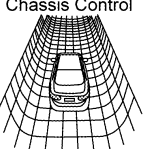
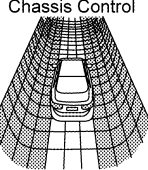
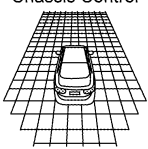
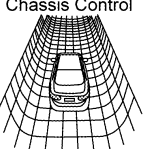
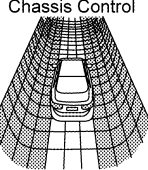
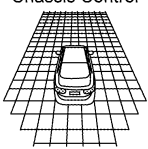
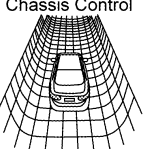
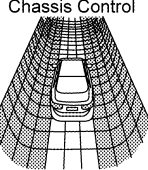
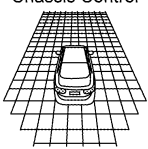
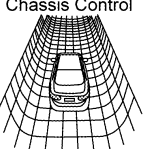
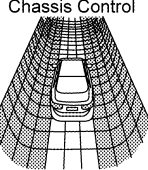
DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[ACTIVE LANE CONTROL]

WORK SHEET SAMPLE

Customer name MR/MS	Model and Year	VIN
Engine #	Trans.	Mileage
Incident Date	Manuf. Date	In Service Date

Symptoms															
Indicator/ Warning lamps	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"><input type="checkbox"/> Master warning lamp</td> <td style="width: 50%;"><input type="checkbox"/> Stays ON <input type="checkbox"/> Stays OFF <input type="checkbox"/> Others ()</td> </tr> <tr> <td><input type="checkbox"/> Chassis warning message</td> <td><input type="checkbox"/> Displayed <input type="checkbox"/> Not displayed</td> </tr> <tr> <td style="vertical-align: top;"><input type="checkbox"/> Active Lane Control display</td> <td> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"><input type="checkbox"/> Active Lane Control is tuned OFF</td> <td style="width: 50%; text-align: center;"></td> </tr> <tr> <td><input type="checkbox"/> Active Lane Control is tuned ON (Operating conditions are not satisfied)</td> <td style="text-align: center;"></td> </tr> <tr> <td><input type="checkbox"/> Active Lane Control is tuned ON (Operating conditions are satisfied. Grid become blue during operation.)</td> <td style="text-align: center;"></td> </tr> </table> </td> </tr> <tr> <td><input type="checkbox"/> Other lamps ()</td> <td><input type="checkbox"/> Stays ON <input type="checkbox"/> Stays OFF <input type="checkbox"/> Blinks <input type="checkbox"/> Turned ON occasionally <input type="checkbox"/> Others ()</td> </tr> </table>	<input type="checkbox"/> Master warning lamp	<input type="checkbox"/> Stays ON <input type="checkbox"/> Stays OFF <input type="checkbox"/> Others ()	<input type="checkbox"/> Chassis warning message	<input type="checkbox"/> Displayed <input type="checkbox"/> Not displayed	<input type="checkbox"/> Active Lane Control display	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"><input type="checkbox"/> Active Lane Control is tuned OFF</td> <td style="width: 50%; text-align: center;"></td> </tr> <tr> <td><input type="checkbox"/> Active Lane Control is tuned ON (Operating conditions are not satisfied)</td> <td style="text-align: center;"></td> </tr> <tr> <td><input type="checkbox"/> Active Lane Control is tuned ON (Operating conditions are satisfied. Grid become blue during operation.)</td> <td style="text-align: center;"></td> </tr> </table>	<input type="checkbox"/> Active Lane Control is tuned OFF		<input type="checkbox"/> Active Lane Control is tuned ON (Operating conditions are not satisfied)		<input type="checkbox"/> Active Lane Control is tuned ON (Operating conditions are satisfied. Grid become blue during operation.)		<input type="checkbox"/> Other lamps ()	<input type="checkbox"/> Stays ON <input type="checkbox"/> Stays OFF <input type="checkbox"/> Blinks <input type="checkbox"/> Turned ON occasionally <input type="checkbox"/> Others ()
<input type="checkbox"/> Master warning lamp	<input type="checkbox"/> Stays ON <input type="checkbox"/> Stays OFF <input type="checkbox"/> Others ()														
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<input type="checkbox"/> Active Lane Control is tuned ON (Operating conditions are satisfied. Grid become blue during operation.)															
<input type="checkbox"/> Other lamps ()	<input type="checkbox"/> Stays ON <input type="checkbox"/> Stays OFF <input type="checkbox"/> Blinks <input type="checkbox"/> Turned ON occasionally <input type="checkbox"/> Others ()														
Functions	<input type="checkbox"/> The vehicle dose not run straight while ALC is functioning. <input type="checkbox"/> Steering wheel feel is not good while ALC in functioning. <input type="checkbox"/> ALC dose not function. <input type="checkbox"/> ALC function is not felt. <input type="checkbox"/> Others ()														

Conditions	
Frequency	<input type="checkbox"/> Continuously <input type="checkbox"/> Intermittently
Light conditions	<input type="checkbox"/> Not affected <input type="checkbox"/> In the daytime <input type="checkbox"/> At night <input type="checkbox"/> Sunrise/sunset (Strong light) <input type="checkbox"/> Direct light <input type="checkbox"/> Backlight <input type="checkbox"/> Others ()
Driving conditions	<input type="checkbox"/> Not affected <input type="checkbox"/> Vehicle speed MPH (km/h) <input type="checkbox"/> Vehicle is stopped
Weather conditions	<input type="checkbox"/> Not affected <input type="checkbox"/> Fine <input type="checkbox"/> Raining <input type="checkbox"/> Snowing <input type="checkbox"/> Clouding <input type="checkbox"/> Others ()
Road conditions	<input type="checkbox"/> Not affected <input type="checkbox"/> Highway <input type="checkbox"/> In town <input type="checkbox"/> Uneven roads <input type="checkbox"/> Winding roads <input type="checkbox"/> Others ()
Lane maker conditions	<input type="checkbox"/> Not affected <input type="checkbox"/> Clear <input type="checkbox"/> Unclear <input type="checkbox"/> Others ()
Other conditions	

JSOIA2444GB

PRE-INSPECTION FOR DIAGNOSIS

< BASIC INSPECTION >

[ACTIVE LANE CONTROL]

PRE-INSPECTION FOR DIAGNOSIS

Inspection Procedure

INFOID:000000012796576

1.CHECK WINDSHIELD

Is windshield contaminated with foreign materials?

YES >> Clean windshield.

NO >> GO TO 2.

2.CHECK VEHICLE HEIGHT

Check vehicle height. Refer to [FSU-47. "Wheelarch Height"](#) (2WD) or [FSU-74. "Wheelarch Height"](#) (AWD).

Is vehicle height appropriate?

YES >> INSPECTION END

NO >> Repair vehicle to appropriate height.

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ACTION TEST

Description

INFOID:000000012796577

- Perform action test to verify the customer's concern.
- Perform action test and check the system operation after system diagnosis.

WARNING:

Be careful of traffic conditions and safety around the vehicle when performing road test.

CAUTION:

- Fully understand the following items well before the road test;
 - System description for Active Lane Control: Refer to [DAS-718, "ACTIVE LANE CONTROL : System Description"](#).
 - Handling precaution: Refer to [DAS-728, "Precautions for Active Lane Control"](#).

Inspection Procedure

INFOID:000000012796578

WARNING:

Be careful of traffic conditions and safety around the vehicle when performing road test.

CAUTION:

- Fully understand the following items well before the road test;
 - System description for Active Lane Control: Refer to [DAS-718, "ACTIVE LANE CONTROL : System Description"](#).
 - Handling precaution: Refer to [DAS-728, "Precautions for Active Lane Control"](#).

1.CHECK ACTIVE LANE CONTROL SETTING

1. Start the engine.
2. Check that the Active Lane Control setting can be enabled/disabled on the integral switch screen.
3. Turn OFF the ignition switch and wait for 30 seconds or more.
4. Check that the previous setting is saved when the engine starts again.

>> GO TO 2.

2.ACTION TEST FOR ACTIVE LANE CONTROL

1. Enable the setting of the Active Lane Control on the integral switch screen.
2. Enable the setting of the "Chassis Control" display in the vehicle information display on the integral switch screen.
3. Select the "Chassis Control" display on the vehicle information display.
4. Turn dynamic driver assistance switch ON (LDP system is ON).
5. Check that the Active Lane Control operating according to the following table.

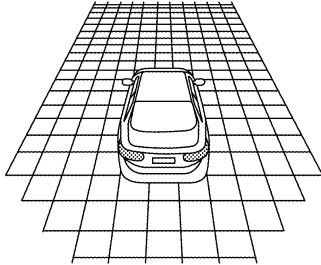
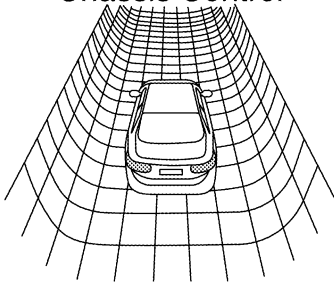
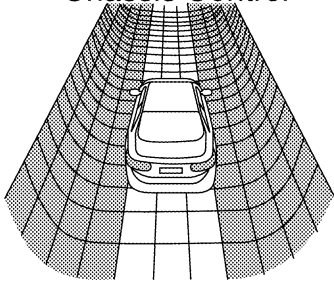
NOTE:

For the operating conditions, refer to [DAS-718, "ACTIVE LANE CONTROL : System Description"](#).

ACTION TEST

< BASIC INSPECTION >

[ACTIVE LANE CONTROL]

Vehicle condition	Active Lane Control	Indication on the combination meter
—	OFF	<p style="text-align: center;">Chassis Control</p>  <p style="text-align: right; font-size: small;">JSOIA0806ZZ</p>
Operating conditions are not satisfied	Active Lane Control is turned ON	<p style="text-align: center;">Chassis Control</p>  <p style="text-align: right; font-size: small;">JSOIA0809ZZ</p>
Operating conditions are satisfied	Active Lane Control is operational or is operating	<p style="text-align: center;">Chassis Control</p>  <p style="text-align: right; font-size: small;">JSOIA0810ZZ</p>

Does it operate normally?

YES >> INSPECTION END

NO >> Perform symptom diagnosis. Specify malfunctioning part. Refer to [DAS-804. "Symptom Table"](#).

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ADDITIONAL SERVICE WHEN REPLACING LANE CAMERA UNIT

< BASIC INSPECTION >

[ACTIVE LANE CONTROL]

ADDITIONAL SERVICE WHEN REPLACING LANE CAMERA UNIT

Description

INFOID:000000012796579

Always adjust the camera aiming after removing and installing or replacing the lane camera unit.

CAUTION:

The system does not operate normally unless the camera aiming adjustment is performed. Always perform it.

Work Procedure

INFOID:000000012796580

1. CAMERA AIMING ADJUSTMENT

Perform the camera aiming adjustment with CONSULT. Refer to [DAS-791, "Description"](#).

>> GO TO 2.

2. PERFORM SELF-DIAGNOSIS

Perform the self-diagnosis of lane camera unit with CONSULT. Check if any DTC is detected.

Is any DTC detected?

YES >> Perform the trouble diagnosis for the detected DTC. Refer to [DAS-746, "DTC Index"](#).

NO >> GO TO 3.

3. ACTIVE LANE CONTROL ACTION TEST

-
1. Perform the Active Lane Control action test. Refer to [DAS-788, "Description"](#).
 2. Check that the Active Lane Control operates normally.

>> WORK END

CAMERA AIMING ADJUSTMENT

Description

INFOID:000000012796581

Always adjust the camera aiming after removing and installing or replacing the lane camera unit.

CAUTION:

- Place the vehicle on level ground when the camera aiming adjustment is operated.
- Be sure to place the target correctly according to work procedures because the system may not operate normally.
- Follow the **CONSULT** when performing the camera aiming. (Camera aiming adjustment cannot be operated without **CONSULT**.)

Work Procedure (Preparation)

INFOID:000000012796582

1. PERFORM SELF-DIAGNOSIS

Perform self-diagnosis of chassis control module and lane camera unit.

Is any DTC detected?

Except "C1B01">>Perform diagnosis on the detected DTC and repair or replace the applicable item. Refer to [DAS-746, "DTC Index"](#) (LANE CAMERA).

"C1B01" or no DTC>>GO TO 2.

2. PREPARATION BEFORE CAMERA AIMING ADJUSTMENT

1. Perform pre-inspection for diagnosis. Refer to [DAS-787, "Inspection Procedure"](#).
2. Adjust the tire pressure to the specified pressure value.
3. Maintain no-load in vehicle.
4. Check if coolant and engine oil are filled up to correct level and fuel tank is full.
5. Shift the selector lever to "P" position and release the parking brake.
6. Clean the windshield.
7. Completely clear off the instrument panel.

NOTE:

If any fixed object is put on instrument panel, cover the upper of the instrument panel with black cloth to prevent an object from reflecting in the windshield.

>> GO TO 3.

3. PREPARATION OF AIMING ADJUSTMENT JIG

Prepare the aiming adjustment jig according to the following procedure and the figure.

1. Print out the target mark attached in this service manual. Refer to [DAS-796, "Work Procedure \(Target Mark Sample\)"](#).
2. Stick a printed target mark on the board with a scotch tape or a piece of double-sided tape.

CAUTION:

- Be sure to measure dimensions correctly and make adjustment jig because the system may not operate normally.
- Use the board that peripheral area of the target is monochrome such as a white-board.
- Notice that the cross of the target is horizontal and vertical.
- Notice that the target board is vertical on the ground.

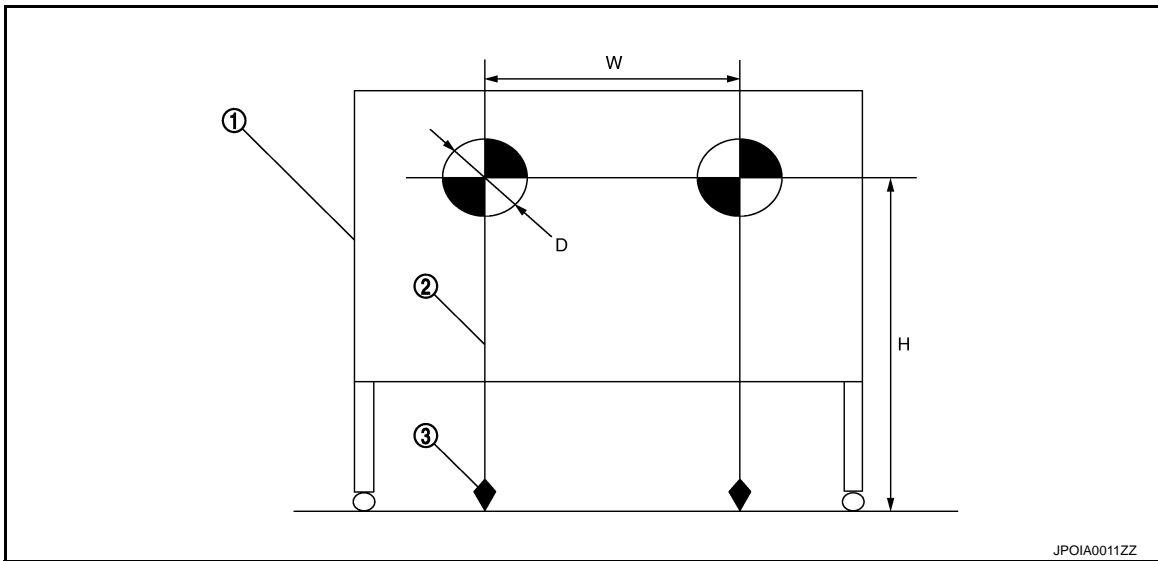
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CAMERA AIMING ADJUSTMENT

< BASIC INSPECTION >

[ACTIVE LANE CONTROL]



- 1. Board
 - 2. String
 - 3. Cone
- : Target mark

- Diameter of a target (D) : 200 mm (7.87 in)
- Height of a target center (H) : 1450 mm (57.09 in)
- Width between a right target center from a left target center (W) : 600 mm (23.62 in)

>> Proceed to [DAS-792, "Work Procedure \(Target Setting\)"](#).

Work Procedure (Target Setting)

INFOID:000000012796583

CAUTION:

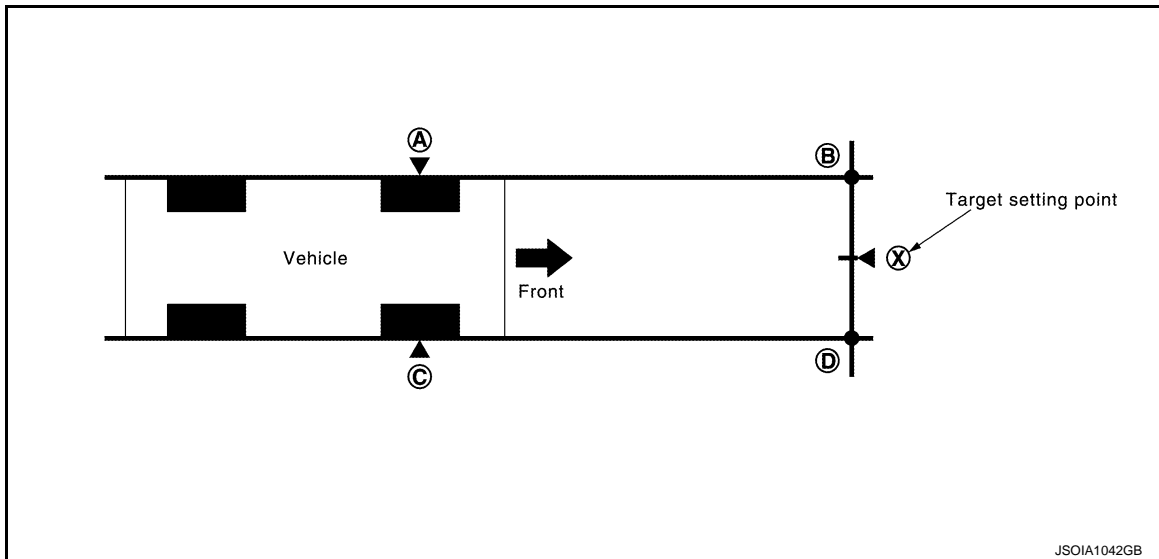
- Be sure to place the target correctly according to work procedures because the system may not operate normally.
- Perform this operation in a horizontal position where there is a clear view for 5 m (16.4 ft) forward and 3 m (9.84 ft) wide.
- Place the target in a well-lighted location. (Poor lighting may make it hard to adjust.)
- The target may not be detected when there is a light source within 1.5 m (4.92 ft) from either side and within 1 m (3.28 ft) upward/downward from the target.
- Check the location of the sun. (Sunlight should not shine directly on the front of the vehicle.)
- The target may not be detected when there is the same pattern of black and white as the target when the pattern is within 1 m (3.28 ft) from either side and upward/downward position from the target. (It is desirable that the vehicle is positioned on the opposite side of a single-color wall.)

1. TARGET SETTING

CAMERA AIMING ADJUSTMENT

< BASIC INSPECTION >

[ACTIVE LANE CONTROL]



$(A - B) (C - D)$: 3850 mm (151.57 in)

1. Lengthen straight a measuring tape as follows. And then fix it with tapes.
 - A measuring tape contacts with the side of the front left side tire from rear left side tire.
 - A measuring tape lengthens approximately 4 m (13.12 ft) or more from the front end of vehicle.

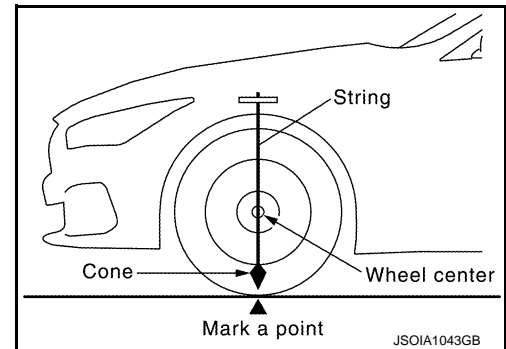
NOTE:

Use the steel tape measure which can measure 10m (32.81 ft) or more

2. Mark point **A** on a measuring tape. Hang a string with a cone from the fender so as to pass through the center of wheel, and then mark a point at the center of the lateral surface of the wheel.
3. Mark point **B** on a measuring tape at the positions 3850 mm (151.57 in) from point **A**.
4. Remove a measuring tape.

CAUTION:

Be careful so that a marking point is not changed.



5. Lengthen straight a measuring tape as follows. And then fix it with tapes.
 - A measuring tape contacts with the side of the front right side tire from rear right side tire.
 - A measuring tape lengthens approximately 4 m (13.12 ft) or more from the front end of vehicle.

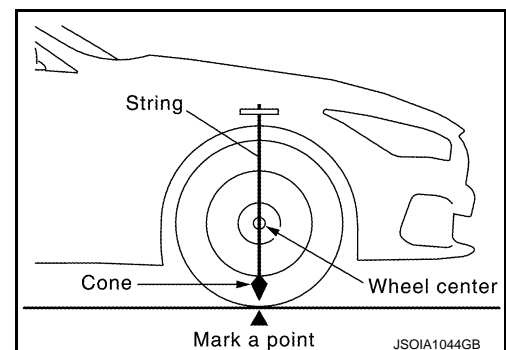
NOTE:

Use the steel tape measure which can measure 10m (32.81 ft) or more

6. Mark point **C** on a measuring tape. Hang a string with a cone from the fender so as to pass through the center of wheel, and then mark a point at the center of the lateral surface of the wheel.
7. Mark point **D** on a measuring tape at the positions 3850 mm (151.57 in) from point **C**.
8. Remove a measuring tape.

CAUTION:

Be careful so that a marking point is not changed.



9. Lengthen straight a measuring tape passing through the points **B** and **D** on the front side of vehicle. And then fix it with tapes.
10. Mark point **X** at the center of point **B** and **D** on a measuring tape.

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CAMERA AIMING ADJUSTMENT

< BASIC INSPECTION >

[ACTIVE LANE CONTROL]

CAUTION:

Make sure that ㊦ to ㊧ is equal to ㊨ to ㊩.

11. Remove a measuring tape.

CAUTION:

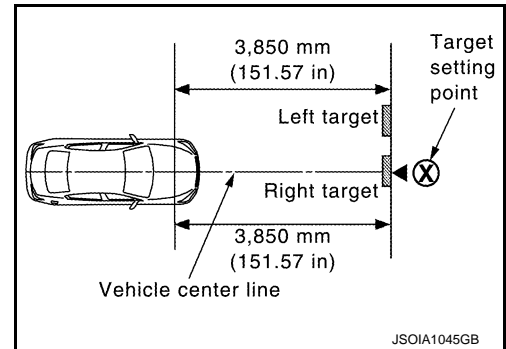
Be careful so that a marking point is not changed.

12. Position the center of the right target to point of ㊩.

CAUTION:

- Be sure to place the board that the cross of the target is horizontal and vertical.
- Fix point ㊩ with a cone that hung down from the right side target.

>> Proceed to [DAS-794, "Work Procedure \(Camera Aiming Adjustment\)"](#).



Work Procedure (Camera Aiming Adjustment)

INFOID:000000012796584

CAUTION:

Perform the adjustment under unloaded vehicle condition.

1. CHECK VEHICLE HEIGHT

Measure both side of front wheelarch height (Hf). Then calculate "Dh".

- 2.0L turbo gasoline engine models and VR30DDTT (turbo high pressure) engine models

$$Dh [mm] = (Hfl + Hfr) \div 2 - 710$$

where,

Hfl: Front left wheelarch height [mm]

Hfr: Front right wheelarch height [mm]

- VR30DDTT (turbo low pressure) engine models

$$Dh [mm] = (Hfl + Hfr) \div 2 - 711$$

where,

Hfl: Front left wheelarch height [mm]

Hfr: Front right wheelarch height [mm]

CAUTION:

Be sure to measure wheelarch height correctly.

NOTE:

"Dh" may be calculated as a minus value.

>> GO TO 2.

2. CAMERA AIMING ADJUSTMENT

㊦ With CONSULT

CAUTION:

Operate CONSULT outside the vehicle, and close all the doors. (To retain vehicle attitude appropriately)

1. Select "Work Support" on "LANE CAMERA" with CONSULT.
2. Select "AUTO AIM".
3. Confirm the following items;
 - The target should be accurately placed.
 - The vehicle should be stopped.
4. Select "Start" to perform camera aiming.

CAUTION:

CAMERA AIMING ADJUSTMENT

< BASIC INSPECTION >

[ACTIVE LANE CONTROL]

- Never select “Start” when the target is not accurately placed.
- Wait 5 seconds or more after selecting “Start”.

5. Input “Dh”, and then select “Start”.

CAUTION:

Never change “Ht” and “Dt”.

6. Confirm the displayed item.

Is “Normally Completed” displayed?

YES >> Select “End” to close the aiming adjustment procedure. Then GO TO 4.

NO >> GO TO 3.

3. INCOMPLETE CAUSE CONFIRMATION

Perform the following services according to the displayed message.

Displayed message	Possible cause	Service procedure
Aiming was not able to be performed normally. Perform the aiming again.	<ul style="list-style-type: none"> • Temporary malfunction in internal processing of the lane camera unit. • Lane camera unit malfunction. 	Position the target appropriately again. Then perform the aiming again.
00H Routine not activated	<ul style="list-style-type: none"> • Temporary malfunction in internal processing of the lane camera unit. • Lane camera unit malfunction. 	Position the target appropriately again. Then perform the aiming again.
Writing error is detected. Perform the aiming again.	<ul style="list-style-type: none"> • Temporary malfunction in internal processing of the lane camera unit. • Lane camera unit malfunction. 	Position the target appropriately again. Then perform the aiming again.
DTC is detected. Perform self diagnosis.	Any DTC is detected. (Except C1B01)	Perform diagnosis on the detected DTC and repair or replace the applicable item. Refer to DAS-746, "DTC Index" .
No target is detected. Position the target appropriately again. Perform the aiming again.	Lane camera unit cannot detect the target. <ul style="list-style-type: none"> • The target is not placed correctly. • The target is not placed yet. 	Position the target appropriately again. Then perform the aiming again.
Yaw angle beyond the allowable range is detected. Correct the possible cause. Perform the aiming again.	Aiming yaw angle is out of range. <ul style="list-style-type: none"> • The target is not placed correctly. • The position of the lane camera unit is not correct. • Inappropriate vehicle condition. 	Check the possible cause and correct it. Then perform the aiming again
Roll angle beyond the allowable range is detected. Correct the possible cause. Perform the aiming again.	Aiming roll angle is out of range. <ul style="list-style-type: none"> • The target is not placed correctly. • The position of the lane camera unit is not correct. • Inappropriate vehicle condition. 	Check the possible cause and correct it. Then perform the aiming again
Pitch angle beyond the allowable range is detected. Correct the possible cause. Perform the aiming again.	Aiming pitch angle is out of range. <ul style="list-style-type: none"> • The target is not placed correctly. • The position of the lane camera unit is not correct. • Inappropriate vehicle condition. 	Check the possible cause and correct it. Then perform the aiming again
The target is unclear. Correct the possible cause. Perform the aiming again.	The target image is not clear. <ul style="list-style-type: none"> • The windshield is not clean. • The camera lens is not clean. • The target is not clean. • Reflective materials, such as white paper or a mirror are placed on the instrument panel. 	Check the possible cause and correct it. Then perform the aiming again
Lighting is insufficient. Light the target up. Perform the aiming again.	Lighting around the target is insufficient.	Light the target up. Then perform the aiming again.
One side target is not detected. Position the target appropriately again. Perform the aiming again.	Lane camera unit cannot detect the both side target. <ul style="list-style-type: none"> • The target is not placed correctly. 	Position the target appropriately again. Then perform the aiming again.
Other NG is detected. Perform the aiming again.	Temporary malfunction in internal processing of the lane camera unit.	Perform the aiming again.

CAMERA AIMING ADJUSTMENT

< BASIC INSPECTION >

[ACTIVE LANE CONTROL]

NOTE:

Replace camera unit if "00H Routine not activated" or "Writing error is detected." are repeatedly indicated during the above two services are performed.

>> Correct the displayed possible cause. Then perform the aiming again. Refer to [DAS-792. "Work Procedure \(Target Setting\)".](#) or GO TO 2.

4. PERFORM SELF-DIAGNOSIS

Ⓟ With CONSULT

Perform self-diagnosis of lane camera unit with CONSULT.

Is any DTC detected?

YES >> Perform diagnosis on the detected DTC and repair or replace the applicable item. Refer to [DAS-746. "DTC Index".](#)

NO >> WORK END

Work Procedure (Target Mark Sample)

INFOID:000000012796585

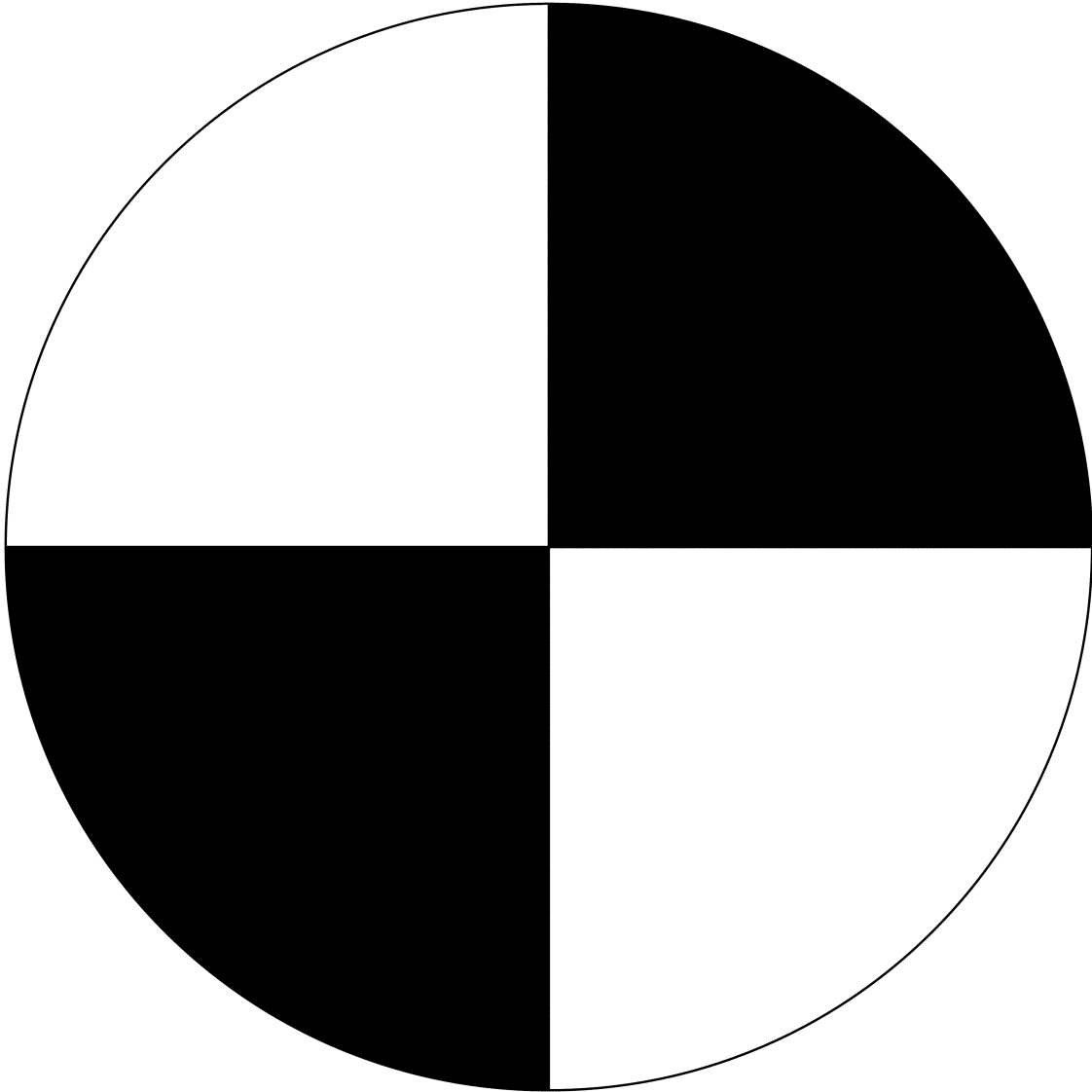
NOTE:

CAMERA AIMING ADJUSTMENT

< BASIC INSPECTION >

[ACTIVE LANE CONTROL]

Print this illustration so that the diameter of the circle is 200 mm (7.87 in).



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PGIA0105J

P

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[ACTIVE LANE CONTROL]

DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT LANE CAMERA UNIT

LANE CAMERA UNIT : Diagnosis Procedure

INFOID:000000012796586

1. CHECK FUSES

Check if any of the following fuses are blown:

Signal name	Fuse No.
Ignition power supply	14

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.

2. CHECK LANE CAMERA UNIT POWER SUPPLY CIRCUIT

Check voltage between lane camera unit harness connector and ground.

Terminal		Condition	Voltage (Approx.)
(+)	(-)		
Lane camera unit		Ignition switch	0 V
Connector	Terminal		
R13	7	OFF	0 V
		ON	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair the lane camera unit power supply circuit.

3. CHECK LANE CAMERA UNIT GROUND CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect the lane camera unit connector.
3. Check for continuity between lane camera unit harness connector and ground.

Lane camera unit		Ground	Continuity
Connector	Terminal		
R13	1		Existed
	5		

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair the lane camera unit ground circuit.

U1000 CAN COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[ACTIVE LANE CONTROL]

U1000 CAN COMM CIRCUIT

DTC Description

INFOID:000000012796587

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
U1000	CAN COMM CIRCUIT (CAN communication circuit)	When chassis communication signal is not continuously transmitted or received for 2 seconds or more.

POSSIBLE CAUSE

- Chassis communication system

FAIL-SAFE

The following functions are suspended.

- Active Lane Control
- Lane Departure Warning (LDW)
- Lane Departure Prevention (LDP)
- Blind Spot Intervention

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

 With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "LANE CAMERA".

Is DTC "U1000" detected?

YES >> Proceed to [DAS-799, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796588

Perform the Chassis communication (CAN communication) system trouble diagnosis. Then repair or replace the malfunctioning parts.

Refer to [LAN-41, "Trouble Diagnosis Flow Chart"](#).

DAS

U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

[ACTIVE LANE CONTROL]

U1010 CONTROL UNIT (CAN)

DTC Description

INFOID:000000012796589

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
U1010	CONTROL UNIT (CAN) [Control unit (CAN)]	When detecting error during the initial diagnosis of CAN controller of lane camera unit.

POSSIBLE CAUSE

- Lane camera unit

FAIL-SAFE

The following functions are suspended.

- Active Lane Control
- Lane Departure Warning (LDW)
- Lane Departure Prevention (LDP)
- Blind Spot Intervention

DTC CONFIRMATION PROCEDURE

1. PRECONDITIONING

If "DTC CONFIRMATION PROCEDURE" has been previously conducted, always turn the ignition switch OFF and wait at least 10 seconds before conducting the next test.

>> GO TO 2.

2. CHECK DTC DETECTION

 With CONSULT

1. Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

2. Perform self-diagnosis for "LANE CAMERA".

Is DTC "U1010" detected?

YES >> Proceed to [DAS-800, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-45, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000012796590

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Turn the LDP system ON.
2. Perform "All DTC Reading" with CONSULT.
3. Check if the "U1010" is detected as the current malfunction in "Self Diagnostic Result" of "LANE CAMERA".

Is "U1010" detected as the current malfunction?

YES >> Replace the lane camera unit. Refer to [DAS-808, "Removal and Installation"](#).

NO >> INSPECTION END

C1B00 CAMERA UNIT MALF

< DTC/CIRCUIT DIAGNOSIS >

[ACTIVE LANE CONTROL]

C1B00 CAMERA UNIT MALF

DTC Description

INFOID:000000012796591

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1B00	CAMERA UNIT MALF (Lane camera unit malfunction)	If lane camera unit is malfunctioning

POSSIBLE CAUSE

- Lane camera unit

FAIL-SAFE

The following functions are suspended.

- Active Lane Control
- Lane Departure Warning (LDW)
- Lane Departure Prevention (LDP)
- Blind Spot Intervention

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT

1. Start the engine.
2. Perform "All DTC Reading" with CONSULT.
3. Check if the "C1B00" is detected as the current malfunction in "Self Diagnostic Result" of "LANE CAMERA".

Is "C1B00" detected as the current malfunction?

- YES >> Refer to [DAS-801, "Diagnosis Procedure"](#).
- NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000012796592

1. CHECK SELF-DIAGNOSIS RESULTS

Check if any DTC other than "C1B00" is detected in "Self Diagnostic Result" of "LANE CAMERA".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to [DAS-746, "DTC Index"](#).
- NO >> Replace the lane camera unit. Refer to [DAS-808, "Removal and Installation"](#).

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C1B01 CAM AIMING INCOMP

DTC Description

INFOID:000000012796593

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1B01	CAM AIMING INCOMP (Camera aiming incomplete)	Camera aiming is not completed

POSSIBLE CAUSE

- Lane camera aiming is not completed
- Lane camera aiming adjustment has been interrupted

FAIL-SAFE

The following functions are suspended.

- Active Lane Control
- Lane Departure Warning (LDW)
- Lane Departure Prevention (LDP)
- Blind Spot Intervention

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Perform "All DTC Reading" with CONSULT.
3. Check if the "C1B01" is detected as the current malfunction in "Self Diagnostic Result" of "LANE CAMERA".

Is "C1B01" detected as the current malfunction?

- YES >> Refer to [DAS-802, "Diagnosis Procedure"](#).
- NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000012796594

1. CAMERA AIMING ADJUSTMENT

1. Perform the camera aiming. Refer to [DAS-791, "Description"](#).
2. Erase all self-diagnosis results with CONSULT.
3. Perform "All DTC Reading".
4. Check if the "C1B01" is detected in "Self Diagnostic Result" of "LANE CAMERA".

Is "C1B01" detected?

- YES >> Replace the lane camera unit. Refer to [DAS-808, "Removal and Installation"](#).
- NO >> INSPECTION END

C1B03 ABNRML TEMP DETECT

< DTC/CIRCUIT DIAGNOSIS >

[ACTIVE LANE CONTROL]

C1B03 ABNRML TEMP DETECT

DTC Description

INFOID:0000000012796595

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1B03	ABNRML TEMP DETECT (Abnormal temperature detected)	Temperature around lane camera unit is excessively high

POSSIBLE CAUSE

- Interior room temperature is excessively high

FAIL-SAFE

The following functions are suspended.

- Active Lane Control
- Lane Departure Warning (LDW)
- Lane Departure Prevention (LDP)
- Blind Spot Intervention

Diagnosis Procedure

INFOID:0000000012796596

1. COOLING LANE CAMERA UNIT

1. Wait for 10 minutes or more to cool the lane camera unit.
2. Erase All self-diagnosis results with CONSULT.
3. Perform "All DTC Reading".
4. Check if the "C1B03" is detected in "Self Diagnostic Result" of "LANE CAMERA".

Is "C1B03" detected?

- YES >> Replace the lane camera unit. Refer to [DAS-808. "Removal and Installation"](#).
- NO >> INSPECTION END

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SYMPTOM DIAGNOSIS

ACTIVE LANE CONTROL

Symptom Table

INFOID:000000012796597

NOTE:

- For the operational conditions of Active Lane Control, refer to [DAS-718, "ACTIVE LANE CONTROL : System Description"](#).
- Perform the self-diagnosis with CONSULT before the symptom diagnosis. Perform the trouble diagnosis if any DTC is detected.

Symptom		Possible cause	Inspection item	
Hard to drive along a traffic lane during the use of Active Lane Control.	The vehicle wanders.	Lane marker detecting condition (Certain roads, weather or driving conditions.)	System is normally. Confirm the using situation of the customer. Refer to DAS-728, "Precautions for Active Lane Control" .	
		<ul style="list-style-type: none"> Road wheel tire condition is abnormal Road wheel tire size is abnormal. 	Check the road wheel tire.	
	The vehicle pulls to one direction.	Continuously	<ul style="list-style-type: none"> Wheel alignment Direct Adaptive Steering malfunction Lane camera unit installation condition 	Symptom diagnosis "THE VEHICLE PULLS TO ONE SIDE" Refer to DAS-806, "Description" .
		Temporarily	Lane marker detecting condition (Certain roads, weather or driving conditions.)	System is normally. Confirm the using situation of the customer. Refer to DAS-728, "Precautions for Active Lane Control" .
Function is not smooth		Lane marker detecting condition (Certain roads, weather or driving conditions.)	System is normally. Confirm the using situation of the customer. Refer to DAS-728, "Precautions for Active Lane Control" .	
Steering effort fluctuates during Active Lane Control.	Increase in steering effort	When changing the traveling lane. (Turn signal is not used.)	Operation condition	Confirm the operating condition. Refer to DAS-718, "ACTIVE LANE CONTROL : System Description" .
		After the use of turn signal	Operation condition	Confirm the operating condition. Refer to DAS-718, "ACTIVE LANE CONTROL : System Description" .
		Other than above	Lane marker detecting condition (Certain roads, weather or driving conditions.)	System is normally. Confirm the using situation of the customer. Refer to DAS-728, "Precautions for Active Lane Control" .
	Steering effort fluctuates abruptly.		Lane marker detecting condition (Certain roads, weather or driving conditions.)	System is normally. Confirm the using situation of the customer. Refer to DAS-728, "Precautions for Active Lane Control" .
	Steering effort is not smooth.		Lane marker detecting condition (Certain roads, weather or driving conditions.)	System is normally. Confirm the using situation of the customer. Refer to DAS-728, "Precautions for Active Lane Control" .

ACTIVE LANE CONTROL

< SYMPTOM DIAGNOSIS >

[ACTIVE LANE CONTROL]

	Symptom	Possible cause	Inspection item
Not sure if Active Lane Control is functioning or not.	Active Lane Control is not turned on.	Active Lane Control settings.	Turn on Active Lane Control. Check the settings of Active Lane Control. Refer to DAS-727, "ACTIVE LANE CONTROL : Menu Displayed by Pressing Each Switch" .
	Active Lane Control indication is not displayed on the vehicle information display.	Vehicle information display (combination meter) settings.	Show Active Lane Control indication on the vehicle information display. Refer to DAS-523, "INFORMATION DISPLAY (COMBINATION METER) : Chassis Control Display" .
	Not functioning adequately.	Lane marker detecting condition.	System is normal. Ask the customer for the status of use. Refer to DAS-807, "ACTIVE LANE CONTROL : Description" .
		Low vehicle speed.	Check the operating conditions. Refer to DAS-718, "ACTIVE LANE CONTROL : System Description" .
		Active Lane Control settings.	Change the operation level of Active Lane Control to "HIGH", and change the drive mode to "PERSONAL". Refer to DAS-727, "ACTIVE LANE CONTROL : Menu Displayed by Pressing Each Switch" .
	Active Lane Control indication does not change to ON state for a long time.	Operating conditions are not satisfied.	Check the operating conditions. Refer to DAS-718, "ACTIVE LANE CONTROL : System Description" .
		Lane camera unit is not correctly adjusted.	Adjust camera aiming. Refer to DAS-791, "Description" .

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THE VEHICLE PULLS TO ONE SIDE

< SYMPTOM DIAGNOSIS >

[ACTIVE LANE CONTROL]

THE VEHICLE PULLS TO ONE SIDE

Description

INFOID:000000012796598

The vehicle pulls to one side continuously during traveling straight

NOTE:

- For the operational conditions of Active Lane Control, refer to [DAS-718, "ACTIVE LANE CONTROL : System Description"](#).
- For the handling precautions of Active Lane Control, refer to [DAS-728, "Precautions for Active Lane Control"](#).

Diagnosis Procedure

INFOID:000000012796599

1. DIRECT ADAPTIVE STEERING INSPECTION

1. Turn Active Lane Control OFF.
2. Perform symptom diagnosis for “the vehicle does not pull to one direction” and/or “steering wheel is off-center” based on Direct Adaptive Steering symptom table. Refer to [STC-473, "Symptom Table"](#).

>> INSPECTION END

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[ACTIVE LANE CONTROL]

NORMAL OPERATING CONDITION

ACTIVE LANE CONTROL

ACTIVE LANE CONTROL : Description

INFOID:0000000012796600

- If Active Lane Control malfunctions, it will cancel automatically. The chassis control warning will appear in the vehicle information display.
- Active Lane Control will not always steer the vehicle to keep it in the lane. It is not designed to prevent loss of control. It is the driver's responsibility to stay alert, drive safely, keep the vehicle in the traveling lane, and be in control of vehicle at all times.
- Active Lane Control is primarily intended for use on well-developed freeways or highways. It may not detect the lane markers for certain roads, weather or driving conditions.
- Using Active Lane Control under some conditions of road, lane marker or weather, or if driver attempt to change lanes without using the lane change signal could lead to an unexpected system operation. In such conditions, driver needs to correct the vehicle's direction with driver's steering operation to avoid accidents.
- Active Lane Control will not operate at speeds below approximately 70 km/h (45 MPH) or if it cannot detect lane markers.
- Active Lane Control may not operate properly under the following conditions, and do not use Active Lane Control:
 - During bad weather (rain, fog, snow, etc.).
 - When driving on slippery roads, such as on ice or snow, etc.
 - When driving on winding or uneven roads.
 - When there is a lane closure due to road repairs.
 - When driving in a makeshift or a temporary lane.
 - When driving on roads where the lane width is too narrow.
 - When driving with a tire that is not within normal tire conditions (for example, tire wear, low tire pressure, installation of spare tire, tire chains, non-standard wheels).
 - When the vehicle is equipped with non-original steering parts or suspension parts.
- The functions of Active Lane Control may or may not operate properly under the following conditions:
 - On roads where there are multiple parallel lane markers; lane markers that are faded or not painted clearly; yellow painted lane markers; non-standard lane markers or lane markers covered with water, dirt or snow, etc.
 - On roads where discontinued lane markers are still detectable.
 - On roads where there are sharp curves.
 - On roads where there are sharply contrasting objects, such as shadows, snow, water, wheel ruts, seams or lines remaining after road repairs (Active Lane Control could detect these items as lane markers.).
 - On roads where the traveling lane merges or separates.
 - When the vehicle's traveling direction does not align with the lane marker.
 - When traveling close to the vehicle in front of driver, which obstructs the lane camera unit detection range.
 - When rain, snow or dirt adheres to the windshield in front of the lane camera unit.
 - When the headlights are not bright due to dirt on the lens or if the aiming is not adjusted properly.
 - When strong light enters the lane camera unit (For example, the light directly shines on the front of the vehicle at sunrise or sunset.)
 - When a sudden change in brightness occurs (For example, when the vehicle enters or exits a tunnel or under a bridge.)
 - When entering or exiting tollgates.
 - When driving on roads with a widening or narrowing lane width.

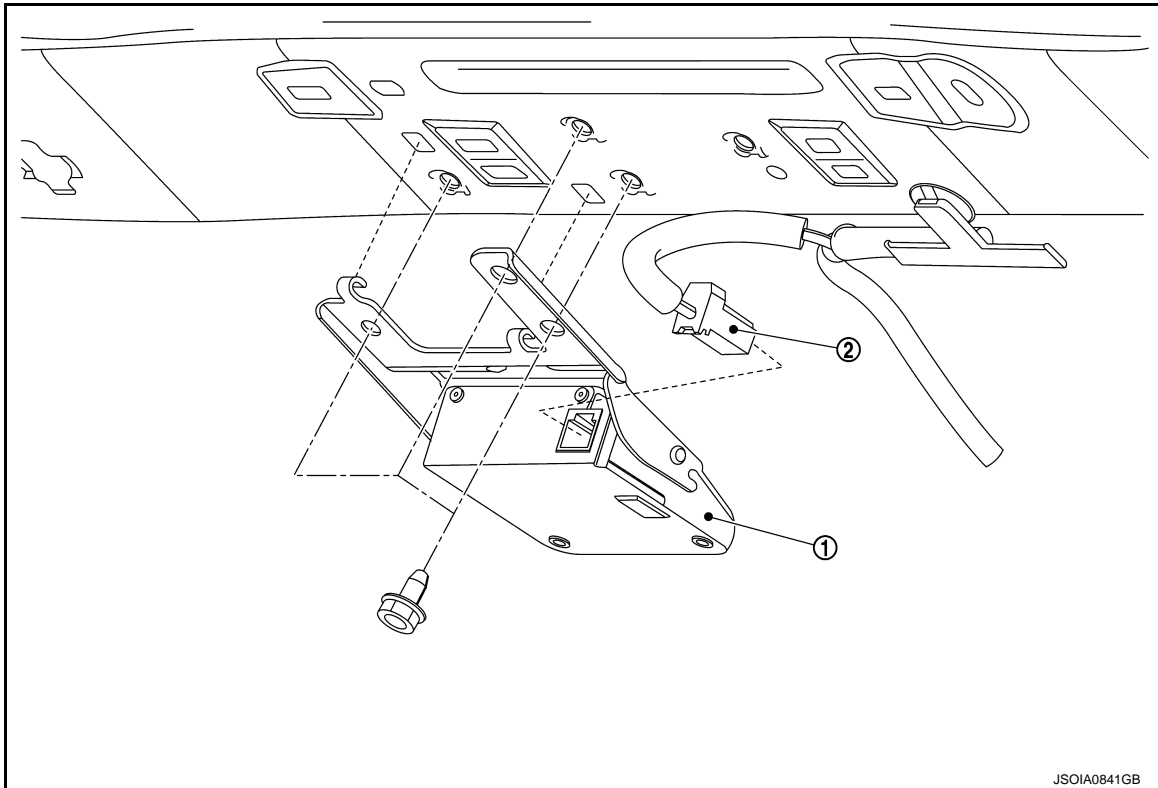
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REMOVAL AND INSTALLATION**LANE CAMERA UNIT**

Exploded View

INFOID:000000012796601



JSOIA0841GB

① Lane camera unit

② Lane camera unit harness connector

Removal and Installation

INFOID:000000012796602

REMOVAL

1. Remove headlining assembly. Refer to [INT-46, "Removal and Installation"](#).
2. Remove the bolts.
3. Remove lane camera unit.

INSTALLATION

Install in the reverse order of removal.

CAUTION:

- Remove the camera lens cap for replacement.
- Never give an impact to the lane camera unit.
- Perform the camera aiming every time the lane camera unit is removed and installed. Refer to [DAS-791, "Work Procedure \(Preparation\)"](#).