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DRIVER ASSISTANCE BUZZER CONTROL MOD-

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PRECAUTION

PRECAUTIONS

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

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, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, 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, and wait at least 3 minutes before performing any service.

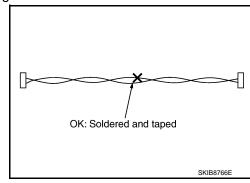
Precautions For Harness Repair

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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).

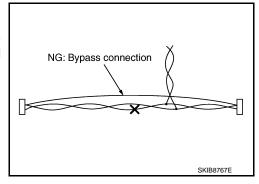


PRECAUTIONS

< PRECAUTION > [ADAS CONTROL UNIT]

• 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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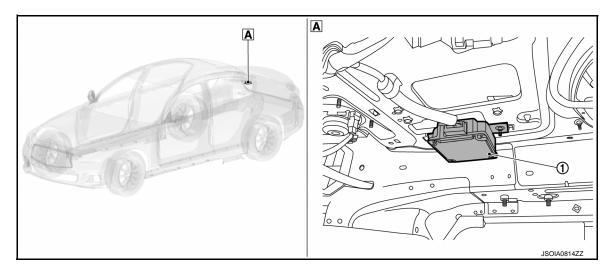
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SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

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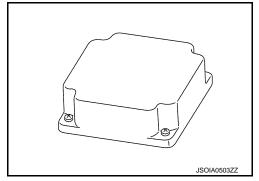
Trunk side of rear parcel shelf

No.	Component	Description
1	ADAS control unit	 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:0000000009644368

- 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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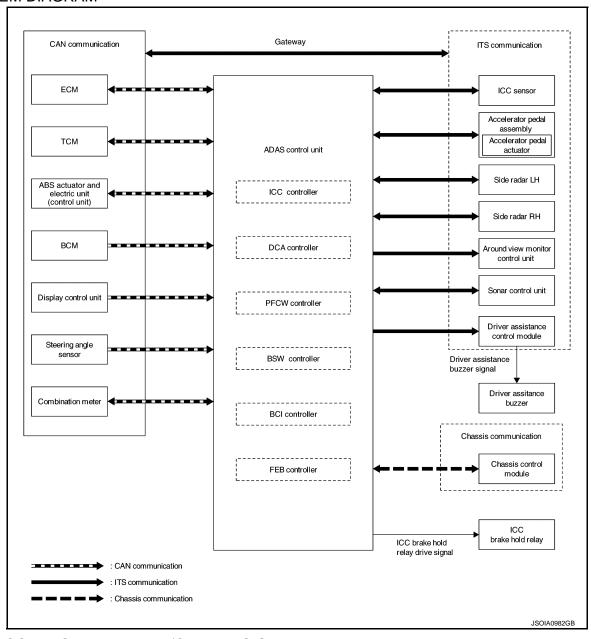
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SYSTEM

System Description

SYSTEM DIAGRAM



ADAS CONTROL UNIT INPUT/OUTPUT SIGNAL ITEM

Input Signal Item

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Transmit unit		Signal name		Description
	Closed throttle position signal		on signal	Receives idle position state (ON/OFF)
		Accelerator pedal position signal		Receives accelerator pedal position (angle)
		ICC prohibition signal		Receives an operable/inoperable state of the ICC system
		Engine speed signal		Receives engine speed
			MAIN switch signal	
			SET/COAST switch signal	
ECM	CAN com- munica-		CANCEL switch signal	
	tion	ICC steering switch signal	RESUME/ACCEL- ERATE switch signal	Receives the operational state of the ICC steering switch
			DISTANCE switch signal	
			Dynamic driver as- sistance switch sig- nal	
		Stop lamp switch signal		Receives an operational state of the brake pedal
		Brake pedal position	switch signal	Receives an operational state of the brake pedal
		Input speed signal		Receives the number of revolutions of input shaft
TCM	CAN com-	Current gear position signal		Receives a current gear position
I CIVI	munica- tion	Shift position signal		Receives a select lever position
		Output shaft revolution signal		Receives the number of revolutions of output shaft
		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
ABS actuator	CAN com-	TCS operation signal		Receives an operational state of TCS
and electric unit	munica-	VDC OFF switch signal		Receives an ON/OFF state of VDC
(control unit)	tion	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		l	Receives lateral G acting on the vehicle
		Stop lamp switch signal		Receives an operational state of the brake pedal
Combination meter	CAN com- munica- tion	Parking brake switch signal		Receives an operational state of the parking brake
		Front wiper request signal		Receives an operational state of front wiper(s)
ВСМ	CAN com- munica- tion	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
		Steering angle sense	or malfunction signal	Receives a malfunction state of steering angle sensor
Steering angle sensor	CAN com- munica- tion	Steering angle sense	or signal	Receives the number of revolutions, turning direction of the steering wheel
		Steering angle speed	d signal	Receives the turning angle speed of the steering wheel

SYSTEM

< SYSTEM DESCRIPTION >

[ADAS CONTROL UNIT]

Transmit unit		Signal name	Description
Display control unit	CAN com- munica- tion	System selection signal	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 com- munica- tion	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 com- munica- tion	Accelerator pedal actuator operation status signal	Receives an operational state of accelerator pedal actuator
Side radar LH, RH	ITS com- munica- tion	Vehicle detection signal	Receives vehicle detection condition of detection zone
Sonar control unit	ITS com- munica- tion	Rear object detection signal	Receives objects detection result of rear area behind vehicle
Chassis control module	Chassis communi- cation	Drive mode signal	Receives on operational state of the drive mode select switch

Output Signal Item

Reception unit		Signal name	Description
ECM	CAN commu- nication	ICC operation signal	Transmits an ICC operation signal necessary for intelligent cruise control
ABS actuator and electric unit (via chas- sis control module)	CAN commu- nication	Brake fluid pressure control signal	Transmits a brake fluid pressure control signal to activates the brake

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[ADAS CONTROL UNIT]

Reception unit		Signal na	me	Description	
			Vehicle ahead detection indicator signal		
			Set vehicle speed indi- cator signal		
			Set distance indicator signal		
			SET switch indicator signal		
			MAIN switch indicator signal		
			DCA system display signal		
Combination	CAN commu-	Meter display signal	FEB system display signal	Transmits a signal to display a state of the system of the information display	
meter	nication		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 la	mp signal	Transmits a signal to turn ON the lamp Transmits an ON/OFF state of the Forward Emergency Brake Transmits a signal to turn ON the lamp	
ICC sensor	ITS communication	Vehicle speed s	ignal	Transmits a vehicle speed calculated by the ADAS control unit	
100 301301		Steering angle	sensor signal	Transmits a steering angle sensor signal received from the steering angle sensor	
Accelerator	ITS commu-	Accelerator pedal position signal		Transmits an accelerator pedal angle calculated by the ADAS control unit	
pedal actuator	nication	Accelerator ped signal	lal feedback force control	Transmits a target actuation force value calculated b the ADAS control unit	
Side radar LH, RH		Vehicle speed signal		Transmits a vehicle speed calculated by the ADAS control unit	
	ITS commu- nication	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 commu- nication	Buzzer drive sig	gnal	Transmits a buzzer drive signal to activate buzzer	
Around view monitor control unit	ITS commu- nication	BCI warning sig	ınal	Transmits a BCI warning signal to indicate a yellow/ red frame on the upper display	

SYSTEM

< SYSTEM DESCRIPTION >

[ADAS CONTROL UNIT]

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Reception unit		Signal name	Description
Driver assis- tance buzzer control module	ITS commu- nication	Driver assistance buzzer signal	Transmits a driver assistance buzzer signal to activates the buzzer
ICC brake hold relay	ICC brake hole	d 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)
- Predictive Forward Collision Warning (PFCW)
- Blind Spot Warning (BSW)
- Back-up Collision Intervention (BCI)

System	Reference
Intelligent Cruise Control (ICC)	CCS-12, "System Description"
Distance Control Assist (DCA)	DAS-170, "DCA : System Description"
Forward Emergency Braking (FEB)	BRC-187, "System Description"
Predictive Forward Collision Warning (PFCW)	DAS-174, "PFCW : System Description"
Blind Spot Warning (BSW)	DAS-181, "BSW : System Description"
Back-up Collision Intervention (BCI)	DAS-188, "BCI : System Description"

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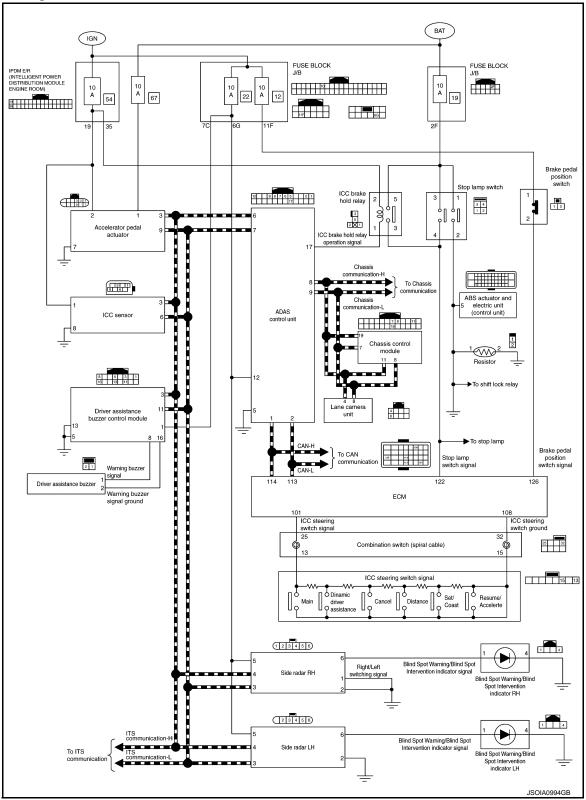
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Circuit Diagram

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Fail-safe (ADAS Control Unit)

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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

[ADAS CONTROL UNIT]

System	Buzzer	Warning lamp/Warning dis- play	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	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
Blind Spot Warning (BSW)	_	Warning systems indicator (Blind spot position: Yellow)	Cancel
Back-up Collision Intervention (BCI)	High- pitched tone	BCI system warning	Cancel

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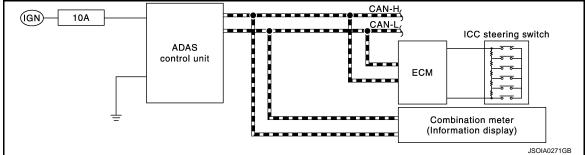
On Board Diagnosis Function

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DESCRIPTION

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

On Board Self-diagnosis System Diagram



METHOD OF STARTING

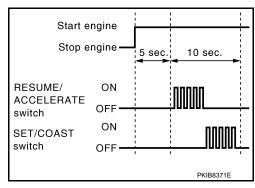
CAUTION:

Start condition of on board self-diagnosis

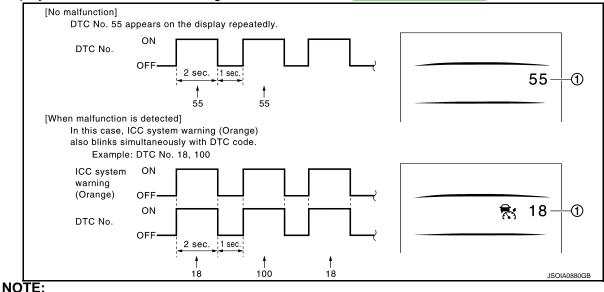
- ICC system OFF
- DCA system OFF
- Vehicle speed 0 km/h (0 MPH)
- 1. Turn the ignition switch OFF.
- 2. Start the engine.
- Wait for 5 seconds after starting the engine. Push up the RESUME/ACCELERATE switch 5 times and push down the SET/COAST switch 5 times within 10 seconds.

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.



 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 <u>DAS-44, "DTC Index"</u>.



< SYSTEM DESCRIPTION >

[ADAS CONTROL UNIT]

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- 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-62, "On Board Diagnosis Function".	
ICC steering switch male	function		
Harness malfunction be	tween ICC steering switch and ECM	Perform the inspection for DTC "C1A06". Refer to <u>DA:</u> 80, "DTC Logic".	
ECM malfunction			
ADAS control unit malfu	nction	 Check power supply and ground circuit of ADAS control unit. Refer to <u>DAS-160</u>, "<u>Diagnosis Procedure</u>". Perform SELF-DIAGNOSIS for "ICC/ADAS" with CONSULT, and then check the malfunctioning parts. Refer to <u>DAS-44</u>, "<u>DTC Index</u>". 	

HOW TO ERASE ON BOARD SELF-DIAGNOSIS

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

NOTE:

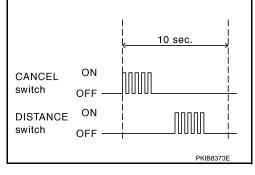
- Complete the operation within 10 seconds after pressing the CANCEL switch first.
- If the operation is not completed within 10 seconds, repeat the procedure from step 1.
- 4. DTC 55 is displayed after erasing.

NOTE:

DTCs for existing malfunction can not be erased.

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

CONSULT Function (ICC/ADAS)



INFOID:0000000009644373

APPLICATION ITEMS

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

Diagnosis mode	Description
Configuration	 The vehicle specification that is written in ADAS control unit can be displayed or stored The 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

CONFIGURATION

Configuration includes functions as follows.

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Fu	ınction	Description	
Read/Write Configuration	Before Replace ECU	Allows the reading of vehicle specification written in ADAS contrunit to store the specification in CONSULT.	
Read/White Configuration	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 • Vehicle-to-vehicle control mode • Conventional (fixed speed) control mode • Distance Control Assist (DCA) • Forward Emergency Braking (FEB)		
CAUSE OF AUTO-CANCEL 2	NOTE: The item is displayed, but it is not monitored		
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

Cause of cancellation	Vehicle-to-vehicle distance control mode	Conventional (fixed speed) cruise control mode	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 Vehicle-to-vehicle distance control mode is 24 km/h (15 MPH) Conventional (fixed speed) cruise control mode is 32 km/h (20 MPH)

ACCEL IS OPERATED

BRAKE IS OPERATED

APA HI TEMP

VHL SPD ELEC NOISE	×	×	×		Wheel speed sensor signal caught electromagnetic noise		
/DC/TCS OFF SW	×	^	×	×	VDC OFF switch was pressed		
HCL SPD UNMATCH	×	×	×	^	Wheel speed became different from A/T vehicle speed		
TRE SLIP			^		Wheel slipped		
GN LOW VOLT	×	×	V				
	×	×	×	×	Decrease in ADAS control unit ignition voltage		
PARKING BRAKE ON	×	×			The parking brake is operating		
VHEEL SPD UNMATCH	×	×	×		The wheel speeds of 4 wheels are out of the specified values		
NCHING 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		
CD 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		
CC SENSOR CAN	×		×	×	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		
FEB) CURVATURE				×	Road curve was more than the specified value		
FEB) YAW RATE				×	Detected yawing speed was more than the specified value		
FEB) LTRL ACCELERA-				×	Detected lateral speed is the specified value or more		
RADAR INTERFER- ENCE	×		×	×	ICC sensor receives electromagnetic interference		
IO RECORD	×	×	×		_		
isplay Items for The C	ause c	of Automa	tic Cance	lation 3			
One to the		on Intervention			December 1		
Back-up Collision Intervention		Description					
		ADAS cor	ntrol unit	received an abnormal signal with CAN communication			
CAN COMM ERROR (EC		×					
	(ט	×			received an abnormal signal with CAN communication		
GN LOW VOLT		×			control unit ignition voltage		
VEHICLE SPEED UP ×			Vehicle speed higher than 8 km/h (5 MPH)				

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The accelerator pedal actuator integrated motor temperature is high

Accelerator pedal was depressed

Brake pedal was operated

 \times

×

×

[ADAS CONTROL UNIT]

Cause of cancellation	Back-up Collision Intervention	Description
APA POWER	×	Decrease in accelerator pedal actuator ignition or battery voltage
NO RECORD	×	_

SELF DIAGNOSTIC RESULT

Refer to DAS-44, "DTC Index".

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")
ON ROOT GUID- ANCE [On/Off]	×					NOTE: The item is displayed, but it is not monitored
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)
CLUTCH SW SIG [On/Off]	×	×	×	×		Indicates [On/Off] status as judged from clutch pedal position signal (ECM transmits ICC clutch 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]	×					Indicates [On/Off] status of own vehicle indicator output

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Monitored item [Unit]	ALL SIG (ICC)	MAIN SIG (ICC)	MAIN SIG (LDW/LDP)	MAIN SIG (BSW/BSI)	MAIN SIG (BCI)	Description	
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)	
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)	
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	

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[ADAS CONTROL UNIT]

		ON >					
Monitored item [Unit]	ALL SIG (ICC)	MAIN SIG (ICC)	MAIN SIG (LDW/LDP)	MAIN SIG (BSW/BSI)	MAIN SIG (BCI)	Description	
DISTANCE [m]	×					Indicates the distance from the vehicle ahead	
RELATIVE SPD [m/s]	×					Indicates the relative speed of the vehicle ahead	
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)	
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	
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)	
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]			×	×			

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Monitored item [Unit]	ALL SIG (ICC)	MAIN SIG (ICC)	MAIN SIG (LDW/LDP)	MAIN SIG (BSW/BSI)	MAIN SIG (BCI)	Description	
STATUS signal [Stnby/Warn/Cancl/ 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 set to ON/OFF by selecting "Driving Aids" ⇒ "Front assist" of the integ switch	
LDP SELECT [On/Off]	×	×	×	×		Indicates an ON/OFF state of LDP system. LDP system can be set to Of OFF by selecting "Driving Aids" ⇒ "Lane" of the integral switch	
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" \Rightarrow "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	

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[ADAS CONTROL UNIT]

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Monitored item [Unit]	ALL SIG (ICC)	MAIN SIG (ICC)	MAIN SIG (LDW/LDP)	MAIN SIG (BSW/BSI)	MAIN SIG (BCI)	Description	
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	
BCI SYSTEM ON [On/Off]					×	Indicates [On/Off] status of BCI system	
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	
SYSTEM CANCEL MESSAGE [NOREQ/SLIP/ SNOW/VDC OFF]	×	×	×	×		Indicates [On/Off] 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 INDI- CATOR [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 BRIGHT- NESS [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	

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Monitored item [Unit]	ALL SIG (ICC)	MAIN SIG (ICC)	MAIN SIG (LDW/LDP)	MAIN SIG (BSW/BSI)	MAIN SIG (BCI)	Description	
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 VEHI- CLE 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. NON: Vehicle speed is maintained at the ASCD set speed. CUT: Vehicle speed decreased to excessively low, and ASCD operation is cut off.	
ASCD CANCEL (SPEED DIFF) [NON/CUT]	×					Indicates the vehicle cruise condition. 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. 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 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

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Test item	Description
LDP BUZZER	Sounds a buzzer used for following systems by arbitrarily operating ON/OFF • 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:

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

Test item	Oper- ation	Description	MAIN switch indicator ICC system warning FEB warning lamp
Off		Stops sending the following signals to exit from the test • Meter display signal • FEB warning lamp signal	OFF
METER LAMP	On	Transmits the following signals to the combination meter via CAN communication • Meter display signal • FEB warning lamp signal	ON

STOP LAMP

Test item	Oper- ation	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	
	MODE1	Transmits the buzzer output signals to the driver assistance buzzer control module via ITS communication	Intermittent beep sound	
ICC BUZZER	Test start	Starts the tests of "MODE1"	_	
ICC BUZZEK	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.

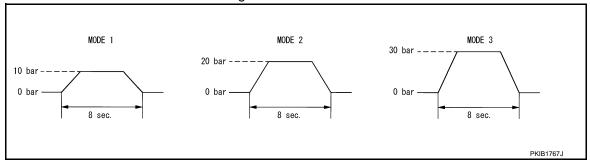
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Test item	Operation	Description	"PRESS SENS" value
	MODE1	Transmits the brake fluid pressure control signal to the	10 bar
	MODE2	ABS actuator and electric unit (control unit) via chassis	20 bar
	MODE3	control module	30 bar
BRAKE ACTUATOR	Test start	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

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		Constant with a force of 25 N for 8 seconds
	MODE2	Transmit the accelerator pedal feedback force control signal Constant with a force for 8 second	
	MODE3	to the accelerator pedal actuator via ITS communication.	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:

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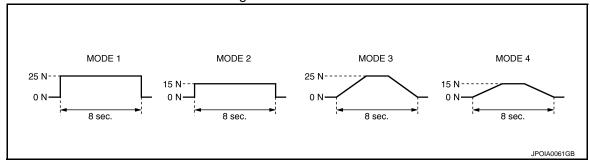
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< SYSTEM DESCRIPTION >

[ADAS CONTROL UNIT]

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

Test item	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	Oper- ation	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

< SYSTEM DESCRIPTION >

[ADAS CONTROL UNIT]

T	Oper-	Book of the	Blind Spot Intervention system display
Test item	ation	Description	(Green)
BSI ON INDICATOR	Off	Stops transmitting the meter display signal below to end the test	_
BOI ON INDIOATOR	On	Transmits the meter display signal to the combination meter via CAN communication	ON
W ON INDICATOR			
Test item	Oper- ation	Description	LDW system display (White)
LDW ON INDICATOR	Off	Stops transmitting the meter display signal below to end the test	_
LDW ON INDICATOR	On	Transmits the meter display signal to the combination meter via CAN communication	ON
P WARNING INDI	CATOR		
Test item	Oper- ation	Description	LDP malfunction (Yellow)
LDP WARNING INDI-	Off	Stops transmitting the meter display signal below to end the test	_
CATOR	On	Transmits the meter display signal to the combination meter via CAN communication	ON
W WARNING IND	CATOR		
Test item	Oper- ation	Description	LDW malfunction (Yellow)
LDW WARNING IN-	Off	Stops transmitting the meter display signal below to end the test	_
DICATOR	On	Transmits the meter display signal to the combination	
	U	meter via CAN communication	ON
W WARNING IND		meter via CAN communication	ON
W WARNING IND		meter via CAN communication Description	ON BSW malfunction (Yellow)
	CATOR Oper-		
Test item	CATOR Operation	Description Stops transmitting the meter display signal below to end	
Test item BSW WARNING IN-	Operation Off On	Description Stops transmitting the meter display signal below to end the test Transmits the meter display signal to the combination	BSW malfunction (Yellow) —
Test item BSW WARNING IN- DICATOR	Operation Off On	Description Stops transmitting the meter display signal below to end the test Transmits the meter display signal to the combination	BSW malfunction (Yellow) —
Test item BSW WARNING IN- DICATOR I WARNING INDIC	Operation Off On CATOR Oper-	Description Stops transmitting the meter display signal below to end the test Transmits the meter display signal to the combination meter via CAN communication	BSW malfunction (Yellow) — ON Blind Spot Intervention malfunction

Revision: 2013 October **DAS-35** 2014 Q50

ECU DIAGNOSIS INFORMATION

ADAS CONTROL UNIT

Reference Value

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
WAIN SW	ignition switch ON	When MAIN switch is not pressed	Off
SET/COAST SW/	Ignition quitab ON	When SET/COAST switch is pressed	On
SET/COAST SW	Ignition switch ON	When SET/COAST switch is not pressed	Off
CANCEL SW	Ignition quitab ON	When CANCEL switch is pressed	On
CANCEL SW	Ignition switch ON	When CANCEL switch is not pressed	Off
RESUME/ACC SW	Ignition quitab ON	When RESUME/ACCELERATE switch is pressed	On
RESUME/ACC SW	Ignition switch ON	When RESUME/ACCELERATE switch is not pressed	Off
DICTANCE CW	Ignition quitab ON	When DISTANCE switch is pressed	On
DISTANCE SW	Ignition switch ON	When DISTANCE switch is not pressed	Off
	Drive the vehicle and activate	When ICC system is controlling	On
CRUISE OPE	the vehicle-to-vehicle distance control mode	When ICC system is not controlling	Off
		When brake or clutch pedal is depressed	Off
BRAKE SW	Ignition switch ON	When brake or clutch pedal is not depressed	On
	Ignition switch ON	When brake pedal is depressed	On
STOP LAMP SW		When brake pedal is not depressed	Off
IDLE OW		Idling	On
IDLE SW	Engine running	Except idling (depress accelerator pedal)	Off
	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
SET DISTANCE		When set to "short"	Short
CDUISE LAMD	Start the engine and press	ICC system ON (MAIN switch indicator ON)	On
CRUISE LAMP	MAIN switch	ICC system OFF (MAIN switch indicator OFF)	Off
OWN VHCL	NOTE: The item is indicated, but not n	nonitored	Off
VHCL AHEAD	Drive the vehicle and activate the vehicle-to-vehicle distance	When a vehicle ahead is detected (vehicle ahead detection indicator ON)	On
	control mode	When a vehicle ahead is not detected (vehicle ahead detection indicator OFF)	Off
	Start the engine and press	When ICC system is malfunctioning (ICC system malfunction ON)	On
ICC WARNING	MAIN switch	When ICC system is normal (ICC system malfunction OFF)	Off

< ECU DIAGNOSIS INFORMATION >

[ADAS CONTROL UNIT]

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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 rupping	When the buzzer of the following system operates Vehicle-to-vehicle distance control mode DCA system PFCW system FEB system	On
BUZZER U/P	Engine running	When the buzzer of the following system not operates Vehicle-to-vehicle distance control mode DCA system PFCW system FEB system	Off
THRTL SENSOR	NOTE: The item is indicated, but not n	nonitored	0.0
ENGINE RPM	Engine running		Equivalent to ta- chometer read- ing
		Wiper not operating	Off
WIPER SW	Ignition switch ON	Wiper LO operation	Low
		Wiper HI operation	High
YAW RATE	NOTE: The item is indicated, but not n	nonitored	0.0
DA WARNING		FEB OFF indicator lamp ON • When FEB system is malfunctioning • When FEB system is turned to OFF	On
BA WARNING	Engine running	FEB OFF indicator lamp OFF • When FEB system is normal • When FEB system is turned to ON	Off
	Drive the vehicle and activate	When ICC brake hold relay is activated	On
STP LMP DRIVE	the vehicle-to-vehicle distance control mode	When ICC brake hold relay is not activated	Off
D DANGE OW	Faring	When the selector lever is in "D" position or manual mode	On
D RANGE SW	Engine running	When the selector lever is in any position other than "D" or manual mode	Off
		When the selector lever is in "N", "P" position	On
NP RANGE SW	Engine running	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
I ND OW	Ignition switch 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 ve- hicle speed sen- sor signal	
THRTL OPENING	Engine running	Depress accelerator pedal	Displays the throttle position

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[ADAS CONTROL UNIT]

Monitor item		Condition	Value/Status
GEAR	While driving		Displays the gear position
011170110111011		When clutch or brake pedal is depressed	On
CLUTCH SW SIG	Ignition switch ON	When clutch or brake pedal is not depressed	Off
ND OW OLO		When the shift lever is in neutral position	On
NP SW SIG	Ignition switch ON	When the shift lever is in any position other than neutral	Off
		When ICC system is deactivated	Off
MODE SIG	Start the engine and press MAIN switch	When vehicle-to-vehicle distance control mode is activated	ICC
	WWW SWIGH	When conventional (fixed speed) cruise control mode is activated	ASCD
	Drive the vehicle and acti-	SET switch indicator ON	On
SET DISP IND	vate the conventional (fixed speed) cruise control mode • Press SET/COAST switch	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 dis tance from the preceding vehi- cle
		When a vehicle ahead is not detected	0.0
RELATIVE SPD	Drive the vehicle and activate the vehicle-to-vehicle distance	When a vehicle ahead is detected	Displays the relative speed.
	control mode	When a vehicle ahead is not detected	0.0
DYNA ASIST SW	Ignition switch ON	When dynamic driver assistance switch is pressed	On
DTNA ASIST SW		When dynamic driver assistance switch is not pressed	Off
	Start the engine and press dy- namic driver assistance switch (When DCA setting is ON)	DCA system OFF	Off
DCA ON IND		DCA system ON	On
	Drive the vehicle and activate	When a vehicle ahead is not detected (vehicle ahead detection indicator OFF)	Off
DCA VHL AHED	the DCA system	When a vehicle ahead is detected (vehicle ahead detection indicator ON)	On
IBA SW	NOTE: The item is indicated, but not m	nonitored	Off
FCW SYSTEM ON	Ignition switch ON	When the PFCW system is ON	On
	5	When the PFCW system is OFF	Off
АРА ТЕМР	Engine running	Display the accelerator pedal actuator integrated motor temperature	
APA PWR	Ignition switch ON	Power supply voltage value of accelerator ped al actuator	
LDW SYSTEM ON	Ignition switch ON	When the LDW system is ON	On
	ignition switch Oiv	When the LDW system is OFF	Off
LDW ON LAMP	Ignition switch ON	When the LDW system is ON	On
LD VV OIN LAWII	ignition switch Oiv	When the LDW system is OFF	Off

< ECU DIAGNOSIS INFORMATION >

[ADAS CONTROL UNIT]

Monitor item		Condition	Value/Status
	Start the engine and press dy-	LDP ON indicator lamp ON	On
LDP ON IND	namic driver assistance switch (When LDP system setting is ON)	LDP ON indicator lamp OFF	Off
LANE DOCT W//	Drive the vehicle and activate	Lane departure warning lamp ON	On
LANE DPRT W/L	the LDW system or LDP system	Lane departure warning lamp OFF	Off
LDW BUZER OUT-	Drive the vehicle and activate the LDW/LDP system or Blind	When the buzzer of the following system operates • LDW/LDP system • Blind Spot Warning/Blind Spot Intervention system	On
PUT	Spot Warning/Blind Spot Intervention system	When the buzzer of the following system does not operate LDW/LDP system Blind Spot Warning/Blind Spot Intervention system	Off
	Start the engine and press dy-	When the LDP system is ON	On
LDP SYSTEM ON	namic driver assistance switch (When LDP system setting is ON)	When the LDP system is OFF	Off
	Start the engine and press dy-	When the LDP system is ON	On
READY signal	namic driver assistance switch (When LDP system setting is ON)	When the LDP system is OFF	Off
	Drive the vehicle and activate	Both side lane markers are detected	Detect
Camera lost	the LDW system, LDP system or Blind Spot Intervention sys-	Deviate side lane marker is lost	Deviate
	tem	Both side lane markers are lost	Both
Shift position	Engine running While driving		Displays the shift position
	Turn signal lamps OFF	Off	
Turn signal	Turn signal lamp LH blinking	LH	
Turri Signai	Turn signal lamp RH blinking	RH	
	Turn signal lamp LH and RH bl	LH&RH	
SIDE G	While driving	Vehicle turning right	Negative value
SIDE S	willie driving	Vehicle turning left	Positive value
WARN REQ	Drive the vehicle and activate	Lane departure warning is operating	On
WARRES	the LDP system	Lane departure warning is not operating	Off
		When the LDP system is ON	Stnby
STATUS signal	Drive the vehicle and activate	When the LDP system is operating	Warn
O I / (1 O O olgila)	the LDP system	When the LDP system is canceled	Cancl
		When the LDP system is OFF	Off
Lane unclear	While driving	Lane marker is unclear	On
	g	Lane marker is clear	Off
FUNC ITEM	Ignition switch ON		FUNC3
FUNC ITEM (NV-ICC)	NOTE: The item is indicated, but not n	Off	
FUNC ITEM (NV- DCA)	NOTE: The item is indicated, but not n	Off	
DCA SELECT	Ignition switch ON	"Distance Control Assist" set with the integral switch is ON	On
DOA SELECT	Ignition switch ON	"Distance Control Assist" set with the integral switch is OFF	Off

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[ADAS CONTROL UNIT]

Monitor item		Condition	Value/Status
LDP SELECT	Ignition quitab ON	"Lane Departure Intervention" set with the integral switch is ON	On
	Ignition switch ON	"Lane Departure Intervention" set with the integral switch is OFF	Off
DOLOGI ECT	Ignition quitab ON	"Blind Spot Intervention" set with the integral switch is ON	On
BSI SELECT	Ignition switch ON	"Blind Spot Intervention" set with the integral switch is OFF	Off
FCW SELECT	Lamitian quitab ON	"Forward Emergency Braking" set with the integral switch is ON	On
FOW SELECT	Ignition switch 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
LDW SELECT	ignition switch ON	"Lane Departure Warning" set with the integral switch is OFF	Off
BOW SELECT	Ignition switch ON	"Blind Spot Warning" set with the integral switch is ON	On
BSW SELECT	Ignition switch ON	"Blind Spot Warning" set with the integral switch is OFF	Off
NAVI ICC SELECT	NOTE: The item is indicated, but not m	nonitored	Off
NAVI DCA SELECT	NOTE: The item is indicated, but not m	nonitored	Off
SYS SELECTABILITY	Ignition switch ON	Items set with the integral switch can be switched normally	On
313 SELECTABLETT		Items set with the integral switch cannot be switched normally	Off
	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
DRIVE MODE STATS		When drive mode select switch position is in SNOW	SNOW
		When drive mode select switch position is in PERSON-AL	STD
		A signal other than those above is input	ERROR
WARN SYS SW	NOTE: The item is indicated, but not m	nonitored	Off
DCW/DCLWA DN LMD	Innition quitab ON	When the BSW system is malfunctioning	On
BSW/BSI WARN LMP	Ignition switch ON	When the BSW system is normal	Off
DCI ON IND	Ignition quitab ON	Blind Spot Intervention warning ON	On
BSI ON IND	Ignition switch ON	Blind Spot Intervention warning OFF	Off
BSW SYSTEM ON	Ignition quitab ON	When the BSW system is ON	On
DOW STSTEW UN	Ignition switch ON	When the BSW system is OFF	Off
BSI SYSTEM ON	Start the engine and press dy- namic driver assistance switch	When the Blind Spot Intervention system is ON	On
DOI OTOTEIVI OIN	(When Blind Spot Intervention system setting is ON)	When the Blind Spot Intervention system is OFF	Off
BCI SYSTEM ON	Engine running	When the BCI system is ON	On
	J J	When the BCI system is OFF	Off
BCI SWITCH	NOTE: The item is indicated, but not m	nonitored	Off

< ECU DIAGNOSIS INFORMATION >

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Monitor item		Condition	Value/Status
BATTERY CIRCUIT OFF	NOTE: The item is indicated, but no	ot used	Off
LDP WARNING INDI-	Facine wassing	When the LDP system is malfunctioning	On
CATOR	Engine running	When the LDP system is normal	Off
L DW ON INDICATOR	Ignition quitab ON	LDW system display ON	On
LDW ON INDICATOR	Ignition switch ON	LDW system display OFF	Off
LDW WARNING INDI-	Ignition switch ON	When the LDW system is malfunctioning	On
CATOR	Ignition switch ON	When the LDW system is normal	Off
SYSTEM CANCEL	Ignition switch ON	System cancel display ON	On
MESSAGE	Ignition switch ON	System cancel display OFF	Off
CAMERA HI TEMP		Lane camera unit high temperature warning display ON	On
MSG	Ignition switch 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 INDI-	Engine rupping	When the Blind Spot Intervention is malfunctioning	On
CATOR	Engine running	When the Blind Spot Intervention is normal	Off
BSW ON INDICATOR	Ignition switch ON	BSW system display ON	On
BSW ON INDICATOR		BSW system display OFF	Off
SIDE RADAR BLOCK	Ignition switch ON	Front bumper or side radar is dirty	On
COND		Front bumper and side radar is clean	Off
	Ignition switch ON	LDW system OFF	Nothing
LDW WARNING ALERT TIMING		Lane departure warning timing is early setting	Early
		Lane departure warning timing is late setting	Late
		BSW system OFF	Nothing
BSW IND BRIGHT-		Blind Spot Warning/Blind Spot Intervention indicator brightness bright	Bright
NESS	Ignition switch ON	Blind Spot Warning/Blind Spot Intervention indicator brightness normal	Normal
		Blind Spot Warning/Blind Spot Intervention indicator brightness dark	Dark
FUNC ITEM (FFD)	Facina wasing	"Forward Emergency Braking" set with the integral switch is ON	On
FUNC ITEM (FEB)	Engine running	"Forward Emergency Braking" set with the integral switch is OFF	Off
EED SELECT	Ignition quitab CNI	"Forward Emergency Braking" set with the integral switch is ON	On
FEB SELECT	Ignition switch ON	"Forward Emergency Braking" set with the integral switch is OFF	Off
EED OW	Facine	FEB system ON	On
FEB SW	Engine running	FEB system OFF	Off
CL MAIN CW	Engine rupping	When speed limiter MAIN switch is pressed	On
SL MAIN SW	Engine running	When speed limiter MAIN switch is not pressed	Off

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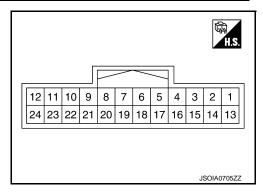
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< ECU DIAGNOSIS INFORMATION >

[ADAS CONTROL UNIT]

Monitor item		Condition	Value/Status
SL TARGET VEHI- CLE SPEED	While driving	When vehicle speed is set	Displays the set vehicle speed
	Drive the vehicle and acti-	Speed limiter SET indicator ON	On
SL SET LAMP	vate the speed limiterPress speed limiter MAIN switch	Speed limiter SET indicator OFF	Off
	Drive the vehicle and acti-	Speed limiter system ON	On
SL LIMIT LAMP	vate the speed limiterPress speed limiter MAIN switch	Speed limiter system OFF	Off
ASCD CANCEL	Drive the vehicle and activate the ASCD	ASCD cancelled by low vehicle speed	On
(LOW SPEED)		Other than above	Off
ASCD CANCEL	Drive the vehicle and activate	ASCD cancelled by difference between set speed and vehicle speed	On
(SPEED DIFF)	the ASCD	Other than above	Off
KICK DOWN	Drive the vehicle and activate	When accelerator pedal is full depressed	On
NICK DOWN	the speed limiter	Other than above	Off

TERMINAL LAYOUT PHYSICAL VALUES



	nal No. color)	Description			Condition	Standard value	Reference value	
+	_	Signal name	Input/ Output	Condition		Standard value	Neierence value	
1 (L)		CAN -H	_		_	_	_	
2 (R)		CAN -L	_		_	_	_	
5 (B)		Ground		Ignition switch ON		0 - 0.1 V	Approx. 0 V	
6 (L)		ITS communication-H		_		_	_	
7 (P)	Ground	ITS communication-L		_		_	_	
8 (L)	Oround	Chassis communication-H	_		_	_	_	
9 (V)		Chassis communication-L	_	_		_	_	
12 (GR)		Ignition power supply	Input	Ignition switch ON	_	10 - 16 V	Battery voltage	
17		ICC brake hold relay		Ignition	_	10 - 16 V	Approx. 12 V	
(V)		drive signal	Output	switch ON	At "STOP LAMP" test of "Active test"	0 - 0.1 V	Approx. 0 V	

Fail-safe (ADAS Control Unit)

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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	Buzzer	Warning lamp/Warning dis- play	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	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
Blind Spot Warning (BSW)	_	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:0000000009644376

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

Priority	Detected items (DTC)
1	U1507: LOST COMM (SIDE RDR R) U1508: LOST COMM (SIDE RDR L)
2	1CA0A: CONFIG UNFINISHED U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN)
3	C1F02: APA C/U MALF C1B53: SIDE RDR R MALF C1B54: SIDE RDR L MALF C1B84: DIST SEN MALFUNCTION

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< ECU DIAGNOSIS INFORMATION >

Priority	Detected it	tems (DTC)
4	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 SUPLY CIR C1A33: CAN TRANSMISSION ERR C1A34: COMMAND ERROR C1A36: APA CAN COMM CIR C1A36: APA CAN CIR 2 C1A38: APA CAN CIR 1 C1A39: STRG SEN CIR C1A39: STRG SEN CIR C1B5D: FEB OPE COUNT LIMIT C1B56: SONAR CIRCUIT C1B59: CCM CIRCUIT C1B59: CCM CIRCUIT C1B59: CCM CIRCUIT C1B82: DIST SEN OFF-CENTER C1B86: DIST SEN ABNORMAL TEMP C1B86: DIST SEN PWR SUP CIR C1F01: APA MOTOR MALF C1F05: APA PWR SUPLY CIR	 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 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 1 U1506: SIDE RDR R CAN CIR 1 U1506: SIDE RDR R CAN CIR 1 U1508: ECM CAN CIRC 3 U1500: TCM CAN CIRC 3 U150D: TCM CAN CIRC 3 U150E: BCM CAN CIRC 3 U150F: AV CAN CIRC 3 U1512: HVAC CAN CIRC 3 U1513: METER CAN CIRC 3 U1514: STRG SEN CAN CIRC 3 U1515: ICC SENSOR CAN CIRC 3 U1517: APA CAN CIRC 3 U1518: SIDE RDR L CAN CIRC 3 U1519: SIDE RDR L CAN CIRC 3 U1519: SIDE RDR R CAN CIRC 3 U1521: SONAR CAN COMMUNICATION 3 U1522: SONAR CAN COMMUNICATION 3 U1523: SONAR CAN COMMUNICATION 2 U1524: AVM CAN COMMUNICATION 1 U1525: AVM CAN COMMUNICATION 3 U1527: CCM CAN CIR 1 U1530: DR ASSIST BUZZER CAN CIR 1 U1541: DAST 3 CAN CIR 2
5	C1A03: VHCL SPEED SE CIRC	
6	C1A15: GEAR POSITION	
7	C1A00: CONTROL UNIT	

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.

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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)
- G: Back-up Collision Intervention (BCI)

DTC			Fail-safe	
CONSULT	On board display	CONSULT display	System	Reference
NO DTC IS DE- TECTED. FUR- THER TESTING MAY BE RE- QUIRED	55	NO DTC IS DETECTED. FURTHER TESTING MAY BE REQUIRED	_	_
C1A0A	41	CONFIG UNFINISHED	A, B, C, D, E, F, G	DAS-69
C1A00	0	CONTROL UNIT	A, B, C, D, E, F, G	DAS-70
C1A01	1	POWER SUPPLY CIR	A, B, C, D, E, F, G	<u>DAS-71</u>
C1A02	2	POWER SUPPLY CIR 2	A, B, C, D, E, F, G	DAS-71
C1A03	3	VHCL SPEED SE CIRC	A, B, C, D, E, F, G	DAS-72
C1A04	4	ABS/TCS/VDC CIRC	A, B, C, D, E, F, G	DAS-74
C1A05	5	BRAKE SW/STOP L SW	A, B, C, D, G	DAS-75
C1A06	6	OPERATION SW CIRC	A, B, C, D, E	DAS-80
C1A13	13	STOP LAMP RLY FIX	A, B, C, D, E, G	DAS-83
C1A14	14	ECM CIRCUIT	A, B, C, D, E	DAS-89
C1A15	15	GEAR POSITION	A, B, C, D, E	DAS-91
C1A24	24	NP RANGE	A, B, C, D, E, F, G	DAS-93
C1A26	26	ECD MODE MALF	A, B, C, D, G	DAS-95
C1A27	27	ECD PWR SUPLY CIR	A, B, C, D, G	DAS-97
C1A33	33	CAN TRANSMISSION ERR	A, B, C, D, E	DAS-99
C1A34	34	COMMAND ERROR	A, B, C, D, E	DAS-100
C1A35	35	APA CIR	A, C, D, E	DAS-101
C1A36	36	APA CAN COMM CIR	A, C, D, E	DAS-102
C1A37	133	APA CAN CIR 2	A, C, D, E	DAS-103
C1A38	132	APA CAN CIR 1	A, C, D, E	DAS-104
C1A39	39	STRG SEN CIR	A, B, C, D, E, F, G	DAS-105
C1B5D	198	FEB OPE COUNT LIMIT	C, D, E	DAS-106
C1B53	84	SIDE RDR R MALF	F, G	DAS-107
C1B54	85	SIDE RDR L MALF	F, G	DAS-108
C1B56	86	SONAR CIRCUIT	G	DAS-109
C1B57	87	AVM CIRCUIT	G	DAS-110
C1B59	184	CCM CIRCUIT	A, B, C, F, G	DAS-111
C1B82	12	DIST SEN OFF-CENTER	A, C, D, E	DAS-112
C1B84	17	DIST SEN MALFUNCTION	A, C, D, E	DAS-113
C1B85	21	DIST SEN ABNORMAL TEMP	A, C, D, E	DAS-114
C1B86	80	DIST SEN PWR SUP CIR	A, C, D, E	<u>DAS-115</u>
C1F01	91	APA MOTOR MALF	A, C, D, E	DAS-117
C1F02	92	APA C/U MALF	A, C, D, E	DAS-118

Revision: 2013 October DAS-45 2014 Q50

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< ECU DIAGNOSIS INFORMATION >

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)
- G: Back-up Collision Intervention (BCI)

DTC			Fail-safe	
CONSULT On board display		CONSULT display	System	Reference
C1F05	95	APA PWR SUPLY CIR	A, C, D, E	DAS-119
U0121	127	VDC CAN CIR 2	A, B, C, D, E, F, G	DAS-120
U0126	130	STRG SEN CAN CIR 1	A, B, C, D, E, F, G	DAS-121
U0235	144	ICC SENSOR CAN CIRC 1	A, C, D, E	DAS-122
U0401	120	ECM CAN CIR 1	A, B, C, D, E, F, G	DAS-123
U0402	122	TCM CAN CIR 1	A, B, C, D, E, F, G	DAS-124
U0415	126	VDC CAN CIR 1	A, B, C, D, E, F, G	DAS-125
U0424	156	HVAC CAN CIR 1		DAS-126
U0428	131	STRG SEN CAN CIR 2	A, B, C, D, E, F, G	DAS-127
U1000 ^{NOTE}	100	CAN COMM CIRCUIT	A, B, C, D, E, F, G	DAS-128
U1010	110	CONTROL UNIT (CAN)	A, B, C, D, E, F, G	DAS-130
U150B	157	ECM CAN CIRC 3	A, B, C, D, E, F, G	DAS-131
U150C	158	VDC CAN CIRC 3	A, B, C, D, E, F, G	DAS-132
U150D	159	TCM CAN CIRC 3	A, B, C, D, E, F, G	DAS-133
U150E	160	BCM CAN CIRC 3	A, B, C, D, F, G	DAS-134
U150F	161	AV CAN CIRC 3		DAS-135
U1502	147	ICC SEN CAN COMM CIR	A, C, D, E	DAS-136
U1503	150	SIDE RDR L CAN CIR 2	F, G	DAS-137
U1504	151	SIDE RDR L CAN CIR 1	F, G	DAS-138
U1505	152	SIDE RDR R CAN CIR 2	F, G	DAS-139
U1506	153	SIDE RDR R CAN CIR 1	F, G	DAS-140
U1507	154	LOST COMM (SIDE RDR R)	F, G	DAS-141
U1508	155	LOST COMM (SIDE RDR L)	F, G	DAS-142
U1512	162	HVAC CAN CIRC3		DAS-143
U1513	163	METER CAN CIRC 3	A, B, C, D, E, F, G	DAS-144
U1514	164	STRG SEN CAN CIRC 3	A, B, C, D, E, F, G	DAS-145
U1515	165	ICC SENSOR CAN CIRC 3	A, C, D, E	DAS-146
U1517	167	APA CAN CIRC 3	A, C, D, E	DAS-147
U1518	168	SIDE RDR L CAN CIRC 3	F, G	DAS-148
U1519	169	SIDE RDR R CAN CIRC 3	F, G	DAS-149
U1521	177	SONAR CAN COMMUNICATION 2	G	DAS-150
U1522	178	SONAR CAN COMMUNICATION 1	G	DAS-151
U1523	179	SONAR CAN COMMUNICATION 3	G	DAS-152
U1524	180	AVM CAN COMMUNICATION 1	G	DAS-153
U1525	181	AVM CAN COMMUNICATION 3	G	DAS-154
U1527	185	CCM CAN CIR1	A, B, C, F, G	DAS-155
U153F	186	CCM CAN CIR2	A, B, C, F, G	DAS-156

< ECU DIAGNOSIS INFORMATION >

[ADAS CONTROL UNIT]

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)
- G: Back-up Collision Intervention (BCI)

DTC			Fail-safe	
CONSULT	On board display	CONSULT display	System	Reference
U1530	183	DR ASSIST BUZZER CAN CIR1		DAS-157
U1540	200	DAST CAN CIR 1	C, D, E	DAS-158
U1541	201	DAST CAN CIR 2	C, D, E	DAS-159

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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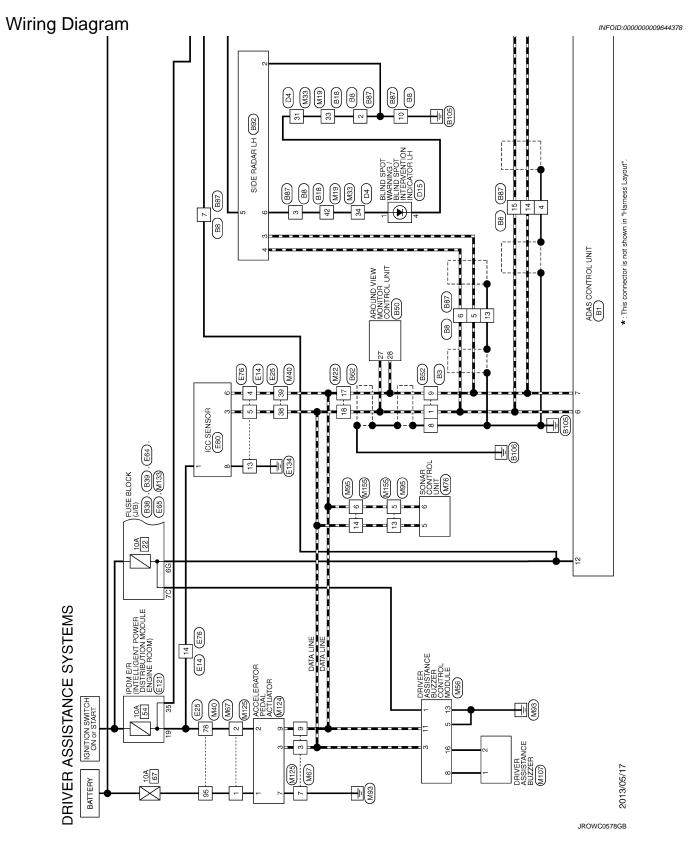
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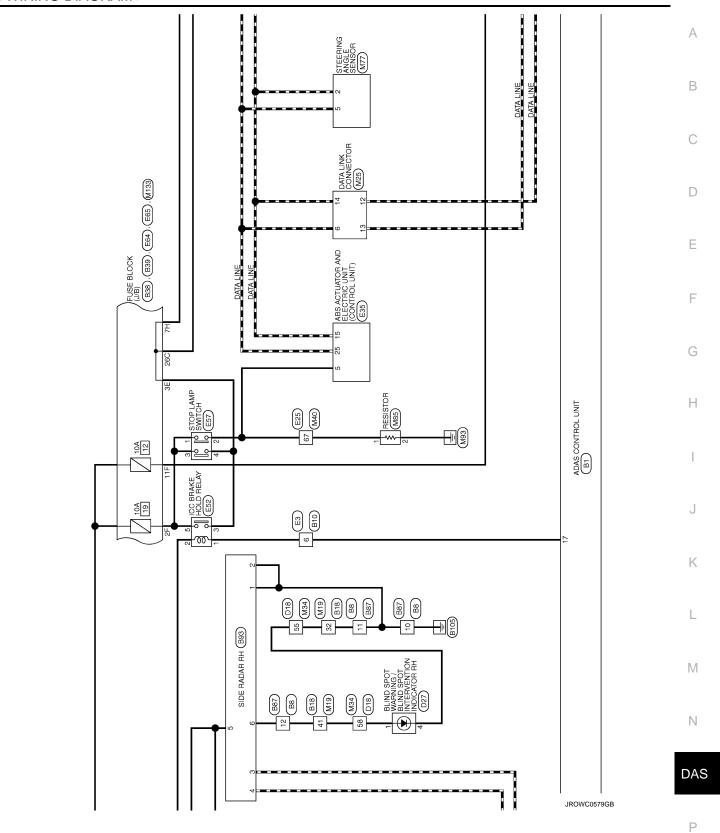
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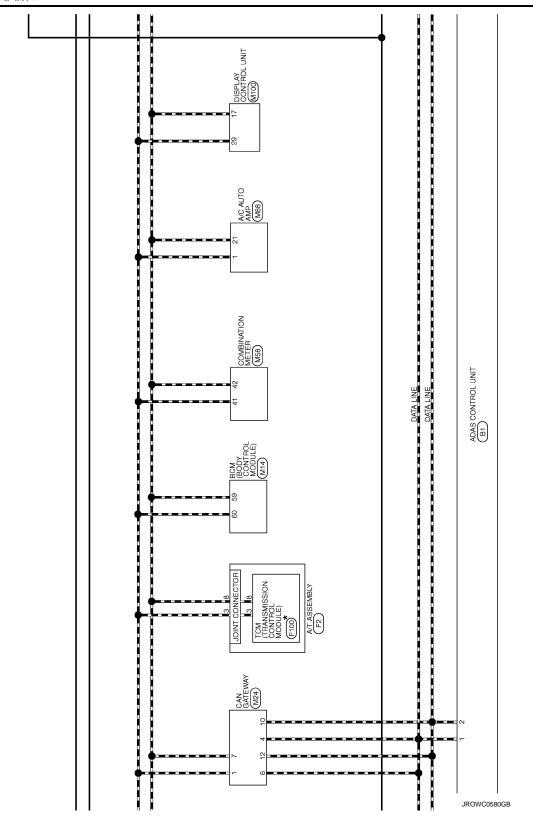
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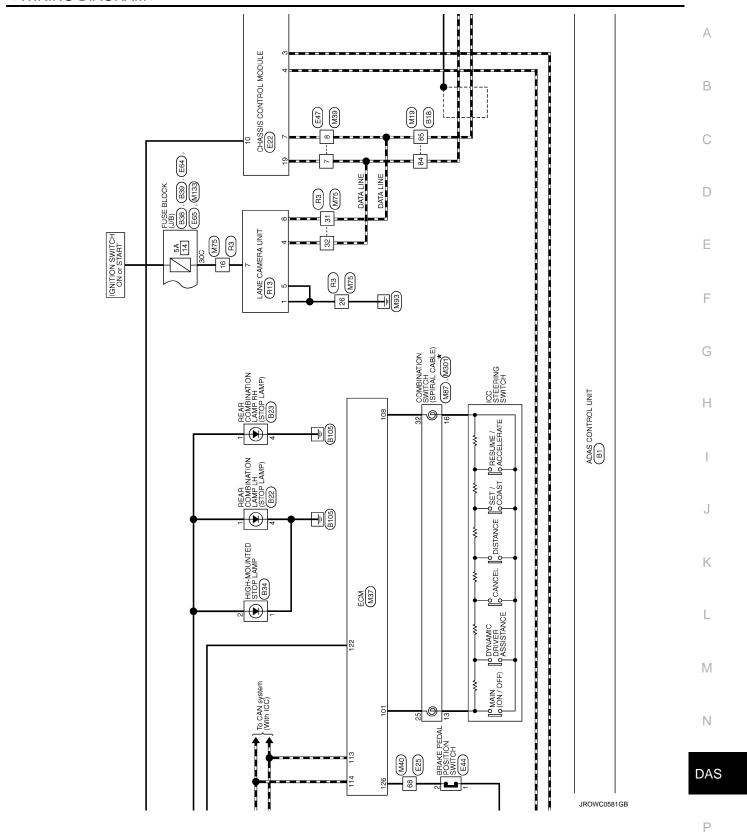
WIRING DIAGRAM

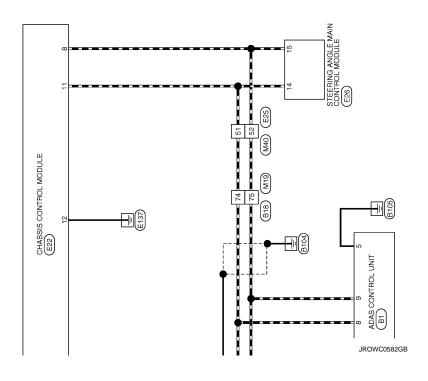
DRIVER ASSISTANCE SYSTEMS











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Connector No.	B23	Connector No.		B38	Connector No.	009		Connector No.	tor No.	799
Connector Nam	Connector Name REAR COMBINATION LAMP RH (BODY SIDE)	Connect	Connector Name F	FUSE BLOCK (J/B)	Connector Name		AROUND VIEW MONITOR CONTROL UNIT	Connec	Connector Name	WIRE TO WIRE
Connector Type	Connector Type NS04MW-CS	Connect	Connector Type N	NS10FW-CS	Connector Type	TH40FW-NH		Connec	tor Type	Connector Type TH80FW-CS16-TM4
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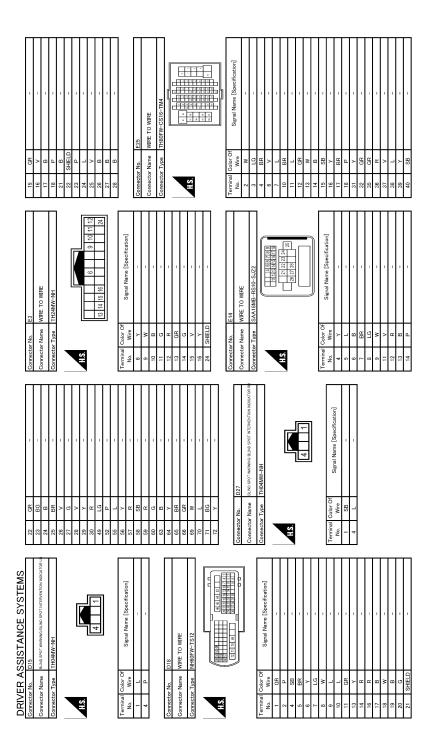
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-	GR RR LH WHEEL SENSOR SIGNAL	9 BR FR RH WHEEL SENSOR SIGNAL	FR		<u>a</u> (15 R CAN-L [With Gateway]	USOR POV	> 8	+	2 -	G VACUUM SEN	æ	32 SHIELD VACUUM SENSOR GROUND	34 G IGN		Connector No. E44	Connector Name BRAKE PEDAL POSITION SWITCH	i coco	Connector Type SUZFL								lar		- B	2 BG -			Connector No. E47	Connector Name WIRE TO WIRE	Connector Type TH32MW-NH	1		7 8 7 8								
Γ	Connector No. E29	Connector Name STEERING ANGLE SUB CONTROL MODULE	Connector Type RH24FB-RZ8-L-LH		10 10 10 10 10 10 10 10 10 10 10 10 10 1	2 4 9 0 5 7	17 11 27	3	1 13150 122 124		Terminal Color Of	No. Wire Signal Name [Specification]	2 Y STEERING ANGLE SUB MOTOR RESOLVER SIGNAL (S1-S3)	4 G STEERING ANGLE SUB MOTOR RESOLVER SIGNAL (S1-S3)	5 L STEERING ANGLE SUB MOTOR PESOLVER SIGNAL (S2-S4)	Μ	+	# 8	+	g >	20 GP FLEXIAN COMMUNICATION-11	BG BACK L	} >	œ	27 G замтюм Ромен заменут (то steering angle main control module)	30 B GROUND		-[Connector No. E35	Connector Name ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)	┰	Connector Type SAZ30FB-SJZ4-U				3 1 3 2 3 3		Terminal Color Of Signal Name [Specification]	t	100	OTO	+	5 V STOP LAMP SW SIGNAL [With ASCD]			
	Connector No. E.20	Connector Name STEERING ANGLE MAIN CONTROL MODULE	Connector Type RH24FB-RZ8-L-LH		13013181818181			0 // 10	[13 20 12 23 24 32]]		Terminal Color Of	Wire	1 BR TORQUE SENSOR MAIN SIGNAL	2 Y STEERING ANGLE MAIN MOTOR RESOLVER SIGNAL (S1-S3)	†	ŋ	RESOL	STEERING	/ SB IORGUE SENSOR GROUND	1	11 DD CTEEDING ANGLE MAIN MOTOR DESCRIPE (DL 12)	<u> </u>		BG BACK UP	18 SB BACK LIP SIGNAL (FROM STEERING FORCE CONTROL MODULE)	19 Y FLEXRAY COMMUNICATION-H	GR	GR BACK UP SIGNAL (TC	BR	٠.	G KANTON POWER SUPPLY OF	8	32 GR GROUND			•										
DRIVER ASSISTANCE SYSTEMS	+	Т	46 B –	П	Т	H 49	+	+	+	24 P	H	H	Н		+	+	+	+	+	- Lu	t	- ^ 62	╁	74 BR -	H	Н	79 SB –	+	+	+	+	94 GR -	+	- M 96	57 76	- d 66	100 SHIELD -									

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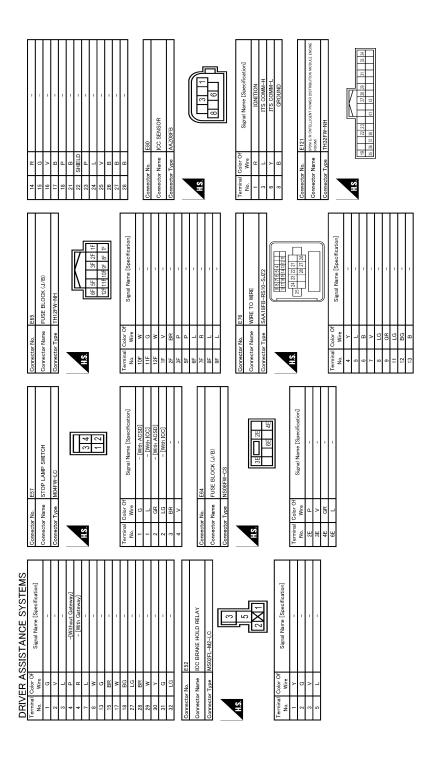
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BLOWER FAN RLY CONT	IGN RLYAY (F/B) CONT	DIMMER	A/T SHIFT SELECT PWR SPLY	IGN RLYAY (IPDM E/R) CONT	DR DOOR REG SW	PASS DOOR REG SW	COMBI SW INPUT 5	COMBLSW INPUT 4	COMBLSW INPLIT 3	COMBISM NDIT 2	COMBI SW INDIT 1	TB LID OPNB SW			M19	Library Car Library	WIRE TO WIRE	TH80MW-CS16-TM4		9	1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 7 W W W W W W W W W W W W W W W W W W	33 SE	Z				Signal Name [Specification]	1	i	1	ı	1	ı	ı	1	1		1	1			1	1	ı	1	1	1	-	1	
В	W/B	α	GR	В	g	SB	a	BG	>	,		-			Connector No.		Connector Name	Connector Type	1								al Color Of		>	g	88	BR	α	Α	>	BR	۵	BR	97	9	5 >	- ;	×	æ	В	В	^	۵	W	SB	
99	67	89	69	70	17	72	75	92	77	78	2 2	8			Connec	,	Connec	Connec			`	HS					Terminal	Š	-	2	m	4	9	_	8	σ	9	Ξ	12	13	2 2	47	ç ;	E	32	33	34	35	36	37	
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<u> </u>	No. Wire Signal Manie Lopecinication	- c	22 BG -	23 LG -	27 GR -	28 P		31 2	L	╀		Ľ	╀	H	H	- ^ **			Connector No. F2		Connector Name A/ L ASSEMBLY	Connector Type BK10FG-DGY	1	✓		E	(5 4 3 2 1	9 2 0 0 4	0		Terminal Color Of	No. Wire Signal Name [Specification]	1 GR IGNITION POWER SUPPLY	Н	3 L CAN-H	4 I.G	В	6 GR IGNITION POWER SUPPLY	BG		. 8	+	10 B GROUND								

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DRIV	ER AS	DRIVER ASSISTANCE SYSTEMS										
Connector No.		M22	48	BR	1	Terminal	_	Signal Name [Specification]	Conne	Connector No.	M33	
Connect	or Name W	Connector Name WIRE TO WIRE	49	SB >	1	ė -	Wire	, a way	Conne	Connector Name	WIRE TO WIRE	
Connect	Connector Type	TH80MW-CS16-TM4	22 92	- 2		- m	- M	BATTERY	Conn	Connector Type	NH60MW-TS12	
			54	g	1	4	_	CAN2-H				
			22	œ	1	c	В	GND		_		
•		8 0 0 0	58	SB	1	9	_	CAN3-H	7			
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3	α		73	SHIELD	1	Connec	Connector Name	DATA LINK CONNECTOR	4	SB	- [Without DRPO]	
4	SHIELD		9/	>		Connec	Connector Type	BD16FW	ın	Ø		
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9	BG	1	85	BR	1	_			_	œ	1	
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12	>	1	93	2	1				13	H	1	
13	57	1	94	œ	1	Terminal	al Color Of		14	H	1	
14	2	1	95	>	1	Š		Signal Name [Specification]	15	╀	1	
15	۵	1	96	^	1	~	97	AV COMM (L)	16	F	,	
16	SB	- [With DGM]	6	-	1	4	8	EABTH	=	۵	1	
16	>	- [Without DCM]	66	BB	1	ıc.	В	EABTH	18	M/B		
17	>	1	001	ä	1	œ	-	CAN-H	19	H	- [With DRPO]	
18	-	1				_	>	KLINE	6	┝	- [Without DRPO]	
19	ŋ	1				80	۸	IGN SW	20	>	1	
20	S.R.		Connector No.	ı	M24	Ξ	ΡΓC	AV COMM (H)	21	В		
21	œ	1		,	Name of the Contract of the Co	12	œ	CAN-L	22	BG	- [Without DRPO]	
22	Μ		Connect	Connector Name	CAN GATEWAT	13	_	CAN-H	22	5	- [With DRPO]	
23	1	-	Connect	Connector Type	TH12FW-NH	14	Ь	CAN-L	23	٦	_	
24	^	1				16	W	POWER	24	٨	-	
25	57	1	1						52	BG	- [Without DRPO]	
26	GR	-	•		<u>/</u>				25	7	- [With DRPO]	
59	gg		HS		,				26	>		
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Connector No. M39	Connector Name WIRE TO WIRE	Consession Time THOSEM-NIU	0 de 1901			1	15	32 31 30 29 28 27 18 17			Terminal Color Of Col	No. Wire olgran warne Lopecincation	1 W/B -	2 SB -	3 T	4 P -[Without Gateway]	4 R -[With Gateway]	L		13 G -	15 R -	Н	18 BG -	Н	28 BR -	W/B	+	31 W	┨		Connector No. M40	Connector Name WIDE TO MIDE	\neg	Connector Type TH80MW-CS16-TM4			9 9	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		\equiv		Terminal Color Of Simple Color Of		2 GR -	3 L	+
Connector No. M37	Connector Name ECM	Consession T. and DUSAFOV-D70-D-I U-7	1	1	128 124 11/2/10/100	127 123 107 103 99	126 122 114 110 105 102 98	125 121 117 113 109 105 101 97			Terminal Color Of	No. Wire olghar Name Lopecinication	97 Y ACCELERATOR PEDAL POSITION SENSOR 1	98 BR ACCELERATOR PEDAL POSITION SENSOR 2	W	100 G SENSOR GROUND (ACCELERATOR PEDAL POSITION SENSOR I)	101 SB ASCD STEERING SWITCH	101 SB ICC STEERING SWITCH	102 LG EVAP CONTROL SYSTEM PRESSURE SENSOR	103 L являюм ромен выячу исседения редитом разттом замком 20	R SEN	٦	106 P FUEL TANK TEMPERATURE SENSOR	GR	Y SENS	BR	> ENG	112 V GNDA PDPRES/F I PRES		>	121 LG EVAP CANISTER VENT CONTROL VALVE	SB ST	В	В	ď	126 BG BRAKE PEDAL POSITION SWITCH	В	128 B ECM GROUND								
- 1		m 3		^		TO	M		B	- M		SB – [With DRPO]	Y - [Without DRPO]	SHIELD -	B -	BG - [Without DRPO]	P – [With DRPO]		TO	BG - [Without DRPO]	BR – [With DRPO]		SB		W/B – [With DRPO]		-	> a	1 88	- 5		DT		B		BR -		BR -								
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DRIVER ASSISTANCE SYSTEMS	1	1		1	1	-	-	1		1	1	1	-	-	-	-	1	1		-		-	1							Connector No. M34	adun CF adun	WINE TO MINE	Connector Type NH60MW-TS12			***	147 1417 158 15	258114111333333	8 N N S		Terminal Color Of	Signal Name [Specification]		-		- [Without DRPO]
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5 L CAN-H	Ī	Connector No. M85	Connector Name RESISTOR Connector Type M02FBR-LC	-[c	7		lar O	4	I I'G			Connector No. M87	C 1940 Adido LOTHIO MOTHAMATION CONTRACTOR	\neg	Connector Type TK08FGY-1V					25 24 31 32	33		Tarminal Color Of		t	Н	31 W/B -	- 8										
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| Connector No. R3
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ADDITIONAL SERVICE WHEN REPLACING ADAS CONTROL UNIT [ADAS CONTROL UNIT]

< BASIC INSPECTION >

BASIC INSPECTION

ADDITIONAL SERVICE WHEN REPLACING ADAS CONTROL UNIT

Description INFOID:0000000009644380

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

Work Procedure INFOID:0000000009644381

1. ADAS CONTROL UNIT CONFIGURATION

Perform the ADAS control unit configuration with CONSULT. Refer to DAS-67, "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 <u>DAS-44, "DTC Index"</u>.

>> INSPECTION END NO

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CONFIGURATION (ADAS CONTROL UNIT)

< BASIC INSPECTION >

[ADAS CONTROL UNIT]

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CONFIGURATION (ADAS CONTROL UNIT)

Description INFOID:0000000009644382

 Since vehicle specifications are not included in the ADAS control unit after replacement, it is required to write vehicle specifications with CONSULT.

• Configuration has three functions as follows.

Fu	nction	Description
Read/Write Configuration	Before Replace ECU	Allows the reading of vehicle specification written in ADAS control unit to store the specification in CONSULT.
Read/Wille Configuration	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

1. SAVING VEHICLE SPECIFICATION

(P)WITH CONSULT

Perform "READ CONFIGURATION" to save or print current vehicle specification.

Is vehicle specification saved normally?

YES >> GO TO 2.

NO >> GO TO 4.

2. REPLACE ADAS CONTROL UNIT

Replace ADAS control unit. Refer to <u>DAS-161</u>, "Removal and Installation".

>> GO TO 3.

3. WRITING VEHICLE SPECIFICATION

(P)WITH CONSULT

Perform "WRITE CONFIGURATION - Config file" to write vehicle specification.

>> GO TO 6.

4. REPLACE ADAS CONTROL UNIT

Replace ADAS control unit. Refer to DAS-161, "Removal and Installation".

>> GO TO 5.

5.WRITING VEHICLE SPECIFICATION

(E)WITH CONSULT

Select "WRITE CONFIGURATION - Manual selection" and write in the following list at a ADAS control unit depending on a vehicle specification.

Setting item		
Items	Setting value	
POWER TRAIN	NISSAN	
	NISSAN HEV	
2WD/4WD	2WD	
	4WD	
CAMERA CONTROL UNIT	WITHOUT	
	WITH	

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CONFIGURATION (ADAS CONTROL UNIT)

[ADAS CONTROL UNIT]

< BASIC INSPECTION >

Setting item	
BRAKE TYPE ^{NOTE}	NORMAL
DRAKE LIPE	SPORT

NOTE:

NORMAL: 2 piston typeSPORT: 4 piston type

>> GO TO 6.

6. OPERATION CHECK

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

>> WORK END

C1A0A CONFIG UNFINISHED

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

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DTC/CIRCUIT DIAGNOSIS

C1A0A CONFIG UNFINISHED

DTC Logic

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)
- Blind Spot Warning (BSW)
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine.
- 2. Turn the MAIN switch of ICC system ON.
- 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 <u>DAS-69</u>, "<u>Diagnosis Procedure</u>".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

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 <u>DAS-67</u>, "<u>Description</u>".

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C1A00 CONTROL UNIT

DTC Logic

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)
- Blind Spot Warning (BSW)
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine.
- Perform "All DTC Reading" with CONSULT.
- 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 <u>DAS-70</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009644387

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-44, "DTC Index".

NO >> Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation".

C1A01 POWER SUPPLY CIRCUIT 1, C1A02 POWER SUPPLY CIRCUIT 2 [ADAS CONTROL UNIT]

< DTC/CIRCUIT DIAGNOSIS >

C1A01 POWER SUPPLY CIRCUIT 1, C1A02 POWER SUPPLY CIRCUIT 2

DTC Logic INFOID:0000000009644388

DTC DETECTION LOGIC

DTC (On board dis- play)	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)
- Blind Spot Warning (BSW)
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1 . PERFORM DTC CONFIRMATION PROCEDURE

- Start the engine.
- Turn the MAIN switch of ICC system ON. 2.
- Perform "All DTC Reading" with CONSULT.
- 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?

- >> Refer to <u>DAS-71</u>, "<u>Diagnosis Procedure</u>".
- >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident". NO-1
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

1. CHECK ADAS CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT

Check power supply and ground circuit of ADAS control unit. Refer to DAS-160, "Diagnosis Procedure". Is the inspection result normal?

- YES >> Replace the ADAS control unit. Refer to <u>DAS-161, "Removal and Installation"</u>.
- NO >> Repair or replace the malfunctioning parts.

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C1A03 VEHICLE SPEED SENSOR

DTC Logic

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)
- Blind Spot Warning (BSW)
- Back-up Collision Intervention (BCI)

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 <u>DAS-128</u>, "DTC Logic"
 - C1A04: Refer to DAS-74, "DTC Logic"

NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

- 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.

- Stop the vehicle.
- 5. Perform "All DTC Reading" with CONSULT.
- 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 <u>DAS-72</u>, "<u>Diagnosis Procedure</u>".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:00000000009644391

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?

C1A03 VEHICLE SPEED SENSOR [ADAS CONTROL UNIT] < DTC/CIRCUIT DIAGNOSIS > YES >> Perform diagnosis of applicable. U1000: Refer to <u>DAS-128</u>, "<u>DTC Logic</u>" • C1A04: Refer to DAS-74, "DTC Logic" NO >> GO TO 2. 2.CHECK DATA MONITOR Start the engine. Drive the vehicle. 2. 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-161, "Removal and Installation". NO >> GO TO 3. 3.CHECK TCM SELF-DIAGNOSIS RESULTS Perform "All DTC Reading". 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-85, "DTC Index". 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? >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to YES BRC-57, "DTC Index". NO >> Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation".

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[ADAS CONTROL UNIT]

C1A04 ABS/TCS/VDC SYSTEM

DTC Logic

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)
- Blind Spot Warning (BSW)
- Back-up Collision Intervention (BCI)

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-128, "DTC Logic".

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine.
- Turn the MAIN switch of ICC system ON.
- Perform "All DTC Reading" with CONSULT.
- 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 <u>DAS-74, "Diagnosis Procedure"</u>.

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009644393

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-128, "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-57, "DTC Index".

NO >> Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation".

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

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C1A05 BRAKE SW/STOP LAMP SW

DTC Logic

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)	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

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
- 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)

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-128, "DTC Logic".

NO >> GO TO 2.

2.perform dtc confirmation procedure

- Start the engine.
- 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 >> Refer to DAS-75, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis 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 <u>DAS-128</u>, "DTC Logic".

NO >> GO TO 2.

2. CHECK STOP LAMP SWITCH AND BRAKE PEDAL POSITION SWITCH

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< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

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 3.

NO-2 >> When "STOP LAMP SW" operation is malfunctioning: GO TO 8.

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.
- Check brake pedal position switch for correct installation. Refer to BR-22, "Inspection and Adjustment".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Adjust brake pedal position switch installation. Refer to <u>BR-9</u>, "Inspection and Adjustment".

${f 5}$.BRAKE PEDAL POSITION SWITCH INSPECTION

- 1. Disconnect brake pedal position switch connector.
- 2. Check brake pedal position switch. Refer to DAS-78, "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.

(-	+)	(-)	Voltage
Brake pedal p	oosition switch		(Approx.)
Connector	Terminal	Ground	
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

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

Brake pedal position switch		ECM		Continuity
Connector	Terminal	Connector	Terminal	Continuity
E114	2	M37	126	Existed

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

Brake pedal	oosition switch		Continuity
Connector	Terminal	Ground	Continuity
E114	2		Not existed

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

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Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair the harnesses or connectors.

8.PERFORM SELF-DIAGNOSIS OF ECM

- Connect all connectors again if the connectors are disconnected.
- 2. Turn ignition switch ON.
- Perform "All DTC Reading".
- 4. Check if any DTC is detected in "Self Diagnostic Result" of "ENGINE". Refer to EC-106, "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 <u>DAS-161, "Removal and Installation"</u>.

9. CHECK STOP LAMP SWITCH INSTALLATION

- Turn ignition switch OFF.
- Check stop lamp switch for correct installation. Refer to BR-22, "Inspection and Adjustment".

Is the inspection result normal?

YES >> GO TO 10.

NO >> Adjust stop lamp switch installation. Refer to BR-9, "Inspection and Adjustment".

$10.\mathtt{stop}$ Lamp switch inspection

- Disconnect stop lamp switch connector.
- Check stop lamp switch. Refer to DAS-78, "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

- Turn the ignition switch ON.
- Check voltage between stop lamp switch harness connector and ground.

(+)	(-)	Voltage	
Stop lan	np switch		(Approx.)	
Connector	Terminal	Ground		
E57	1	Glound	Battery voltage	
L37	3		Dattery Voltage	

Is the inspection result normal?

YES-1 >> GO TO 12.

>> Repair the harnesses or connectors.

12.check harness between stop lamp switch and ecm

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

Stop lamp switch		ECM		Continuity	
Connector	Terminal	Connector Terminal		Continuity	
E57	4	E37	122	Existed	

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

Stop lan	np switch		Continuity
Connector	Terminal	Ground	Outilitaity
E57	4		Not existed

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< DTC/CIRCUIT DIAGNOSIS > 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.
- 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 lan	np switch		Continuity
Connector	Terminal	Ground	Continuity
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

- 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". Refer to EC-106, "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-57, "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 <u>DAS-161</u>, "Removal and Installation"

Component Inspection (Brake Pedal Position Switch)

INFOID:0000000009644396

[ADAS CONTROL UNIT]

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:0000000009644397

1. CHECK STOP LAMP SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

Check for continuity between stop lamp switch terminals.

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

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace stop lamp switch.

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C1A06 OPERATION SW

DTC Logic

DTC DETECTION LOGIC

DTC (On board dis- play)	Trouble diagnosis name	DTC detecting condition
C1A06 (6)	OPERATION SW CIRC (Operation switch circuit)	 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

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)

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-128, "DTC Logic".

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine.
- 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 >> Refer to <u>DAS-80</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009644399

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-128, "DTC Logic".

NO >> GO TO 2.

2.check icc steering switch

- Turn the ignition switch OFF.
- Disconnect the ICC steering switch connector.
- Check the ICC steering switch. Refer to <u>DAS-81, "Component Inspection"</u>.

Is the inspection result normal?

YES >> GO TO 3.

C1A06 OPERATION SW

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

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
 M37
 101
 Existed

 32
 108
 108
 108
 108

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

Spira	l cable		Continuity
Connector Terminal		Ground	Continuity
M87	25	Glound	Not existed
IVIO7	32		Not existed

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.

Spira	Continuity		
Terr			
13	25	Existed	
15	32	LXISTEG	

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.
- 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. Refer to EC-106, "DTC Index".

NO >> Replace the ADAS control unit. Refer to <u>DAS-161</u>, "Removal and Installation".

Component Inspection

1. CHECK ICC STEERING SWITCH

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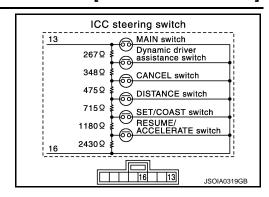
C1A06 OPERATION SW

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

Check resistance between ICC steering switch terminals.

Terminal		Switch operation	Resistance $[\Omega]$
		When pressing MAIN switch	Approx. 0
13		When pressing dynamic driver assistance switch	Approx. 267
		When pressing CANCEL switch	Approx. 615
	15	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.

[ADAS CONTROL UNIT]

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C1A13 STOP LAMP RELAY

DTC Logic

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1A13 (13)	STOP LAMP RLY FIX (Stop lamp relay fix)	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: Driving at 40 km/h (25 MPH) or more No stop lamp drive signal output from ICC sensor 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-128, "DTC Logic".

NO >> GO TO 2.

2.perform dtc confirmation procedure (1)

- Start the engine.
- Perform the active test item "STOP LAMP" with CONSULT.
- 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 >> Refer to <u>DAS-84</u>, "<u>Diagnosis Procedure</u>".

NO >> GO TO 3.

3.PERFORM DTC CONFIRMATION PROCEDURE (2)

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

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CAUTION:

Always drive safely.

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< DTC/CIRCUIT DIAGNOSIS >

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 >> Refer to DAS-84, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009644402

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-128, "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.

${f 3.}$ check stop lamp switch installation

- 1. Turn ignition switch OFF.
- 2. Check stop lamp switch for correct installation. Refer to BR-22, "Inspection and Adjustment".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Adjust stop lamp switch installation. Refer to <u>BR-9</u>, "Inspection and Adjustment".

4. CHECK STOP LAMP SWITCH

- 1. Disconnect stop lamp switch connector.
- 2. Check stop lamp switch. Refer to DAS-78, "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.
- 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

- Turn the ignition switch OFF.
- 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	Continuity
E57	4	M37	122	Existed

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

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DAS CONTROL UNIT

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		C1A13 S	SIOP LAM	PRELAY
< DTC/CII	RCUIT DIAGI	NOSIS >		[ADAS CONTROL UNI
Stop I	amp switch		Continuity	
Connecto	Terminal	Ground	Continuity	
E57	4	-	Not existed	
Is the insp	ection result n	ormal?		
_NO >	•	narnesses or connector		
/ .CHEC	CICC BRAKE	HOLD RELAY CIRCUI	T	
				mp, and high-mounted stop lamp connectors. pedal is not depressed.
Is the insp	ection result n	ormal?		
_	> GO TO 9. > GO TO 8.			
8.CHEC	CICC BRAKE	HOLD RELAY		
	ve ICC brake ICC brake ho	hold relay. old relay. Refer to <u>DAS</u> -	-88, "Compone	ent Inspection".
Is the insp	<u>ection result n</u>	ormal?		
	> GO TO 9.	_	_	
NO >	> Replace IC(C brake hold relay. Ref	er to <u>DAS-88, </u>	"Component Inspection"

9. PERFORM SELF-DIAGNOSIS OF ECM

- 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". Refer to EC-106, "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-161, "Removal and Installation".

10. CHECK ICC BRAKE HOLD RELAY POWER SUPPLY CIRCUIT

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

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

Is the inspection result normal?

YES >> GO TO 11.

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

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

- Disconnect ADAS control unit connectors.
- Check for continuity between ICC brake hold relay harness connector and ADAS control unit harness connector.

Connector Terminal Connector Terminal	ICC brake hold relay		ADAS control unit		Continuity
F52 1 B1 17 Exis	Connector Terminal		Connector Terminal		Continuity
	E52	1	B1	17	Existed

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C1A13 STOP LAMP RELAY

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

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

ICC brake hold relay			Continuity
Connector	Terminal	Ground	Continuity
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.
- Perform "STOP LAMP" on "Active Test" of "ICC/ADAS", and then check the voltage between ADAS control unit harness connector and ground.

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

Is the inspection result normal?

YES >> GO TO 13.

NO >> Replace ADAS control unit. Refer to <u>DAS-161</u>, "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.

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

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.

ICC brake hold relay		ECM		Continuity
Connector	Terminal	Connector	Terminal	Continuity
E52	3	M37	122	Existed

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

C1A13 STOP LAMP RELAY

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

				_
ICC brake	hold relay		Continuity	
Connector	Terminal	Ground	Similarly	_
E52	3		Not existed	-
	tion result no	rmal?		
	GO TO 15. Ranair tha ha	rnesses or connecto	re	
	•	HOLD RELAY		
Remove	ICC brake h	old relay.	00 0	
	tion result no	d relay. Refer to <u>DAS</u> rmal?	<u>-88, "Compon</u>	ent inspection.
•	<u>11011 Tesuit 110</u> 30 TO 16.	illiai:		
_		brake hold relay.		
6. check	STOP LAM	P SWITCH		
		SW" operate normal	y in "DATA MO	ONITOR" of "ABS".
the inspec	tion result no	rmal?		
	GO TO 21.			
	GO TO 17.		ATION	
		P SWITCH INSTALL	ATION	
	ition switch C		tion Refer to	3R-22, "Inspection and Adjustment".
	tion result9nd			
/ES >> (GO TO 18.			
_		•	n. Refer to <u>BR</u>	9, "Inspection and Adjustment".
Ö. CHECK	STOP LAM	PSWITCH		
		switch connector.	Oamer = (Charles Original Company Control VIII
	top lamp swit tion result no		Component	nspection (Stop Lamp Switch)".
•	<u>lion result no</u> 30 TO 19.	<u>iiiidi!</u>		
_		lamp switch.		
9. check	STOP LAMI	P SWITCH POWER	SUPPLY CIRC	UIT
		witch connector.		
		tween stop lamp swit	ch harness co	nnector and ground.
				-
	Term			
	(+)	(-)	Voltage (Approx.)	
	p lamp switch	-:	(Approx.)	
Connector	Term	Ground	Dottom	-

Is the inspection result normal?

YES >> GO TO 20.

E57

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

20. Check harness between stop lamp switch and abs actuator and electric unit (control unit)

Battery

voltage

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

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< DTC/CIRCUIT DIAGNOSIS >

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			Continuity
Connector	Terminal	Ground	Continuity
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".
- Check if any DTC is detected in "Self Diagnostic Result" of "ENGINE". Refer to <u>EC-106</u>, "<u>DTC Index</u>".

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-57, "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 <u>DAS-161</u>, "Removal and Installation".

Component Inspection

INFOID:0000000009644403

1. CHECK ICC BRAKE HOLD RELAY

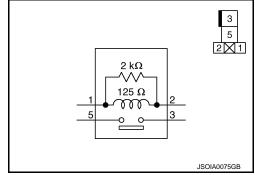
Apply battery voltage to ICC brake hold relay terminals 1 and 2, and then check for continuity under the following conditions.

Terr	minal	Condition	Continuity
		When the battery voltage is applied	Existed
3	5	When the battery voltage is not applied	Not exist- ed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace ICC brake hold relay.



[ADAS CONTROL UNIT]

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C1A14 ECM

DTC Logic INFOID:0000000009644404

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)

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-128, "DTC Logic".

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- Start the engine.
- Operate the ICC system and drive.

CAUTION:

Always drive safely.

- 3. Stop the vehicle.
- 4. Perform "All DTC Reading" with CONSULT.
- Check if the "C1A14" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "C1A14" detected as the current malfunction?

- >> Refer to DAS-89. "Diagnosis Procedure".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009644405

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-128, "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?

YES >> Perform the CAN communication system inspection. Repair or replace the malfunctioning parts. Refer to DAS-128, "DTC Logic".

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[ADAS CONTROL UNIT]

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. Refer to <u>EC-106, "DTC Index".</u>
- NO >> Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation".

C1A15 GEAR POSITION

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

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C1A15 GEAR POSITION

Description INFOID:0000000009644406

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:0000000009644407

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)

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?

- >> Perform diagnosis of applicable.
 - U1000: Refer to DAS-128, "DTC Logic"
 - C1A03: Refer to DAS-72, "DTC Logic"
 - C1A04: Refer to <u>DAS-74</u>, "<u>DTC Logic</u>"

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- Start the engine.
- Turn the MAIN switch of ICC system ON.
- 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.
- Perform "All DTC Reading" with CONSULT.
- Check if "C1A15" is detected as the current malfunction in the "Self Diagnostic Result" of "ICC/ADAS".

Is "C1A15" detected as the current malfunction?

- >> Refer to DAS-92, "Diagnosis Procedure". YES
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

DAS-91 Revision: 2013 October 2014 Q50

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[ADAS CONTROL UNIT]

Diagnosis Procedure

INFOID:0000000009644408

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 <u>DAS-128, "DTC Logic"</u>
- C1A03: Refer to DAS-72, "DTC Logic"
- C1A04: Refer to DAS-74, "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 <u>DAS-161</u>, "Removal and Installation".

NO >> GO TO 6.

6.CHECK TCM SELF-DIAGNOSIS RESULTS

- 1. Perform "All DTC Reading".
- 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 <a href="https://dx.ncbi.nlm.ncbi.nl

NO >> Replace the ADAS control unit. Refer to <u>DAS-161, "Removal and Installation"</u>.

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

- Perform "All DTC Reading".
- 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-57, "DTC Index".

NO >> Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation".

[ADAS CONTROL UNIT]

C1A24 NP RANGE

DTC Logic INFOID:0000000009644411

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)
- Blind Spot Warning (BSW)
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

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-128, "DTC Logic".

NO >> GO TO 2.

2.CHECK DTC REPRODUCE (1)

- Start the engine.
- Turn the MAIN switch of ICC system ON. 2.
- 3. Wait for approximately 5 minutes or more after shifting the selector lever to "P" position.
- 4. Perform "All DTC Reading" with CONSULT.
- Check if the "C1A24" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "C1A24" detected as the current malfunction?

>> Refer to DAS-93, "Diagnosis Procedure". YES

NO >> GO TO 3.

3.CHECK DTC REPRODUCE (2)

- Wait for approximately 5 minutes or more after shifting the selector lever to "N" position.
- 2. Perform "All DTC Reading".
- Check if the "C1A24" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

DAS-93

Is "C1A24" detected as the current malfunction?

>> Refer to DAS-93, "Diagnosis Procedure". YES

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

1. CHECK DTC PRIORITY

If DTC "C1A24" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

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INFOID:00000000009644412

C1A24 NP RANGE

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

YES >> Perform diagnosis of applicable. Refer to <u>DAS-128</u>, "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-114, "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-85, "DTC Index".
- NO >> Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation".

C1A26 ECD MODE MALFUNCTION

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

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C1A26 ECD MODE MALFUNCTION

DTC Logic INFOID:0000000009644413

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)

DTC CONFIRMATION PROCEDURE

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-128, "DTC Logic"
- U0415: Refer to <u>DAS-125</u>, "<u>DTC Logic</u>"
- U0121: Refer to <u>DAS-120</u>, "<u>DTC Logic</u>"

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine.
- Wait for approximately 1 minute after turning the MAIN switch of ICC system ON.
- Perform "All DTC Reading" with CONSULT.
- 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 <u>DAS-95</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure 1. CHECK DTC PRIORITY

If DTC "C1A26" is displayed with DTC "U1000", "U0415" or "U0121", first diagnose the DTC "U1000" "U0415" or "U0121".

DAS-95

Is applicable DTC detected?

YES >> Perform diagnosis of applicable.

- U1000: Refer to <u>DAS-128</u>, "<u>DTC Logic</u>"
- U0415: Refer to <u>DAS-125</u>, "<u>DTC Logic</u>"
- U0121: Refer to DAS-120, "DTC Logic"

NO >> GO TO 2.

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

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

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INFOID:0000000009644414

C1A26 ECD MODE MALFUNCTION

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to BRC-57, "DTC Index".
- NO >> Replace ADAS control unit. Refer to <u>DAS-161</u>, "Removal and Installation".

C1A27 ECD POWER SUPPLY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

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C1A27 ECD POWER SUPPLY CIRCUIT

DTC Logic INFOID:0000000009644415

DTC DETECTION LOGIC

DTC (On board dis- play)	Trouble diagnosis name	DTC detecting condition
C1A27 (27)	ECD PWR SUPLY 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)

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 <u>DAS-128</u>, "<u>DTC Logic</u>"
 - U0415: Refer to <u>DAS-125</u>, "<u>DTC Logic</u>"
 - U0121: Refer to DAS-120, "DTC Logic"

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- Start the engine.
- Wait for approximately 1 minute after turning the MAIN switch of ICC system ON.
- Perform "All DTC Reading" with CONSULT.
- Check if the "C1A27" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "C1A27" detected as the current malfunction?

>> Refer to DAS-97, "Diagnosis Procedure".

>> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009644416

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?

>> Perform diagnosis of applicable.

- U1000: Refer to <u>DAS-128</u>, "DTC Logic"
- U0415: Refer to DAS-125, "DTC Logic"
- U0121: Refer to <u>DAS-120</u>, "<u>DTC Logic</u>"

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT OF ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)

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C1A27 ECD POWER SUPPLY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

Check power supply circuit of ABS actuator and electric unit (control unit). Refer to <u>BRC-154, "Diagnosis Procedure"</u>.

Is the inspection result normal?

- YES >> Perform self-diagnosis of ABS actuator and electric unit (control unit). Refer to BRC-57, "DTC <a href="Index".
- NO >> Repair the harnesses or connectors.

C1A33 CAN TRANSMISSION ERROR

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

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C1A33 CAN TRANSMISSION ERROR

DTC Logic INFOID:0000000009644417

DTC DETECTION LOGIC

DTC (On board dis	S- 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)

DTC CONFIRMATION PROCEDURE

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-128, "DTC Logic".

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- Start the engine.
- Turn the MAIN switch of ICC system ON.
- Perform "All DTC Reading" with CONSULT.
- Check if the "C1A33" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "C1A33" detected as the current malfunction?

>> Refer to DAS-99, "Diagnosis Procedure".

>> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis 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-128, "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-44, "DTC Index".

NO >> Replace the ADAS control unit. Refer to <u>DAS-161</u>, "Removal and Installation".

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INFOID:0000000009644418

DAS-99 Revision: 2013 October 2014 Q50

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[ADAS CONTROL UNIT]

C1A34 COMMAND ERROR

DTC Logic

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)

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-128, "DTC Logic".

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine.
- 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 <u>DAS-100</u>, "<u>Diagnosis Procedure</u>".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009644420

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-128, "DTC Logic".

NO >> Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation".

C1A35 ACCELERATOR PEDAL ACTUATOR

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

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C1A35 ACCELERATOR PEDAL ACTUATOR

DTC Logic

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-128, "DTC Logic".

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine.
- Turn the DCA system ON.
- 3. Perform "All DTC Reading" with CONSULT.
- 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 <u>DAS-101</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis 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 <u>DAS-128</u>, "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 <u>DAS-272, "DTC Index"</u>.

NO >> Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation".

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INFOID:0000000009644422

Revision: 2013 October DAS-101 2014 Q50

C1A36 ACCELERATOR PEDAL ACTUATOR CAN COMM

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

C1A36 ACCELERATOR PEDAL ACTUATOR CAN COMM

DTC Logic

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-128, "DTC Logic".

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine.
- 2. Turn the DCA system ON.
- 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 <u>DAS-102</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009644424

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-128, "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-272, "DTC Index".

NO >> Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation".

C1A37 ACCELERATOR PEDAL ACTUATOR CAN 2

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

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C1A37 ACCELERATOR PEDAL ACTUATOR CAN 2

DTC Logic

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-128, "DTC Logic".

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- Start the engine.
- Turn the DCA system ON.
- 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-103, "Diagnosis Procedure".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis 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-128, "DTC Logic".

NO >> GO TO 2.

2.replace accelerator pedal assembly

- Turn the ignition switch OFF.
- 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?

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YES >> Replace the ADAS control unit. Refer to <u>DAS-161</u>, "Removal and Installation".

NO >> INSPECTION END

DAS-103 2014 Q50

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INFOID:00000000009644426

C1A38 ACCELERATOR PEDAL ACTUATOR CAN 1

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

C1A38 ACCELERATOR PEDAL ACTUATOR CAN 1

DTC Logic

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-128, "DTC Logic".

NO >> GO TO 2.

2.perform dtc confirmation procedure

- 1. Start the engine.
- Turn the DCA system ON.
- 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-104, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009644428

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-128, "DTC Logic".

NO >> GO TO 2.

2.replace accelerator pedal assembly

- Turn the ignition switch OFF.
- Replace the accelerator pedal assembly.
- Erases All self-diagnosis results.
- 4. Perform "All DTC Reading" again.
- 5. Check if the "C1A38" is detected in self-diagnosis results of "ICC/ADAS".

Is "C1A38" detected?

YES >> Replace the ADAS control unit. Refer to <u>DAS-161</u>, "Removal and Installation".

NO >> INSPECTION END

C1A39 STEERING ANGLE SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

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DTC Logic

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)
- 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-128, "DTC Logic".

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine.
- 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 <u>DAS-105</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis 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-128, "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-57, "DTC Index".

NO >> Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation".

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INFOID:0000000009644430

Revision: 2013 October DAS-105 2014 Q50

C1B5D FEB OPE COUNT LIMIT

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

C1B5D FEB OPE COUNT LIMIT

DTC Logic

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 <u>DAS-106</u>, "<u>Diagnosis Procedure</u>".

NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000009761699

1. DTC CHECK SELF-DIAGNOSIS RESULTS

- 1. Turn ignition switch OFF.
- 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 <u>DAS-161</u>, "Removal and Installation".

NO >> Perform ICC system action test. Refer to CCS-95, "Description".

C1B53 SIDE RADAR RIGHT MALFUNCTION

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

C1B53 SIDE RADAR RIGHT MALFUNCTION

DTC Logic INFOID:0000000009644437

DTC DETECTION LOGIC

DTC (On board dis- play)	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)
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Start the engine.
- Perform "All DTC Reading" with CONSULT.
- Check if the "C1B53" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "C1B53" detected as the current malfunction?

- >> Refer to <u>DAS-107</u>, "<u>Diagnosis Procedure</u>". YES
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

CHECK SELF-DIAGNOSIS RESULTS

Check if "U1000" is detected other than "C1B53" in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1000" detected?

- >> Perform the CAN communication system inspection. Repair or replace the malfunctioning parts. YES Refer to DAS-128, "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-274, "DTC Index" (SIDE RADAR LH), DAS-276, "DTC Index" (SIDE RADAR RH).
- >> Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation". NO

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DAS-107 Revision: 2013 October 2014 Q50 Α

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INFOID:0000000009644438

C1B54 SIDE RADAR LEFT MALFUNCTION

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

C1B54 SIDE RADAR LEFT MALFUNCTION

DTC Logic

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)
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

${f 1}$.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine.
- 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 <u>DAS-107</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009644440

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-128, "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-274, "DTC Index" (SIDE RADAR LH), DAS-276, "DTC Index" (SIDE RADAR RH).

NO >> Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation".

C1B56 SONAR CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

C1B56 SONAR CIRCUIT

DTC Logic INFOID:0000000009644441

DTC DETECTION LOGIC

DTC (On board dis- play)	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

- Start the engine.
- Perform "All DTC Reading" with CONSULT.
- Check if the "C1B56" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "C1B56" detected as the current malfunction?

- >> Refer to <u>DAS-109</u>, "<u>Diagnosis Procedure</u>". YES
- >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

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-128, "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-356, "DTC Index".

NO >> Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation".

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DAS-109 Revision: 2013 October 2014 Q50

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C1B57 AVM CIRCUIT

DTC Logic

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.
- 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 <u>DAS-110</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009644444

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-128. "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 <u>AV-351, "DTC Index"</u>.

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DTC Logic INFOID:0000000009644447

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)
- Blind Spot Warning (BSW)
- 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.

- 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?

- >> Refer to <u>DAS-111</u>, "<u>Diagnosis Procedure</u>". YES
- >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

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-128, "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-422, "DTC Index".

>> Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation". NO

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INFOID:0000000009763328

DAS-111 Revision: 2013 October 2014 Q50

C1B82 DISTANCE SENSOR OFF-CENTER

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

C1B82 DISTANCE SENSOR OFF-CENTER

DTC Logic

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

- Start the engine.
- Perform "All DTC Reading" with CONSULT.
- 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 <u>DAS-112</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009644449

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-103, "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 <u>DAS-161</u>, "Removal and Installation".

NO >> INSPECTION END

C1B84 DISTANCE SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

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C1B84 DISTANCE SENSOR		Δ
DTC Logic	INFOID:0000000009644452	$\overline{}$

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.
- 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 <u>DAS-113</u>, "<u>Diagnosis Procedure</u>".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

1. CHECK ADAS CONTROL UNIT SELF-DIAGNOSIS RESULTS

- 1. Perform "All DTC Reading" with CONSULT.
- 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-128, "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 DAS-161, "Removal and Installation".

NO >> Replace ADAS control unit. Refer to <u>DAS-161</u>, "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

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.
- Wait for 10 minutes or more to cool the ICC sensor.
- 3. Start the engine.
- 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 <u>DAS-114</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009644455

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-114, "DTC Logic".

C1B86 DISTANCE SENSOR POWER SUPPLY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

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C1B86 DISTANCE SENSOR POWER SUPPLY CIRCUIT

DTC Logic INFOID:0000000009644456

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-128, "DTC Logic".

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- Start the engine.
- Turn the DCA system ON.
- Perform "All DTC Reading" with CONSULT.
- 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 <u>DAS-115</u>, "<u>Diagnosis Procedure</u>".

>> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis 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-128, "DTC Logic".

NO >> GO TO 2.

2.CHECK ICC SENSOR SELF-DIAGNOSIS RESULTS

- Perform "All DTC Reading" with CONSULT.
- Check if the "C1B86" is detected as the current malfunction in "Self Diagnostic Result" of "LASER/ RADAR".

Is "C1B85" detected?

YES >> Refer to DAS-115, "DTC Logic".

NO >> GO TO 3.

3.CHECK ADAS CONTROL UNIT SELF-DIAGNOSIS RESULTS

DAS-115 Revision: 2013 October 2014 Q50

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INFOID:0000000009644457

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". <u>Is "C1B86" detected?</u>

YES >> Replace ADAS control unit. Refer to <u>DAS-161</u>, "Removal and Installation".

NO >> INSPECTION END

C1F01 ACCELERATOR PEDAL ACTUATOR

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

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C1F01 ACCELERATOR PEDAL ACTUATOR

DTC Logic

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1F01 (91)	APA MOTOR MALF (Accelerator pedal actuator mal- function)	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)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 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.
- 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 <u>DAS-117</u>, "<u>Diagnosis Procedure</u>".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

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-128, "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-272, "DTC Index".

NO >> Replace the ADAS control unit. Refer to <u>DAS-161</u>, "Removal and Installation".

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INFOID:0000000009644461

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Revision: 2013 October **DAS-117** 2014 Q50

C1F02 ACCELERATOR PEDAL ACTUATOR

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

C1F02 ACCELERATOR PEDAL ACTUATOR

DTC Logic

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)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine.
- 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 <u>DAS-118</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009644463

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-128, "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 <u>DAS-272</u>, "<u>DTC Index</u>".

NO >> Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation".

C1F05 ACCELERATOR PEDAL ACTUATOR POWER SUPPLY CIRCUIT [ADAS CONTROL UNIT]

< DTC/CIRCUIT DIAGNOSIS >

C1F05 ACCELERATOR PEDAL ACTUATOR POWER SUPPLY CIRCUIT

DTC Logic INFOID:0000000009644464

DTC DETECTION LOGIC

DTC (On board display)	Trouble diagnosis name	DTC detecting condition
C1F05 (95)	APA PWR SUPLY 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)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Start the engine.
- Turn the DCA system ON. 2.
- Perform "All DTC Reading" with CONSULT.
- 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?

>> Refer to DAS-119, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

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?

>> Perform the CAN communication system inspection. Repair or replace the malfunctioning parts. YES Refer to DAS-128, "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-272, "DTC Index".

>> Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation". NO

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INFOID:0000000009644465

DAS-119 Revision: 2013 October 2014 Q50

DAS

U0121 VDC CAN 2

DTC Logic

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)
- Blind Spot Warning (BSW)
- Back-up Collision Intervention (BCI)

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-128, "DTC Logic".

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine.
- Turn the MAIN switch of ICC system ON.
- 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 <u>DAS-120</u>, "<u>Diagnosis Procedure</u>".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009644467

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-128, "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-57, "DTC Index".

U0126 STRG SEN CAN 1

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

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U0126 STRG SEN CAN 1

DTC Logic INFOID:0000000009644468

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-128, "DTC Logic".

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- Start the engine.
- 2. Turn the MAIN switch of ICC system ON.
- Perform "All DTC Reading" with CONSULT.
- Check if the "U0126" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U0126" detected as the current malfunction?

>> Refer to <u>DAS-121</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis 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-128, "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-57, "DTC Index".

NO >> Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation".

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INFOID:00000000009644469

DAS-121 Revision: 2013 October 2014 Q50

DAS

U0235 ICC SENSOR CAN 1

DTC Logic

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-128, "DTC Logic".

NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine.
- Turn the MAIN switch of ICC system ON.
- 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 <u>DAS-122</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009644471

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-128, "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-63, "DTC Index".

U0401 ECM CAN 1

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

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DTC Logic INFOID:0000000009644472

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)
- Back-up Collision Intervention (BCI)

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-128, "DTC Logic".

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- Start the engine.
- 2. Turn the MAIN switch of ICC system ON.
- Perform "All DTC Reading" with CONSULT.
- Check if the "U0401" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U0401" detected as the current malfunction?

>> Refer to DAS-123, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis 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-128, "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. Refer to EC-106. "DTC Index".

NO >> Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation".

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INFOID:0000000009644473

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U0402 TCM CAN 1

DTC Logic

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)
- Blind Spot Warning (BSW)
- 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-128, "DTC Logic".

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine.
- Turn the MAIN switch of ICC system ON.
- 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 <u>DAS-124, "Diagnosis Procedure"</u>.
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009644475

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-128, "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-85, "DTC Index".

<	DT	C/CIF	CUIT	DIAG	NOSIS >
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[ADAS CONTROL UNIT]

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DTC Logic INFOID:0000000009644476

DTC DETECTION LOGIC

DTC (On board dis- play)	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)
- Blind Spot Warning (BSW)
- Back-up Collision Intervention (BCI)

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-128, "DTC Logic".

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- Start the engine.
- 2. Turn the MAIN switch of ICC system ON.
- Perform "All DTC Reading" with CONSULT.
- Check if the "U0415" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U0415" detected as the current malfunction?

>> Refer to DAS-125, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis 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-128, "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-57, "DTC Index".

NO >> Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation".

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INFOID:00000000009644477

DAS

U0424 HVAC CAN CIRCUIT 1

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

U0424 HVAC CAN CIRCUIT 1

Description INFOID.000000009644478

ADAS control unit reads status of signal that is transmitted from A/C auto AMP. to ADAS control unit.

DTC Logic

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-128, "DTC Logic".

NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

- Start the engine.
- Turn the MAIN switch of ICC system ON.
- 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 <u>DAS-126</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009644480

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-128, "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-37, "DTC Index".

U0428 STRG SEN CAN 2

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

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U0428 STRG SEN CAN 2

DTC Logic INFOID:0000000009644481

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)
- 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-128, "DTC Logic".

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- Start the engine.
- 2. Turn the MAIN switch of ICC system ON.
- Perform "All DTC Reading" with CONSULT.
- Check if the "U0428" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U0428" detected as the current malfunction?

>> Refer to DAS-127, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis 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-128, "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-57, "DTC Index".

NO >> Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation".

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INFOID:0000000009644482

DAS

DAS-127 Revision: 2013 October 2014 Q50

[ADAS CONTROL UNIT]

U1000 CAN COMM CIRCUIT

Description INFOID.000000009644483

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 <u>LAN-44</u>, "<u>ĆAN COMMUNICATION SYŚTEM</u>: <u>CAN Communication Signal Chart</u>".

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

DTC DETECTION LOGIC

DTC (On board dis- play)	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)
- Blind Spot Warning (BSW)
- Back-up Collision Intervention (BCI)

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.
- 2. Turn the MAIN switch of ICC system ON.
- 3. Perform "All DTC Reading" with CONSULT.

U1000 CAN COMM CIRCUIT

[ADAS CONTROL UNIT] < DTC/CIRCUIT DIAGNOSIS > Check if the "U1000" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS". Α Is "U1000" detected as the current malfunction? >> Refer to DAS-123, "Diagnosis Procedure". YES >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident". NO-1 NO-2 >> Confirmation after repair: INSPECTION END В Diagnosis Procedure INFOID:0000000009644485 1. PERFORM THE SELF-DIAGNOSIS C Turn the ignition switch ON. Turn the MAIN switch of ICC system ON, and then wait for 30 seconds or more. 2. D 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? Е YES >> Refer to LAN-26, "Trouble Diagnosis Flow Chart". NO >> INSPECTION END F

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U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

U1010 CONTROL UNIT (CAN)

Description INFOID:0000000009644488

CAN controller controls the communication of CAN communication signal and ITS communication signal, and the error detection.

DTC Logic

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)
- Blind Spot Warning (BSW)
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

${f 1}$.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine.
- Turn the MAIN switch of ICC system ON.
- 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-130, "Diagnosis Procedure".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009644488

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn the MAIN switch of ICC system ON.
- Perform "All DTC Reading" with CONSULT.
- 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 <u>DAS-161</u>. "Removal and Installation".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

U150B ECM CAN 3

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

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DTC Logic INFOID:0000000009644489

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)
- Blind Spot Warning (BSW)
- Back-up Collision Intervention (BCI)

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-128, "DTC Logic".

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- Start the engine.
- 2. Turn the MAIN switch of ICC system ON.
- Perform "All DTC Reading" with CONSULT.
- Check if the "U150B" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U150B" detected as the current malfunction?

>> Refer to DAS-131, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis 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-128, "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. Refer to EC-106. "DTC Index".

NO >> Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation". Α

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INFOID:0000000009644490

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DAS-131 Revision: 2013 October 2014 Q50

U150C VDC CAN 3

DTC Logic

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)
- Blind Spot Warning (BSW)
- Back-up Collision Intervention (BCI)

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-128, "DTC Logic".

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine.
- Turn the MAIN switch of ICC system ON.
- 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 <u>DAS-132</u>, "<u>Diagnosis Procedure</u>".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009644492

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-128, "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-57, "DTC Index".

U150D TCM CAN 3

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[ADAS CONTROL UNIT]

U150D TCM CAN 3

DTC Logic

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)
- Blind Spot Warning (BSW)
- 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-128, "DTC Logic".

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine.
- Turn the MAIN switch of ICC system ON.
- 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 <u>DAS-133</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis 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-128, "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-85, "DTC Index".

NO >> Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation".

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U150E BCM CAN 3

DTC Logic

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)
- Blind Spot Warning (BSW)
- 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-128, "DTC Logic".

NO >> GO TO 2.

2.perform dtc confirmation procedure

- 1. Start the engine.
- Turn the MAIN switch of ICC system ON.
- 3. Perform "All DTC Reading" with CONSULT.
- 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 <u>DAS-134</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009644496

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-128, "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-62, "DTC Index".

	ı	J150F AV CAN 3			
< DTC/CIRCU	< DTC/CIRCUIT DIAGNOSIS > [ADAS CONTROL UNIT]				
U150F AV	/ CAN 3				
DTC Logic		INFOID:000000009644497			
· ·	TION 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			
	RMATION PROCEDURE				
1.CHECK D	TC PRIORITY				
Is applicable I YES >> P NO >> G	OTC detected? erform diagnosis of applicable O TO 2.	000", first diagnose the DTC "U1000". Refer to DAS-128, "DTC Logic".			
2.PERFORM	DTC CONFIRMATION PROC	CEDURE			
 Perform " Check if t 	DCA, LDP, or Blind Spot Interv All DTC Reading" with CONSU he "U150F" is detected as the	JLT. current malfunction in "Self Diagnostic Result" of "ICC/ADAS".			
	tected as the current malfunct				

YES >> Refer to DAS-135, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis 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-128, "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?

>> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts. Refer to YES AV-89, "DTC Index".

NO >> Replace the ADAS control unit. Refer to <u>DAS-161, "Removal and Installation"</u>. DAS

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INFOID:0000000009644498

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DAS-135 Revision: 2013 October 2014 Q50

U1502 ICC SENSOR CAN COMM CIRC

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

U1502 ICC SENSOR CAN COMM CIRC

DTC Logic

DTC DETECTION LOGIC

DTC (On board dis- play)	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-128, "DTC Logic".

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine.
- 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-136, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009644504

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-128, "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-63, "DTC Index".

U1503 SIDE RDR L CAN 2

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

U1503 SIDE RDR L CAN 2

DTC Logic INFOID:0000000009644505

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)
- 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 <u>DAS-128</u>, "<u>DTC Logic</u>"
- U1508: Refer to DAS-142, "DTC Logic"

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- Start the engine.
- Turn the Blind Spot Intervention system ON.
- Perform "All DTC Reading" with CONSULT.
- Check if the "U1503" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1503" detected as the current malfunction?

>> Refer to DAS-137, "Diagnosis Procedure". YES

>> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis 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?

>> Perform diagnosis of applicable.

- U1000: Refer to <u>DAS-128</u>, "<u>DTC Logic</u>"
- U1508: Refer to DAS-142, "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-274, "DTC Index".

NO >> Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation". Н

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DAS

[ADAS CONTROL UNIT]

U1504 SIDE RDR L CAN 1

DTC Logic

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)
- 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 <u>DAS-128</u>, "<u>DTC Logic</u>"
 - U1508: Refer to DAS-142, "DTC Logic"

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- Start the engine.
- 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 <u>DAS-138</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009644508

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 <u>DAS-128</u>, "<u>DTC Logic</u>"
- U1508: Refer to DAS-142, "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-274, "DTC Index".

U1505 SIDE RDR R CAN 2

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

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U1505 SIDE RDR R CAN 2

DTC Logic INFOID:0000000009644509

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)
- 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 <u>DAS-128</u>, "<u>DTC Logic</u>"
- U1507: Refer to DAS-141, "DTC Logic"

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- Start the engine.
- Turn the Blind Spot Intervention system ON.
- Perform "All DTC Reading" with CONSULT.
- Check if the "U1505" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1505" detected as the current malfunction?

>> Refer to DAS-139, "Diagnosis Procedure". YES

>> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis 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?

>> Perform diagnosis of applicable.

- U1000: Refer to <u>DAS-128</u>, "<u>DTC Logic</u>"
- U1507: Refer to DAS-141, "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-276, "DTC Index".

NO >> Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation".

DAS-139 Revision: 2013 October 2014 Q50

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INFOID:0000000009644510

[ADAS CONTROL UNIT]

U1506 SIDE RDR R CAN 1

DTC Logic

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)
- 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 <u>DAS-128</u>, "<u>DTC Logic</u>"
 - U1507: Refer to <u>DAS-141</u>, "<u>DTC Logic</u>"

NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine.
- 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 <u>DAS-138</u>, "<u>Diagnosis Procedure</u>".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009644512

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 <u>DAS-128</u>, "<u>DTC Logic</u>"
- U1507: Refer to DAS-141, "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-276, "DTC Index".

U1507 LOST COMM(SIDE RDR R)

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

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U1507 LOST COMM(SIDE RDR R)

DTC Logic INFOID:0000000009644513

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)
- 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-128, "DTC Logic".

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- Start the engine.
- Turn the Blind Spot Intervention system ON.
- Perform "All DTC Reading" with CONSULT.
- Check if the "U1507" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1507" detected as the current malfunction?

- >> Refer to DAS-141. "Diagnosis Procedure".
- >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis 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-128, "DTC Logic".

NO >> GO TO 2.

2.check right/left switching signal circuit

Check right/left switching signal circuit. Refer to DAS-362, "Diagnosis Procedure".

Is the inspection result normal?

YES >> Perform the CAN communication system inspection. Repair or replace the malfunctioning parts. Refer to LAN-26, "Trouble Diagnosis Flow Chart".

NO >> Repair right/left switching signal circuit. DAS

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INFOID:0000000009644514

[ADAS CONTROL UNIT]

U1508 LOST COMM(SIDE RDR L)

DTC Logic

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)
- 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-128, "DTC Logic".

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine.
- Turn the Blind Spot Intervention system ON.
- 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-142, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009644516

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-128, "DTC Logic".

NO >> GO TO 2.

2.CHECK SIDE RADAR HARNESS CONNECTOR

- 1. Turn the ignition switch OFF.
- 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 <u>LAN-26</u>, "<u>Trouble Diagnosis Flow Chart"</u>.

NO >> Repair the terminal or connector.

U1512 HVAC CAN 3					
< DTC/CIRCUIT DIAGNOSIS > [ADAS CONTROL UNIT]					
U1512 HVAC CAN 3					
DTC Logic	DTC Logic				
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			
	RMATION PROCEDURE	E			
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-128, "DTC Logic". NO >> GO TO 2. 2.PERFORM DTC CONFIRMATION PROCEDURE					
 Perform " Check if t Is "U1512" de YES >> R NO-1 >> To 	Blind Spot Intervention system All DTC Reading" with CONSU he "U1512" is detected as the tected as the current malfunction of the country of	JLT. current malfunction in "Self Diagnostic Result" of "ICC/ADAS". on? rocedure". before repair: Refer to GI-43, "Intermittent Incident".			

Diagnosis 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-128, "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-37, "DTC Index".

NO >> Replace the ADAS control unit. Refer to <u>DAS-161, "Removal and Installation"</u>.

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DAS-143 Revision: 2013 October 2014 Q50

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INFOID:0000000009644518

U1513 METER CAN 3

DTC Logic

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)
- Blind Spot Warning (BSW)
- Back-up Collision Intervention (BCI)

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-128, "DTC Logic".

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine.
- Turn the MAIN switch of ICC system ON.
- 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 <u>DAS-144</u>, "<u>Diagnosis Procedure</u>".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009644520

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-128, "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-80, "DTC Index".

U1514 STRG SEN CAN 3

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

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U1514 STRG SEN CAN 3

DTC Logic INFOID:0000000009644521

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)
- 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-128, "DTC Logic".

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- Start the engine.
- 2. Turn the MAIN switch of ICC system ON.
- Perform "All DTC Reading" with CONSULT.
- Check if the "U1514" is detected as the current malfunction in "Self Diagnostic Result" of "ICC/ADAS".

Is "U1514" detected as the current malfunction?

>> Refer to DAS-145, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis 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-128, "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-57, "DTC Index".

NO >> Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation". DAS

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INFOID:0000000009644522

[ADAS CONTROL UNIT]

U1515 ICC SENSOR CAN 3

DTC Logic

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 <u>DAS-128</u>, "DTC Logic".

NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine.
- Turn the 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 <u>DAS-146</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009644524

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-128, "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-63, "DTC Index".

NO >> Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation".

U1517 ACCELERATOR PEDAL ACTUATOR CAN 3

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

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U1517 ACCELERATOR PEDAL ACTUATOR CAN 3

DTC Logic INFOID:0000000009644527

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 ped- al 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-128, "DTC Logic".

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- Start the engine.
- Turn the MAIN switch of ICC system ON. 2.
- 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?

- >> Refer to DAS-147. "Diagnosis Procedure".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis 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-128, "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-272, "DTC Index".

>> Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation". NO

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DAS-147 Revision: 2013 October 2014 Q50

U1518 SIDE RDR L CAN 3

DTC Logic

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)
- 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 <u>DAS-128</u>, "<u>DTC Logic</u>"
 - U1508: Refer to DAS-142, "DTC Logic"

NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

- Start the engine.
- 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 <u>DAS-148</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009644530

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 <u>DAS-128</u>, "<u>DTC Logic</u>"
- U1508: Refer to DAS-142, "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-274, "DTC Index".

NO >> Replace the ADAS control unit. Refer to <u>DAS-161, "Removal and Installation"</u>.

U1519 SIDE RDR R CAN 3

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

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U1519 SIDE RDR R CAN 3

DTC Logic

DTC DETECTION LOGIC

DTC (On board dis- play)	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)
- 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 <u>DAS-128</u>, "<u>DTC Logic</u>" 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-128, "DTC Logic"
- U1507: Refer to <u>DAS-141</u>, "<u>DTC Logic</u>"

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine.
- 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 <u>DAS-149</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

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-128, "DTC Logic"
- U1507: Refer to DAS-141, "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 <u>DAS-276, "DTC Index"</u>.

NO >> Replace the ADAS control unit. Refer to <u>DAS-161, "Removal and Installation"</u>.

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U1521 SONAR CAN 2

DTC Logic

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 <u>DAS-128</u>, "DTC <u>Logic"</u>.

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-128, "DTC Logic".

NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine.
- Turn the Backup Collision Intervention system ON.
- 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 <u>DAS-150</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009644534

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-128, "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-356, "DTC Index".

NO >> Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation".

U1522 SONAR CAN 1

< DTC/CIRCUIT DIAGNOSIS >

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DTC Logic

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-128, "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 <u>DAS-151</u>, "<u>Diagnosis Procedure</u>".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis 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 <u>DAS-128</u>, "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-356, "DTC Index".

NO >> Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation".

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Revision: 2013 October **DAS-151** 2014 Q50

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U1523 SONAR CAN 3

DTC Logic

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-128, "DTC Logic".

NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

- 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 <u>DAS-152</u>, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009644538

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-128, "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-356, "DTC Index".

NO >> Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation".

U1524 AVM CAN 1

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

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DTC Logic

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-128, "DTC Logic".

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- 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 <u>DAS-153</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis 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-128, "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-351, "DTC Index".

DAS-153

NO >> Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation".

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2014 Q50

U1525 AVM CAN 3

DTC Logic

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 <u>DAS-128</u>, "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 <u>DAS-154</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009644542

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-128, "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-351, "DTC Index".

NO >> Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation".

U1527 CCM CAN 1

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

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DTC Logic INFOID:0000000009644543

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)
- Blind Spot Warning (BSW)
- Back-up Collision Intervention (BCI)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Start the engine.
- Perform "All DTC Reading" with CONSULT.
- 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 <u>DAS-155</u>, "<u>Diagnosis Procedure</u>".

>> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

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-128, "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-422, "DTC Index".

NO >> Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation". DAS

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[ADAS CONTROL UNIT]

U153F CCM CAN 2

DTC Logic

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)
- Blind Spot Warning (BSW)
- 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 <u>DAS-128</u>, "DTC Logic".

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine.
- Turn the DCA system ON.
- 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 <u>DAS-156</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009644546

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-128, "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 <u>DAS-422, "DTC Index"</u>.

NO >> Replace the ADAS control unit. Refer to <u>DAS-161</u>, "Removal and Installation".

U1530 DR ASSIST BUZZER CAN 1

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

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U1530 DR ASSIST BUZZER CAN 1

DTC Logic

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-128, "DTC Logic".

NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

- Start the engine.
- 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-157, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

If DTC "U1530" is detected along with DTC "U1000", first diagnose the DTC "U1000". Refer to DAS-128, "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 <u>DAS-128</u>, "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 <u>DAS-280, "DTC Index"</u>.

NO >> Replace the ADAS control unit. Refer to <u>DAS-161</u>. "Removal and Installation".

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DAS-157

[ADAS CONTROL UNIT]

U1540 DAST 3 CAN 1

DTC Logic

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-128, "DTC Logic".

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine.
- 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-158, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009761695

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 <u>DAS-128</u>, "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-422, "DTC Index".

NO >> Replace the ADAS control unit. Refer to <u>DAS-161</u>, "Removal and Installation".

U1541 DAST 3 CAN 2

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

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U1541 DAST 3 CAN 2

DTC Logic INFOID:0000000009761696

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-128, "DTC Logic".

NO >> GO TO 2.

2.perform dtc confirmation procedure

- 1. Start the engine.
- Turn the DCA system ON.
- Perform "All DTC Reading" with CONSULT.
- 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 <u>DAS-159</u>, "<u>Diagnosis Procedure</u>".

>> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis 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-128, "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-422, "DTC Index".

>> Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation". NO

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POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[ADAS CONTROL UNIT]

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000009644551

1. CHECK FUSES

Check if any of the following fuses are blown:

Signal name	Fuse No.	
Ignition power supply	22	

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		
(-	+)	(-)	Condition	Voltage
ADAS control unit			Ignition	(Approx.)
Connector	Terminal		switch	
		Ground	OFF	0 V
B1	12		ON	Battery volt- age

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 co	ontrol unit		Continuity	
Connector Terminal		Ground	Continuity	
B1 5			Existed	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair the ADAS control unit ground circuit.

ADAS CONTROL UNIT

< REMOVAL AND INSTALLATION >

[ADAS CONTROL UNIT]

INFOID:0000000009644552

REMOVAL AND INSTALLATION

ADAS CONTROL UNIT

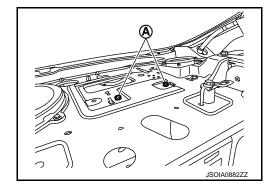
Removal and Installation

REMOVAL

CAUTION:

Before replacing ADAS control unit, perform "Read/Write Configuration" to save or print current vehicle specification. For details, refer to DAS-66, "Work Procedure".

- Remove the rear parcel shelf finisher. Refer to <u>INT-33, "Removal and Installation"</u>.
- 2. Remove the trunk finisher front upper Refer to INT-53, "Removal and Installation".
- 3. Disconnect ADAS control unit connector.
- 4. Remove mounting bolts from ADAS control unit.
- 5. Remove ADAS control unit.



INSTALLATION

CAUTION:

Be sure to perform "Read/Write Configuration" when replacing ADAS control unit. For details, refer to <u>DAS-67</u>, "Work <u>Procedure"</u>.

Install in the reverse order of removal.

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PRECAUTION

PRECAUTIONS

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

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, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, 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, and wait at least 3 minutes before performing any service.

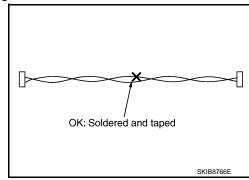
Precautions For Harness Repair

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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).



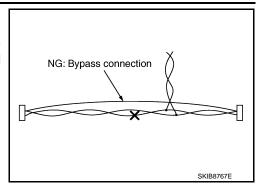
PRECAUTIONS

< PRECAUTION >

[DRIVER ASSISTANCE SYSTEM]

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

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CAUTION:

- Turn the DCA system OFF in conditions similar to driving, such as free rollers or a chassis dynamometer.
- Never use the ICC sensor removed from vehicle. Never disassemble or remodel.
- Erase DTC when replacing parts of DCA system, then check the operation of DCA system after radar alignment if necessary.

FCW System Service

INFOID:0000000009644590

CAUTION:

- Turn the system OFF in conditions similar to driving, such as free rollers or a chassis dynamometer.
- Never use the ICC sensor removed from vehicle. Never disassemble or remodel.
- Erase DTC when replacing parts of ICC system, then check the operation of ICC system after radar alignment if necessary.

LDW/LDP System Service

INFOID:0000000009644591

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:0000000009644592

WARNING:

Be careful of traffic conditions and safety around the vehicle when performing road test.

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- 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:

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.

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PRECAUTIONS

< PRECAUTION >

[DRIVER ASSISTANCE SYSTEM]

- 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:0000000009644593

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

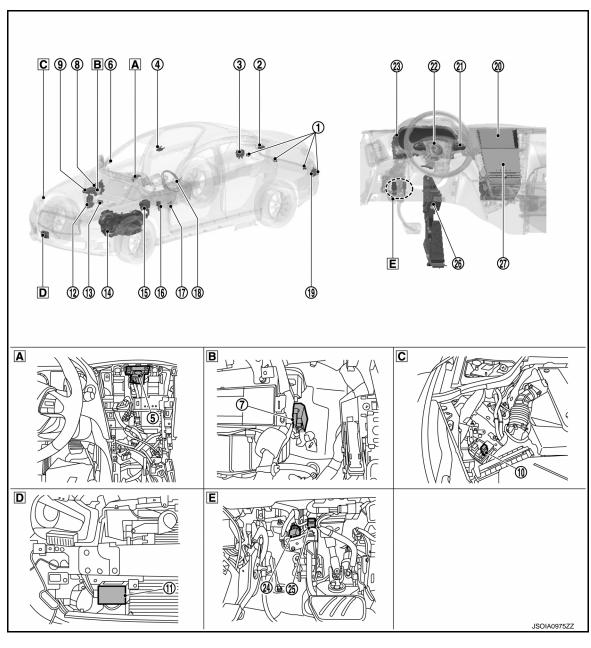
The four rear sonars for the BCI system are located in the rear bumper.

- 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.

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location



- A Instrument panel (Center)
- Front bumper (RH)
- B Instrument lower panel (RH)
- Upper side of brake pedal
- Engine room (RH)

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[DRIVER ASSISTANCE SYSTEM]

No.	Component	Description
1	Sonar sensor (rear)	 When a distance from an obstacle is detected, a distance signal is transmitted to the sonar control unit. Refer to AV-303, "Component Parts Location" for detailed installation location.
2	ADAS control unit	 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 AV-303, "Component Parts Location" for detailed installation location.
3	Side radar RH	Refer to DAS-169, "Side Radar LH/RH"
4	Lane camera unit	Refer to DAS-168, "Lane Camera Unit"
(5)	Driver assistance buzzer	Refer to DAS-169, "Driver Assistance Buzzer"
6	Blind Spot Warning/Blind Spot Intervention indicator RH	Refer to DAS-169, "Blind Spot Warning/Blind Spot Intervention Indicator LH/RH"
7	Driver assistance buzzer control module	Refer to DAS-169, "Driver Assistance Buzzer Control Module"
8	Steeling angle main control module	 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-35, "Component Parts Location" for detailed installation location.
9	ECM	 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 <u>EC-16</u>, "<u>ENGINE CONTROL SYSTEM</u>: <u>Component Parts Location</u>" for detailed installation location.
10	ICC brake hold relay	Refer to DAS-168, "ICC Brake Hold Relay"
11	ICC sensor	Refer to DAS-167, "ICC Sensor"
12	ВСМ	 Transmits the turn indicator signal to ADAS control unit via CAN communication Refer to <u>BCS-4</u>, "<u>BODY CONTROL SYSTEM</u>: <u>Component Parts Location</u>" for detailed installation location.
13	Sonar control unit	 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-303, "Component Parts Location" for detailed installation location.
14)	ТСМ	 TCM transmits the signal related to A/T control to ADAS control unit. Refer to TM-12, "A/T CONTROL SYSTEM: Component Parts Location" for detailed installation location.
15	ABS actuator and electric unit (control unit)	 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 <u>BRC-9</u>, "Component Parts Location" for detailed installation location.
16	Chassis control module	 Chassis control module transmits the drive mode signal to ADAS control unit via CAN communication Refer to <u>DAS-393</u>, "Component Parts Location" for detailed installation location.
17	Buzzer	 The warning buzzer sounds with the signal from the sonar control unit. Refer to AV-303, "Component Parts Location" for detailed installation location.
18	Blind Spot Warning/Blind Spot Intervention indicator LH	Refer to DAS-169, "Blind Spot Warning/Blind Spot Intervention Indicator LH/RH"
19	Side radar LH	Refer to DAS-169, "Side Radar LH/RH"

COMPONENT PARTS

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[DRIVER ASSISTANCE SYSTEM]

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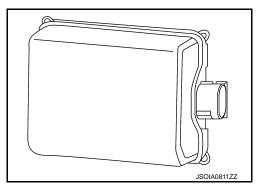
No.	Component	Description
20	Display control unit	 Display control unit transmits the system selection signal to ADAS control unit via CAN communication Refer to <u>AV-14, "Component Parts Location"</u> for detailed installation location.
21)	Dynamic driver assistance switch (On the ICC steering switch)	ECM receives an ICC steering switch (dynamic driver assistance switch) signal and transmits the signal to ADAS control unit via CAN communication
22	Steering angle sensor	 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 <u>BRC-9</u>, "<u>Component Parts Location</u>" for detailed installation location.
23	Combination meter	Performs the following operations using the signals received from the ADAS control unit via the CAN communication Displays the DCA system operation status using the meter display signal Illuminates the ICC system warning lamp using the ICC warning lamp signal Operates the buzzer (ICC warning chime) using the buzzer output signal Refer to MWI-7, "METER SYSTEM: Component Parts Location" for detailed installation location.
24	Stop lamp switch	Poter to DAS 167 "Proke Pedal Position Switch / Step Lamp Switch"
25	Brake pedal position switch	Refer to DAS-167, "Brake Pedal Position Switch / Stop Lamp Switch"
26	Accelerator pedal actuator	Refer to DAS-168, "Accelerator Pedal Actuator"
27	Integral switch	Change each system setting by switch operation Refer to AV-14, "Component Parts Location" for detailed installation location.

ICC Sensor INFOID:0000000009716260

 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.



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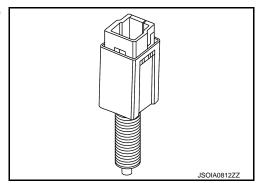
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ICC Steering Switch

- 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.

Brake Pedal Position Switch / Stop Lamp Switch

• Brake pedal position switch is installed at the upper part of the brake pedal and detects a brake operation performed by the driver.



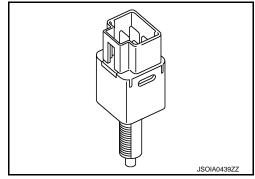
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DAS-167 Revision: 2013 October 2014 Q50

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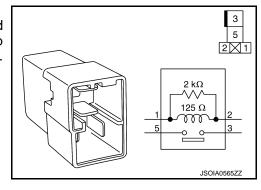
- Brake pedal position switch is turned OFF when depressing the brake pedal.
- Brake pedal position switch signal is input to ECM. Brake pedal position switch signal is transmitted from ECM to ADAS control unit via CAN communication.
- Stop lamp switch is installed at the upper part of the brake pedal 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.



ICC Brake Hold Relay

INFOID:0000000009716262

- 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

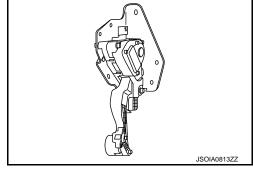
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- Receives meter display signal from ADAS control unit via CAN communication.
- Displays the system status according to a signal received from the ADAS control unit.

Accelerator Pedal Actuator

INFOID:0000000009644600

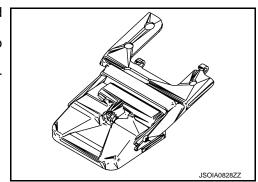
- Installed to the upper portion of the accelerator pedal, this consists of the accelerator pedal actuator together with the accelerator pedal position sensor, and is linked with the accelerator pedal.
- If accelerator pedal feedback force control signal is received from ADAS control unit via ITS communication, it operates the integrated motor for applying control to move the accelerator pedal upward.



Lane Camera Unit

INFOID:0000000009729336

- Lane camera unit detects the lane marker in travel lane and located above the inside mirror.
- Lane camera unit transmits the detected lane condition signal to chassis control module via chassis communication
- Lane camera unit is equipped with the diagnosis function that performs the diagnosis with CONSULT.



[DRIVER ASSISTANCE SYSTEM]

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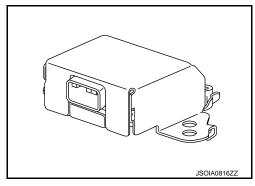
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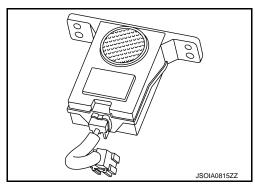
Driver Assistance Buzzer Control Module

- 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.



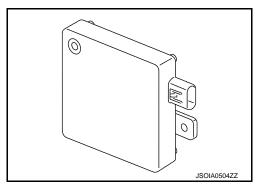
Driver Assistance Buzzer

- 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

- 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

- 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

- 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

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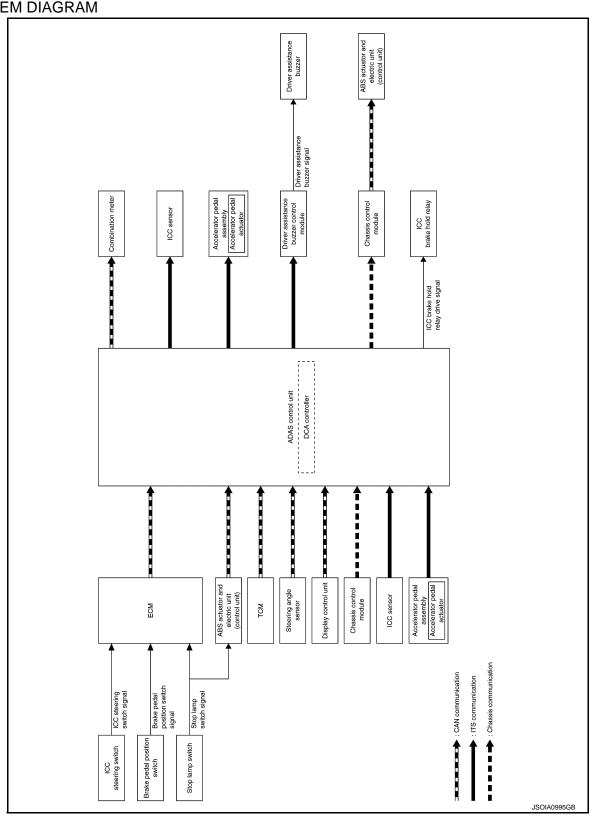
SYSTEM

DCA

DCA: System Description

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SYSTEM DIAGRAM



ADAS CONTROL UNIT INPUT/OUTPUT SIGNAL ITEM

[DRIVER ASSISTANCE SYSTEM]

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Input Signal Item

Transmit unit		Signal name		Description	
		Closed throttle position signal		Receives idle position state (ON/OFF)	
		Accelerator pedal position signal		Receives accelerator pedal position (angle)	
	CAN com-	Engine speed signal		Receives engine speed	
ECM	munica-	Stop lamp switch sig	nal	Receives an operational state of the brake pedal	
	tion	Brake pedal position switch signal		Receives an operational state of the brake pedal	
		ICC steering switch signal	Dynamic driver as- sistance switch sig- nal	Receives the operational state of the dynamic driver assistance switch	
		Input speed signal		Receives the number of revolutions of input shaft	
TOM	CAN com-	Current gear position signal		Receives a current gear position	
TCM	munica- tion	Shift position signal		Receives a selector lever position	
		Output shaft revolution	on signal	Receives the number of revolutions of output shaft	
		ABS malfunction sign	nal	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	
ABS actuator	CAN communication	TCS operation signal		Receives an operational state of TCS	
and electric unit (control unit)		VDC OFF switch signal		Receives an ON/OFF state of VDC	
(00111101 011111)		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	
		Stop lamp switch sig	nal	Receives an operational state of the brake pedal	
		Steering angle senso	or malfunction signal	Receives a malfunction state of steering angle sensor	
Steering angle sensor	CAN com- munica- tion	Steering angle senso	or signal	Receives the number of revolutions, turning direction of the steering wheel	
		Steering angle speed	d signal	Receives the turning angle speed of the steering whee	
Display control unit	CAN com- munica- tion	System selection signal		Receives a selection state of each item in "Driver Aids" selected with the integral switch	
ICC sensor	ITS com- munica- tion	ICC sensor signal		Receives detection results, such as the presence or ab sence of a leading vehicle and distance from the vehicle	
Accelerator pedal actuator	ITS com- munica- tion	Accelerator pedal actuator operation status signal		Receives an operational state of accelerator pedal actuator	

Output Signal Item

Reception unit	Signal name			Description
ABS actuator and electric unit (control unit)	CAN commu- nication	Brake fluid pressure control signal		Transmits a brake fluid pressure control signal to activates the brake
Combination	CAN commu-	Meter display	Vehicle ahead detection indicator signal	Transmits a signal to display a state of the system on the
meter	nication	signal	DCA system display signal	information display

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[DRIVER ASSISTANCE SYSTEM]

Reception unit		Signal name	Description
ICC sensor	ITS commu-	Vehicle speed signal	Transmits a vehicle speed calculated by the ADAS control unit
ICC serisor	nication	Steering angle sensor signal	Transmits a steering angle sensor signal received from the steering angle sensor
Accelerator	ITS communication	Accelerator pedal position signal	Transmits an accelerator pedal angle calculated by the ADAS control unit
pedal actuator		Accelerator pedal feedback force control signal	Transmits a target actuation force value calculated by the ADAS control unit
Driver assis- tance 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	d 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 <u>DMS-9</u>, "<u>LOG-IN FUNCTION</u>: <u>System Description</u>".

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 transmits a control signal to the accelerator pedal actuator via ITS communication and to the ABS actuator control unit (control unit) via CAN communication.

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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	Û Û JSOIA0222ZZ
	If the driver is depressing the accelerator pedal, the system moves the accelerator pedal upward to assist the driver to release the accelerator pedal	JSOIA0094ZZ
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	Warn by blinking indicator and chime sound JPOIA0170GB

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.

- When the accelerator pedal is depressed again.
- When the brake pedal is depressed.

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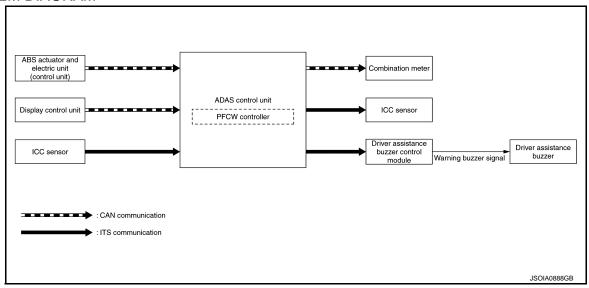
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PFCW

PFCW: System Description

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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 com- munica- tion	Vehicle speed signal (ABS)	Receives wheel speeds of four wheels
Display control unit	CAN com- munica- tion	System selection signal	Receives a selection state each item in "Driver Aids" selected with the integral switch
ICC sensor	ITS com- munica- tion	ICC sensor signal	Receives detection results, such as the presence or absence of a leading vehicle and distance from the vehicle

Output Signal Item

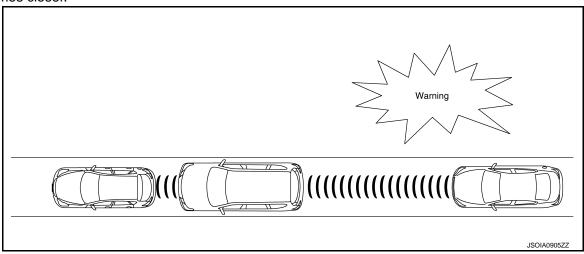
Reception unit	Signal name			Description
Combination	CAN commu- nication	Meter display signal	Vehicle ahead detection indicator signal	Transmits a signal to display a state of the system on the information display
meter			PFCW/FEB system in- dicator signal	Transmits a signal to turn ON the PFCW/FEB system indicator
ICC sensor	ITS commu- nication	Vehicle speed signal		Transmits a vehicle speed calculated by the ADAS control unit
Driver assis- tance buzzer control module	ITS commu- nication	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.

[DRIVER ASSISTANCE SYSTEM]

• 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.

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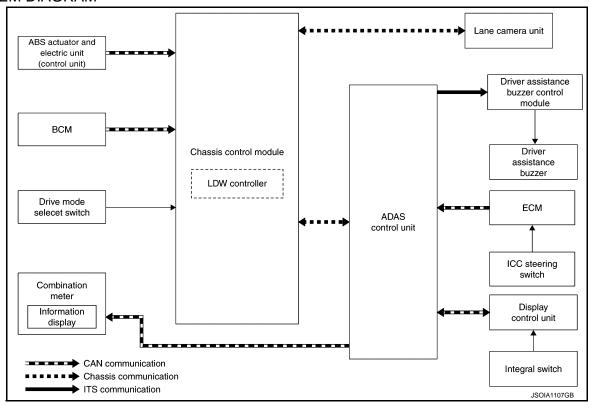
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LDW: System Description

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SYSTEM DIAGRAM



INPUT/OUTPUT SIGNAL ITEM

Reception unit	Transmit unit		Signal name	Description
	Lane camera unit	Chassis communi- cation	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 com- munication	Vehicle speed signal (ABS)	Receives wheel speeds of front wheels
Chassis control module	ВСМ	CAN com- munication	Turn indicator signal	Receives an operational state of the turn signal lamp and the hazard lamp
module			Front wiper request signal	Receives an operational state of the front wiper
	ADAS control unit	Chassis communi- cation	LDW ON signal	Receives an ON/OFF state of LDW
	Drive mode se- lect switch	Hard wire	Drive mode select switch signal	Detects the snow mode selection.

[DRIVER ASSISTANCE SYSTEM]

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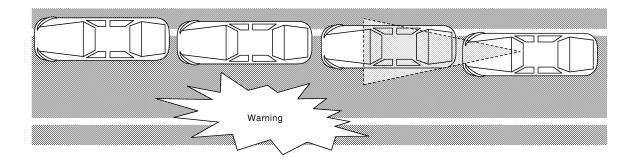
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Reception unit	Transmit unit	Signal name		Description	
Lane camera unit	Chassis control module	Chassis communi- cation	Vehicle speed signal	Transmits a vehicle speed calculated by the chassis control module	
			Turn indicator signal	Transmits a turn indicator signal received from BCM	
Combination meter (Via ADAS con- trol unit)		Chassis	LDW system display signal	Transmits a signal to display a state of the system on the information display	
Driver assis- tance buzzer control module (Via ADAS con- trol unit)		communi- cation	Warning buzzer signal	Transmits warning buzzer signal to activates the warning buzzer	

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



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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 <u>DAS-199, "PFCW/LDW/BSW : Menu Displayed by Pressing Each Switch"</u>.

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.

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< 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:

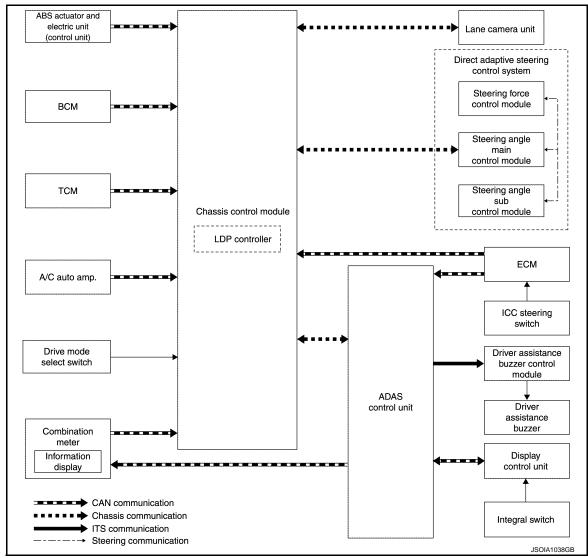
- LDW system ON/OFF can be set on the integral switch.
- After the operating conditions of warning are satisfied, the warning continues until the vehicle speed reaches approximately 60 km/h (40 MPH)
- LDP system is OFF. (Dynamic driver assistance icon OFF in "Lane" position).
- LDW system may not function properly, depending on the situation. Refer to <u>DAS-216</u>, "<u>Precautions for Lane Departure Warning/Lane Departure Prevention"</u>

LDP

LDP: System Description

INFOID:0000000009729299

SYSTEM DIAGRAM



INPUT/OUTPUT SIGNAL ITEM

[DRIVER ASSISTANCE SYSTEM]

Reception unit	Transmit unit		Signal name	Description
	Lane camera unit	Chassis	Detected lane condition signal	Receives detection results of lane marker
		communi- cation	Lane camera unit condition signal	Receives lane camera unit condition
		Chassis communi-	Direct adaptive steering status signal	Receives status of Direct Adaptive Steering
	Steering angle main control		Direct adaptive steering malfunction signal	Receives a malfunction state of Direct Adaptive Steering
	module	cation	Steering force actuator status signal	Receives torque state of steering force actuator.
			ALC permission signal	Receives a permission state of the ALC.
			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
	ABS actuator and electric unit (control unit)	CAN communication	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
Chassis control			Yaw rate signal	Receives yaw rate acting on the vehicle
module			Side G sensor signal	Receives lateral G acting on the vehicle
			Stop lamp switch	Receives stop lamp switch state
	ECM	CAN com- munication	Accelerator pedal position signal	Receives accelerator pedal position (angle)
	ВСМ	CAN com- munication	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
	TOM	CAN com-	Current gear position signal	Receives a current gear position
	TCM	munication	Shift position signal	Receives a selector lever position
	A/C auto amp.	CAN com- munication	Ambient temperature signal	Receives an ambient temperature
	ADAS control unit	Chassis communi- cation	LDP ON signal	Receives an ON/OFF state of LDP
	Combination meter	CAN com- munication	Parking brake switch signal	Receives an operational state of the parking brake
	Drive mode se- lect switch	Hard wire	Drive mode select switch signal	Detects the snow mode selection.

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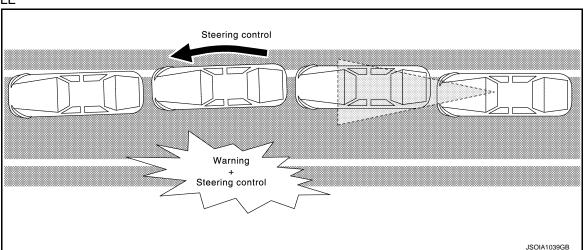
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Reception unit	Transmit unit		Signal name	Description
Steering angle main control module		Chassis communi- cation	Steering angle request signal	Transmits steering angle request signal
Lane camera		Chassis communi-	Vehicle speed signal	Transmits a vehicle speed calculated by the chassis control module
unit		cation	Turn indicator signal	Transmits a turn indicator signal received from BCM
Combination meter (Via ADAS con- trol unit)	Chassis control module	Chassis	LDP system display signal	Transmits a signal to display a state of the system on the information display
Driver assis- tance buzzer control module (Via ADAS con- trol unit)		communi- cation	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 independently to return the vehicle to the lane. **NOTE:**

For details of LDP system indication on the combination meter, refer to <u>DAS-205</u>. "DCA/LDP/BLIND SPOT INTERVENTION: Switch Name and Function".

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.

- Calculates necessary steering angle to transmit steering angle signal to steering angle main control module 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 LDP system display signal to combination meter via CAN communication.
- Direct Adaptive Steering* controls steering angle respectively 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.
- 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)
- Vehicle speed: approximately 70 km/h (45 MPH) or more
- Turn indicator signal: After 2 seconds or more from turned OFF

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 (40 MPH).
- LDP system may not function properly, depending on the situation. Refer to <u>DAS-216</u>, "<u>Precautions for Lane Departure Warning/Lane Departure Prevention</u>".

BSW

BSW: System Description

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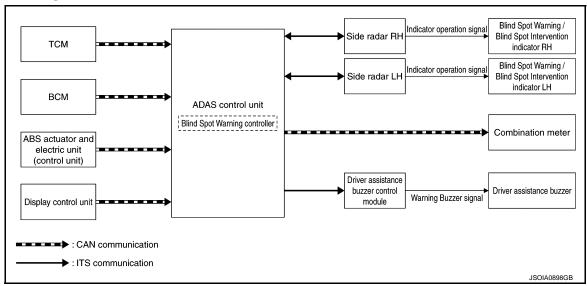
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SYSTEM DIAGRAM



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	S	ignal 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	BCM CAN communication Turn		Receives an operational state of the turn signal lamp and the hazard lamp
	CAN communication	Dimmer signal	Receives ON/OFF state of dimmer signal

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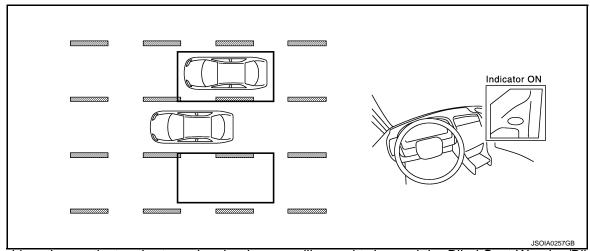
Transmit unit	S	ignal name	Description
Display control unit	CAN communication	System selection signal	Receives a selection state of each item in "Driver Aids" selected with the integral switch
Side radar LH, RH	ITS communication	Vehicle detection signal	Receives vehicle detection condition of detection zone.

Output Signal Item

Reception unit		Signal name		Description
Combination meter	CAN communi- cation	Meter display signal	BSW system dis- play	Transmits a meter display signal to turn ON the Blind Spot Warning system display
		Blind Spot Warning/E tion indicator signal	Blind Spot Interven-	Transmits a Blind Spot Warning/Blind Spot Intervention indicator signal to turn ON the Blind Spot Warning/Blind Spot Intervention indicator
Side radar LH, RH	ITS communi- cation	Blind Spot Warning/E tion indicator dimmer	•	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 assis- tance buzzer control module	ITS communication	Driver assistance bu	zzer signal	Transmits a driver assistance buzzer signal to activates the buzzer

FUNCTION DESCRIPTION

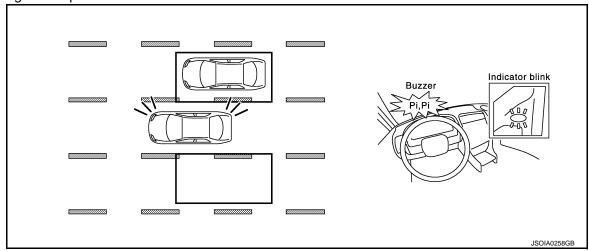
- The BSW system can help alert the driver of other vehicles in adjacent lanes when changing lanes.
- The BSW system uses side radar installed near the rear bumper to detect vehicles in an adjacent lane.
- The side radar can detect vehicles on either side of vehicle within the detection zone shown as 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.



BLIND SPOT WARNING SYSTEM OPERATION DESCRIPTION

- ADAS control unit enables BSW system.
- The ADAS control unit turns on the BSW system when the turned ON by integral switch.
- Side radar detects a vehicle in the adjacent lane, and transmits the vehicle detection signal to ADAS control unit via ITS communication.
- 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:
- Blind Spot Warning/Blind Spot Intervention indicator signal and Blind Spot Warning/Blind Spot Intervention indicator dimmer signal transmission to side radar.
- Activates warning buzzer by driver assistance buzzer control module.
- 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.

OPERATING CONDITION

- Blind Spot Warning system display (white): ON (Speaker icon ON in "Blind spot" position)
- Vehicle speed: Approximately 32 km/h (20 MPH) or more.

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)
- The Blind Spot Warning system may not function properly, depending on the situation. Refer to <u>DAS-217</u>, "Precautions for Blind Spot Warning/Blind Spot Intervention".
- 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 <u>DMS-9</u>, "<u>LOG-IN FUNCTION</u>: <u>System Description</u>".

BLIND SPOT INTERVENTION

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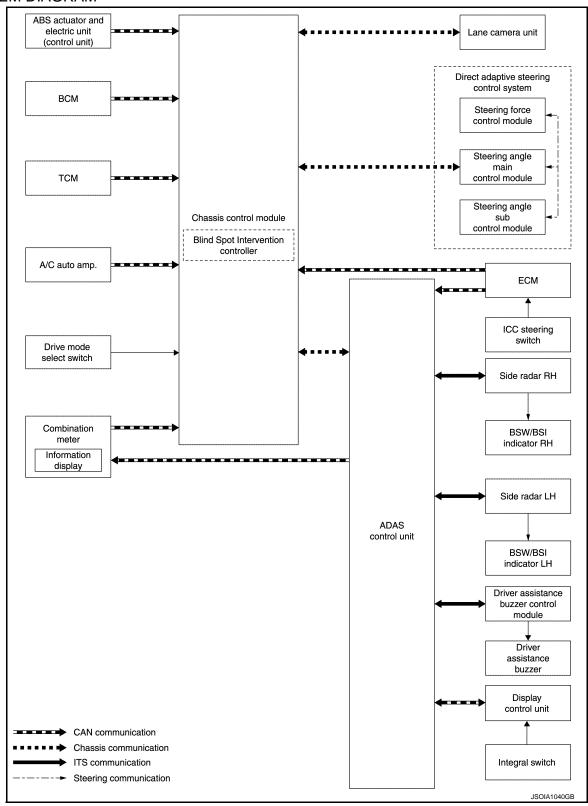
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BLIND SPOT INTERVENTION: System Description

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SYSTEM DIAGRAM



INPUT/OUTPUT SIGNAL ITEM

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Reception unit	Transmit unit		Signal name	Description
	Lane camera	Chassis	Detected lane condition signal	Receives detection results of lane marker
l	unit	communi- cation	Lane camera unit condition signal	Receives lane camera unit condition
			Direct adaptive steering status signal	Receives status of Direct Adaptive Steering
	Steering angle main control	Chassis communi-	Direct adaptive steering malfunction signal	Receives a malfunction state of Direct Adaptive Steering
	module	cation	Steering force actuator status signal	Receives torque state of steering force actuator.
I	_	_	ALC permission signal	Receives a permission state of the ALC.
I			ABS malfunction signal	Receives a malfunction state of ABS
I			ABS operation signal	Receives an operational state of ABS
I			VDC OFF switch signal	Receives an ON/OFF state of VDC
I			VDC malfunction signal	Receives a malfunction state of VDC
	ABS actuator	CAN com-	VDC operation signal	Receives an operational state of VDC
	and electric unit (control unit)	munication	EBD operation signal	Receives an operational state of EBD
	(42.1		Vehicle speed signal (ABS)	Receives wheel speeds of front wheels
I		1	Yaw rate signal	Receives yaw rate acting on the vehicle
		Г	Side G sensor signal	Receives lateral G acting on the vehicle
Chassis control module	_	_	Stop lamp switch	Receives stop lamp switch state
Muuie	ECM	CAN com- munication	Accelerator pedal position signal	Receives accelerator pedal position (angle)
	ВСМ	CAN com-	Turn indicator signal	Receives an operational state of the turn signal lamp and the hazard lamp
	BCIVI	munication	Front wiper request signal	Receives an operational state of the front wiper
I	TCM	CAN com-	Current gear position signal	Receives a current gear position
I	I CIVI	munication	Shift position signal	Receives a selector lever position
	A/C auto amp.	CAN com- munication	Ambient temperature signal	Receives an ambient temperature
	ADAS control unit	Chassis communi- cation	BSI ON signal	Receives an ON/OFF state of BSI
ſ	Combination meter	CAN com- munication	Parking brake switch signal	Receives an operational state of the parking brake
	Side radar RH/ LH (Via ADAS con- trol unit)	Chassis communi- cation	Vehicle detection signal	Receives vehicle detection condition of detection zone.
	Drive mode se- lect switch	Hard wire	Drive mode select switch signal	Detects the snow mode selection.

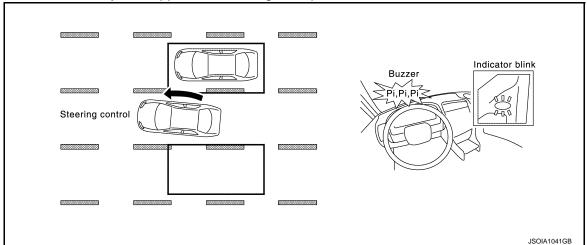
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Reception unit	Transmit unit		Signal name	Description
Steering angle	eering angle		Steering angle request signal	Transmits steering angle request signal
main control module		communi- cation	Steering reaction force request signal	Transmits steering reaction force request signal
Lane camera	era	Chassis communi-	Vehicle speed signal	Transmits a vehicle speed calculated by the chassis control module
unit		cation	Turn indicator signal	Transmits a turn indicator signal received from BCM
Combination meter (Via ADAS con- trol unit)	Chassis control module		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 con- trol 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.

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For details of Blind Spot Intervention system indication on the combination meter, refer to <u>DAS-205</u>, "<u>DCA/LDP/BLIND SPOT INTERVENTION</u>: Menu <u>Displayed by Pressing Each Switch</u>".

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 dimmer 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 respectively 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 <u>DAS-217</u>, <u>"Precautions for Blind Spot Warning/Blind Spot Intervention"</u>.
- 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, FCW 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.

BCI

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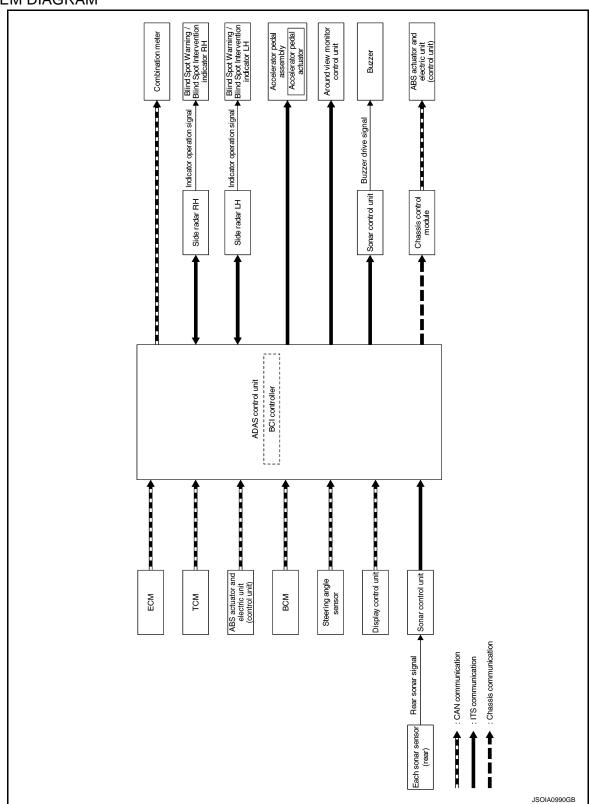
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Revision: 2013 October DAS-187 2014 Q50

BCI: System Description

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SYSTEM DIAGRAM



ADAS CONTROL UNIT INPUT/OUTPUT SIGNAL ITEM

Input Signal Item

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Transmit unit		Signal name	Description
ECM	CAN communi-	Accelerator pedal position signal	Receives accelerator pedal position (angle)
LOW	cation	Engine speed signal	Receives engine speed
TOM	CAN communi-	Current gear position signal	Receives a current gear position
TCM	cation	Shift position signal	Receives a select lever position
ABS actuator		ABS malfunction signal	Receives a malfunction state of ABS
and electric unit	CAN communi- cation	VDC malfunction signal	Receives a malfunction state of VDC
(control unit)		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 ITS communication		Rear object detection signal	Receives objects detection result of rear area behind vehicle
Side radar LH, RH	ITS communica- tion	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 communi- cation	Brake fluid pressure control signal.		Transmits a brake fluid pressure control signal to activate the brake.
Combination meter	CAN communication	Meter display sig- nal BCI system dis- play		Transmits a meter display signal to turn ON the BCI system display
Sonar control unit	ITS communica- tion	Buzzer drive signal		Transmits a buzzer drive signal to activate buzzer
Around view monitor control unit	ITS communica-	BCI warning signal		Transmits a BCI warning signal to indicate a yellow/red frame on the upper display
Accelerator pedal actuator	ITS communica- tion	Accelerator pedal feedback force control signal		Transmits an accelerator pedal feedback force control signal to activate the accelerator pedal actuator
		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
Side radar LH, RH ITS of tion	ITS communica- tion	Blind Spot Warning vention indicator d	• ,	Transmits a Blind Spot Warning/Blind Spot Intervention indicator dimmer signal to dimmer Blind Spot Warning/Blind Spot Intervention indicator
		Vehicle speed sign	nal	Transmits a vehicle speed calculated by the ADAS control unit

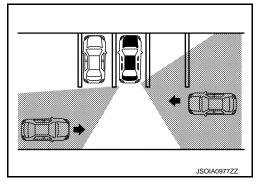
FUNCTION DESCRIPTION

- 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 5 MPH (8 km/h) whenever the vehicle is in reverse.

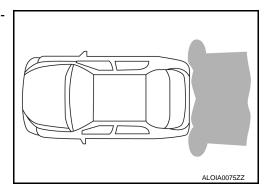
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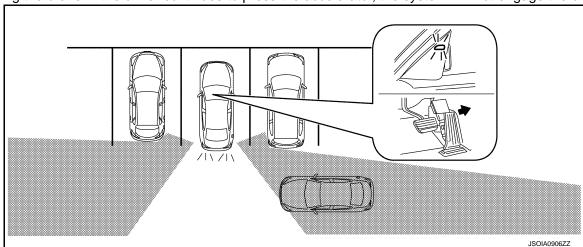
- The BCI system uses the side radar LH/RH installed near the rear bumper to detect approaching vehicles and rear obstacles.
- The side radar can detect vehicles on either side of vehicle within the detection zone shown as illustrated.
- The radar sensors detect the approaching vehicle from up to approximately 15 m (49 ft) away.



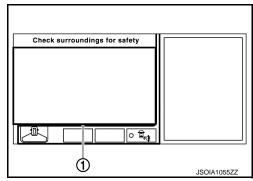
The sonar sensors can detect rear obstacles of up to approximately 1.5 m (4.9 ft).



• 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.



< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

- 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 5 MPH (8 km/h) 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 <u>DMS-9</u>. "<u>LOG-IN FUNCTION</u>: <u>System Description</u>".

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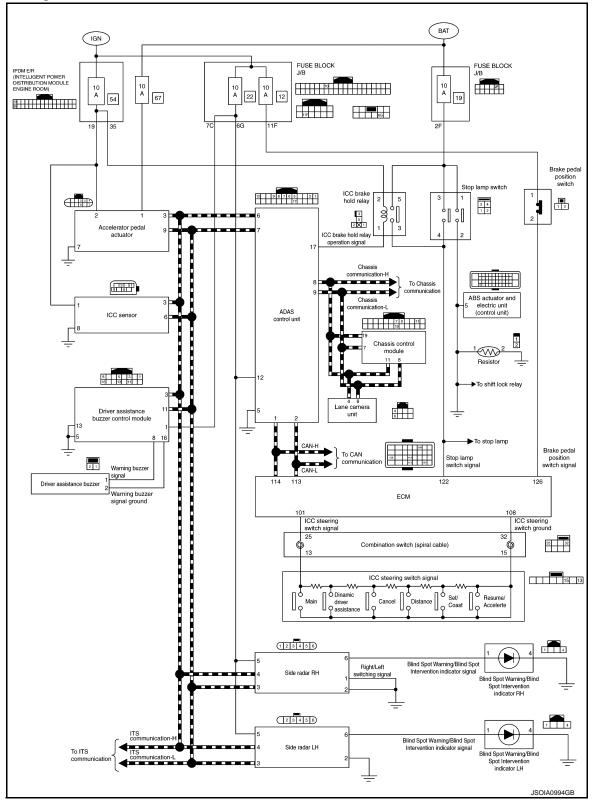
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Circuit Diagram

INFOID:0000000009763250



Fail-safe (ADAS Control Unit)

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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	Buzzer	Warning lamp/Warning dis- play	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	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
Blind Spot Warning (BSW)	_	Warning systems indicator (Blind spot position: Yellow)	Cancel
Back-up Collision Intervention (BCI)	High- pitched tone	BCI system warning	Cancel

Fail-safe (ICC Sensor)

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)

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.

Fail-safe (Lane Camera Unit)

FAIL-SAFE CONTROL BY DTC

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Revision: 2013 October DAS-193 2014 Q50

< SYSTEM DESCRIPTION >

If lane camera unit detects any DTC, following functions are suspended. And any warning is indicated on the combination meter.

Function	Indication
Active Lane Control	Chassis control warning is displayed
Lane Departure Warning (LDW)	LDW warning display (yellow) is displayed
Lane Departure Prevention (LDP)	LDP warning display (yellow) is displayed and a beep is sounded
Blind Spot Intervention	BSW/BSI warning display (yellow) is displayed and a beep is sounded

TEMPORARY DISABLED STATUS AT HIGH TEMPERATURE

- If the vehicle is parked in direct sunlight under high temperature conditions, following functions are suspended. And camera high temperature message is indicated on the combination meter.
- When interior temperature is reduced, and system warning is stopped. Then the system can be operated again by dynamic driver assistance switch ON.

Function	Indication
Active Lane Control	_
Lane Departure Warning (LDW)	Camera high temperature message is displayed. Then LDW warning display (yellow) is blinked
Lane Departure Prevention (LDP)	Camera high temperature message is displayed. Then LDP warning display (yellow) is blinked
Blind Spot Intervention	Camera high temperature message is displayed. Then Blind Spot Intervention warning display (yellow) is blinked

Fail-Safe (Chassis Control Module)

INFOID:0000000009729302

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
C1B90-01	The following functions are suspended.
C1B91-01	 Active lane control function LDW function LDP function Blind spot intervention function
C1B92-01	The following functions are suspended. • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function
C1B93-01	The following functions are suspended.
C1B94-01	 Active trace control function LDW function LDP function Blind spot intervention function
C1B95-01	The following functions are suspended. Active trace control function Active lane control function LDW function LDP function Blind spot intervention function Infiniti InTuition function Intelligent cruise control function
C1B96-01	The following functions are suspended. LDW function LDP function Blind spot intervention function Intelligent cruise control function

[DRIVER ASSISTANCE SYSTEM]

DTC	Vehicle condition	
C1B98-01	Normal control	_
C1B99-01	The following functions are suspended. Active trace control function Active lane control function LDW function LDP function Blind spot intervention function Infiniti InTuition function	_
C1BA0-01	The following functions are suspended.	_
C1BA2-01	Active trace control function	
C1BA5-01	Normal control	
C1BA6-01	The following functions are suspended. Infiniti InTuition function	_
C1BA7-01	The following functions are suspended. • Active lane control function	_
C1BA9-01	The following functions are suspended. • LDW function	
C1BAA-01	LDP function Blind spot intervention function	
C1BAB-01	The following functions are suspended. • Active trace control function	_
C1BAC-01	The following functions are suspended.	
C1BAD-01	LDP function	
C1BAE-01	Blind spot intervention function	_
C1BAF-01	The following functions are suspended. • Blind spot intervention function	
C1BB0-01	Normal control	
C1BB2-01	The following functions are suspended. • Active trace control function	
C1BB3-01	Active lane control function	
C1BB4-01	LDW function LDP function	
C1BB5-01	Blind spot intervention function Infiniti InTuition function	
C1BB6-01	Normal control	
C1BB7-01	The following functions are suspended.	_
C1BB8-01	Active trace control function Active lane control function	
C1BB9-01	LDW function	
C1BBA-01	LDP function Blind spot intervention function	
C1BBB-01	Infiniti InTuition function	
C1BBC-01	Normal control	_
C1BBD-01	The following functions are suspended. Active trace control function Active lane control function LDW function LDP function Blind spot intervention function Infiniti InTuition function	_
C1BC0-01	The following functions are suspended.	_
C1BC1-01	Active trace control function Active lane control function	_
C1BC2-01	The following functions are suspended.	
C1BC3-01	Active trace control function	

[DRIVER ASSISTANCE SYSTEM]

DTC	Vehicle condition
C1BC4-01	Normal control
C1BC5-01	
C1BC6-01	The following functions are suspended. • Active trace control function
U1000-01	Active trace control function
U1010-01	The following functions are suspended. • Active trace control function • Active lane control function
U1A30-01	The following functions are suspended.
U1A31-01	Active lane control function LDW function
U1A32-01	LDP functionBlind spot intervention function
U1A34-01	The following functions are suspended.
U1A35-01	 Active trace control function Active lane control function LDW function LDP function Blind spot intervention function
U1A36-01	The following functions are suspended. • Active lane control function • LDW function • LDP function • Blind spot intervention function
U1A39-01	The following functions are suspended. LDW function LDP function Blind spot intervention function
U1A3B-01	The following functions are suspended. • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function
U1A3D-01	The following functions are suspended. • LDW function • LDP function • Blind spot intervention function
U1A3E-01	Normal control
U1A3F-01	The following functions are suspended. • Infiniti InTuition function
U1A42-01	The following functions are suspended.
U1A43-01	Active trace control function
U1A45-01	The following functions are suspended. • Active lane control function
U1A48-01	The following functions are suspended. • Active trace control function • LDW function • LDP function • Blind spot intervention function
U1A4A-01	The following functions are suspended. • Active lane control function • LDW function • LDP function • Blind spot intervention function • Infiniti InTuition function

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

DTC	Vehicle condition	
U1A4B-01	The following functions are suspended. • Active trace control function • Active lane control function • Infiniti InTuition function	
U1A4C-01	Normal control	
U1A4E-01	The following functions are suspended. • Active trace control function	

WARNING/INDICATOR/CHIME LIST

WARNING/INDICATOR/CHIME LIST: Warning/Indicator (On Information Display)

INFOID:0000000009644618

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Name	Design	Function	
Following system display PFCW (FEB) LDW BSW	Driving Aids Forward (() Lane Blind spot	Withe: DAS-199, "PFCW/LDW/BSW: Menu Displayed by Pressing Each Switch" Green: DAS-205, "DCA/LDP/BLIND SPOT INTERVENTION: Menu Displayed by Pressing Each Switch"	F G
Following system display DCA	Driving Aids	Withe: DAS-199, "PFCW/LDW/BSW: Menu Displayed by Pressing Each Switch" Green: DAS-205, "DCA/LDP/BLIND SPOT IN-	J
LDPBlind Spot Intervention	Forward	TEDVENTION: Many Displayed by Proceing Each	K
	JSOIA1056ZZ		L

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Name	Design	Function
Following system malfunction/warning • PFCW (FEB) • DCA • LDW • LDP • BSW • Blind Spot Intervention	JSOIA0959ZZ	Withe: DAS-199, "PFCW/LDW/BSW: Menu Displayed by Pressing Each Switch" Green: DAS-205, "DCA/LDP/BLIND SPOT INTERVENTION: Menu Displayed by Pressing Each Switch"
BCI malfunction/ warning	JSOIA0960ZZ	DAS-212, "BCI: Menu Displayed by Pressing Each Switch"

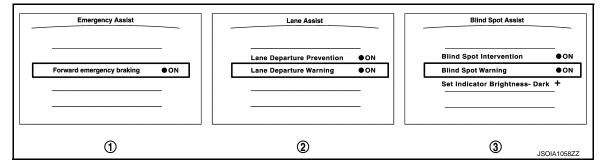
OPERATION

PFCW/LDW/BSW

PFCW/LDW/BSW: Switch Name and Function

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PFCW/LDW/BSW



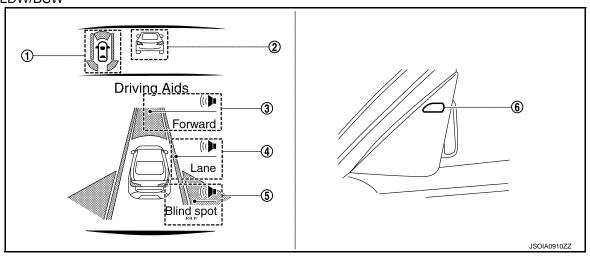
No.	Switch name	Description
1	PFCW/FEB system setting screen (Integral switch settings screen)	The setting of PFCW/FEB system can be switched between ON and OFF
2	LDW system setting screen (Integral switch settings screen)	The setting of LDW system can be switched between ON and OFF
3	BSW system setting 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:0000000009644620

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

Revision: 2013 October DAS-199 2014 Q50

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[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	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	_	Driving Aids OFF Forward OFF Lane OFF Blind spot JSOIA0911ZZ	_
PFCW/LDW/BSW ON	System ON	Driving Aids Forward Forward Forward Forward JSOIA0912ZZ	White
PFCW ON (FEB ON)	System ON	Driving Aids Forward OFF Lane OFF Blind spot JSOIA0913ZZ	White
LDW ON	System ON	Driving Aids OFF Forward (I) Lane OFF Blind spot JSOIA0914ZZ	White
BSW ON	System ON	Driving Aids OFF Forward OFF Lane Blind spot JSOIA0915ZZ	White

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

System status	Condition	Display on combination meter	Indicator color	А
PFCW/LDW/BSW are malfunction	System malfunction	Forward Lane Blind Spot JSOIA0916ZZ	Yellow	В
		Driving Aids Forward OFF Lane OFF Blind spot JSOIA0913ZZ	Yellow	D E
Operation conditions not satisfied (dirt around the ICC sensor)	The PFCW/FEB system is auto-	JSOIA0932ZZ Unavailable Front Radar Obstruction	White	F G H
	The PFCW/FEB system is automatically canceled.	Driving Aids Forward OFF	White (Blink)	J
Accelerator pedal high temperature		JSOIA0932ZZ Unavailable High Accelerator Temperature	White	K L M

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[DRIVER ASSISTANCE SYSTEM]

System status	Condition	Display on combination meter	Indicator color
		Driving Aids OFF Forward (I) OFF Blind spot JSOIA0914ZZ	White (Blink)
Lane camera unit high temperature	The LDW system is automatically canceled.	JSOIA0931ZZ Unavailable High Cabin Temperature	White
	The RSW evetom is automatic	Driving Aids OFF OFF OFF Blind spot JSOIA0915ZZ	White (Blink)
Dirt around the side radar	The BSW system is automatically canceled.	JSOIA0936ZZ Unavailable Side Radar Obstruction	White

Warning Operation

• PFCW operation

Condition	Action			
Condition	Indication on the combination meter	Indicator color	Buzzer	
System ON	Driving Aids OFF Lane OFF Blind spot JSOIA0913ZZ	White	OFF	

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Condition	Ac	etion		Δ.
Condition	Indication on the combination meter	Indicator color	Buzzer	Α
		Yellow (Blink)		В
When judged that the distance between own vehicle and a vehicle in front of the vehicle ahead becomes closer	JSOIA0921ZZ Driving Aids		- Beep	D
	Forward OFF Lane OFF Blind spot		Е	
	JSOIA0922ZZ			F
Operation conditions not satisfied (dirt around the ICC sensor)		Yellow	Beep	G
	JSOIA0932ZZ			
	Unavailable Front Radar Obstruction			

• LDW operation

Vehicle c	ondition/ Driver's oper	ation	Action	١	
Vehicle speed (Approx.) [km/h (MPH)]	Turn signal condi- tion	Status of vehi- cle close to lane marker	Indication on the combination meter	Indicator color	Buzzer
Less than Approx. 60 km/h (40 MPH)	_	Close to lane marker	Driving Aids Forward (I) Lane OFF Blind spot JSOIA0914ZZ	White	OFF
Approx. 70 km/h (45 MPH) or more	OFF ON (Opposite to the deviate side)	Close to lane marker	Driving Aids OFF Forward Anne OFF Blind spot JSOIA0923ZZ	Yellow (Blink)	Short continuous beeps
	ON (Deviate side)	Close to lane marker	Driving Aids OFF Forward ((1) Lane OFF Blind spot JSOIA0914ZZ	White	OFF

NOTE:

< SYSTEM DESCRIPTION >

After the operating conditions of warning are satisfied, the warning continues until the vehicle speed reaches approximately 60 km/h (40 MPH). Refer to <u>DAS-176</u>, "LDW: System <u>Description"</u>.

BSW operation

Vehicle condition/ Driver's operation			Action				
Vehicle speed (Approx.) [km/h (MPH)]	Turn sig- nal condi- tion	Status of vehi- cle detection within detec- tion 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	Driving Aids OFF Forward OFF Lane Blind spot JSOIA0915ZZ	White	OFF	
	1	Vehicle is not detected	OFF	Driving Aids OFF Forward OFF Lane Blind spot JSOIA0915ZZ	White	OFF	
Approx. 32 (20)	OFF	Vehicle is de- tected	ON	Driving Aids OFF Forward OFF Lane Blind spot JSOIA0915ZZ	White	OFF	
or more	ON (vehicle	Before turn signal oper- ates Vehicle is de- tected	Blink	Driving Aids Forward OFF Blind spot JSOIA0924ZZ	Yellow (Blink)	Short continu- ous beeps	
	(vehicle detected direction) Vehicle is detected after turn signal operates Blink	Driving Aids Forward OFF Blind spot	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

DCA/LDP/BLIND SPOT INTERVENTION: Switch Name and Function

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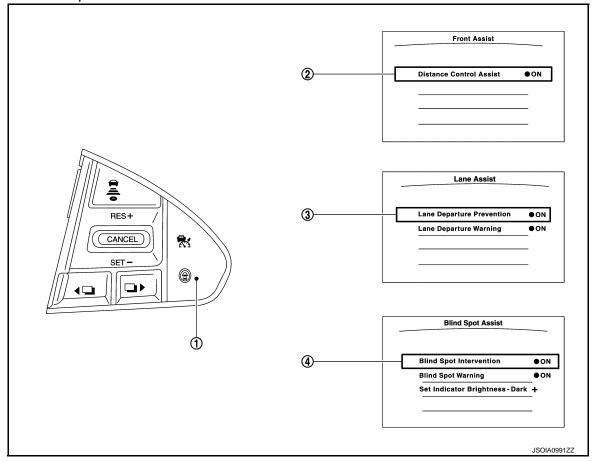
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No.	Switch name	Description
1	Dynamic driver assistance switch	Turns DCA/LDP/Blind Spot Intervention system ON/OFF (When the setting of system on the navigation system setting screen is ON)
2	DCA system setting screen (Integral switch)	The setting 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 set- ting 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

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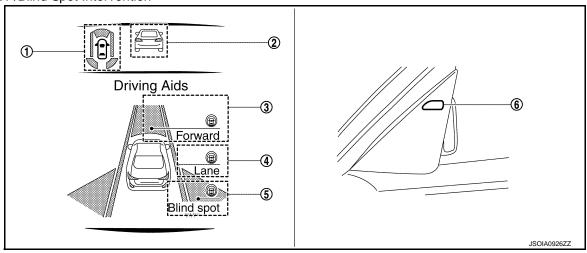
SYSTEM DISPLAY

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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	 Illuminates when detect other vehicles beside vehicle in an adjacent lane Blinks when BSW 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		JSOIA0920ZZ Unavailable Select Driving Aids in Settings	White	Beep

[DRIVER ASSISTANCE SYSTEM]

System status	Condition	Display on combination meter	Indicator	Buzzer
DCA/LDP/Blind Spot Intervention OFF (PFCW/LDW/BSW are OFF)	_	Driving Aids OFF Forward OFF Lane OFF JSOIA0911ZZ	_	_
CA/LDP/Blind Spot Intervention ON	System ON	Driving Aids Forward Blind spot JSOIA0927ZZ	Green	_
CA ON	System ON	Driving Aids Forward OFF Lane OFF Blind spot JSOIA0928ZZ	Green	_
DP ON	System ON	Driving Aids Forward Lane OFF Blind spot JSOIA0929ZZ	Green	_
lind Spot Intervention ON	System ON	Driving Aids OFF Forward OFF Lane Blind spot JSOIA0930ZZ	Green	_
DCA/LDP/Blind Spot Intervention are nalfunction	System malfunction	JSOIA0931ZZ	Yellow	Beep

System status	Condition	Display on combination meter	Indicator	Buzzer
		_	OFF	
Operation conditions not satisfied (dirt around the ICC sensor)	The DCA system is automatical-	JSOIA0932ZZ	Green	Веер
	ly canceled. NOTE: The system operates if the dynamic driver assistance switch is turned OFF⇒ON after the condition improves	Unavailable Front Radar Obstruction —	OFF	
Accelerator pedal high temperature			Green	Веер
		Unavailable High Accelerator Temperature		
		_	OFF	
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	JSOIA0931ZZ Unavailable High Cabin Temperature	Green	Веер
		_	OFF	
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	JSOIA0936ZZ Unavailable Side Radar Obstruction	Green	Веер
		tion —	OFF	
 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	JSOIA0931ZZ Currently unavailable	Green	Веер

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

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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							
Condition	Dynamics action	Display on combination meter	Indicator	Buzzer				
System ON	_	Driving Aids Forward OFF Blind spot JSOIA0928ZZ	Green	_				
 When the system detected vehicle ahead When the system judges that 	Accelerator pedal actuation	JSOIA0921ZZ	Yellow (Blink)	Beep				
the brake operation by the driver is necessary	Operates brake	Driving Aids Forward OFF Lane OFF Blind spot JSOIA0922ZZ	Yellow (Blink)	реср				

LDP operation

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Revision: 2013 October DAS-209 2014 Q50

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Vehic	cle condition/ Driver's	operation		Action		
Vehicle speed (Approx.) [km/h (MPH)]	Turn signal condition	Status of vehicle close to lane marker	Yawing con- trol	Indication on the combination meter	Indicator	Buzzer
Less than Approx. 60 km/h (40 MPH)		Close to lane marker	OFF	Driving Aids of Forward Priving Aids of Forward Splind Spl	Green	_
	Turn signal OFF Turn signal ON (Opposite to the deviate side)	Close to lane marker	ON	Driving Aids Forward Blind sp JSOIA0923ZZ	Yellow (Blink)	Short con- tinuous beeps
Approx. 70 km/h (45 MPH) or more	Turn signal ON (Deviate side)	Close to lane marker	OFF	Driving Aids of Forward Driving Aids of Drivin	Green	_
	Turn signal OFF Turn signal ON (Opposite to the deviate side)	Close to lane marker with soft braking	OFF	Driving Aids Forwar Blind sp. JSOIA0923ZZ	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 (40 MPH). Refer to DAS-178, "LDP: System Description".

• Blind Spot Intervention operation

Vehicle co	Vehicle condition/ Driver's operation				Action			А
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 con- trol	Indication on the combination meter	Indicator	Buzzer	В
Less than approx. 60 (37)	_	_	OFF	OFF	Driving Aids OFF Forward Blind spot JSOIA0930ZZ	Green	OFF	C D
	Vehicle is not detected	_	OFF	OFF	Driving Aids OFF Forward OFF Lane Blind spot JSOIA0930ZZ	Green	OFF	F
Approx. 60 (37) or more	Vehicle is detected	Not ap- proaching	ON	OFF	Driving Aids OFF Forward OFF Lane Blind spot JSOIA0930ZZ	Green	OFF	Н
	Vehicle is detected	Approaching	Blink	ON	Driving Aids Forward OFF Blind spot	Yellow (Blink)	Short continu- ous beeps	J K

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

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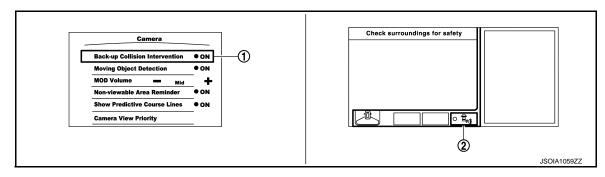
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BCI: Switch Name and Function

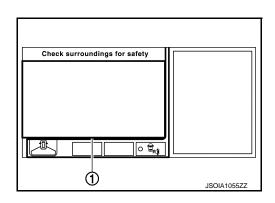
BCI



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

SYSTEM DISPLAY



No.	Name	Description
	BCI warning frame (yellow)	Blinks when BCI system is warning to driver (Detecting vehicle)
1	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 de- tection within detection area	Vehicle speed	Blind Spot Warning/ Blind Spot In- tervention in- dicator	Action	Indication on the combination meter
BCI system OFF Shift lever in reverse	_		OFF		JSOIA0941ZZ System OFF

[DRIVER ASSISTANCE SYSTEM]

s of den within ion area le is abent O km/h (0 MPH) le is dected Less than 8 km/h (5.0 MPH)	Blind Spot Warning/ Blind Spot Intervention indicator OFF Blink Blink	Buzzer sounds (single beep) Display frame is yellow Buzzer sounds (3 times) Display frame is red Accelerator pedal is pushed upward NOTE: When accelerator pedal is depressed Brake operation NOTE: When accelerator pedal is released Beep Temporary switch	Indication on the combination meter — — — — — —
ent O km/h (0 MPH) e is dected Less than 8 km/h (5.0	Blink	(single beep) Display frame is yellow Buzzer sounds (3 times) Display frame is red Accelerator pedal is pushed upward NOTE: When accelerator pedal is depressed Brake operation NOTE: When accelerator pedal is released Beep Temporary switch	——————————————————————————————————————
mPH) le is dected Less than 8 km/h (5.0	Blink	(single beep) Display frame is yellow Buzzer sounds (3 times) Display frame is red Accelerator pedal is pushed upward NOTE: When accelerator pedal is depressed Brake operation NOTE: When accelerator pedal is released Beep Temporary switch	- -
Less than 8 km/h (5.0		(3 times) Display frame is red Accelerator pedal is pushed upward NOTE: When accelerator pedal is depressed Brake operation NOTE: When accelerator pedal is released Beep Temporary switch	——————————————————————————————————————
_ _	OFF	 Temporary switch 	1 • • • • • • • • • • • • • • • • • • •
	OFF	(navigation dis- play) is deactivat- ed	JSOIA0941ZZ Malfunction See Owner's Manual
		 Beep Temporary switch (navigation dis- play) is deactivat- ed 	• • • • • • • • • • • • • • • • • • •
_	OFF		JSOIA0941ZZ Unavailable Side Radar Obstruction
	OFF	Beep Temporary switch (navigation dis- play) is deactivat- ed	JSOIA0941ZZ Unavailable High Accelerator
			 OFF Temporary switch (navigation display) is deactivated Beep Temporary switch (navigation display) is deactivated

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

[DRIVER ASSISTANCE SYSTEM]

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HANDLING PRECAUTION

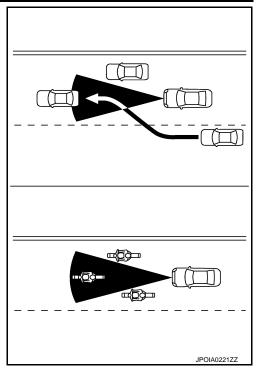
Precautions for Distance Control Assist

- 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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- 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)].

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HANDLING PRECAUTION

[DRIVER ASSISTANCE SYSTEM]

Precautions for Predictive Forward Collision Warning

INFOID:000000000978786

- 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:0000000009644626

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)^{*1} or 60 km/h (37 MPH)^{*2} or if it cannot detect lane markers.
 - *1: With Direct Adaptive Steering
 - *2: Without Direct Adaptive Steering
- 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.)

HANDLING PRECAUTION

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

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-	When a sudden	change in	brightness	occurs.	(For	example,	when	the	vehicle	enters	or	exits	a i	tunnel	or
	under a bridge.)														

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.
- When the LDP system is operating, avoid excessive or sudden steering maneuvers. Otherwise, driver could lose control of the vehicle.
- The LDP system will not operate at speeds below approximately 70 km/h (45 MPH)^{*1} or 60 km/h (37 MPH)^{*2} or if it cannot detect lane markers.
 - *1: With Direct Adaptive Steering
 - *2: Without Direct Adaptive Steering
- Do not use the LDP system under the following conditions as it may not function properly:
- During bad weather (rain, fog, snow, wind, 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.
- When driver is towing a trailer or other vehicle.
- 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:0000000009644627

LANE CAMERA UNIT HANDLING

Refer to DAS-216, "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.

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HANDLING PRECAUTION

[DRIVER ASSISTANCE SYSTEM]

- 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.
- 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.

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, wind, 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 steering parts, brake parts or suspension parts.
- When driver is towing a trailer or other vehicle.
- 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.

HANDLING PRECAUTION

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

- 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 Back-up Collision Intervention

INFOID:0000000009787864

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.

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Revision: 2013 October DAS-219 2014 Q50

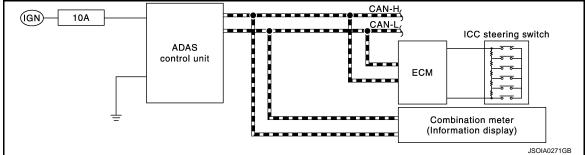
On Board Diagnosis Function

INFOID:0000000009716270

DESCRIPTION

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

On Board Self-diagnosis System Diagram



METHOD OF STARTING

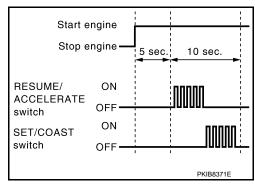
CAUTION:

Start condition of on board self-diagnosis

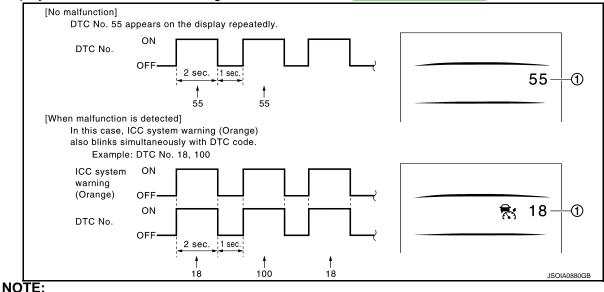
- ICC system OFF
- DCA system OFF
- Vehicle speed 0 km/h (0 MPH)
- 1. Turn the ignition switch OFF.
- 2. Start the engine.
- Wait for 5 seconds after starting the engine. Push up the RESUME/ACCELERATE switch 5 times and push down the SET/COAST switch 5 times within 10 seconds.

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.



 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 <u>DAS-44, "DTC Index"</u>.



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[DRIVER ASSISTANCE SYSTEM]

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- 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-62, "On Board Diagnosis Function".
ICC steering switch male	function	
Harness malfunction be	tween ICC steering switch and ECM	Perform the inspection for DTC "C1A06". Refer to <u>DAS-80</u> . "DTC Logic".
ECM malfunction		
ADAS control unit malfu	nction	 Check power supply and ground circuit of ADAS control unit. Refer to <u>DAS-160</u>, "<u>Diagnosis Procedure</u>". Perform SELF-DIAGNOSIS for "ICC/ADAS" with CONSULT, and then check the malfunctioning parts. Refer to <u>DAS-44</u>, "<u>DTC Index</u>".

HOW TO ERASE ON BOARD SELF-DIAGNOSIS

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

NOTE:

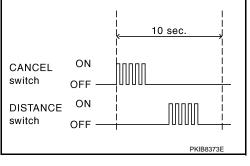
- · Complete the operation within 10 seconds after pressing the CANCEL switch first.
- If the operation is not completed within 10 seconds, repeat the procedure from step 1.
- 4. DTC 55 is displayed after erasing.

NOTE:

DTCs for existing malfunction can not be erased.

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

CONSULT Function (ICC/ADAS)



INFOID:0000000009716271

APPLICATION ITEMS

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

Diagnosis mode	Description
Configuration	 The vehicle specification that is written in ADAS control unit can be displayed or stored The 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

CONFIGURATION

Configuration includes functions as follows.

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[DRIVER ASSISTANCE SYSTEM]

F	unction	Description
Read/Write Configuration	Before Replace ECU	Allows the reading of vehicle specification written in ADAS control unit to store the specification in CONSULT.
Read/White Configuration	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 • Vehicle-to-vehicle control mode • Conventional (fixed speed) control mode • Distance Control Assist (DCA) • Forward Emergency Braking (FEB)						
CAUSE OF AUTO-CANCEL 2	NOTE: The item is displayed, but it is not monitored						
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

Cause of cancellation	Vehicle-to-vehicle distance control mode	Conventional (fixed speed) cruise control mode	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 Vehicle-to-vehicle distance control mode is 24 km/h (15 MPH) Conventional (fixed speed) cruise control mode is 32 km/h (20 MPH)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

×	×	×		Wheel speed sensor signal caught electromagnetic noise
×		×	×	VDC OFF switch was pressed
×	×	×		Wheel speed became different from A/T vehicle speed
×	×			Wheel slipped
×	×	×	×	Decrease in ADAS control unit ignition voltage
×	×			The parking brake is operating
×	×	×		The wheel speeds of 4 wheels are out of the specified values
×				A vehicle ahead is not detected during the following driving when the vehicle speed is approximately 24 km/h (15 MPH) or less
×	×	×	×	ADAS control unit received an abnormal signal with CAN communication
×	×	×	×	An abnormal condition occurs in VDC/TCS/ABS system
×	×	×	×	An abnormal condition occurs in ECD system
×	×			Engine speed became extremely low while controlling ICC system
	×			Vehicle speed is detached from set vehicle speed
	×			Cancel switch and operation switch are detected simultaneously
		×		The accelerator pedal actuator integrated motor temperature is high
×		×	×	Communication error between ADAS control unit and the ICC sensor
×		×		ABS warning lamp ON
×		×	×	Inclusion of dirt or stains on the ICC sensor area of the front bumper
			×	Road curve was more than the specified value
			×	Detected yawing speed was more than the specified value
			×	Detected lateral speed is the specified value or more
×		×	×	ICC sensor receives electromagnetic interference
×	×	×		_
Display Items for The Cause of Autom Cause of cancellation Cause of cancellation		tic Cance	llation 3	
n	3ack-up Collision Interver			Description
n N)	× Back-up Collision Interver	ADAS co	ntrol unit r	Description eceived an abnormal signal with CAN communication
N)	×	ADAS co	ntrol unit r	eceived an abnormal signal with CAN communication
N)	×	ADAS co	ntrol unit r	eceived an abnormal signal with CAN communication eceived an abnormal signal with CAN communication
N)	× × ×	ADAS co Decrease Vehicle s	ntrol unit rein ADAS	eceived an abnormal signal with CAN communication eceived an abnormal signal with CAN communication control unit ignition voltage
N)	× × ×	ADAS co Decrease Vehicle s Accelerate	ntrol unit rein ADAS	eceived an abnormal signal with CAN communication eceived an abnormal signal with CAN communication control unit ignition voltage er than 8 km/h (5 MPH) vas depressed
	× × × × × × × × × × × × × × × × × × ×	X X X X X X X X X X X X X X X X X X X	X	X X X X X X

[DRIVER ASSISTANCE SYSTEM]

Cause of cancellation	Back-up Collision Intervention	Description
APA POWER	×	Decrease in accelerator pedal actuator ignition or battery voltage
NO RECORD	×	_

SELF DIAGNOSTIC RESULT

Refer to DAS-44, "DTC Index".

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")
ON ROOT GUID- ANCE [On/Off]	×					NOTE: The item is displayed, but it is not monitored
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)
CLUTCH SW SIG [On/Off]	×	×	×	×		Indicates [On/Off] status as judged from clutch pedal position signal (ECM transmits ICC clutch 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]	×					Indicates [On/Off] status of own vehicle indicator output

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

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Monitored item [Unit]	ALL SIG (ICC)	MAIN SIG (ICC)	MAIN SIG (LDW/LDP)	MAIN SIG (BSW/BSI)	MAIN SIG (BCI)	Description
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)
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)
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

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[DRIVER ASSISTANCE SYSTEM]

Monitored item [Unit]	ALL SIG (ICC)	MAIN SIG (ICC)	MAIN SIG (LDW/LDP)	MAIN SIG (BSW/BSI)	MAIN SIG (BCI)	Description
DISTANCE [m]	×					Indicates the distance from the vehicle ahead
RELATIVE SPD [m/s]	×					Indicates the relative speed of the vehicle ahead
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)
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
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)
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)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

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Monitored item [Unit]	ALL SIG (ICC)	MAIN SIG (ICC)	MAIN SIG (LDW/LDP)	MAIN SIG (BSW/BSI)	MAIN SIG (BCI)	Description
STATUS signal [Stnby/Warn/Cancl/ 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
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

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[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 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
BCI SYSTEM ON [On/Off]					×	Indicates [On/Off] status of BCI system
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
SYSTEM CANCEL MESSAGE [NOREQ/SLIP/ SNOW/VDC OFF]	×	×	×	×		Indicates [On/Off] 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 INDI- CATOR [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 BRIGHT- NESS [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

< 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
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 VEHI- CLE 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. NON: Vehicle speed is maintained at the ASCD set speed. CUT: Vehicle speed decreased to excessively low, and ASCD operation is cut off.
ASCD CANCEL (SPEED DIFF) [NON/CUT]	×					Indicates the vehicle cruise condition. 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. 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 can be illuminated	
ICC BUZZER	Sounds a buzzer used for following systems by arbitrarily operating ON/OFF 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

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[DRIVER ASSISTANCE SYSTEM]

Test item	Description	
LDP BUZZER	Sounds a buzzer used for following systems by arbitrarily operating ON/OFF • 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 necessar	
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:

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

Test item	Oper- ation	Description	MAIN switch indicator ICC system warning FEB warning lamp
Off		Stops sending the following signals to exit from the test • Meter display signal • FEB warning lamp signal	OFF
METER LAMP	On	Transmits the following signals to the combination meter via CAN communication • Meter display signal • FEB warning lamp signal	ON

STOP LAMP

Test item	Oper- ation	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
	MODE1	Transmits the buzzer output signals to the driver assistance buzzer control module via ITS communication	Intermittent beep sound
ICC BUZZER Test start Reset	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.

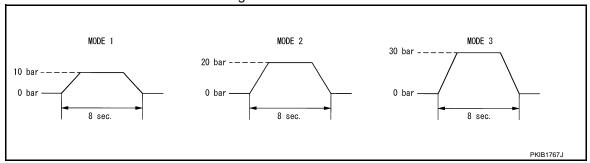
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[DRIVER ASSISTANCE SYSTEM]

Test item	Operation	Description	"PRESS SENS" value
	MODE1	Transmits the brake fluid pressure control signal to the	10 bar
	MODE2	ABS actuator and electric unit (control unit) via chassis	20 bar
BRAKE ACTUATOR	MODE3	control module	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

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
	MODE1		Constant with a force of 25 N for 8 seconds
	MODE2	Transmit the accelerator pedal feedback force control signal	Constant with a force of 15 N for 8 seconds
	MODE3	to the accelerator pedal actuator via ITS communication.	Change up to a force of 25 N for 8 seconds
ACTIVE PEDAL	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:

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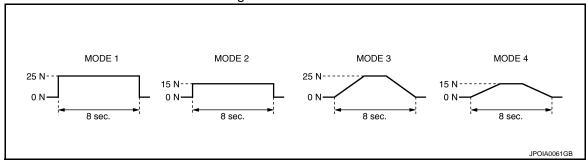
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[DRIVER ASSISTANCE SYSTEM]

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	Opera- tion	Description	DCA system display
DCA INDICATOR	Off	Stops transmitting the meter display signal below to end the test	_
DOM INDIOATOR	On	Transmits the meter display signal to the combination meter via CAN communication	ON

LDP BUZZER

Test item	Opera- tion	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

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

LANE DEPARTURE W/L

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

BSW ON INDICATOR

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

BSI ON INDICATOR

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Test item	Oper- ation	Description	Blind Spot Intervention system displa (Green)
DOLON INDICATOR	Off	Stops transmitting the meter display signal below to end the test	_
BSI ON INDICATOR	On	Transmits the meter display signal to the combination meter via CAN communication	ON
DW ON INDICATOR			
Test item	Oper- ation	Description	LDW system display (White)
LDW ON INDICATOR	Off	Stops transmitting the meter display signal below to end the test	_
LDW ON INDICATOR	On	Transmits the meter display signal to the combination meter via CAN communication	ON
DP WARNING INDIC	CATOR		
Test item	Oper- ation	Description	LDP malfunction (Yellow)
Off		Stops transmitting the meter display signal below to end the test	_
CATOR	On	Transmits the meter display signal to the combination meter via CAN communication	ON
DW WARNING INDI	CATOR		
Test item	Oper- ation	Description	LDW malfunction (Yellow)
LDW WARNING IN-	Off	Stops transmitting the meter display signal below to end the test	_
DICATOR	On	Transmits the meter display signal to the combination meter via CAN communication	ON
SSW WARNING INDI	CATOR		
Test item	Oper- ation	Description	BSW malfunction (Yellow)
BSW WARNING IN-	Off	Stops transmitting the meter display signal below to end the test	_
DICATOR On		Transmits the meter display signal to the combination meter via CAN communication	ON
SSI WARNING INDIC	ATOR		
Test item	Oper- ation	Description Blind Spot Intervention ma (Yellow)	
BSI WARNING INDI-	Off	Stops transmitting the meter display signal below to end the test	_
CATOR	On	Transmits the meter display signal to the combination meter via CAN communication	ON

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DIAGNOSIS SYSTEM (ICC SENSOR)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

DIAGNOSIS SYSTEM (ICC SENSOR)

CONSULT Function (LASER/RADAR)

INFOID:0000000009716272

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 adjust- ment direction

Radar Alignment

Refer to CCS-83, "TYPE 1: Description".

SELF DIAGNOSTIC RESULT

Refer to CCS-63, "DTC Index".

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	
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	

DIAGNOSIS SYSTEM (ICC SENSOR)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Monitored item [Unit]	Description
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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DIAGNOSIS SYSTEM (ACCELERATOR PEDAL ACTUATOR)

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[DRIVER ASSISTANCE SYSTEM]

DIAGNOSIS SYSTEM (ACCELERATOR PEDAL ACTUATOR)

CONSULT Function (ACCELERATOR PEDAL ACT)

INFOID:0000000009644631

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	 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-272, "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 mal- function 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	
IGN Counter ^{Note}	It displays number of ignition switch OFF $ ightarrow$ ON after the malfunction is detected	

NOTE

- The number is 0 when is detected now.
- The number increases like 1 \rightarrow 2 \cdots 38 \rightarrow 39 after returning to the normal condition whenever IGN OFF \rightarrow 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.

DIAGNOSIS SYSTEM (ACCELERATOR PEDAL ACTUATOR) [DRIVER ASSISTANCE SYSTEM]

< SYSTEM DESCRIPTION >

Monitor item [Unit]	FUNCTION DESCRIPTION		
TGT FBK FRC [N]	It displays the target accelerator pedal actuation force that the accelerator pedal actuator read of 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 comnication)		
TGT MOT POSI [%]	It displays the target motor position that the accelerator pedal actuator read out from the accelerated 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 communication (The ADAS control unit transmits with ITS communication the accelerator pedal position signal 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.

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 AC-	STOP	Finish the test
TUATOR TEST1	START	Generate the constant accelerator pedal actuation force for accelerator pedal

ACCELERATOR PEDAL ACTUATOR TEST 2

Check the accelerator pedal by depressing when performing the test.

Active test item	Operation	Description
ACCELERATOR PEDAL AC-	STOP	Finish the test
TUATOR TEST 2	START	Generate the vibration for accelerator pedal

ECU IDENTIFICATION

Displays accelerator pedal assembly parts number.

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DIAGNOSIS SYSTEM (SIDE RADAR LH)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

DIAGNOSIS SYSTEM (SIDE RADAR LH)

CONSULT Function (SIDE RADAR LEFT)

INFOID:0000000009644633

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-274, "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 Iter	n [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.
SIDE RADAR WALF	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	On	Outputs the voltage to illuminate the Blind Spot Warning/Blind Spot Intervention indicator.
DRIVE	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:0000000009644634

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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-276, "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 Ite	m [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	On	Outputs the voltage to illuminate the Blind Spot Warning/Blind Spot Intervention indicator.
DRIVE	Off	Stops the voltage to illuminate the Blind Spot Warning/Blind Spot Intervention indicator.

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< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (DRIVER ASSISTANCE BUZZER CONTROL MOD-ULE)

CONSULT Function (BSW/BUZZER)

INFOID:0000000009644635

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	 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-280, "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 $ ightarrow$ ON after the malfunction is detected

NOTE:

- The number is 0 when is detected now.
- The number increases like 1o 2 \cdots 38 o 39 after returning to the normal condition whenever IGN OFF o
- 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)

< SYSTEM DESCRIPTION >

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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Active test item	Description
BUZZER 1 (ADAS)	Sounds a buzzer used for following systems by arbitrarily operating ON/OFF 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 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 • Forward Emergency Braking (FEB)
BUZZER 4 (ADAS)	Sounds a buzzer used for following systems by arbitrarily operating ON/OFF • Predictive Forward Collision Warning (PFCW)
BUZZER 1 (CCM)	Sounds a buzzer used for following systems by arbitrarily operating ON/OFF 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 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 • Forward Emergency Braking (FEB)
BUZZER 4 (CCM)	Sounds a buzzer used for following systems by arbitrarily operating ON/OFF • 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
BOZZEN I (ADAS)	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 ter	Stops transmitting the warning buzzer signal below to end of the test
BOZZEN Z (ADAS)	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	Stops transmitting the warning buzzer signal below to end of the test
BUZZER 3 (ADA3)	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
BOZZER 4 (ADAO)	On	Transmits the warning buzzer signal to the warning buzzer

BUZZER 1 (CCM)

Active test item	Operation	Description
BUZZER 1 (CCM)	Off Stops transmitt	Stops transmitting the warning buzzer signal below to end of the test
BOZZER I (COM)	On	Transmits the warning buzzer signal to the warning buzzer

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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

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BUZZER 3 (CCM)

Active test item	Operation	Description
BUZZER 3 (CCM)	Off	Stops transmitting the warning buzzer signal below to end of the test
BOZZER 3 (OCIVI)	On Transmits the warning buzz	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 buzze	Stops transmitting the warning buzzer signal below to end of the test
DOZZEN 4 (OCIVI)	On	Transmits the warning buzzer signal to the warning buzzer

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ECU IDENTIFICATION

Displays driver assistance buzzer control module parts number.

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DIAGNOSIS SYSTEM (LANE CAMERA UNIT)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

DIAGNOSIS SYSTEM (LANE CAMERA UNIT)

CONSULT Function (LANE CAMERA)

INFOID:0000000009797491

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-573, "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

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
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

DIAGNOSIS SYSTEM (LANE CAMERA UNIT)

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[DRIVER ASSISTANCE SYSTEM]

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Monitored [Unit]		Description
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.
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

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DIAGNOSIS SYSTEM (LANE CAMERA UNIT)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Monitored item [Unit]		Description
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.

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

CONSULT Function

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	 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-299, "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 switch operating status (Off: close / On: open).
BRAKE SWITCH 2	Off / On	Displays brake switch operating status (Off: open / On: close).
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.

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[DRIVER ASSISTANCE SYSTEM]

Item name	Indication/Unit	Display item
SHIFT POSITION	Off/P/R/N/D(A) /S/L/B/1-6/M 1-M8/A1-A6	Displays the shift position.
PRESS SENSOR	bar	Displays the brake fluid pressure.
DRIVE MODE SELECTOR	STD / SPORT / ECO / SNOW / PERSO	Displays the drive mode select switch selection 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 the operation request status to Direct Adaptive Steering.
ROAD DISTORTION*	1/m	Displays the road distortion rate radius.
ALC COMMAND ST ANG*	rad	Displays the steering command value to Direct Adaptive Steering.
ST WHL FORCE TORQUE*	Nm	Displays the estimated value for the steering wheel force torque.
ALC COMMAND ST WHL FORCE*	N	Displays the steering reaction force command value to Direct Adaptive Steering.
ADAS COND*	NORMAL / ABNOR	Displays ADAS control unit function status.
WIPER STATUS*	Off / LOW / HIGH / MALF	Displays wiper operating status.

^{*:} Models with Active Lane 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.

•	tem Jnit]	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.

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

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	tem Jnit]	Description
THROTTLE CONTROL	[NORMAL/INCORR/PREV/INPOSSI]	Displays the electric throttle status.
SHIFT POSITION	[Off/P/R/N/D(A)/S/L/B /1-6/M1-M8/A1-A6]	Displays the shift position.
BRAKE SWITCH 2	[Off / On]	Displays brake switch operating status (Off: close / On: open).
BRAKE SWITCH 1	[Off / On]	Displays brake switch operating status (Off: open / On: close).
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.
ACCELE PEDAL MALF	[NORMAL / ABNOR]	Displays the accelerator pedal 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.
DRV TRQ CTRL MODE	[INITIAL/NORMAL/STOP 1/ STOP 2 / LIMIT 1 / PROHIBI]	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.
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/PERSO/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.
STRG SETTING	[STD / SPT / TOUR / SPT-L]	Displays steering characteristic.
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.

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< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Item [Unit]		Description
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 Stee ing.
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 un
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 ADA 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.

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Item [Unit]		Description
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 CAN- CEL	[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.

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.

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< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Test item	Operation	Description
COMMAND STEERING ANGLE	Start	Transmits the steering command value 0 deg \rightarrow 0.00349 deg (hold it for approximately 2 seconds) \rightarrow 0 deg (hold it for approximately 2 seconds) \rightarrow 0.00349 deg (hold it for approximately 2 seconds) \rightarrow 0 deg to the steering force control module.
COMMAND ST WHL FORCE	Start	Transmits the steering reaction force command value 0 N \rightarrow 0.6 N (hold it for approximately 2 seconds) \rightarrow 0 N (hold it for approximately 2 seconds) \rightarrow 0.6 N (hold it for approximately 2 seconds) \rightarrow 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.
ALC DIGF	Off	Displays Active Lane Control inactive status on the information display in the combination meter.
FL TIRE DISP	On	Displays the front LH tire on the information display in the combination meter.
FL TIRE DISP	Off	Does not display the front LH tire on the information display in the combination meter.
ED TIDE DIOD	On	Displays the front RH tire on the information display in the combination meter.
FR TIRE DISP	Off	Does not display the front RH tire on the information display in the combination meter.
DI TIDE DIOD	On	Displays the rear LH tire on the information display in the combination meter.
RL TIRE DISP	Off	Does not display the rear LH tire on the information display in the combination meter.
DD TIDE DIOD	On	Displays the rear RH tire on the information display in the combination meter.
RR TIRE DISP	Off	Does not display the rear RH tire on the information display in the combination meter.
	NO DISP	Does not display the turning status on the information display in the combination meter.
TURN DISP	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.
	LEVEL 1	
ALC LEVEL	LEVEL 2	Displays Active Lane Control corresponding to the selected level on the in-
ALC LEVEL	LEVEL 3	formation display in the combination meter.
	LEVEL 4	
	On	Displays Active Lane Control active status on the information display in the combination meter.
ALC SETTING	Off	Displays Active Lane Control inactive status on the information display in the combination meter.
ATO 4 DIOD	On	Displays active trace control function active status on the information display in the combination meter.
ATC 1 DISP	Off	Displays active trace control function inactive status on the information display in the combination meter.
ATO A DIOD	On	Displays active trace control function active status on the information display in the combination meter.
ATC 2 DISP	Off	Displays active trace control function inactive status on the information display in the combination meter.

DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

Test item	Operation	Description
ATC 4 DISP	On	Displays active trace control function active status on the information display in the combination meter.
ATC 4 DISP	Off	Displays active trace control function inactive status on the information display in the combination meter.

WORK SUPPORT

Work support items	Description
ERASE LAST DRIVER INFORMATION	Erases the information for the previous driver.
ERASE KEY ALLOTEMENT 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 • 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
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

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DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

[DRIVER ASSISTANCE SYSTEM]

Cause of cancellation	Lane departure prevention	Blind spot intervention	Description
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, IBA 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
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.

DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

< SYSTEM DESCRIPTION >

[DRIVER ASSISTANCE SYSTEM]

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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ECU DIAGNOSIS INFORMATION

ADAS CONTROL UNIT

Reference Value

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
WAIN SW	Igridion switch Oiv	When MAIN switch is not pressed	Off
057/00407-014/	Ignition switch ON	When SET/COAST switch is pressed	On
SET/COAST SW		When SET/COAST switch is not pressed	Off
CANCEL CW	Ignition quitab ON	When CANCEL switch is pressed	On
CANCEL SW	Ignition switch ON	When CANCEL switch is not pressed	Off
DECLIME/ACC CW/	Ignition quitab ON	When RESUME/ACCELERATE switch is pressed	On
RESUME/ACC SW	Ignition switch ON	When RESUME/ACCELERATE switch is not pressed	Off
DIOTANICE CIA	Legities existely ON	When DISTANCE switch is pressed	On
DISTANCE SW	Ignition switch ON	When DISTANCE switch is not pressed	Off
	Drive the vehicle and activate	When ICC system is controlling	On
CRUISE OPE	the vehicle-to-vehicle distance control mode	When ICC system is not controlling	Off
		When brake or clutch pedal is depressed	Off
BRAKE SW	Ignition switch ON	When brake or clutch pedal is not depressed	On
070014440044	Ignition switch ON	When brake pedal is depressed	On
STOP LAMP SW		When brake pedal is not depressed	Off
	Engine running	Idling	On
IDLE SW		Except idling (depress accelerator pedal)	Off
	Start the engine and turn the ICC system ON Press the DISTANCE	When set to "long"	Long
		When set to "middle"	Mid
• Press the DISTANCE switch to change the vehicle-to-vehicle distance setting	switch to change the vehi- cle-to-vehicle distance set-	When set to "short"	Short
CRUISE LAMP	Start the engine and press	ICC system ON (MAIN switch indicator ON)	On
CROISE LAWIP	MAIN switch	ICC system OFF (MAIN switch indicator OFF)	Off
OWN VHCL	NOTE: The item is indicated, but not m	nonitored	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	When ICC system is malfunctioning (ICC system malfunction ON)	On
	MAIN switch	When ICC system is normal (ICC system malfunction OFF)	Off

< 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		When the buzzer of the following system operates Vehicle-to-vehicle distance control mode DCA system PFCW system FEB system	On
BUZZER U/P	Engine running	When the buzzer of the following system not operates Vehicle-to-vehicle distance control mode DCA system PFCW system FEB system	Off
THRTL SENSOR	NOTE: The item is indicated, but not n	nonitored	0.0
ENGINE RPM	Engine running		Equivalent to ta- chometer read- ing
-		Wiper not operating	Off
WIPER SW	Ignition switch ON	Wiper LO operation	Low
		Wiper HI operation	High
YAW RATE	NOTE: The item is indicated, but not n	nonitored	0.0
DA WADNING	Engine running	FEB OFF indicator lamp ON • When FEB system is malfunctioning • When FEB system is turned to OFF	On
BA WARNING		FEB OFF indicator lamp OFF • When FEB system is normal • When FEB system is turned to ON	Off
	Drive the vehicle and activate	When ICC brake hold relay is activated	On
STP LMP DRIVE	the vehicle-to-vehicle distance control mode	When ICC brake hold relay is not activated	Off
D RANGE SW	Casina wasina	When the selector lever is in "D" position or manual mode	On
D RANGE SW	Engine running	When the selector lever is in any position other than "D" or manual mode	Off
		When the selector lever is in "N", "P" position	On
NP RANGE SW	Engine running	When the selector lever is in any position other than "N", "P"	Off
DIAD CIM	Ignition quitab ON	When the parking brake is applied	On
PKB SW	Ignition switch 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 ve- hicle speed sen- sor signal
THRTL OPENING	Engine running	Depress accelerator pedal	Displays the throttle position

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[DRIVER ASSISTANCE SYSTEM]

Monitor item		Condition	Value/Status
GEAR	While driving		Displays the gear position
CLUTCH SW SIC	Ignition quitab ON	When clutch or brake pedal is depressed	On
CLUTCH SW SIG	Ignition switch ON	When clutch or brake pedal is not depressed	Off
ND CW CIC	125	When the shift lever is in neutral position	On
NP SW SIG	Ignition switch ON	When the shift lever is in any position other than neutral	Off
		When ICC system is deactivated	Off
MODE SIG	Start the engine and press MAIN switch	When vehicle-to-vehicle distance control mode is activated	ICC
		When conventional (fixed speed) cruise control mode is activated	ASCD
	Drive the vehicle and acti-	SET switch indicator ON	On
SET DISP IND	vate the conventional (fixed speed) cruise control mode • Press SET/COAST switch	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
DYNA ASIST SW	Invition quitab ON	When dynamic driver assistance switch is pressed	On
DTNA ASIST SW	Ignition switch ON	When dynamic driver assistance switch is not pressed	Off
	Start the engine and press dy-	DCA system OFF	Off
DCA ON IND	namic driver assistance switch (When DCA setting is ON)	DCA system ON	On
DCA VHL AHED	Drive the vehicle and activate	When a vehicle ahead is not detected (vehicle ahead detection indicator OFF)	Off
DCA VHL AHED	the DCA system	When a vehicle ahead is detected (vehicle ahead detection indicator ON)	On
IBA SW	NOTE: The item is indicated, but not m	nonitored	Off
FCW SYSTEM ON	Ignition switch ON	When the PFCW system is ON	On
	ignition conton	When the PFCW system is OFF	Off
АРА ТЕМР	Engine running		Display the accelerator pedal actuator integrated motor temperature
APA PWR	Ignition switch ON		Power supply voltage value of accelerator ped- al actuator
LDW SYSTEM ON	Ignition switch ON	When the LDW system is ON	On
	Ignition Switch Oiv	When the LDW system is OFF	Off
LDW ON LAMP	Impition quitab CNI	When the LDW system is ON	On
FD AA OIN FWINIL	Ignition switch ON	When the LDW system is OFF	Off

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

Monitor item		Condition	Value/Status
	Start the engine and press dy-	LDP ON indicator lamp ON	On
LDP ON IND	namic driver assistance switch (When LDP system setting is ON)	LDP ON indicator lamp OFF	Off
	Drive the vehicle and activate	Lane departure warning lamp ON	On
LANE DPRT W/L	the LDW system or LDP system	Lane departure warning lamp OFF	Off
LDW BUZER OUT-	Drive the vehicle and activate	When the buzzer of the following system operates • LDW/LDP system • Blind Spot Warning/Blind Spot Intervention system	On
PUT	the LDW/LDP system or Blind Spot Warning/Blind Spot Inter- vention system	When the buzzer of the following system does not operate LDW/LDP system Blind Spot Warning/Blind Spot Intervention system	Off
	Start the engine and press dy-	When the LDP system is ON	On
LDP SYSTEM ON	namic driver assistance switch (When LDP system setting is ON)	When the LDP system is OFF	Off
	Start the engine and press dy-	When the LDP system is ON	On
READY signal	namic driver assistance switch (When LDP system setting is ON)	When the LDP system is OFF	Off
	Drive the vehicle and activate	Both side lane markers are detected	Detect
Camera lost	the LDW system, LDP system or Blind Spot Intervention sys-	Deviate side lane marker is lost	Deviate
	tem	Both side lane markers are lost	Both
Shift position	Engine running While driving		Displays the shift position
	Turn signal lamps OFF	Off	
Turn signal	Turn signal lamp LH blinking	LH	
Turri Signai	Turn signal lamp RH blinking	RH	
	Turn signal lamp LH and RH bl	inking	LH&RH
SIDE G	While driving	Vehicle turning right	Negative value
SIDL G	willie driving	Vehicle turning left	Positive value
WARN REQ	Drive the vehicle and activate	Lane departure warning is operating	On
WARNINEQ	the LDP system	Lane departure warning is not operating	Off
		When the LDP system is ON	Stnby
STATUS signal	Drive the vehicle and activate	When the LDP system is operating	Warn
31A103 signal	the LDP system	When the LDP system is canceled	Cancl
		When the LDP system is OFF	Off
Lane unclear	While driving	Lane marker is unclear	On
	willio unvilly	Lane marker is clear	Off
FUNC ITEM	Ignition switch ON		FUNC3
FUNC ITEM (NV-ICC)	NOTE: The item is indicated, but not monitored		Off
FUNC ITEM (NV- DCA)	NOTE: The item is indicated, but not n	nonitored	Off
DCA SELECT	Ignition switch ON	"Distance Control Assist" set with the integral switch is ON	On
JON GLEEO!	ignition owner or	"Distance Control Assist" set with the integral switch is OFF	Off

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[DRIVER ASSISTANCE SYSTEM]

Monitor item		Condition	Value/Status
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		"Blind Spot Intervention" set with the integral switch is ON	On
BSI SELECT	Ignition switch 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
TOW SELECT	ignition switch 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
LDW GLLLGT	ignition switch 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
BSW SELECT	Ignition switch ON	"Blind Spot Warning" set with the integral switch is OFF	Off
NAVI ICC SELECT	NOTE: The item is indicated, but not m	nonitored	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
OTO OLLEOTABILITY		Items set with the integral switch cannot be switched normally	Off
		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
DRIVE MODE STATS	Ignition switch ON	When drive mode select switch position is in SNOW	SNOW
		When drive mode select switch position is in PERSON-AL	STD
		A signal other than those above is input	ERROR
WARN SYS SW	NOTE: The item is indicated, but not m	nonitored	Off
BSW/BSI WARN LMP	Ignition switch ON	When the BSW system is malfunctioning	On
DOVV/DOI VVAININ LIVIP	Igililon Switch Olv	When the BSW system is normal	Off
BSI ON IND	Ignition quitab ON	Blind Spot Intervention warning ON	On
DOI ON IND	Ignition switch ON	Blind Spot Intervention warning OFF	Off
BSW SYSTEM ON	Ignition switch ON	When the BSW system is ON	On
DOVV STSTEIVI UIV	Ignition switch ON	When the BSW system is OFF	Off
BSI SYSTEM ON	Start the engine and press dy-	When the Blind Spot Intervention system is ON	On
	namic driver assistance switch (When Blind Spot Intervention system setting is ON)	When the Blind Spot Intervention system is OFF	Off
	When the BCI system is ON	On	
BCI SYSTEM ON	Engine running	When the BCI system is OFF	Off
BCI SWITCH	NOTE: The item is indicated, but not m	nonitored	Off

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

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Monitor item	Condition		Value/Status
BATTERY CIRCUIT OFF	NOTE: The item is indicated, but	not used	Off
LDP WARNING INDI-	Engine running	When the LDP system is malfunctioning	On
CATOR	Engine running	When the LDP system is normal	Off
L DW ON INDICATOR	Ignition awitch ON	LDW system display ON	On
LDW ON INDICATOR	Ignition switch ON	LDW system display OFF	Off
LDW WARNING INDI-		When the LDW system is malfunctioning	On
CATOR	Ignition switch ON	When the LDW system is normal	Off
SYSTEM CANCEL	1	System cancel display ON	On
MESSAGE	Ignition switch ON	System cancel display OFF	Off
CAMEDALUTEMO		Lane camera unit high temperature warning display ON	On
CAMERA HI TEMP MSG	Ignition switch 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 INDI-	Engine running	When the Blind Spot Intervention is malfunctioning	On
CATOR		When the Blind Spot Intervention is normal	Off
BSW ON INDICATOR	Ignition switch ON	BSW system display ON	On
BSW ON INDICATOR		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
		BSW system OFF	Nothing
DOW IND DDIOUT	Ignition switch ON	Blind Spot Warning/Blind Spot Intervention indicator brightness bright	Bright
BSW IND BRIGHT- NESS		Blind Spot Warning/Blind Spot Intervention indicator brightness normal	Normal
		Blind Spot Warning/Blind Spot Intervention indicator brightness dark	Dark
ELING ITEM (EED)	Engine rupping	"Forward Emergency Braking" set with the integral switch is ON	On
FUNC ITEM (FEB)	Engine running	"Forward Emergency Braking" set with the integral switch is OFF	Off
	Ignition quitab CNI	"Forward Emergency Braking" set with the integral switch is ON	On
FEB SELECT	Ignition switch ON	"Forward Emergency Braking" set with the integral switch is OFF	Off
	Facility was in the	FEB system ON	On
FEB SW	Engine running	FEB system OFF	Off
OL MAIN OVA		When speed limiter MAIN switch is pressed	On
SL MAIN SW	Engine running	When speed limiter MAIN switch is not pressed	Off

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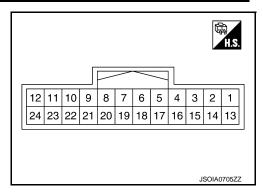
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< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

Monitor item		Condition	Value/Status
SL TARGET VEHI- CLE SPEED	While driving	When vehicle speed is set	Displays the set vehicle speed
	Drive the vehicle and activate the speed limiter Press speed limiter MAIN switch	Speed limiter SET indicator ON	On
SL SET LAMP		Speed limiter SET indicator OFF	Off
	Drive the vehicle and acti-	Speed limiter system ON	On
SL LIMIT LAMP	vate the speed limiterPress speed limiter MAIN switch	Speed limiter system OFF	Off
ASCD CANCEL	Drive the vehicle and activate	ASCD cancelled by low vehicle speed	On
(LOW SPEED)	the ASCD	Other than above	Off
ASCD CANCEL	Drive the vehicle and activate	ASCD cancelled by difference between set speed and vehicle speed	On
(SPEED DIFF)	the ASCD	Other than above	Off
KICK DOWN	Drive the vehicle and activate	When accelerator pedal is full depressed	On
	the speed limiter	Other than above	Off

TERMINAL LAYOUT PHYSICAL VALUES



	nal No. color)	Description		Condition		Standard value	Reference value	
+	_	Signal name	Input/ Output		Condition	Standard value	Neierence value	
1 (L)		CAN -H			_	_	_	
2 (R)		CAN -L	_		_	_	_	
5 (B)		Ground	_	Ignition switch ON		0 - 0.1 V	Approx. 0 V	
6 (L)		ITS communication-H	_			_	_	
7 (P)	Ground	ITS communication-L	_			_	_	
8 (L)	Giodila	Chassis communication-H	_		_	_	_	
9 (V)		Chassis communication-L	_	_		_	_	
12 (GR)		Ignition power supply	Input	Ignition switch ON	_	10 - 16 V	Battery voltage	
17		ICC brake hold relay		Ignition	_	10 - 16 V	Approx. 12 V	
(V)		drive signal	Output		At "STOP LAMP" test of "Active test"	0 - 0.1 V	Approx. 0 V	

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

Fail-safe (ADAS Control Unit)

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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	Buzzer	Warning lamp/Warning dis- play	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	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
Blind Spot Warning (BSW)	_	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:0000000009716275

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

Priority	Detected items (DTC)
1	U1507: LOST COMM (SIDE RDR R) U1508: LOST COMM (SIDE RDR L)
2	1CA0A: CONFIG UNFINISHED U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN)
3	C1F02: APA C/U MALF C1B53: SIDE RDR R MALF C1B54: SIDE RDR L MALF C1B84: DIST SEN MALFUNCTION

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< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

Priority	Detected it	tems (DTC)
4	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 SUPLY CIR C1A33: CAN TRANSMISSION ERR C1A34: COMMAND ERROR C1A36: APA CAN COMM CIR C1A36: APA CAN CIR 2 C1A38: APA CAN CIR 1 C1A39: STRG SEN CIR C1A39: STRG SEN CIR C1B5D: FEB OPE COUNT LIMIT C1B56: SONAR CIRCUIT C1B59: CCM CIRCUIT C1B59: CCM CIRCUIT C1B58: DIST SEN OFF-CENTER C1B86: DIST SEN ABNORMAL TEMP C1B86: DIST SEN PWR SUP CIR C1F01: APA MOTOR MALF C1F05: APA PWR SUPLY CIR	 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 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 1 U1506: SIDE RDR R CAN CIR 1 U1506: SIDE RDR R CAN CIR 1 U1508: ECM CAN CIRC 3 U1500: TCM CAN CIRC 3 U150D: TCM CAN CIRC 3 U150E: BCM CAN CIRC 3 U150F: AV CAN CIRC 3 U1512: HVAC CAN CIRC 3 U1513: METER CAN CIRC 3 U1514: STRG SEN CAN CIRC 3 U1515: ICC SENSOR CAN CIRC 3 U1517: APA CAN CIRC 3 U1518: SIDE RDR L CAN CIRC 3 U1519: SIDE RDR L CAN CIRC 3 U1519: SIDE RDR R CAN CIRC 3 U1521: SONAR CAN COMMUNICATION 3 U1522: SONAR CAN COMMUNICATION 3 U1523: SONAR CAN COMMUNICATION 2 U1524: AVM CAN COMMUNICATION 1 U1525: AVM CAN COMMUNICATION 3 U1527: CCM CAN CIR 1 U1530: DR ASSIST BUZZER CAN CIR 1 U1541: DAST 3 CAN CIR 2
5	C1A03: VHCL SPEED SE CIRC	
6	C1A15: GEAR POSITION	
7	C1A00: CONTROL UNIT	

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.

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)
- G: Back-up Collision Intervention (BCI)

DTC			Fail-safe	
CONSULT	On board display	CONSULT display	System	Reference
NO DTC IS DE- TECTED. FUR- THER TESTING MAY BE RE- QUIRED	55	NO DTC IS DETECTED. FURTHER TESTING MAY BE REQUIRED	_	_
C1A0A	41	CONFIG UNFINISHED	A, B, C, D, E, F, G	DAS-69
C1A00	0	CONTROL UNIT	A, B, C, D, E, F, G	DAS-70
C1A01	1	POWER SUPPLY CIR	A, B, C, D, E, F, G	DAS-71
C1A02	2	POWER SUPPLY CIR 2	A, B, C, D, E, F, G	DAS-71
C1A03	3	VHCL SPEED SE CIRC	A, B, C, D, E, F, G	DAS-72
C1A04	4	ABS/TCS/VDC CIRC	A, B, C, D, E, F, G	DAS-74
C1A05	5	BRAKE SW/STOP L SW	A, B, C, D, G	<u>DAS-75</u>
C1A06	6	OPERATION SW CIRC	A, B, C, D, E	DAS-80
C1A13	13	STOP LAMP RLY FIX	A, B, C, D, E, G	DAS-83
C1A14	14	ECM CIRCUIT	A, B, C, D, E	DAS-89
C1A15	15	GEAR POSITION	A, B, C, D, E	DAS-91
C1A24	24	NP RANGE	A, B, C, D, E, F, G	DAS-93
C1A26	26	ECD MODE MALF	A, B, C, D, G	DAS-95
C1A27	27	ECD PWR SUPLY CIR	A, B, C, D, G	DAS-97
C1A33	33	CAN TRANSMISSION ERR	A, B, C, D, E	DAS-99
C1A34	34	COMMAND ERROR	A, B, C, D, E	DAS-100
C1A35	35	APA CIR	A, C, D, E	DAS-101
C1A36	36	APA CAN COMM CIR	A, C, D, E	DAS-102
C1A37	133	APA CAN CIR 2	A, C, D, E	DAS-103
C1A38	132	APA CAN CIR 1	A, C, D, E	DAS-104
C1A39	39	STRG SEN CIR	A, B, C, D, E, F, G	DAS-105
C1B5D	198	FEB OPE COUNT LIMIT	C, D, E	DAS-106
C1B53	84	SIDE RDR R MALF	F, G	DAS-107
C1B54	85	SIDE RDR L MALF	F, G	DAS-108
C1B56	86	SONAR CIRCUIT	G	DAS-109
C1B57	87	AVM CIRCUIT	G	DAS-110
C1B59	184	CCM CIRCUIT	A, B, C, F, G	DAS-111
C1B82	12	DIST SEN OFF-CENTER	A, C, D, E	DAS-112
C1B84	17	DIST SEN MALFUNCTION	A, C, D, E	DAS-113
C1B85	21	DIST SEN ABNORMAL TEMP	A, C, D, E	DAS-114
C1B86	80	DIST SEN PWR SUP CIR	A, C, D, E	DAS-115
C1F01	91	APA MOTOR MALF	A, C, D, E	DAS-117
C1F02	92	APA C/U MALF	A, C, D, E	DAS-118

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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)
- G: Back-up Collision Intervention (BCI)

DTC			Fail-safe	
CONSULT	On board display	CONSULT display	System	Reference
C1F05	95	APA PWR SUPLY CIR	A, C, D, E	DAS-119
U0121	127	VDC CAN CIR 2	A, B, C, D, E, F, G	DAS-120
U0126	130	STRG SEN CAN CIR 1	A, B, C, D, E, F, G	DAS-121
U0235	144	ICC SENSOR CAN CIRC 1	A, C, D, E	DAS-122
U0401	120	ECM CAN CIR 1	A, B, C, D, E, F, G	DAS-123
U0402	122	TCM CAN CIR 1	A, B, C, D, E, F, G	DAS-124
U0415	126	VDC CAN CIR 1	A, B, C, D, E, F, G	DAS-125
U0424	156	HVAC CAN CIR 1		DAS-126
U0428	131	STRG SEN CAN CIR 2	A, B, C, D, E, F, G	DAS-127
U1000 ^{NOTE}	100	CAN COMM CIRCUIT	A, B, C, D, E, F, G	DAS-128
U1010	110	CONTROL UNIT (CAN)	A, B, C, D, E, F, G	DAS-130
U150B	157	ECM CAN CIRC 3	A, B, C, D, E, F, G	DAS-131
U150C	158	VDC CAN CIRC 3	A, B, C, D, E, F, G	DAS-132
U150D	159	TCM CAN CIRC 3	A, B, C, D, E, F, G	DAS-133
U150E	160	BCM CAN CIRC 3	A, B, C, D, F, G	DAS-134
U150F	161	AV CAN CIRC 3		DAS-135
U1502	147	ICC SEN CAN COMM CIR	A, C, D, E	DAS-136
U1503	150	SIDE RDR L CAN CIR 2	F, G	DAS-137
U1504	151	SIDE RDR L CAN CIR 1	F, G	DAS-138
U1505	152	SIDE RDR R CAN CIR 2	F, G	DAS-139
U1506	153	SIDE RDR R CAN CIR 1	F, G	DAS-140
U1507	154	LOST COMM (SIDE RDR R)	F, G	DAS-141
U1508	155	LOST COMM (SIDE RDR L)	F, G	DAS-142
U1512	162	HVAC CAN CIRC3		DAS-143
U1513	163	METER CAN CIRC 3	A, B, C, D, E, F, G	DAS-144
U1514	164	STRG SEN CAN CIRC 3	A, B, C, D, E, F, G	DAS-145
U1515	165	ICC SENSOR CAN CIRC 3	A, C, D, E	DAS-146
U1517	167	APA CAN CIRC 3	A, C, D, E	DAS-147
U1518	168	SIDE RDR L CAN CIRC 3	F, G	DAS-148
U1519	169	SIDE RDR R CAN CIRC 3	F, G	DAS-149
U1521	177	SONAR CAN COMMUNICATION 2	G	DAS-150
U1522	178	SONAR CAN COMMUNICATION 1	G	DAS-151
U1523	179	SONAR CAN COMMUNICATION 3	G	DAS-152
U1524	180	AVM CAN COMMUNICATION 1	G	DAS-153
U1525	181	AVM CAN COMMUNICATION 3	G	DAS-154
U1527	185	CCM CAN CIR1	A, B, C, F, G	DAS-155
U153F	186	CCM CAN CIR2	A, B, C, F, G	DAS-156

< 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)
- G: Back-up Collision Intervention (BCI)

DTC			Fail-safe		
CONSULT	On board display	CONSULT display	System	Reference	
U1530	183	DR ASSIST BUZZER CAN CIR1		DAS-157	
U1540	200	DAST CAN CIR 1	C, D, E	DAS-158	
U1541	201	DAST CAN CIR 2	C, D, E	DAS-159	

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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ICC SENSOR

Reference Value

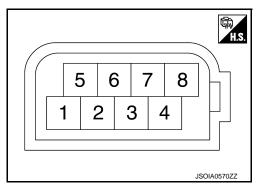
VALUES ON THE DIAGNOSIS TOOL

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)
		Vehicle stopped	0.0
YAW RATE	While driving	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	When a vehicle ahead is detected	Displays the relative speed
	control mode	When a vehicle ahead is not detected	0.0
RADAR OFFSET	NOTE: The item is indicated, but not u	sed	_
RADAR HEIGHT	NOTE: The item is indicated, but not u	sed	_
		When setting the steering wheel in straight-ahead position	0.0
STEERING ANGLE	Ignition switch ON	When turning the steering wheel 90° rightward	+90
		When turning the steering wheel 90° leftward	-90
STRG ANGLE SPEED	Ignition switch ON	vitch ON At the time of turning the steering wheel	
L/R ADJUST	Ignition switch ON	At the completion of radar alignment adjustment	Horizontal cor- rection 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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PHYSICAL VALUES

	Terminal No. (Wire color) Descrip		Description		Standard value	Reference value	Е
+	_	Signal name	Input/ Output	Condition Standard value Refe	Reference value	L	
1 (R)		Ignition power supply	Input	Ignition switch ON	10 - 16 V	Battery voltage	
3 (L)	Ground	ITS communication-H	_	_	_	_	
6 (Y)	Ground	ITS communication-L	_	_	_	_	L
8 (B)		Ground	_	Ignition switch ON	0 - 0.1 V	Approx. 0 V	Е

Fail-safe (ICC Sensor)

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

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

Priority	Detected items (DTC)
1	U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN)
2	C1A50: ADAS MALFUNCTION
3	 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 CIR2 U0428: STRG SEN CAN CIR2
4	C1A00: CONTROL UNIT

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.

×: Applicable

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[DRIVER ASSISTANCE SYSTEM]

DTC			Fail	-safe		
CONSULT	CONSULT display	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)	Reference
C1A00	CONTROL UNIT	×	×	×	×	CCS-101
C1A01	POWER SUPPLY CIR	×	×	×	×	CCS-102
C1A02	POWER SUPPLY CIR2	×	×	×	×	CCS-102
C1A12	RADAR OFF-CENTER	×		×	×	CCS-103
C1A16	RADAR BLOCKED	×		×	×	CCS-104
C1A21	UNIT HIGH TEMP	×	×	×	×	CCS-106
C1A23	UNIT LOW TEMP	×	×	×	×	CCS-107
C1A39	STRG SEN CIR	×	×	×	×	CCS-108
C1A50	ADAS MALFUNCTION	×	×	×	×	CCS-109
U0104	ADAS CAN CIR1	×	×	×	×	CCS-110
U0121	VDC CAN CIR2	×	×	×	×	<u>CCS-111</u>
U0126	STRG SEN CAN CIR1	×	×	×	×	CCS-112
U0405 U0415	ADAS CAN CIR2 VDC CAN CIR1	×	×	×	×	CCS-114
UU4 10		×	×	×	×	<u>CCS-114</u> <u>CCS-115</u>
	STRG SENICANICIR2					000-110
U0428 U1000	STRG SEN CAN CIR2 CAN COMM CIRCUIT	×	×	×	×	CCS-116

ACCELERATOR PEDAL ACTUATOR

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

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ACCELERATOR PEDAL ACTUATOR

Reference Value

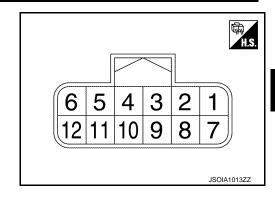
VALUES ON THE DIAGNOSIS TOOL

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 control- ling 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 de- pressed amount of accelerator pedal
AP OPEN	Engine running	Depress accelerator pedal	It changes according to the de- pressed amount of accelerator pedal
APA TEMP	APA TEMP Engine running		Display the accelerator pedal actuator integrated motor temperature
APA CURRENT	PA 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	Facina manina	When the accelerator pedal actuator control is permitted	On
APA OPE STATS	Engine running	When the accelerator pedal actuator control is invalid	Off
		When the accelerator pedal actuator is normal	Ready
APA STATS		When the accelerator pedal actuator is temporarily malfunctioning	TP NG
AFA SIAIS	Engine running	When the accelerator pedal actuator is malfunctioning	NG
		During the accelerator pedal actuator operation preparations	Init

TERMINAL LAYOUT



PHYSICAL VALUES

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Revision: 2013 October **DAS-271** 2014 Q50

ACCELERATOR PEDAL ACTUATOR

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

	inal No. e color)	Description		Condition	Standard value	Reference value
+	_	Signal name	Input/ Output	Condition	Standard value	Treference value
1 (BR)		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)	Ground	ITS communication-H	_	_	_	_
7 (B)		Ground	_	Ignition switch ON	0 - 0.1 V	Approx. 0 V
9 (Y)		ITS communication-L	_	_	_	_

DTC Inspection Priority Chart

INFOID:0000000009644645

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

Priority	Detected items (DTC)		
1	U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN)		
2	C1F02: APA C/U MALF		
3	 C1F01: APA MOTOR MALF C1F03: APA HI TEMP C1F05: APA PWR SUPLY CIR C1F06: CAN CIR2 C1F07: CAN CIR1 		

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 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-341
C1F02: APA C/U MALF	×	DAS-342
C1F03: APA HI TEMP	_	DAS-343
C1F05: APA PWR SUPLY CIR	×	DAS-344
C1F06: CAN CIR2	×	DAS-345
C1F07: CAN CIR1	×	DAS-346
U1000: CAN COMM CIRCUIT	×	DAS-350
U1010: CONTROL UNIT (CAN)	×	DAS-354

[DRIVER ASSISTANCE SYSTEM]

SIDE RADAR LH

Reference Value

VALUES ON THE DIAGNOSIS TOOL

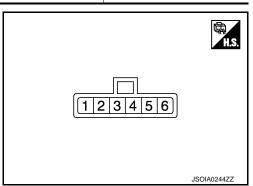
NOTE:

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	BEAM POSITION NOTE: The item is displayed, but it is not used.			
SIDE RADAR MALF	Side radar is normal.	Off		
SIDE RADAR WALF	Side radar is malfunctioning.	On		
BLOCKAGE COND	Side radar is not blocked.	Off		
BLOCKAGE COND	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		
VEHICLE DETECT	Radar detects a vehicle.	On		

TERMINAL LAYOUT



PHYSICAL VALUES

	nal No. color)	Description		Condition	Standard val-	Reference val-
+	_	Signal name	Input/ Output	Condition	ue	ue
2 (B)	Ground	Ground	_	_	0 - 0.1 V	0 V
3 (R)	_	ITS communication-L	_	_	_	_
4 (L)	_	ITS communication-H	_	_	_	_
5 (GR)	Ground	Ignition power supply	Input	Ignition switch ON	10 - 16 V	Approx. 12 V
6 (BR)	Ground	Blind Spot Warning/Blind Spot Intervention indicator	Output	Approx. 2 sec. after ignition switch OFF \Rightarrow ON (bulb check)	5.5 - 16 V	Approx. 6 V

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Fail-safe (Side Radar)

INFOID:0000000009644652

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:00000000009644653

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	U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN)
2	U0104: ADAS CAN CIR 1 U0405: ADAS CAN CIR 2
3	C1B50: SIDE RDR MALFUNCTION
4	C1B51: BSW/BSI IND SHORT CIR C1B52: BSW/BSI IND OPEN CIR C1B55: RADAR BLOCKAGE

DTC Index

x: Applicable

DTC		Fail-	_	
		Blind Spot Warning/ Blind Spot Intervention	BCI	Reference page
C1B50	SIDE RDR MALFUNCTION	×	×	DAS-334
C1B51	BSW/BSI IND SHORT CIR	×	×	DAS-335
C1B52	BSW/BSI IND OPEN CIR	×	×	DAS-337
C1B55	RADAR BLOCKAGE	×	×	DAS-339
U1000	CAN COMM CIRCUIT	×	×	DAS-351
U1010	CONTROL UNIT (CAN)	×	×	DAS-354
U0104	ADAS CAN CIR1	×	×	DAS-347
U0405	ADAS CAN CIR2	×	×	DAS-349

[DRIVER ASSISTANCE SYSTEM]

SIDE RADAR RH

Reference Value

VALUES ON THE DIAGNOSIS TOOL

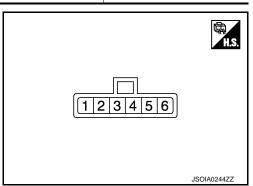
NOTE:

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	BEAM POSITION NOTE: The item is displayed, but it is not used.			
SIDE RADAR MALF	Side radar is normal.	Off		
SIDE KADAK MALI	Side radar is malfunctioning.	On		
BLOCKAGE COND	Side radar is not blocked.	Off		
BLOCKAGE COND	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		
VEHICLE DETECT	Radar detects a vehicle.	On		

TERMINAL LAYOUT



PHYSICAL VALUES

	nal No. color)	Description		Condition	Standard value	Reference
+	_	Signal name	Input/ Output	Condition	Standard value	value
1 (B)	Ground	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)	Ground	Ignition power supply	Input	Ignition switch ON	10 - 16 V	_
6 (SB)	Ground	Blind Spot Warning/Blind Spot Intervention indicator	Output	Approx. 2 sec. after ignition switch OFF ⇒ ON (bulb check)	5.5 - 16 V	6 V

Revision: 2013 October DAS-275 2014 Q50

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Fail-safe (Side Radar)

INFOID:0000000009763253

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:00000000009644657

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	U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN)
2	U0104: ADAS CAN CIR 1 U0405: ADAS CAN CIR 2
3	C1B50: SIDE RDR MALFUNCTION
4	C1B51: BSW/BSI IND SHORT CIR C1B52: BSW/BSI IND OPEN CIR C1B55: RADAR BLOCKAGE

DTC Index

x: Applicable

DTC		Fail-sa		
		Blind Spot Warning/Blind Spot Intervention warning	BCI	Reference page
C1B50	SIDE RDR MALFUNCTION	×	×	DAS-334
C1B51	BSW/BSI IND SHORT CIR	×	×	DAS-335
C1B52	BSW/BSI IND OPEN CIR	×	×	DAS-337
C1B55	RADAR BLOCKAGE	×	×	DAS-339
U1000	CAN COMM CIRCUIT	×	×	DAS-352
U1010	CONTROL UNIT (CAN)	×	×	DAS-355
U0104	ADAS CAN CIR1	×	×	DAS-347
U0405	ADAS CAN CIR2	×	×	DAS-349

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

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DRIVER ASSISTANCE BUZZER CONTROL MODULE

Reference Value

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
		Except for the LDW/LDP/Blind Spot Warning/Blind Spot Intervention warning condition	Off
	Drive the vehicle and	When the LDW warning condition	TYPE 1
Buzzer 1 request (ADAS)	operate each system	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
		When the buzzer cancel immediate	IMEDIAT
Buzzer 1 stop (ADAS)	Ignition switch ON	When the buzzer cancel other than above	CYCLE
		Except for the ICC/PFCW/DCA warning condition	Off
	Drive the vehicle and operate each system	When the approach warning condition	TYPE 1
Buzzer 2 request (ADAS)		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
		When the buzzer cancel immediate	IMEDIAT
Buzzer 2 stop (ADAS)	Ignition switch ON	When the buzzer cancel other than above	CYCLE
	5:	Except for the FEB warning condition	Off
Buzzer 3 request (ADAS)	Drive the vehicle and operate each system	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
		When the buzzer cancel immediate	IMEDIAT
Buzzer 3 stop (ADAS)	Ignition switch ON	When the buzzer cancel other than above	CYCLE
	B	Except for the PFCW warning condition	Off
Buzzer 4 request (ADAS)	Drive the vehicle and operate each system	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
		When the buzzer cancel immediate	IMEDIAT
Buzzer 4 stop (ADAS)	Ignition switch ON	When the buzzer cancel other than above	CYCLE

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< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

Monitor item		Condition	Value/Status
		Except for the LDW/LDP/Blind Spot Warning/Blind Spot Intervention warning condition	Off
Buzzer 1 request (CCM)	Drive the vehicle and	When the LDW warning condition	TYPE 1
	operate each system	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
		When the buzzer cancel immediate	IMEDIAT
Buzzer 1 stop (CCM)	Ignition switch ON	When the buzzer cancel other than above	CYCLE
		Except for the ICC/PFCW/DCA warning condition	Off
D 0 1/222	Drive the vehicle and	When the approach warning condition	TYPE 1
Buzzer 2 request (CCM)	operate each system	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
		When the buzzer cancel immediate	IMEDIAT
Buzzer 2 stop (CCM)	Ignition switch ON	When the buzzer cancel other than above	CYCLE
	Drive the vehicle and operate each system	Except for the FEB warning condition	Off
Buzzer 3 request (CCM)		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
		When the buzzer cancel immediate	IMEDIAT
Buzzer 3 stop (CCM)	Ignition switch ON	When the buzzer cancel other than above	CYCLE
		Except for the PFCW warning condition	Off
Buzzer 4 request (CCM)	Drive the vehicle and operate each system	When the PFCW warning condition	TYPE 1
	, op 2.2	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
		When the buzzer cancel immediate	IMEDIAT
Buzzer 4 stop (CCM)	Ignition switch ON	When the buzzer cancel other than above	CYCLE
ADAS MALFUNCTION	Ignition switch ON	When the ADAS control unit malfunction	On
	Ignition Switch ON	When the ADAS control unit normal	Off
CCM MALFUNCTION	Ignition switch ON	When the chassis control module mal- function	On
		When the chassis control module normal	Off
DR ASSIST BUZZ MALF	Ignition switch ON	When the driver assistance control module malfunction	On
DITAGOIOT BOLL WALL	Ignition Switch ON	When the driver assistance control module normal	Off

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

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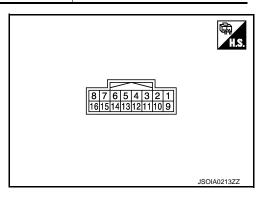
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Monitor item		Condition	Value/Status
		Except for the warning condition	Off
DR ASSIST BUZZ STATUS	Drive the vehicle and operate each system	LDW/LDP//Blind Spot Warning/Blind Spot Intervention system warning in progress	1
		ICC/PFCW/DCA system warning in progress	2
		FEB system warning in progress	3
		LDW/LDP//Blind Spot Warning/Blind Spot Intervention/ICC/PFCW/DCA sys- tem 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/Out- put	Condition		Standard value	Neierence value
1 (G)	5 (B)	Ignition power supply	Input	Ignition switch ON	_	10 - 16 V	Battery voltage
3 (L)	_	ITS communication-H	_	_	_		_
5 (B)	Groun d	Ground	_	Ignition switch ON	_	0 - 0.1 V	Approx. 0 V

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< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

	inal No. e color)	Description			Condition	Standard value	Reference value									
+	_	Signal name	Input/Out- put	Condition		Standard value	Reference value									
					Driver assistance buzzer OFF	0 - 0.1 V	Approx. 0 V									
					At "BUZZER 1" test of "Active test"	(V) 4 0 -4	500μS JSOIA0949ZZ									
8 (R)	16 (G)	Warning buzzer signal	Output	Ignition switch ON	At "BUZZER 2" test of "Active test"	(V) 4 0 -4	500μS JSOIA0950ZZ									
														At "BUZZER 3" test of "Active test"	(V) 4 0 -4	500µ\$ JSOIA0951ZZ
11 (Y)	_	ITS communication-L	_	_	_	_	_									
13 (B)	Groun d	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:0000000009644660

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

Priority	Detected items (DTC)
1	U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN)
2	U0104: ADAS CAN CIR2 U1527: CCM CAN CIRCUIT 1
3	C1B20: CONTROL MODULE

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 in FFD (Freeze Frame Data).
- 0: The malfunctions that are detected now

< 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-332
U0104	ADAS CAN CIR2	DAS-348
U1527	CCM CAN CIRCUIT 1	DAS-358
U1000	CAN COMM CIRCUIT	DAS-353
U1010	CONTROL UNIT (CAN)	DAS-356

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Reference Value

VALUES ON THE DIAGNOSIS TOOL

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
O/WITHOIT TEWN	When the temperature around the lane camera unit is high	High
VHCL SPD SE	While driving	Approximately equivalent to speedometer reading
	Turn signal lamp LH and RH blinking	LH/RH
TURN SIGNAL	Turn signal lamp LH blinking	LH
TOKIN SIGNAL	Turn signal lamp RH blinking	RH
	Turn signal lamps OFF	Off
LANE DETOT LU	Left side lane marker is detected	On
LANE DETCT LH	Left side lane marker is not detected	Off
LANE DETCT DU	Right side lane marker is detected	On
LANE DETCT RH	Right side lane marker is not detected	Off
ODOOO LANELLI	The vehicle is crossing left side lane marker	On
CROSS LANE LH	The vehicle is not crossing left side lane marker	Off
	The vehicle is crossing right side lane marker	On
CROSS LANE RH	The vehicle is not crossing right side lane marker	Off
	The vehicle is traveling on the left side lane marker.	On
WARN LANE LH	The vehicle is traveling the center of traffic lane.	Off
WARNI ANE BU	The vehicle is traveling on the right side lane marker.	On
WARN LANE RH	The vehicle is traveling the center of traffic lane.	Off
\/\!\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Lateral position for left side lane marker is valid	VLD
VALID POS LH	Lateral position for left side lane marker is invalid.	INVLD
\/\!\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Lateral position for right side lane marker is valid.	VLD
VALID POS RH	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.
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.

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

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Monitor Item	Condition	Value/Status
CAM DTC CODE	NOTE: The item is indicated, but not used.	
AIMING DONE	Camera aiming is completed	OK
AIIVIING DONE	Camera aiming is not adjusted	NG
AIMING RESULT	Camera aiming is completed	OK
Aliviling RESULI	Camera aiming is not completed	NOK
	No target is detected.	TARGET
	Yaw angle beyond the allowable range is detected.	YAW
	Roll angle beyond the allowable range is detected.	ROLL
AIM NO DEACON	Pitch angle beyond the allowable range is detected.	PITCH
AIM NG REASON	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 AIMOFFSET (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 AIMOFFSET(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
RUNTIME AIM COUNT	NOTE: The item is indicated, but not used	_
ROM WRITING COUNT	NOTE: The item is indicated, but not used	_

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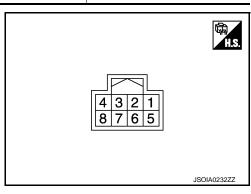
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[DRIVER ASSISTANCE SYSTEM]

Monitor Item	Condition	Value/Status
CAMERA START	Lane camera unit is starting.	START
CAMERA START	Lane camera unit starting is completed.	COMP
GIVE UP	Lane marker can be detected.	OK
GIVE OF	Lane marker can not be detected.	NG
READY	Operating conditions are not satisfied.	NOT
READT	Operating conditions are satisfied.	COMP
	Lane marker is not detected	NONE
	Solid line is detected.	SOLID
	Dashed line is detected.	DASHED
MARK TYPE LH	Bott's dots is detected.	BOTT's
WARRIFELII	Fork road (bifurcation) is detected.	FORK
	Slow down area is detected.	SLOW
	Tar strips is detected.	TAR
	Irregularity road is detected.	IRGLTY
	Lane marker is not detected	NONE
	Solid line is detected.	SOLID
	Dashed line is detected.	DASHED
MARK TYPE RH	Bott's dots is detected.	BOTT's
WARK TIPE KII	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 heighing target.	
TARGET DISTANCE (Dt)	Camera aiming is completed	Displays the distance (Dt) from front axle to a target.

TERMINAL LAYOUT



PHYSICAL VALUES

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

	nal No. color)	Description		Condition	Value	
+	_	Signal name	Input/ Output	Condition	(Approx.)	
1 (B)		Ground	_	_	0 V	
4 (L)		Chassis communication-H	_	_	_	
5 (B)	Ground	Ground	_	_	0 V	
7 (V)		Ignition power supply	Input	Ignition switch	12 V – 14 V	
8 (W)		Chassis communication-L	_	_	_	

Fail-safe (Lane Camera Unit)

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FAIL-SAFE CONTROL BY DTC

If lane camera unit detects any DTC, following functions are suspended. And any warning is indicated on the combination meter.

Function	Indication
Active Lane Control	Chassis control warning is displayed
Lane Departure Warning (LDW)	LDW warning display (yellow) is displayed
Lane Departure Prevention (LDP)	LDP warning display (yellow) is displayed and a beep is sounded
Blind Spot Intervention	BSW/BSI warning display (yellow) is displayed and a beep is sounded

TEMPORARY DISABLED STATUS AT HIGH TEMPERATURE

- If the vehicle is parked in direct sunlight under high temperature conditions, following functions are suspended. And camera high temperature message is indicated on the combination meter.
- When interior temperature is reduced, and system warning is stopped. Then the system can be operated again by dynamic driver assistance switch ON.

Function	Indication		
Active Lane Control	-		
Lane Departure Warning (LDW)	Camera high temperature message is displayed. Then LDW warning display (yellow) is blinked		
Lane Departure Prevention (LDP)	Camera high temperature message is displayed. Then LDP warning display (yellow) is blinked		
Blind Spot Intervention	Camera high temperature message is displayed. Then Blind Spot Intervention warning display (yellow) is blinked		

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.

Priority	Detected items (DTC)
1	U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN)
2	C1B01: CAM AIMING INCMP C1B03: ABNRML TEMP DETECT
3	C1B00: CAMERA UNIT MALF

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[DRIVER ASSISTANCE SYSTEM]

DTC Index

×: Applicable

DTC		Warning display			Fail-safe				
		Chassis control warning message	LDW system warning	LDP system warning	Blind Spot Intervention system warning	Active Lane Control	LDW/LDP	Blind Spot Intervention	Reference
C1B00	CAMERA UNIT MALF	ON	ON	ON	ON	×	×	×	DAS-613
C1B01	CAM AIMING INCMP	ON	ON	ON	ON	×	×	×	DAS-614
C1B03	ABNRML TEMP DETECT	_	Message ↓ Blink	Message ↓ OFF	Message ↓ OFF	×	×	×	DAS-615
U1000	CAN COMM CIRCUIT	ON	ON	ON	ON	×	×	×	DAS-611
U1010	CONTROL UNIT (CAN)	ON	ON	ON	ON	×	×	×	DAS-612

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

CHASSIS CONTROL MODULE

Reference Value

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		
	When chassis control module is normal	Off		
CONTROL MODULE MALF	When chassis control module malfunction is detected	On		
CAN DIAG STATUS	When diagnosis of CAN communication mal- function is detected	Off		
CAN DIAG STATUS	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 Stopped	0 km/h (0 MPH)		
VEHICLE SPEED	Driving*	Almost same reading as speedometer (within ±10%)		
ED WILLEL ODEED	Vehicle stopped	0 rpm		
FR WHEEL SPEED	Driving*	Increases according to vehicle speed		
	Vehicle stopped	0 rpm		
FL WHEEL SPEED	Driving*	Increases according to vehicle speed		
	Vehicle stopped	0 rpm		
RR WHEEL SPEED	Driving*	Increases according to vehicle speed		
	Vehicle stopped	0 rpm		
RL WHEEL SPEED	Driving*	Increases according to vehicle speed		
	When driving straight	0±3.5 deg		
STEERING ANG SENSOR	When steering wheel is steered to RH by 90°	Approx. +90 deg		
	When steering wheel is steered to LH by 90°	Approx. –90 deg		
	Vehicle stopped	Approx. 0 G		
DECEL G SENSOR	When during acceleration	Positive value		
	When during deceleration	Negative value		
	Vehicle stopped	Approx. 0 G		
SIDE G SENSOR	When right turn	Negative value		
	When left turn	Positive value		
	Vehicle stopped	Approx. 0 deg/s		
YAW RATE SENSOR	When right turn	Negative value		
	When left turn	Positive value		
ACCELE PEDAL POSITION	When accelerator pedal is released	0%		
ACCELE I EDAL I COITION	When accelerator pedal is depressed	0 – 100%		

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CHASSIS CONTROL MODULE

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[DRIVER ASSISTANCE SYSTEM]

Monitor item	Condition	Reference values in normal operation		
	When electric throttle control actuator is normal	NORMAL		
TUDOTTI E CONTROL	When the electric throttle control actuator does not achieve the requirement (measured value is inaccurate)	INCORR		
THROTTLE CONTROL	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		
DDAKE OWITOLLO	When brake pedal is not depressed	Off		
BRAKE SWITCH 2	When brake pedal is depressed	On		
DDAKE OMITOLIA	When brake pedal is depressed	Off		
BRAKE SWITCH 1	When brake pedal is not depressed	On		
DDEGG GENGOD	When brake pedal is not depressed	Approx. 0 bar		
PRESS SENSOR	when brake pedal is depressed	0 – 255 bar		
400	When ABS function is normal	NORMAL		
ABS	When ABS function malfunction is detected	ABNOR		
	When ABS function is normal	NORMAL		
ABS MALF	When ABS function malfunction is detected	ABNOR		
	When EBD function is normal	NORMAL		
EBD	When EBD function malfunction is detected	ABNOR		
	When accelerator pedal is normal	NORMAL		
ACCELE PEDAL MALF	When accelerator pedal malfunction is detected	ABNOR		
TOC	When TCS function is normal	NORMAL		
TCS	When TCS function malfunction is detected	ABNOR		
TCS MALF	When TCS function is normal	NORMAL		
TCS MALF	When TCS function malfunction is detected	ABNOR		
VDO	When VDC function is normal	NORMAL		
VDC	When VDC function malfunction is detected	ABNOR		
\/D0.1441.5	When VDC function is normal	NORMAL		
VDC MALF	When VDC function malfunction is detected	ABNOR		
\/D0.055.0\/\!T0.1	When VDC OFF switch is OFF	Off		
VDC OFF SWITCH	When VDC OFF switch is ON	On		
	When parking brake is inactive	Off		
PARKING BRAKE	When parking brake is active	On		
	When correction coefficients are initialized	INITIAL		
	When correction is executed	NORMAL		
DDV TDO OTDI MOSS	When correction is stopped (computing is impossible)	STOP 1		
DRV TRQ CTRL MODE	When correction is stopped (computing is possible)	STOP 2		
	When correction is limited	LIMIT 1		
	When correction is prohibited	PROHIBI		

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

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Monitor item	Condition	Reference values in normal operation
DRV TRQ CTRL PERMIS 1	When correction is permitted (basic requirement)	PERMIS
DRV INQ CIRL PERIMIS I	When correction is not permitted (basic requirement)	NO PER
DRV TRQ CTRL PERMIS 2	When correction is permitted (system requirement)	PERMIS
DIV TRQ CTREFERING 2	When correction is not permitted (system requirement)	NO PER
DRV TRQ CTRL STOP	When correction is requested to stop	REQ
DIV TRQ CTRESTOF	When correction is not requested to stop	NO REQ
DRV TRQ CTRL PROHIBIT	When prohibition of correction is requested	REQ
DITY TITO CITIES ROTHER	When prohibition of correction is not requested	NO REQ
	When drive mode select switch is "STAN-DARD" mode	STD
	When drive mode select switch is "SPORT" mode	SPORT
DRIVE MODE SELECTOR	When drive mode select switch is "SNOW" mode	SNOW
	When drive mode select switch is "ECO" mode	ECO
	When drive mode select switch is "PERSON-AL" mode	PERSO
	When drive mode select switch is not select	NOT SET
LOG-IN PERMIS	When log-in is possible	NO PER
LOG-IN F LIXIVIIS	When log-in is not possible	PERMIS
I-KEY LINK	When Intelligent Key is not linked	Off
I-NET LINK	When Intelligent Key is linked	On
	When logged in with "USER A" Intelligent Key	USER A
	When logged in with "USER B" Intelligent Key	USER B
USER	When logged in with "USER C" Intelligent Key	USER C
	When logged in with an Intelligent Key without user registration	GUEST
	When the engine/transmission setting with drive mode select switch is in "SPORT" mode	SPORT
ENGINE/TM SETTING	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
	When the engine/transmission setting with drive mode select switch is in "SNOW" mode	SNOW

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[DRIVER ASSISTANCE SYSTEM]

Monitor item	Condition	Reference values in normal operation	
	When the steering system setting with drive mode select switch is in "STANDARD" mode (Effort: Middle /Response: Middle)	STD	
STRG SETTING	When the steering system setting with drive mode select switch is in "SPORT" mode (Effort: Heavy / Response: Quick)	SPT	
STRG SETTING	When the steering system setting with drive mode select switch is in "TOURING" mode (Effort: Light / Response: Casual)	TOUR	
	When the steering system setting with drive mode select switch is in "SPORT-L" mode (Effort: Middle / Response: Quick)	SPT-L	
	When Active Lane Control setting with drive mode select switch is "OFF"	Off	
ALC SETTING	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	
ATC SETTING	When active trace control function setting with drive mode select switch is "OFF"	Off	
ATC SETTING	When Active Lane Control setting with drive mode select switch is "ON"	On	
	When drive mode select switch is "STAN-DARD" mode	STD	
	When drive mode select switch is "SNOW" mode	SNOW	
COMBI METER	When drive mode select switch is "PERSON-AL" 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	
AICT	When active trace control function is active	On	
ATC 2	When active trace control function is inactive	Off	
AIC 2	When active trace control function is active	On	
ATC 4	When active trace control function is inactive	Off	
A10 4	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	
TE TIME DIOF	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	
TIX TIXE DIOF	When the front RH tire is displayed on the information display in the combination meter	1	
DI TIDE NICO	When the rear LH tire is not displayed on the information display in the combination meter	DEF	
RL TIRE DISP	When the rear LH tire is displayed on the information display in the combination meter	1	

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[DRIVER ASSISTANCE SYSTEM]

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Monitor item	Condition	Reference values in normal operation
DD TIDE DICD	When the rear RH tire is not displayed on the information display in the combination meter	DEF
RR TIRE DISP	When the rear RH tire is displayed on the information display in the combination meter	1
	When the straight-ahead status is displayed on the information display in the combination meter	N STEER
TURN DISP	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
	When Active Lane Control is turned ON.	0
ALC LEVEL	When Active Lane Control is operational or is operating.	1 – 4
ALC STATUS	When Active Lane Control is OFF	INACT
ALO STATUS	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
ATOBISE	When the activation of active trace control function is displayed on the information display in the combination meter	On
	When the activation of Active Lane Control is not displayed on the information display in the combination meter	Off
ALC DISP	When the activation of Active Lane Control is displayed on the information display in the combination meter	On
ALC CVCTEM	When Active Lane Control is OFF	Off
ALC SYSTEM	When Active Lane Control is ON	On
LANE MADIZED (LLI)	When left side lane marker is not detected.	NOT
LANE MARKER (LH)	when left side lane marker is detected.	DETECT
I ANE MADVED (DLI)	When right side lane marker is not detected.	NOT
LANE MARKER (RH)	When right side lane marker is detected.	DETECT
TURN SIGNAL (LH)	When turn signal lamps is OFF	Off
TOTAL (LIT)	When turn signal lamp LH is blinking	On
TURN SIGNAL (RH)	When turn signal lamps is OFF	Off
TOTAL GIONAL (TAT)	When turn signal lamp RH is blinking	On
	When turn signal lamps is OFF	Off
	When turn signal lamp LH is blinking	LEFT
TURN SIGNAL SWITCH	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
DA31	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

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[DRIVER ASSISTANCE SYSTEM]

Monitor item	Condition	Reference values in normal operation
	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
COMMAND ST ANG	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
	When driving straight	Approx. 0 rad
ST PINION ANG	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
31 WHET ONCE TONGOL	When steering wheel is steered	MAX ± 32 N·m
	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
COMMAND ST WHL FORCE	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
LDW DIGF	When LDW function malfunction is detected	MALF
LDP DISP	When LDP function is ON	On
LDF DISF	When LDP function malfunction is detected	MALF
	When blind spot intervention function is ON	On
BSI DISP	When blind spot intervention function malfunction is detected	MALF
	When steering switch is normal	ОК
ST SWITCH COND	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
DOW GOND	When BSW function malfunction is detected	ABNOR
ADAS COND	When ADAS control unit is normal	NORMAL
715/10 00/15	When ADAS control malfunction is detected	ABNOR
COLLISION WARN	When the collision warning is OFF	Off
OOLLIOIOIV VIVIIIV	When the collision warning is ON	On
ICC ACTTIVE	When ICC function is inactive	Off
	When ICC function is active	On
IBA ACTIVE	When forward emergency brake function is inactive	Off
ID. MOTIVE	When forward emergency brake function is active	On
DR BUZZER STATUS	Displayed but not used	_
LDW COND	When LDW function is ON	On
LDW COND	When LDW function malfunction is detected	MALF

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Monitor item	Condition	Reference values in normal operation
LDP COND	When LDP function is ON	On
LDI COND	When LDP function malfunction is detected	MALF
	When blind spot intervention function is ON	On
BSI COND	When blind spot intervention function malfunction is detected	MALF
	When not cancel	NONE
	When slippery road	SLIP
LDP BRAKE CANCEL	When drive mode select switch is "SNOW" mode	SNOW
	When VDC OFF switch is OFF	VDC OF
	When not cancel	NONE
	When slippery road	SLIP
BSI BRAKE CANCEL	When drive mode select switch is "SNOW" mode	SNOW
	When VDC OFF switch is OFF	VDC OF
	When Lane camera unit is normal	NORMAL
CAMERA COND	When Lane camera unit malfunction is detected.	ABNOR
CAMEDA TEMP COND	When the temperature around lane camera unit is normal	NORMAL
CAMERA TEMP COND	When the temperature around the lane camera unit is high	ABNOR
	When communication between chassis control module and lane camera unit is normal	NORMAL
CAMERA COMM COND	When communication between chassis control module and lane camera unit malfunction is detected	ABNOR
CAMEDA AIMINO	When lane camera aiming is completed	COMP
CAMERA AIMING	When lane camera aiming is not completed	INCOMP
CAMEDA LUCULTEMP (I DIM)	When the temperature around lane camera unit is normal. (LDW ON)	NORMAL
CAMERA HIGH TEMP (LDW)	When the temperature around the lane camera unit is high. (LDW ON)	ABNOR
CAMEDA LIIOU TEMB (LDD)	When the temperature around lane camera unit is normal. (LDP ON)	NORMAL
CAMERA HIGH TEMP (LDP)	When the temperature around the lane camera unit is high. (LDP ON)	ABNOR
CAMEDA LIICU TEMP (PCI)	When the temperature around lane camera unit is normal. (Blind spot intervention ON)	NORMAL
CAMERA HIGH TEMP (BSI)	When the temperature around the lane camera unit is high. (Blind spot intervention ON)	ABNOR
	When the side radar is normal	NORMAL
SIDE RADAR BLOCK CANCEL	Side radar is blocked and temporarily deactivated.	BLOCK
DOLLAMB DEG (1.1)	When blind spot intervention function (LH) is inactive	Off
BSI LAMP REQ (LH)	When blind spot intervention function (LH) is active	On

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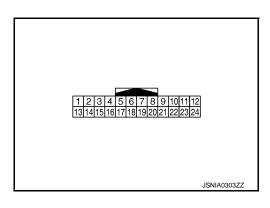
< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

Monitor item	Condition	Reference values in normal operation
BSI LAMP REQ (RH)	When blind spot intervention function (RH) is inactive	Off
BOI LAWIF IXEQ (IXII)	When blind spot intervention function (RH) is active	On
LANE DEPARTURE DISP (LH)	When not deviating the LH side lane	NO DISP
LANE DEPARTORE DISF (EII)	When deviating the LH side lane	DEVIAT
LANE DEPARTURE DISP (RH)	When not deviating the RH side lane	NO DISP
LANE DEFACTORE DISF (KH)	When deviating the RH side lane	DEVIAT
LDP/BSI ACTIVE	When LDP function and blind spot intervention function are inactive	Off
LDF/BSI ACTIVE	When LDP function or blind spot intervention function are active	On
	When diagnosis of ADAS control unit is normal	NORMAL
ADAS COND	When diagnosis of ADAS control unit malfunction is detected	ABNOR
	When driver assistance buzzer is normal	NORMAL
DR BUZZER COND	when driver assistance buzzer malfunction is detected	ABNOR
OUTSIDE TEMP	Ignition switch ON	(-40°C) - (+72°C)
	When front wiper is inactive	Off
WIPER STATUS	When front wiper is active (low and intermittent)	LOW
	When front wiper is active (high)	HIGH
	When front wiper malfunction is detected	MALF

^{*:} Check tire pressure under normal conditions.

TERMINAL LAYOUT



PHYSICAL VALUES

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

	inal No. e color)	Description			Condition	Value
+	_	Signal name	Input/ Output	Condition		(Approx.)
3 (R) ^{*1} (P) ^{*2}		CAN-L	_	_	_	_
4 (L)		CAN-H	_	_	_	_
5		DRIVE MODE SELECT SWITCH (UP)	Input	Ignition switch	Up switch is not pressed	6.4 – 16 V
(V)		DRIVE MODE SELECT SWITCH (UP)	Input	ON	Up switch is pressed	0 V
6 (G)		DRIVE MODE SELECT SWITCH (DOWN)	Input	Ignition switch	Down switch is not pressed	6.4 – 16 V
(G)				ON	Down switch is pressed	0 V
7 (W)	Ground	CHASSIS COMM-L	_	_	_	_
8 (W)		CHASSIS COMM-L	_	_	_	_
10 (G)		IGN	Input	I	gnition switch ON	6.4 – 16 V
11 (L)		CHASSIS COMM-H	_	_	_	_
12 (B)		GROUND	_	Ignition switch ON	_	0 V
19 (L)		CHASSIS COMM-H	_	_	_	_

^{*1:} With Gateway

Fail-Safe (Chassis Control Module)

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
C1B90-01	The following functions are suspended.
C1B91-01	 Active lane control function LDW function LDP function Blind spot intervention function
C1B92-01	The following functions are suspended. • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function
C1B93-01	The following functions are suspended.
C1B94-01	 Active trace control function LDW function LDP function Blind spot intervention function

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^{*2:} Without Gateway

[DRIVER ASSISTANCE SYSTEM]

DTC	Vehicle condition	
C1B95-01	The following functions are suspended. Active trace control function Active lane control function LDW function LDP function Blind spot intervention function Infiniti InTuition function Intelligent cruise control function	
C1B96-01	The following functions are suspended. LDW function LDP function Blind spot intervention function Intelligent cruise control function	
C1B98-01	Normal control	
C1B99-01	The following functions are suspended. • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function • Infiniti InTuition function	
C1BA0-01	The following functions are suspended.	
C1BA2-01	Active trace control function	
C1BA5-01	Normal control	
C1BA6-01	The following functions are suspended. • Infiniti InTuition function	
C1BA7-01	The following functions are suspended. • Active lane control function	
C1BA9-01	The following functions are suspended.	
C1BAA-01	LDW functionLDP functionBlind spot intervention function	
C1BAB-01	The following functions are suspended. • Active trace control function	
C1BAC-01	The following functions are suspended.	
C1BAD-01	LDP function	
C1BAE-01	Blind spot intervention function	
C1BAF-01	The following functions are suspended. • Blind spot intervention function	
C1BB0-01	Normal control	
C1BB2-01	The following functions are suspended.	
C1BB3-01	Active trace control function Active lane control function	
C1BB4-01	LDW function LDP function	
C1BB5-01	Blind spot intervention function Infiniti InTuition function	
C1BB6-01	Normal control	
C1BB7-01	The following functions are suspended.	
C1BB8-01	Active trace control function Active lane control function	
C1BB9-01	LDW function	
C1BBA-01	LDP function Blind spot intervention function	
C1BBB-01	Infiniti InTuition function	
C1BBC-01	Normal control	

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

DTC	Vehicle condition	
C1BBD-01	The following functions are suspended. • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function • Infiniti InTuition function	
C1BC0-01	The following functions are suspended.	
C1BC1-01	Active trace control function Active lane control function	
C1BC2-01	The following functions are suspended.	
C1BC3-01	Active trace control function	
C1BC4-01	Normal control	
C1BC5-01		
C1BC6-01	The following functions are suspended. • Active trace control function	
U1000-01		
U1010-01	The following functions are suspended. • Active trace control function • Active lane control function	
U1A30-01	The following functions are suspended.	
U1A31-01	Active lane control function LDW function	
U1A32-01	LDP function Blind spot intervention function	
U1A34-01	The following functions are suspended.	
U1A35-01	 Active trace control function Active lane control function LDW function LDP function Blind spot intervention function 	
U1A36-01	The following functions are suspended. • Active lane control function • LDW function • LDP function • Blind spot intervention function	
U1A39-01	The following functions are suspended. • LDW function • LDP function • Blind spot intervention function	
U1A3B-01	The following functions are suspended. Active trace control function Active lane control function LDW function LDP function Blind spot intervention function	
U1A3D-01	The following functions are suspended. • LDW function • LDP function • Blind spot intervention function	
U1A3E-01	Normal control	
U1A3F-01	The following functions are suspended. • Infiniti InTuition function	
U1A42-01	The following functions are suspended.	
U1A43-01	Active trace control function	
U1A45-01	The following functions are suspended. • Active lane control function	

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

DTC	Vehicle condition
U1A48-01	The following functions are suspended. • Active trace control function • LDW function • LDP function • Blind spot intervention function
U1A4A-01	The following functions are suspended. Active lane control function LDW function LDP function Blind spot intervention function Infiniti InTuition function
U1A4B-01	The following functions are suspended. • Active trace control function • Active lane control function • Infiniti InTuition function
U1A4C-01	Normal control
U1A4E-01	The following functions are suspended. • Active trace control function

DTC Inspection Priority Chart

INFOID:0000000009729311

When multiple DTCs are displayed simultaneously, check them one by one according to the following priority list.

Priority	Detected item (DTC)
1	U1000-01 CAN COMM CIRCUIT U1010-01 CONTROL UNIT (CAN)
2	 U1A30-01 DAST COMM U1A31-01 DAST COMM U1A32-01 CAMERA COMM U1A34-01 BRAKE CONTROL COMM U1A35-01 BRAKE CONTROL COMM U1A36-01 BCM/IPDM COMM U1A39-01 COMBINATION METER COMM U1A3B-01 TCM COMM U1A3B-01 ADAS COMM U1A3E-01 ADAS COMM U1A3F-01 AV COMM U1A42-01 STEERING ANGLE SENSOR COMM U1A43-01 STEERING ANGLE SENSOR COMM U1A45-01 DR BUZZER COMM U1A48-01 ECM/IPCM COMM U1A48-01 CONTROL MODULE (CAN) U1A4B-01 CONTROL MODULE (CAN) U1A4E-01 A/C AUTO AMP. COMM U1A4E-01 ECM/IPCM COMM
3	C1BBD-01 VARIANT CODING
4	C1B98-01 ADAS SYSTEM

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

Priority	Detected item (DTC)	^
	C1B90-01 DAST SYSTEM C1B91-01 CAMERA SYSTEM C1B92-01 BRAKE CONTROL SYSTEM C1B93-01 ENGINE/HEV SYSTEM C1B94-01 TM SYSTEM	В
	 C1B96-01 ADAS SYSTEM C1BA0-01 ADAS/CHASSIS CTRL BRAKE SYS C1BA2-01 STEERING ANGLE SENSOR C1BA5-01 ADAS/CHASSIS CTRL ENGINE SYS C1BA6-01 AV SYSTEM 	С
5	 C1BA7-01 ALC SYSTEM C1BA9-01 NP RANGE C1BAA-01 GEAR POSITION C1BAB-01 STOP LAMP SW 	D
	C1BAC-01 OPERATION SW CIRC C1BAD-01 ACCELERATER PEDAL C1BAE-01 ACCELERATER PEDAL C1BAF-01 BSW SYSTEM	Е
	 C1BB0-01 DR BUZZER SYSTEM C1BC0-01 FR WHEEL SENSOR C1BC1-01 FL WHEEL SENSOR 	F
	 C1BC2-01 RR WHEEL SENSOR C1BC3-01 RL WHEEL SENSOR C1BC4-01 DECEL G SENSOR C1BC5-01 SIDE G SENSOR C1BC5-01 SIDE G SENSOR 	G
6	C1BC6-01 PRESSURE SENSOR C1BB5-01 IGN POWER SUPPLY C1BB6-01 IGN POWER SUPPLY	Н
	C1B95-01 CONTROL MODULE C1B99-01 CONTROL MODULE C1BB2-01 CONTROL MODULE C4BB3-01 CONTROL MODULE	I
7	 C1BB3-01 CONTROL MODULE C1BB4-01 CONTROL MODULE C1BB7-01 CONTROL MODULE C1BB8-01 CONTROL MODULE 	J
	 C1BB9-01 CONTROL MODULE C1BBA-01 CONTROL MODULE C1BBC-01 CONTROL MODULE 	K

DTC Index

DTC	Display item	Refer to
C1B90-01	DAST SYSTEM	DAS-436, "DTC Description"
C1B91-01	CAMERA SYSTEM	DAS-438, "DTC Description"
C1B92-01	BRAKE CONTROL SYSTEM	DAS-440, "DTC Description"
C1B93-01	ENGINE/HEV SYSTEM	DAS-442, "DTC Description"
C1B94-01	TM SYSTEM	DAS-444, "DTC Description"
C1B95-01	CONTROL MODULE	DAS-446, "DTC Description"
C1B96-01	ADAS SYSTEM	DAS-447, "DTC Description"
C1B98-01	ADAS SYSTEM	DAS-449, "DTC Description"
C1B99-01	CONTROL NODULE	DAS-451, "DTC Description"
C1BA0-01	ADAS/CHASSIS CTRL BRAKE SYS	DAS-452, "DTC Description"
C1BA2-01	STEERING ANGLE SENSOR	DAS-454, "DTC Description"
C1BA5-01	ADAS/CHASSIS CTRL ENGINE SYS	DAS-455, "DTC Description"
C1BA6-01	AV SYSTEM	DAS-456, "DTC Description"

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< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

DTC	Display item	Refer to
C1BA7-01	ALC SYSTEM	DAS-458, "DTC Description"
C1BA9-01	NP RANGE	DAS-460, "DTC Description"
C1BAA-01	GEAR POSITION	DAS-462, "DTC Description"
C1BAB-01	STOP LAMP SW	DAS-464, "DTC Description"
C1BAC-01	OPERATION SW CIRC	DAS-466, "DTC Description"
C1BAD-01	ACCELERATER PEDAL	DAS-468, "DTC Description"
C1BAE-01	ACCELERATER PEDAL	DAS-470, "DTC Description"
C1BAF-01	BSW SYSTEM	DAS-472, "DTC Description"
C1BB0-01	DR BUZZER SYSTEM	DAS-474, "DTC Description"
C1BB2-01	CONTROL MODULE	DAS-475, "DTC Description"
C1BB3-01	CONTROL MODULE	DAS-476, "DTC Description"
C1BB4-01	CONTROL MODULE	DAS-477, "DTC Description"
C1BB5-01	IGN POWER SUPPLY	DAS-478, "DTC Description"
C1BB6-01	IGN POWER SUPPLY	DAS-481, "DTC Description
C1BB7-01	CONTROL MODULE	DAS-483, "DTC Description"
C1BB8-01	CONTROL MODULE	DAS-484, "DTC Description
C1BB9-01	CONTROL MODULE	DAS-485, "DTC Description"
C1BBA-01	CONTROL MODULE	DAS-486, "DTC Description"
C1BBB-01	CONTROL MODULE	DAS-487, "DTC Description
C1BBC-01	CONTROL MODULE	DAS-488, "DTC Description"
C1BBD-01	VARIANT CODING	DAS-489, "DTC Description
C1BC0-01	FR WHEEL SENSOR	DAS-490, "DTC Description"
C1BC1-01	FL WHEEL SENSOR	DAS-492, "DTC Description"
C1BC2-01	RR WHEEL SENSOR	DAS-494, "DTC Description"
C1BC3-01	RL WHEEL SENSOR	DAS-496, "DTC Description"
C1BC4-01	DECEL G SENSOR	DAS-498, "DTC Description"
C1BC5-01	SIDE G SENSOR	DAS-499, "DTC Description"
C1BC6-01	PRESSURE SENSOR	DAS-501, "DTC Description"
U1000-01	CAN COMM CIRCUIT	DAS-502, "DTC Description
U1010-01	CONTROL UNIT (CAN)	DAS-503, "DTC Description
U1A30-01	DAST COMM	DAS-504, "DTC Description
U1A31-01	DAST COMM	DAS-507, "DTC Description
U1A32-01	CAMERA COMM	DAS-509, "DTC Description
U1A34-01	BRAKE CONTROL COMM	DAS-511, "DTC Description"
U1A35-01	BRAKE CONTROL COMM	DAS-513, "DTC Description
U1A36-01	BCM/IPDM COMM	DAS-515, "DTC Description
U1A39-01	COMBINATION METER COMM	DAS-517, "DTC Description"
U1A3B-01	TCM COMM	DAS-519, "DTC Description"
U1A3D-01	ADAS COMM	DAS-521, "DTC Description
U1A3E-01	ADAS COMM	DAS-523, "DTC Description
U1A3F-01	AV COMM	DAS-525, "DTC Description
U1A42-01	STEERING ANGLE SENSOR COMM	DAS-527, "DTC Description"
U1A43-01	STEERING ANGLE SENSOR COMM	DAS-529, "DTC Description"
U1A45-01	DR BUZZER COMM	DAS-531, "DTC Description"

< ECU DIAGNOSIS INFORMATION >

[DRIVER ASSISTANCE SYSTEM]

DTC	Display item	Refer to
U1A48-01	ECM/HPCM COMM	DAS-533, "DTC Description"
U1A4A-01	CONTROL MODULE (CAN)	DAS-535, "DTC Description"
U1A4B-01	CONTROL MODULE (CAN)	DAS-536, "DTC Description"
U1A4C-01	A/C AUTO AMP. COMM	DAS-537, "DTC Description"
U1A4E-01	ECM/HPCM COMM	DAS-539, "DTC Description"

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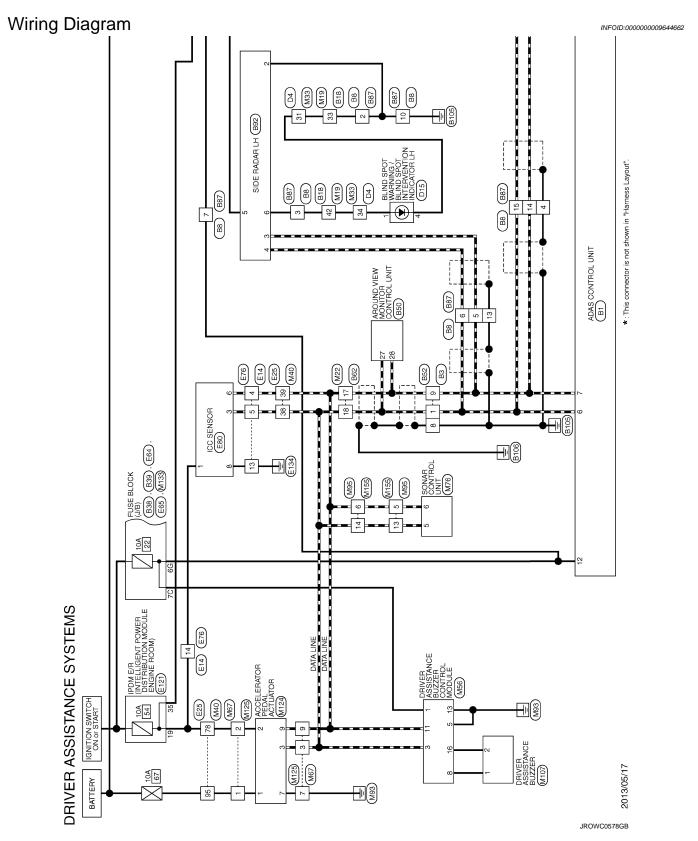
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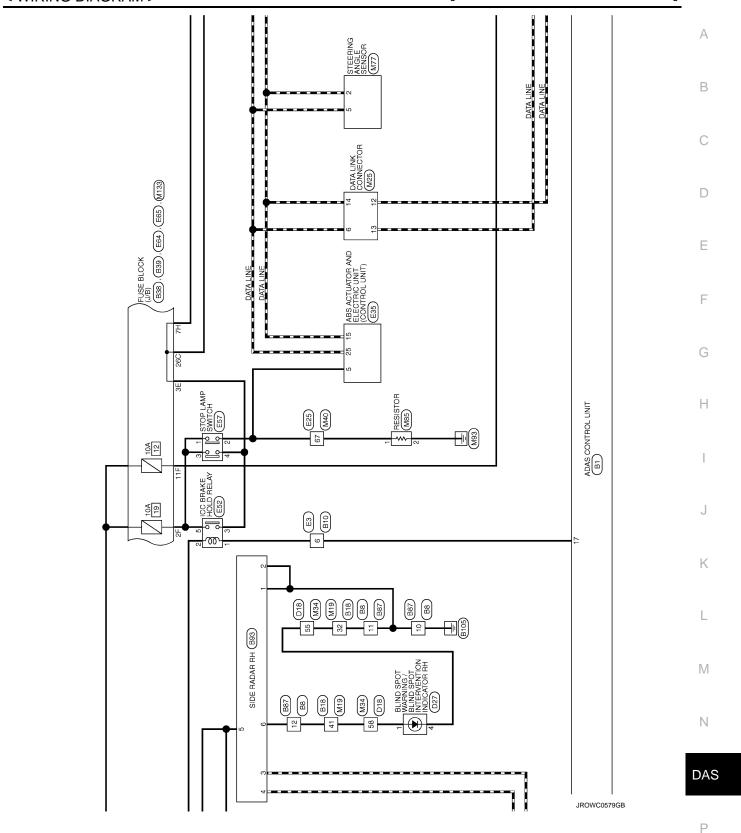
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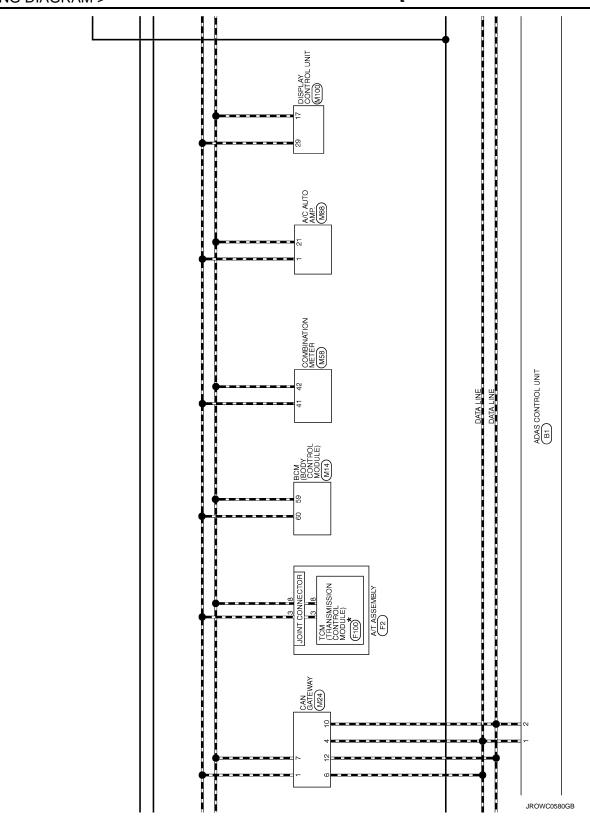
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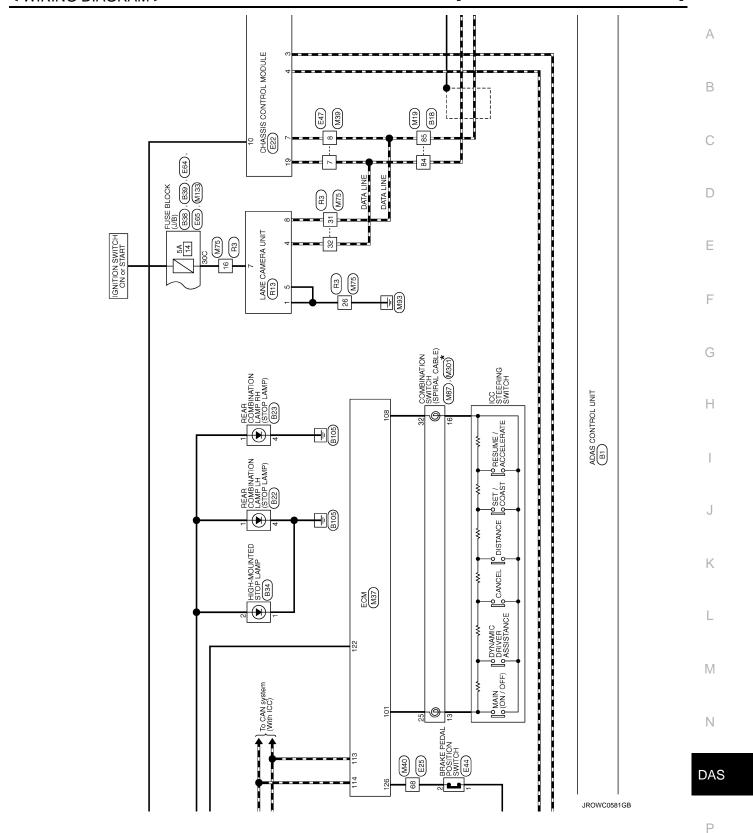
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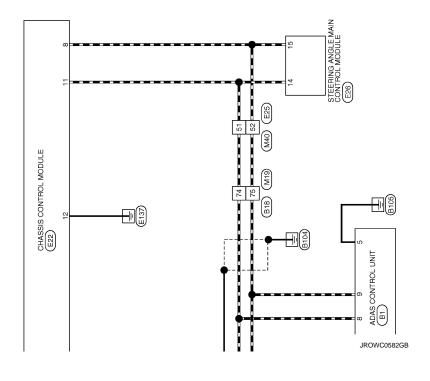
DRIVER ASSISTANCE SYSTEMS











DRIVER ASSISTANCE SYSTEMS

DRIVER ASSISTANCE SYSTEMS				
Connector No. B1	Connector No. B8	15 BR -	54 R -	
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		Connector No B18	52 GK	
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Connector Type NST6FW-CS	Connector No. B10	+	1	
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	Connector Time TH24EW-NH	+	Connector Name REAR COMBINATION LAMP LH (BODY SIDE)	
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Connector No.	B23	Connector No.		B38	Connector No.	009		Connector No.	tor No.	799
Connector Nam	Connector Name REAR COMBINATION LAMP RH (BODY SIDE)	Connect	Connector Name F	FUSE BLOCK (J/B)	Connector Name		AROUND VIEW MONITOR CONTROL UNIT	Connec	Connector Name	WIRE TO WIRE
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Connector Name SIDE RADAR LH	1.5 Terminal Color Of No. Wire No. Wir	Signal Mane Specification	2	

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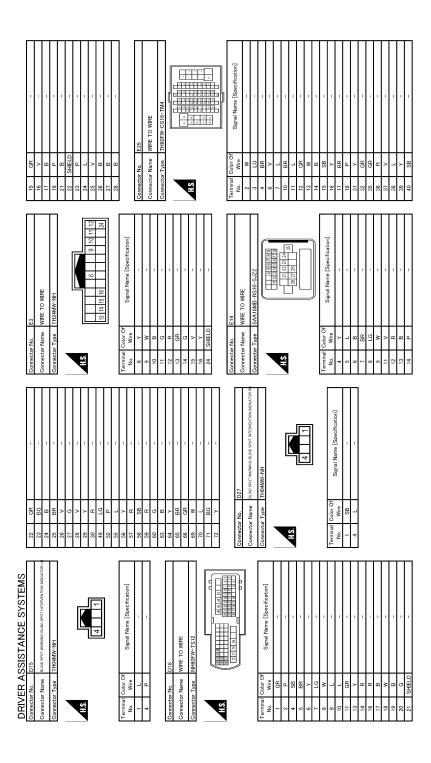
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DRIVER ASSISTANCE SYSTEMS

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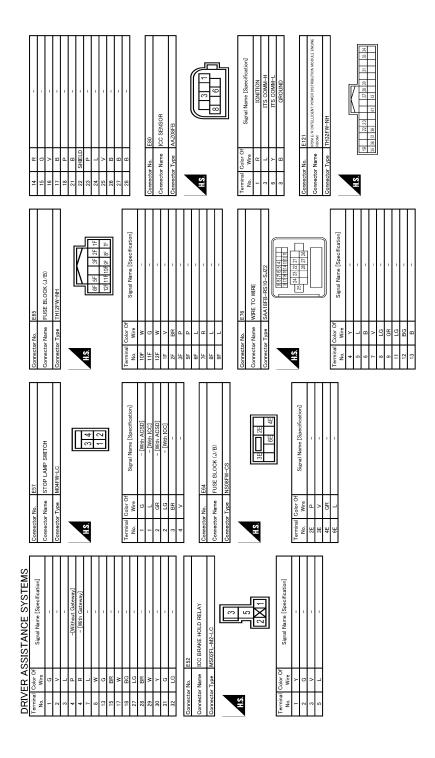
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7 GR RR LH WHEEL SENSOR SIGNAL 8 G RR LH WHEEL SENSOR POWER SUIPLY 10 GR FR RH WHEEL SENSOR FOWER SUIPLY 11 R FR RH WHEEL SENSOR FOWER SUPLY 12 R RA H WHEEL SENSOR FOWER SUPLY 13 R GAN-L [With acteumy] 14 RR PH WHEEL SENSOR FOWER SUPLY 15 RR PH WHEEL SENSOR FOWER SUPLY 16 SR RR PH WHEEL SENSOR FOWER SUPLY 17 Y RR PH WHEEL SENSOR FOWER SUPLY 18 Y RR PH WHEEL SENSOR FOWER SUPLY 19 SR RC LH WHEEL SENSOR FOWER SUPLY 25 L CAN-L [With acteumy] 10 SR CAN-L [WITH Acteumy] 11 GONNECTOR 12 RG CAN-L FOOTTON SWITCH 14 CONNECTOR 15 G CAN-L FOOTTON SWITCH 16 GONNECTOR 17 GONNECTOR 17 GONNECTOR 18 G CAN-L FOOTTON SWITCH 19 SR GONNECTOR 10 GONNECTOR 10 GONNECTOR 11 GONNECTOR 11 GONNECTOR 12 GONNECTOR 13 GONNECTOR 14 GONNECTOR 15 GONNECTOR 16 GONNECTOR 17 GONNECTOR 18 GONNECTOR 18 GONNECTOR 19 GONNECTOR 19 GONNECTOR 10 GONNECTOR 10 GONNECTOR 11 GONNECTOR 11 GONNECTOR 12 GONNECTOR 13 GONNECTOR 14 GONNECTOR 14 GONNECTOR 15 GONNECTOR 16 GONNECTOR 17 GONNECTOR 18 GONNECTOR 18 GONNECTOR 19 GONNECTOR 10 GONNECTOR 10 GONNECTOR 11 GONNECTOR 11 GONNECTOR 12 GONNECTOR 13 GONNECTOR 14 GONNECTOR 14 GONNECTOR 15 GONNECTOR 16 GONNECTOR 17 GONNECTOR 17 GONNECTOR 18 GONNECTOR 18 GONNECTOR 19 GONNECTOR 19 GONNECTOR 10 GONNECTOR 10 GONNECTOR 11 GONNECTOR 11 GONNECTOR 12 GONNECTOR 13 GONNECTOR 14 GONNECTOR 15 GONNECTOR 16 GONNECTOR 17 GONNECTOR 17 GONNECTOR 18 GONNECTOR 18 GONNECTOR 19 GONNECTOR 19 GONNECTOR 10 GONNE	
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Corrector No. E78 Corrector No. Corrector Name STEERING ANGLE MAN CONTROL MODULE	
DRIVER ASSISTANCE SYSTEMS	

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Connector No. M22	48	BR -	Term	la l	Signal Name [Specification]	Connector No.	No. M33
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DRIVER ASSISTANCE SYSTEMS

[DRIVER ASSISTANCE SYSTEM]

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Connector No. M88 Connector Name A/O AUTO AMP.	Connector Type TH40FW-NH	2.4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Terminal Color Of Signal Name [Specification]		3 W BAT	9	9 R SUNLOAD SENS	- a	ď	۵.	20 L HEAT STRG WHL RLY CONT 21 P CAN-I	. @	M N	26 B SENS GND	II PI	28 BR INTAKE SENS	2 6	F	40 BG ECV CONT											
5 L CAN+H	Connector No. M85	Cornector Name RESISTOR Cornector Type M02FBR-LC	[2]			1 LG -	2 B = =		Connector No. M87	Connector Name COMBINATION SWITCH (SPIRAL CABLE)	\neg	1			H.S.	74 31	33		lal	No. Wire	Н	31 W/B 32 Y	33 B -							
DRIVER ASSISTANCE SYSTEMS Connector No. M76 Connector Name SONAR CONTROL UNIT	Connector Type TH24FW-NH	12 10 9 6 5 4 3 2 1 22 22 22 22 22 23 6 6 5 4 3 2 2 1	Terminal Color Of Signal Name [Specification]	Н	3 W CORNER SENSOR SIGNAL FRONT LH	GR CORNER SENSOR	5 L CAN-H	a	G CENTER SENSOI	BG CORNER SENSO	12 R IGN 13 B FRONT SENSOR GND		8	18 GR FRONT BUZZER DRIVE SIGNAL	P BUZZER PC	21 BR CENIER SENSOR SIGNAL REAR LH		Connector No. M77	Connector Name STEERING ANGLE SENSOR	Connector Type TH08FW-NH	1			t	2	al		a a	2 R CAN-L [With Gateway]	9

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DRIVER ASSISTANCE SYSTEMS

[DRIVER ASSISTANCE SYSTEM]

< WIRING DIAGRAM >

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	NOE STSTEMS	MRE	-NH	5 6 7 7 10 11 12 22 23 24 24 25 25 25 25 25 25 25 25 25 25 25 25 25	Signal Name [Specification]	=	-	-		_	_			1	=	_	-	_	1	=	_	-	=	ı	1	1		1	1 1	1 1 1	
minect minest mi	Connector No. R3	пе	Connector Type TH32MV	1 2 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	Terminal Color Of No. Wire	ш	GR	W	BR	α	g	В	BR	SB	GR	В	^	SHIELD	α	٦	LG	>	GR	۸	В	. 8	æ	á	BG	BG BG	8 8 8 ×

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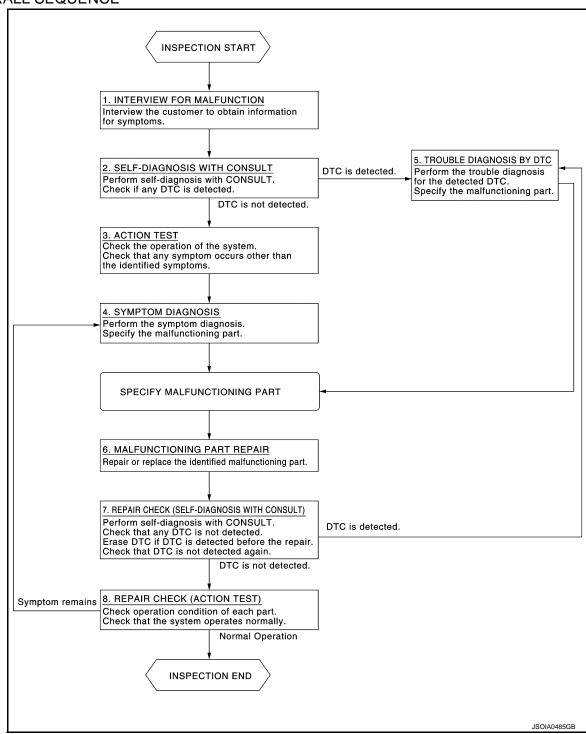
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BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

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.

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[DRIVER ASSISTANCE SYSTEM]

NOTE:

The customers are not professionals. Never assume that "maybe the customer means..." or "maybe the customer mentioned this symptom".

В

>> GO TO 2.

2.self-diagnosis with consult

- 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.

${f 3.}$ action test

Perform Following system action test to check the operation status. Refer to <u>DAS-325, "DCA: Description"</u>. Check if any other malfunctions occur.

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>> GO TO 4.

4. SYMPTOM DIAGNOSIS

Perform the applicable diagnosis according to the diagnosis chart by symptom. Refer to <u>DAS-365</u>, "Symptom <u>Table"</u>.

>> GO TO 6.

$oldsymbol{5}$.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-264, "DTC Index"
- "CHASSIS CONTROL" Refer to DAS-299, "DTC Index"
- "LASER/RADAR" Refer to <u>DAS-269</u>, "<u>DTC Index</u>"
- "ACCELE PEDAL ACT": Refer to <u>DAS-272, "DTC Index"</u>
- "LANE CAMERA": Refer to <u>DAS-286, "DTC Index"</u>
- "SIDE RADAR LEFT": Refer to <u>DAS-274, "DTC Index"</u>
- "SIDE RADAR RIGHT": Refer to <u>DAS-276, "DTC Index"</u>
- "BSW/BUZZER": Refer to <u>DAS-280, "DTC Index"</u>

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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)

- Erases self-diagnosis results.
- 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.

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DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[DRIVER ASSISTANCE SYSTEM]

- "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 8.

8. REPAIR CHECK (ACTION TEST)

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
- BC

Is there a malfunction symptom?

YES >> GO TO 4.

NO >> INSPECTION END

ADDITIONAL SERVICE WHEN REPLACING ICC SENSOR

< BASIC INSPECTION >

[DRIVER ASSISTANCE SYSTEM]

ADDITIONAL SERVICE WHEN REPLACING ICC SENSOR

Description INFOID.000000009644665

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

1. RADAR ALIGNMENT

Perform the radar alignment. Refer to CCS-83, "TYPE 1: Description".

>> GO TO 2.

2.DCA SYSTEM ACTION TEST

- 1. Perform the DCA system action test. Refer to DAS-325, "DCA: Description".
- 2. Check that the DCA system operates normally.

>> INSPECTION END

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ADDITIONAL SERVICE WHEN REPLACING ACCELERATOR PEDAL ASSEMBLY

< BASIC INSPECTION >

[DRIVER ASSISTANCE SYSTEM]

ADDITIONAL SERVICE WHEN REPLACING ACCELERATOR PEDAL AS-SEMBLY

Description INFOID:00000000064466

- 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

1. ACCELERATOR PEDAL RELEASED POSITION LEARNING

Perform accelerator pedal released position learning. Refer to <u>DAS-324</u>, "<u>Description</u>".

>> GO TO 2.

2.DCA SYSTEM ACTION TEST

- 1. Perform the DCA system action test. Refer to DAS-325, "DCA: Description".
- 2. Check that the DCA system operates normally.

>> INSPECTION END

< BASIC INSPECTION >

[DRIVER ASSISTANCE SYSTEM]

ACTION TEST

DCA

DCA: Description

INFOID:0000000009644677

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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

D INFOID:0000000009644678

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-95, "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.

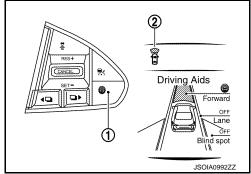
>> GO TO 3.

3.check driver assistance systems switch

- Start the engine.
- 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.
- 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.

f 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

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ACTION TEST

< BASIC INSPECTION >

[DRIVER ASSISTANCE SYSTEM]

LDW/LDP: Description

INFOID:0000000009644679

- 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-163, "LDW/LDP System Service".
- System description for LDW: Refer to <u>DAS-176</u>, "<u>LDW</u>: <u>System Description</u>".
 System description for LDP: Refer to <u>DAS-178</u>, "<u>LDP</u>: <u>System Description</u>".
- Handling precaution: Refer to DAS-216, "Precautions for Lane Departure Warning/Lane Departure Prevention".

LDW/LDP: Inspection Procedure

INFOID:0000000009644680

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-163, "LDW/LDP System Service".
- System description for LDW: Refer to DAS-176, "LDW: System Description".
- System description for LDP: Refer to DAS-178, "LDP: System Description".
- Handling precaution: Refer to DAS-216, "Precautions for Lane Departure Warning/Lane Departure Prevention".

1.CHECK LDW SYSTEM SETTING

- Start the engine.
- Check that the LDW system setting can be enabled/disabled on the integral switch.
- 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

- Enable the setting of the LDW system on the integral switch.
- Turn LDW system display ON (Speaker icon is ON at the "Lane" position).

NOTE:

LDP system is OFF.

Check the LDW operation according to the following table.

[DRIVER ASSISTANCE SYSTEM]

Vehicle c	ondition/ Driver's oper	ation	Action	1		A
Vehicle speed (Approx.) [km/h (MPH)]	Turn signal condition	Status of vehi- cle close to lane marker	Indication on the combination meter	Indicator color	Buzzer	В
Less than Approx. 60 km/h (40 MPH)	_	Close to lane marker	Driving Aids OFF Forward (1) Lane	White	OFF	С
			Blind spot JSOIA0914ZZ			D
	• OFF	Close to lane	Driving Aids		Short continu-	Е
Approx. 70 km/h (45	ON (Opposite to the deviate side)	marker	Forward A OPE Blind spot JSOIA0923ZZ	Yellow (Blink)	ous beeps	F
MPH) or more						G
	ON (Deviate side)	Close to lane marker	Driving Aids OFF Forward (I) Lane OFF Blind spot	White	OFF	Н
			JSOIA0914ZZ			

NOTE:

After the operating conditions of warning are satisfied, the warning continues until the vehicle speed reaches approximately 60 km/h (40 MPH). Refer to DAS-176, "LDW: System Description".

>> GO TO 3.

3.CHECK LDP SYSTEM SETTING

- Start the engine.
- Check that the LDP system setting can be enabled/disabled on the integral switch.
- Turn OFF the ignition switch and wait for 30 seconds or more.
- 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).
- Check the LDP operation according to the following table.

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Vehic	cle condition/ Driver's	operation	Action			
Vehicle speed (Approx.) [km/h (MPH)]	Turn signal condition	Status of vehicle close to lane marker	Yawing con- trol	Indication on the combination meter	Indicator	Buzzer
Less than Approx. 60 km/h (40 MPH)		Close to lane marker	OFF	Driving Aids of Forward Priving Aids of Forward Splind Spl	Green	_
	Turn signal OFF Turn signal ON (Opposite to the deviate side)	Close to lane marker	ON	Driving Aids Forward Blind sp JSOIA0923ZZ	Yellow (Blink)	Short con- tinuous beeps
Approx. 70 km/h (45 MPH) or more	Turn signal ON (Deviate side)	Close to lane marker	OFF	Driving Aids of Forward Driving Aids of Drivin	Green	_
	Turn signal OFF Turn signal ON (Opposite to the deviate side)	Close to lane marker with soft braking	OFF	Driving Aids Forwar Blind sp. JSOIA0923ZZ	Yellow (Blink)	Short continuous beeps

NOTE:

After the operating conditions are satisfied, the control continues until the vehicle speed reaches approximately 60 km/h (40 MPH). Refer to <u>DAS-178</u>, "LDP: System Description".

>> INSPECTION END

BLIND SPOT WARNING/BLIND SPOT INTERVENTION

BLIND SPOT WARNING/BLIND SPOT INTERVENTION : Description

INFOID:0000000009644681

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.

NOTF:

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 <u>DAS-163</u>, "<u>Blind Spot Warning/Blind Spot Intervention System Service</u>".
- System description for Blind Spot Warning: Refer to DAS-181, "BSW: System Description".

ACTION TEST

< BASIC INSPECTION >

[DRIVER ASSISTANCE SYSTEM]

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- System description for Blind Spot Intervention: Refer to <u>DAS-184, "BLIND SPOT INTERVENTION:</u> <u>System Description"</u>.
- Normal operating condition: Refer to DAS-378, "Description".

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 <u>DAS-163</u>, "Blind Spot Warning/Blind Spot Intervention System Service".
- System description for Blind Spot Warning: Refer to <u>DAS-181, "BSW: System Description"</u>.
- System description for Blind Spot Intervention: Refer to DAS-184, "BLIND SPOT INTERVENTION: System Description".
- Normal operating condition: Refer to DAS-378, "Description".

1.LDW/LDP SYSTEM ACTION TEST

Perform the LDW/LDP system action test. Refer to DAS-326, "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.
- 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 con	dition/ Drive	r's operation		Action			•
Vehicle speed (Approx.) [km/h (MPH)]	Turn sig- nal condi- tion	Status of vehi- cle detection within detec- tion area	Indication on the Blind Spot Warning/ Blind Spot Intervention indicator	Indication on the combination meter	Indicator color	Buzzer	L
							M
Less than approx. 29 (18)	_	_	OFF	Driving Aids OFF Forward OFF Lane Blind spot	White	OFF	N
_				JSOIA0915ZZ			DA

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Vehicle con	dition/ Drive	r's operation		Action				
Vehicle speed (Approx.) [km/h (MPH)]	Turn sig- nal condi- tion	Status of vehi- cle detection within detec- tion area	Indication on the Blind Spot Warning/ Blind Spot Intervention indicator	Indication on the combination meter	Indicator color	Buzzer		
	_	Vehicle is absent	OFF	Driving Aids OFF Forward OFF Lane Blind spot JSOIA0915ZZ	White	OFF		
Approx.	OFF	Vehicle is detected	ON	Driving Aids OFF Forward OFF Lane Blind spot JSOIA0915ZZ	White	OFF		
32 (20) or more	ON (vehicle	Before turn signal oper- ates Vehicle is de- tected	Blink	Driving Aids Forward OFF Blind spot JSOIA0924ZZ	Yellow (Blink)	Short continu- ous beeps		
	detected direction) Vehicle is detected after turn signal operates	Blink	Driving Aids Forward OFF Blind spot JSOIA0924ZZ	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.
- 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.

NOTE:

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:0000000009644683

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.

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Be careful of traffic conditions and safety around the vehicle when performing road test. **CAUTION:**

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Fully understand the following items well before the road test;

- Precautions: Refer to DAS-164, "BCI system service".
- System description for BCI: Refer to DAS-188, "BCI: System Description".
- Normal operating condition: Refer to <u>DAS-378, "Description"</u>.

BCI: Work Procedure

INFOID:0000000009644684

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 <u>DAS-164, "BCI system service"</u>.
- System description for BCI: Refer to <u>DAS-188, "BCI: System Description"</u>.
- Normal operating condition: Refer to <u>DAS-378</u>, "<u>Description</u>".

CHECK BCI SYSTEM SETTING

Check the sonar system operation. Refer to AV-308, "System Description".

>> GO TO 2.

2.CHECK BCI SYSTEM SETTING

K

- 1. Start the engine.
- Check that the BCI system setting can be enabled/disabled on the integral switch.
- Turn OFF the ignition switch and wait for 30 seconds or more.
- Check that the previous setting is saved when the engine starts again.

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3. ACTION TEST FOR BCI

>> GO TO 3.

- Enable the setting of the BCI system on the integral switch.
- 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	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

DAS-331 Revision: 2013 October 2014 Q50

DTC/CIRCUIT DIAGNOSIS

C1B20 CONTROL MODULE

DRIVER ASSISTANCE BUZZER CONTROL MODULE

DRIVER ASSISTANCE BUZZER CONTROL MODULE: DTC Logic

INFOID:0000000009644693

DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition
C1B20	CONTROL MODULE (Control module)	If driver assistance buzzer control module is malfunctioning Malfunction 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

- 1. Start the engine.
- 2. 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 <u>DAS-332</u>, "DRIVER ASSISTANCE BUZZER CONTROL MODULE : Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

DRIVER ASSISTANCE BUZZER CONTROL MODULE: Diagnosis Procedure

INFOID:0000000009644694

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-280, "DTC Index".

NO >> GO TO 2.

2.check driver assistance buzzer signal circuit for open

- 1. Turn ignition switch OFF.
- 2. 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
IVIO	16	IVITO7	2	LXISIEU

Is the inspection result normal?

C1B20 CONTROL MODULE

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

YES >> GO TO 3.

NO >> Repair the harnesses or connectors.

3.check driver assistance buzzer signal circuit for short

Check continuity between the driver assistance buzzer control module harness connector and ground.

	ce buzzer control dule		Continuity
Connector	Terminal	Ground	
M56	8		Not existed
IVIO	16		NOT EXISTED

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 <u>DAS-333</u>, "DRIVER ASSISTANCE BUZZER CONTROL MODULE : Component Inspection".

Is the inspection result normal?

YES >> Replace the driver assistance buzzer control module. Refer to <u>DAS-389</u>, "Removal and Installation".

NO >> Replace the driver assistance buzzer. Refer to DAS-390, "Removal and Installation".

DRIVER ASSISTANCE BUZZER CONTROL MODULE: Component Inspection

INFOID:0000000009785364

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1. CHECK DRIVER ASSISTANCE BUZZER

- 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.

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C1B50 SIDE RADAR MALFUNCTION

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

C1B50 SIDE RADAR MALFUNCTION

SIDE RADAR

SIDE RADAR : DTC LOGIC

INFOID:0000000009644695

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.
- 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-334, "SIDE RADAR : Diagnosis Procedure".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

SIDE RADAR : Diagnosis Procedure

INFOID:0000000009644696

1. CHECK SELF-DIAGNOSIS RESULT

Check if any DTC other than "C1B50" is detected in "Self Diagnostic Result" of "SIDE RADAR LEFT/RIGHT" <u>Is any DTC detected?</u>

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunction part. Refer to <u>DAS-274, "DTC Index"</u> (SIDE RADAR RIGHT) or <u>DAS-276, "DTC Index"</u> (SIDE RADAR LEFT).
- NO >> Replace the side radar. Refer to <u>DAS-386</u>, "Removal and Installation".

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

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INFOID:0000000009644698

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

- Start the engine.
- Perform "All DTC Reading" with CONSULT.
- 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-335, "SIDE RADAR : Diagnosis Procedure".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

SIDE RADAR : Diagnosis Procedure

1. Check blind spot warning/blind spot intervention indicator circuit for short

- Turn ignition switch OFF.
- 2. Disconnect side radar harness connector and Blind Spot Warning/Blind Spot Intervention indicator harness connector.
- Check continuity between side radar harness connector and ground.

Side	radar		Continuity
Connector	Terminal	Ground	Continuity
B92 (LH)	6	Giodila	Not existed
B93 (RH)	U		Not existed

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the harnesses or connectors.

2.REPLACE THE SIDE RADAR

- Replace the side radar.
- Perform "All DTC Reading" with CONSULT.
- 3. Check if the "C1B51" is detected in "Self Diagnostic Result" of "SIDE RADAR RIGHT/LEFT"

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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 <u>DAS-386, "Removal and Installation"</u>.

NO >> INSPECTION END

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:0000000009644699

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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

- Start the engine.
- 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-337, "SIDE RADAR : Diagnosis Procedure".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

SIDE RADAR : Diagnosis Procedure

INFOID:00000000009644700

1.check blind spot warning/blind spot intervention indicator circuit for open 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)	0	D27 (RH)	1	LAISIEU

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

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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.

•	Varning/Blind ntion indicator		Continuity
Connector Terminal		Ground	
D15 (LH)	4		Existed
D27 (RH)	4		Existed

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.

•	Varning/Blind ntion indicator		Condition	Voltage (Approx.)
Connector	Terminal	Ground		(Арргох.)
D15 (LH)			Ignition switch	- 11
D27 (RH)	1		OFF ⇒ ON (Approx. 2 sec.)	6 V

Is the inspection result normal?

YES >> Replace Blind Spot Warning/Blind Spot Intervention indicator.

NO >> Replace side radar. Refer to <u>DAS-386</u>, "Removal and Installation".

C1B55 RADAR BLOCKAGE

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

C1B55 RADAR BLOCKAGE

SIDE RADAR

SIDE RADAR: DTC Logic

INFOID:0000000000964470:

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".)

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- 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

- Start the engine.
- Turn the Blind Spot Intervention system ON.
- Perform "All DTC Reading" with CONSULT.
- Check if the C1B55 is detected as the current malfunction in "Self Diagnostic Result" of "SIDE RADAR RIGHT/LEFT".

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Is the DTC "C1B55" detected?

>> Refer to DAS-339, "SIDE RADAR : Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

SIDE RADAR : Diagnosis Procedure

INFOID:0000000009644702

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.

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>> 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

C1F01 ACCELERATOR PEDAL ACTUATOR

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

C1F01 ACCELERATOR PEDAL ACTUATOR ACCELERATOR PEDAL ACTUATOR

INFOID:0000000009644703

ACCELERATOR PEDAL ACTUATOR: DTC Logic

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

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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

- Turn the ignition switch OFF.
- 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?

- >> Refer to DAS-341, "ACCELERATOR PEDAL ACTUATOR: Diagnosis Procedure".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

ACCELERATOR PEDAL ACTUATOR: Diagnosis Procedure

INFOID:0000000009644704

1. REPLACE ACCELERATOR PEDAL ASSEMBLY

Perform DTC confirmation procedure. If "C1F01" is detected, replace the accelerator pedal assembly. Refer to DAS-384, "Exploded View".

>> INSPECTION END

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DAS-341 Revision: 2013 October 2014 Q50

C1F02 ACCELERATOR PEDAL ACTUATOR

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

C1F02 ACCELERATOR PEDAL ACTUATOR ACCELERATOR PEDAL ACTUATOR

ACCELERATOR PEDAL ACTUATOR: DTC Logic

INFOID:0000000009644705

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 "ACCELE PEDAL ACT" or "ICC/ADAS".

Is "C1F02" detected as the current malfunction?

- YES >> Refer to DAS-342, "ACCELERATOR PEDAL ACTUATOR: Diagnosis Procedure".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

ACCELERATOR PEDAL ACTUATOR: Diagnosis Procedure

INFOID:0000000009644706

1. CHECK SELF-DIAGNOSIS RESULTS

- Perform "All DTC Reading" with CONSULT.
- 2. Check if the "C1F02" is detected as the current malfunction on the self-diagnosis results of "ACCELE PEDAL ACT" or "ICC/ADAS".

Is "C1F02" detected as the current malfunction?

YES >> Replace the accelerator pedal assembly. Refer to <u>DAS-384, "Exploded View"</u>.

NO >> INSPECTION END

C1F03 ACCELERATOR PEDAL ACTUATOR

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

C1F03 ACCELERATOR PEDAL ACTUATOR ACCELERATOR PEDAL ACTUATOR

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ACCELERATOR PEDAL ACTUATOR: DTC Logic

DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition	
C1F03	APA HI TEMP (Accelerator pedal actuator high temperature)	 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.
- 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 "ACCELE PEDAL ACT".

Is "C1F03" detected as the current malfunction?

- YES >> Refer to DAS-343, "ACCELERATOR PEDAL ACTUATOR: Diagnosis Procedure".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

1. REPLACE ACCELERATOR PEDAL ASSEMBLY

ACCELERATOR PEDAL ACTUATOR: Diagnosis Procedure

ACCELLITATOR FEDAL ACTUATOR . Diagnosis Flocedun

Perform DTC confirmation procedure. If "C1F03" is detected, replace the accelerator pedal assembly. Refer to DAS-384, "Exploded View".

>> INSPECTION END

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INFOID:0000000009644708

Revision: 2013 October DAS-343 2014 Q50

C1F05 ACCELERATOR PEDAL ACTUATOR POWER SUPPLY CIRCUIT [DRIVER ASSISTANCE SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

C1F05 ACCELERATOR PEDAL ACTUATOR POWER SUPPLY CIRCUIT ACCELERATOR PEDAL ACTUATOR

ACCELERATOR PEDAL ACTUATOR: DTC Logic

INFOID:0000000009644709

DTC DETECTION LOGIC

DTC	Trouble diagnosis name	DTC detecting condition
C1F05	APA PWR SUPLY 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.
- Turn the DCA system ON.
- Perform "All DTC Reading" with CONSULT.
- Check if the "C1F05" is detected as the current malfunction on the self-diagnosis results of "ACCELE PEDAL ACT".

Is "C1F05" detected as the current malfunction?

- >> Refer to DAS-344, "ACCELERATOR PEDAL ACTUATOR: Diagnosis Procedure".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

ACCELERATOR PEDAL ACTUATOR: Diagnosis Procedure

INFOID:0000000009644710

1. CHECK POWER SUPPLY CIRCUIT

Check the accelerator pedal actuator power supply circuit. Refer to DAS-344, "ACCELERATOR PEDAL ACTUATOR: Diagnosis Procedure".

Is the inspection result normal?

YES >> Replace the accelerator pedal assembly. Refer to <u>DAS-384, "Exploded View"</u>.

>> Repair or replace the malfunctioning parts. NO

C1F06 CAN CIRCUIT2

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

C1F06 CAN CIRCUIT2

ACCELERATOR PEDAL ACTUATOR

ACCELERATOR PEDAL ACTUATOR: DTC Logic

INFOID:0000000009644711

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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 <u>DAS-128</u>, "DTC Logic".

NO >> GO TO 2.

2.perform dtc confirmation procedure

- 1. Start the engine.
- Turn the DCA system ON.
- 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-345, "ACCELERATOR PEDAL ACTUATOR: Diagnosis Procedure".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

ACCELERATOR PEDAL ACTUATOR : Diagnosis Procedure

INFOID:0000000009644712

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-128, "DTC Logic".

NO >> GO TO 2.

2.replace adas control unit

- 1. Turn the ignition switch OFF.
- Replace the ADAS control unit. Refer to DAS-161, "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-384, "Exploded View".

NO >> INSPECTION END

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Revision: 2013 October **DAS-345** 2014 Q50

C1F07 CAN CIRCUIT1 ACCELERATOR PEDAL ACTUATOR

ACCELERATOR PEDAL ACTUATOR: DTC Logic

INFOID:0000000009644713

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 <u>DAS-128</u>, "DTC Logic".

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine.
- Turn the DCA system ON.
- 3. Perform "All DTC Reading" with CONSULT.
- 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-346, "ACCELERATOR PEDAL ACTUATOR: Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

ACCELERATOR PEDAL ACTUATOR: Diagnosis Procedure

INFOID:0000000009644714

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-128, "DTC Logic".

NO >> GO TO 2.

2.REPLACE ADAS CONTROL UNIT

- 1. Turn the ignition switch OFF.
- Replace the ADAS control unit. Refer to <u>DAS-161, "Removal and Installation"</u>.
- 3. Erases all self-diagnosis results.
- 4. Perform "All DTC Reading" again.
- 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-384, "Exploded View".

NO >> INSPECTION END

U0104 ADAS CAN 1

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[DRIVER ASSISTANCE SYSTEM]

U0104 ADAS CAN 1

SIDE RADAR

SIDE RADAR : DTC Logic

INFOID:0000000009644729

DTC DETECTION LOGIC

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 <u>DAS-351, "SIDE RADAR LH : DTC Logic"</u> (SIDE RADAR LH) or <u>DAS-352, "SIDE RADAR RH : DTC Logic"</u> (SIDE RADAR RH).

NO >> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

- Start the engine.
- Turn the Blind Spot Intervention system ON.
- 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 <u>DAS-347</u>, "SIDE RADAR: <u>Diagnosis Procedure</u>".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

SIDE RADAR : Diagnosis Procedure

If DTC "U0104" is displayed with DTC "U1000", first diagnose the DTC "U1000".

Is applicable DTC detected?

1. CHECK DTC PRIORITY

YES >> Perform diagnosis of applicable. Refer to <u>DAS-351, "SIDE RADAR LH : DTC Logic"</u> (SIDE RADAR LH) or <u>DAS-352, "SIDE RADAR RH : DTC Logic"</u> (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-264, "DTC Index".

NO >> Replace side radar LH or RH. Refer to DAS-386, "Removal and Installation"

DRIVER ASSISTANCE BUZZER CONTROL MODULE

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[DRIVER ASSISTANCE SYSTEM]

DRIVER ASSISTANCE BUZZER CONTROL MODULE: DTC Logic

INFOID:0000000009644719

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

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 <u>DAS-353</u>, "<u>DRIVER ASSISTANCE BUZZER CONTROL MODULE</u>: <u>DTC Logic"</u>.

NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine.
- Turn the MAIN switch of ICC system ON.
- Perform "All DTC Reading" with CONSULT.
- 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 <u>DAS-348</u>, "<u>DRIVER ASSISTANCE BUZZER CONTROL MODULE</u>: <u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

DRIVER ASSISTANCE BUZZER CONTROL MODULE : Diagnosis Procedure

INFOID:0000000009644720

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 <u>DAS-353</u>, "<u>DRIVER ASSISTANCE BUZZER CONTROL MODULE</u>: <u>DTC Logic"</u>.

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 <u>DAS-264, "DTC Index"</u>.

NO >> Replace the driver assistance buzzer control module. Refer to <u>DAS-389</u>, "Removal and Installation".

U0405 ADAS CAN 2

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[DRIVER ASSISTANCE SYSTEM]

U0405 ADAS CAN 2

SIDE RADAR

SIDE RADAR : DTC Logic

INFOID:0000000009644731

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DTC DETECTION LOGIC

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-351, "SIDE RADAR LH: DTC Logic" (SIDE RADAR LH) or DAS-352, "SIDE RADAR RH: DTC Logic" (SIDE RADAR RH).

NO >> GO TO 2.

2 PERFORM DTC CONFIRMATION PROCEDURE

- Start the engine.
- Turn the Blind Spot Intervention system ON.
- Perform "All DTC Reading" with CONSULT.
- 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-349, "SIDE RADAR : Diagnosis Procedure".
- >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident". NO-1
- NO-2 >> Confirmation after repair: INSPECTION END

SIDE RADAR : Diagnosis 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 <u>DAS-351, "SIDE RADAR LH : DTC Logic"</u> (SIDE RADAR LH) or DAS-352, "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-350, "ACCELERATOR PEDAL ACTUATOR: DTC Logic".

>> Replace side radar LH or RH. Refer to DAS-386, "Removal and Installation". NO

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INFOID:0000000009644732

DAS-349 Revision: 2013 October 2014 Q50

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

U1000 CAN COMM CIRCUIT ACCELERATOR PEDAL ACTUATOR

ACCELERATOR PEDAL ACTUATOR: Description

INFOID:0000000009644733

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:0000000009644734

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.
- 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 <u>DAS-350</u>, "ACCELERATOR PEDAL ACTUATOR: Diagnosis Procedure".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

ACCELERATOR PEDAL ACTUATOR: Diagnosis Procedure

INFOID:0000000009644735

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 "ACCELE PEDAL ACT".

Is "U1000" detected as the current malfunction?

- YES >> Refer to LAN-26, "Trouble Diagnosis Flow Chart".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

SIDE RADAR LH

SIDE RADAR LH: Description

INFOID:0000000009644739

CAN COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

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 <u>LAN-44</u>, "CAN COMMUNICATION SYSTEM: CAN Communication Signal Chart".

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.
- ITS communication lines adopt twisted-pair line style (two lines twisted) for noise immunity.

SIDE RADAR LH : DTC Logic

INFOID:0000000009644740

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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

- 1. Start the engine.
- 2. Turn the Blind Spot Intervention system ON.
- 3. 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 <u>DAS-351</u>, "SIDE RADAR LH: <u>Diagnosis Procedure</u>".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

SIDE RADAR LH: Diagnosis Procedure

INFOID:0000000009644741

${f 1}$.PERFORM THE SELF-DIAGNOSIS

- 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 LEFT".

Is "U1000" detected as the current malfunction?

- YES >> Refer to LAN-26, "Trouble Diagnosis Flow Chart".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

SIDE RADAR RH

SIDE RADAR RH: Description

INFOID:00000000009644742

CAN COMMUNICATION

Revision: 2013 October **DAS-351** 2014 Q50

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< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

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 <u>LAN-44</u>, "<u>ĆAN COMMUNICATION SYŠTEM</u>: <u>CAN Communication Signal Chart</u>".

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.
- ITS communication lines adopt twisted-pair line style (two lines twisted) for noise immunity.

SIDE RADAR RH : DTC Logic

INFOID:0000000009644743

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.
- Turn the Blind Spot Intervention system ON.
- 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-352, "SIDE RADAR RH : Diagnosis Procedure".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

SIDE RADAR RH: Diagnosis Procedure

INFOID:0000000009644744

1. PERFORM THE SELF-DIAGNOSIS

- Start the engine.
- 2. 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 RIGHT".

Is "U1000" detected as the current malfunction?

- YES >> Refer to LAN-26, "Trouble Diagnosis Flow Chart".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

DRIVER ASSISTANCE BUZZER CONTROL MODULE

DRIVER ASSISTANCE BUZZER CONTROL MODULE: Description

INFOID:0000000009644745

ITS COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

- 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:0000000009644746

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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

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.
- 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 <u>DAS-353</u>, "<u>DRIVER ASSISTANCE BUZZER CONTROL MODULE</u>: <u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

DRIVER ASSISTANCE BUZZER CONTROL MODULE: Diagnosis Procedure

INFOID:0000000009644747

1.PERFORM THE SELF-DIAGNOSIS

- Turn the ignition switch ON.
- Turn the MAIN switch of ICC system ON, and then wait for 2 seconds or more.
- Perform "All DTC Reading" with CONSULT.
- 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-26, "Trouble Diagnosis Flow Chart".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

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Revision: 2013 October **DAS-353** 2014 Q50

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< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

U1010 CONTROL UNIT (CAN)

ACCELERATOR PEDAL ACTUATOR

ACCELERATOR PEDAL ACTUATOR: Description

INFOID:0000000009644748

CAN controller controls the communication of ITS communication signal and the error detection.

ACCELERATOR PEDAL ACTUATOR: DTC Logic

INFOID:0000000009644749

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.
- Turn the DCA system ON.
- 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-354, "ACCELERATOR PEDAL ACTUATOR: Diagnosis Procedure".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

ACCELERATOR PEDAL ACTUATOR: Diagnosis Procedure

INFOID:0000000009644750

1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn the DCA system ON.
- Perform "All DTC Reading" with CONSULT.
- Check if the "U1010" is detected as the current malfunction in "Self Diagnostic Result" of "ACCELE PEDAL ACT".

Is "U1010" detected as the current malfunction?

YES >> Replace the accelerator pedal actuator. Refer to <u>DAS-384</u>, "Exploded View".

NO >> INSPECTION END

SIDE RADAR LH

SIDE RADAR LH: Description

INFOID:0000000009644754

CAN controller controls the communication of ITS communication signal and the error detection.

SIDE RADAR LH : DTC Logic

INFOID:0000000009644755

DTC DETECTION LOGIC

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

U1010 CONTROL UNIT (CAN) [Control unit (CAN)] If side radar LH detects malfunction by CAN controller in	W. L. P
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JOSIDEE GAUGE	
de radar LH	
AIL-SAFE	
ne following systems are canceled.	
Blind Spot Warning (BSW) Blind Spot Intervention	
Back-up Collision Intervention (BCI)	
TC CONFIRMATION PROCEDURE	
PERFORM DTC CONFIRMATION PROCEDURE	
Start the engine.	
Turn the Blind Spot Intervention system ON.	
Perform "All DTC Reading" with CONSULT. Charles if the "I I I OOO" is detected as the current malfunction in "Salf Diagnostic Result"	of "ICC/ADAC"
Check if the "U1000" is detected as the current malfunction in "Self Diagnostic Result" "U1000" detected as the current malfunction?	OF ICC/ADAS.
/ES >> Refer to DAS-355, "SIDE RADAR LH : Diagnosis Procedure".	
NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incid	<u>dent"</u> .
NO-2 >> Confirmation after repair: INSPECTION END	
IDE RADAR LH : Diagnosis Procedure	INFOID:0000000009644756
.CHECK SELF-DIAGNOSIS RESULT	
Turn the Blind Spot Intervention system ON.	
Perform "All DTC Reading" with CONSULT. Check if the "U1010" is detected as the current malfunction in "Self Diagnostic Result	" of "SIDE PADAR
LEFT".	OF SIDE KADAK
"U1010" detected as the current malfunction?	
'ES >> Replace the side radar LH. <u>DAS-386, "Removal and Installation"</u> .	
NO >> INSPECTION END	
IDE RADAR RH	
IDE RADAR RH : Description	INFOID:0000000009644757
AN controller controls the communication of ITS communication signal and the error dete	ction
-	ouo.i.
IDE RADAR RH : DTC Logic	INFOID:0000000009644758
TO DETECTION LOCIO	
TC 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

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< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine.
- 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-356, "SIDE RADAR RH: Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

SIDE RADAR RH: Diagnosis Procedure

INFOID:0000000009644759

1. CHECK SELF-DIAGNOSIS RESULT

- 1. Turn the Blind Spot Intervention system ON.
- 2. Perform "All DTC Reading" with CONSULT.
- 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. <u>DAS-386</u>, "Removal and Installation".

NO >> INSPECTION END

DRIVER ASSISTANCE BUZZER CONTROL MODULE

DRIVER ASSISTANCE BUZZER CONTROL MODULE: Description

INFOID:0000000009644760

CAN controller controls the communication of ITS communication signal and the error detection.

DRIVER ASSISTANCE BUZZER CONTROL MODULE: DTC Logic

INFOID:0000000009644761

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 control- ler initial diagnosis

POSSIBLE CAUSE

Driver assistance buzzer control module

FAIL-SAFE

None

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

- Start the engine.
- Turn the MAIN switch of ICC 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-356, "DRIVER ASSISTANCE BUZZER CONTROL MODULE : Diagnosis Procedure".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

DRIVER ASSISTANCE BUZZER CONTROL MODULE: Diagnosis Procedure

INFOID:0000000009644762

1. PERFORM DTC CONFIRMATION PROCEDURE

Turn the MAIN switch of ICC system ON.

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

- 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". <u>Is "U1010" detected as the current malfunction?</u>
- YES >> Replace the driver assistance buzzer control module. Refer to <u>DAS-389</u>, "Removal and Installation".
- NO >> INSPECTION END

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U1527 CCM CAN 1

DRIVER ASSISTANCE BUZZER CONTROL MODULE

DRIVER ASSISTANCE BUZZER CONTROL MODULE: DTC Logic

INFOID:0000000009644763

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 <u>DAS-353</u>, "<u>DRIVER ASSISTANCE BUZZER CONTROL</u> 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 <u>DAS-358</u>, "<u>DRIVER ASSISTANCE BUZZER CONTROL MODULE</u>: <u>Diagnosis Procedure</u>".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

DRIVER ASSISTANCE BUZZER CONTROL MODULE: Diagnosis Procedure

INFOID:0000000009644764

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 <u>DAS-353</u>, "<u>DRIVER ASSISTANCE BUZZER CONTROL MODULE</u>: <u>DTC Logic"</u>.

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-264, "DTC Index".

NO >> Replace the lane camera unit. Refer to <u>DAS-620</u>, "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:0000000009644765

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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		
(+)	(-)	Condition	Voltage
Accelerator p	pedal actuator	Ignition	(Approx.)	
Connector	Terminal	Ground	switch	
M124	1	Oround	OFF	Battery volt-
IVITZT	2		ON	age

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.
- Check for continuity between accelerator pedal actuator harness connector and ground.

Accelerator p	pedal actuator		Continuity
Connector	Terminal	Ground	Continuity
M124 7			Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair the accelerator pedal actuator ground circuit.

SIDE RADAR LH

SIDE RADAR LH: Diagnosis Procedure

INFOID:0000000009644767

1. CHECK FUSES

Check if any of the following fuses are blown:

Signal name	Fuse No.	
Ignition power supply	22	

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]

$\overline{2}$.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.

Terminals			Condition	
(+)		(-)	Condition	Voltage (Approx.)
Side radar LH			Ignition switch	
Connector	Terminal	Ground	ignition switch	
B92 5	Giodila	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 ra	adar LH		Continuity	
Connector	Terminal	Ground	Continuity	
B92	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:0000000009644768

1. CHECK FUSES

Check if any of the following fuses are blown:

Signal name	Fuse No.	
Ignition power supply	22	

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

- Turn ignition switch OFF.
- Disconnect the side radar RH connector.
- 3. Check voltage between side radar RH harness connector and ground.

Terminals			Condition	
(+)		(-)	Condition	Voltage (Approx.)
Side radar RH			Ignition switch	
Connector	Terminal	Ground	Igrillori switch	
B93 5	Giodila	OFF	0 V	
Б93			ON	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair the side radar RH power supply circuit.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

3. CHECK GROUND CIRCUIT

Check continuity between side radar RH harness connectors and ground.

Side radar RH			Continuity
Connector	Terminal	Ground	Continuity
B93	2		Existed

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

1. CHECK FUSES

Check if any of the following fuses are blown:

Signal name	Fuse No.
Ignition power supply	22

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	
(+)		(-)	Condition	Voltage (Approx.)
Driver assistance buzzer control module			Ignition switch	
Connector	Terminal	Ground	SWILCH	
M56	1		ON	Battery volt- age

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.

	ouzzer control mod- ile		Continuity
Connector	Terminal	Ground	
M156	5		Existed
W136	13		Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair the driver assistance buzzer control module.

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RIGHT/LEFT SWITCHING SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

RIGHT/LEFT SWITCHING SIGNAL CIRCUIT

Diagnosis Procedure

INFOID:0000000009644770

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.

$2. \mathsf{CHECK}$ 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			Continuity
Connector	Terminal	Ground	Continuity
B93	6		Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

DRIVER ASSISTANCE BUZZER CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

DRIVER ASSISTANCE BUZZER CIRCUIT

Component Function Check

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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 <u>DAS-363</u>, "<u>Diagnosis Procedure</u>".

INFOID:0000000009644772

Diagnosis Procedure

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.
- 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	
OCIVI	IVIOU	16	IVITOT	2	LAISIEU

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the harnesses or connectors.

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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			Continuity
Connector	Terminal	Ground	
M56	8		Not existed
IVIO	16		Not existed

N

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair the harnesses or connectors.

3. CHECK DRIVER ASSISTANCE BUZZER SIGNAL

- Connect the driver assistance buzzer connector and driver assistance buzzer control module connector.
- 2. Turn ignition switch ON.
- Select the active test of "BSW/BUZZER" with CONSULT.
- 4. Check waveform between the driver assistance buzzer control module harness connector and ground.

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Driver assistance buzzer control module				
Connector	Tern	ninal	Condition	Voltage (Approx.)
	+	-		
			At "BUZZER 1" test of "Active test"	(V) 4 0 -4 500µS JSOIA0949ZZ
M56	8	16	At "BUZZER 2" test of "Active test"	(V) 4 0 -4 500µS JSOIA0950ZZ
			At "BUZZER 3" test of "Active test"	(V) 4 0 -4 500µS JSOIA0951ZZ

Is the inspection result normal?

YES

>> Replace the driver assistance buzzer. Refer to <u>DAS-390, "Removal and Installation"</u>.
>> Replace the driver assistance buzzer control module. Refer to <u>DAS-389, "Removal and Installa-</u> NO tion".

DRIVER ASSISTANCE SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

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SYMPTOM DIAGNOSIS

DRIVER ASSISTANCE SYSTEM SYMPTOMS

Symptom Table

Symptom	Confirm	nation item	Inspection item/Reference page
	All of system display does not illuminate		System cannot be turned ON/ OFF ON the integral switch Refer to DAS-367, "Description"
PFCW/LDW/BSW/DCA/LDP/ Blind Spot Intervention/BCI sys- tem display does not illuminate	DCA/LDP/Blind Spot Interver minate	ntion system display does not illu-	Switch does not turn ON/Switch does not turn OFF Refer to DAS-370, "Description"
terri dispiay does not ilidiniliate	BCI system display does not	illuminate	TCM Refer to TM-85, "DTC Index"
	Other information display is r	not illuminated	Combination meter Refer to MWI-80, "DTC Index"
PFCW/LDW/BSW/DCA/LDP/ Blind Spot Intervention/BCI	Information display is function	ning normally	ADAS control unit Refer to DAS-264, "DTC Index"
warning display does not illuminate (Buzzer is functioning normally)	Information display is not functioning normally		Perform On Board Diagnosis of Combination meter Refer to MWI-62, "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-368, "Description"
BCI warning buzzer is not sounding	Buzzer of camera assistance sonar is functioning normally		ADAS control unit Refer to DAS-161, "Removal and Installation"
(Warning display is functioning normally)	Buzzer of camera assistance sonar is not functioning normally		Camera assistance sonar Refer to <u>AV-455</u> , "Symptom Ta- <u>ble"</u>
	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-372, "Description"
PFCW/DCA is 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-373, "Description"
	PFCW and DCA are not activated	System misidentifies a vehicle even though there is no vehicle ahead	Perform radar alignment Refer to CCS-83, "TYPE 1 : De-
		System misidentifies a vehicle in the next lane	scription"
		System does not detect the vehicle ahead at all	The system does not detect the vehicle ahead at all Refer to DAS-375, "Description"

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DRIVER ASSISTANCE SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

Symptom	Confir	mation item	Inspection item/Reference page
	The system operates once but is cancelled.		Check "Cause of auto-cancel 1" Refer to DAS-401, "CONSULT Function"
LDW/LDP is not functioning nor- mally	Functions when changing th signal	e course in direction of the turn	Symptom operates even when using turn signal Refer to DAS-377, "Description"
	Warning functions are not tir Does not function when di Functions when driving in Functions in a different po	riving on lane markers	Lane camera unit aiming adjustment Refer to DAS-600, "Description"
	The system operates once b	out is cancelled.	Check "Cause of auto-cancel 1" Refer to DAS-401, "CONSULT Function"
Blind Spot Intervention is not functioning normally	Blind Spot Intervention are not timely 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-600, "Description"
	The system operates once but is cancelled.		Check "Cause of auto-cancel 3" Refer to DAS-23, "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-161, "Removal and Installation"
		Blind Spot Warning/Blind Spot Intervention is not activated	Side radar Refer to DAS-386, "Removal and Installation"
BCI is not activated	Does not detect obstacles behind the vehicle.	Buzzer of camera assistance sonar is activated	ADAS control unit Refer to DAS-161, "Removal and Installation"
		Buzzer of camera assistance sonar is not activated	Camera assistance sonar Refer to AV-455, "Symptom Ta- ble"
	No force generated for put- ting back the accelerator	DCA is activated	ADAS control unit Refer to DAS-161, "Removal and Installation"
	pedal	DCA is not activated	No force generated for putting back the accelerator pedal Refer to DAS-372, "Description"

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:0000000009644774

· 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

1. CHECK DCA SYSTEM SETTING

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-.
- 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-264, "DTC Index"
- MULTI AV: AV-351, "DTC Index"
- METER/M&A: <u>MWI-80</u>, "<u>DTC Index</u>"

Is any DTC detected?

YES >> Repair or replace malfunctioning parts.

NO >> INSPECTION END

$oldsymbol{3}.$ 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 <u>DAS-220</u>, "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.

DAS-367

Is the inspection result normal?

YES >> Replace the ADAS control unit. Refer to <u>DAS-161</u>, "Removal and Installation".

NO >> Repair or replace malfunctioning parts.

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CHIME DOES NOT SOUND

Description INFOID.000000009644776

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 <u>DAS-373</u>, "<u>Description</u>".)

Diagnosis Procedure

INFOID:0000000009644777

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 <u>DAS-161</u>, "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-128, "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-280, "DTC Index".

NO >> GO TO 6.

O.CHECK DRIVER ASSISTANCE BUZZER CIRCUIT

Check driver assistance buzzer. Refer to DAS-363, "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.

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-161, "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-325, "DCA: Description" for action test.)
- 2. Check if the each system is normal.

>> INSPECTION END

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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.000000009644778

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:0000000009644779

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

- 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.
- Check if the DTC is detected in self-diagnosis results of "METER/M&A". Refer to MWI-80, "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-80, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 6.

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-264, "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

 Erase "self-diagnosis result", and then perform "All DTC Reading" again after performing the action test. (Refer to <u>DAS-325</u>, "DCA: <u>Description</u>" for action test.)

SWITCH DOES NOT TURN ON / SWITCH DOES NOT TURN OFF

< SYMPTOM DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

2. Check that the each system is normal.

>> INSPECTION END

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NO FORCE GENERATED FOR PUTTING BACK THE ACCELERATOR PEDAL

< SYMPTOM DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

NO FORCE GENERATED FOR PUTTING BACK THE ACCELERATOR PEDAL

Description

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:0000000009644781

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 <u>DAS-264, "DTC Index"</u> (ICC/ADAS) or <u>DAS-272, "DTC Index"</u> (ACCELE PEDAL ACT).

>> GO TO 5.

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 <u>DAS-373</u>, "<u>Description</u>".

>> 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 <u>DAS-325</u>, "<u>DCA</u>: <u>Description</u>" for action test.)
- 2. Check if the DCA system is normal.

>> INSPECTION END

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:0000000009644782

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

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

- Perform radar alignment. Refer to CCS-83, "TYPE 1: Description".
- 2. Perform action test. Refer to DAS-325, "DCA: Description".
- Check that the vehicle ahead detection performance improves.

Does it improve?

YES >> INSPECTION END

NO >> GO TO 5.

5.REPLACE ICC SENSOR

- Replace the ICC sensor. Refer to CCS-135, "Removal and Installation".
- 2. Perform radar alignment. Refer to CCS-83, "TYPE 1: Description".
- Perform action test. Refer to DAS-325, "DCA: Description".
- Check that the vehicle ahead detection performance improves.

Does it improve?

YES >> INSPECTION END

NO >> GO TO 6.

O.REPLACE ADAS CONTROL UNIT

Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation".

>> GO TO 7.

7.CHECK DCA SYSTEM

- Erase "self-diagnosis result", and then perform "All DTC Reading" again after performing the action test. (Refer to DAS-325, "DCA: Description" for action test.)
- Check that the DCA/FCW system is normal.

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FREQUENTLY CANNOT DETECT THE VEHICLE AHEAD / DETECTION ZONE IS SHORT

< SYMPTOM DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

>> INSPECTION END

THE SYSTEM DOES NOT DETECT THE VEHICLE AHEAD AT ALL

< SYMPTOM DIAGNOSIS >

>> GO TO 8. 8.CHECK DCA SYSTEM [DRIVER ASSISTANCE SYSTEM]

THE SYSTEM DOES NOT DETECT THE VEHICLE AHEAD AT ALL Α Description INFOID:0000000009644784 When DCA/FCW system is active, the DCA/FCW system does not perform any control even through there is a vehicle ahead. Diagnosis Procedure INFOID:0000000009644785 1. CHECK INFORMATION DISPLAY Start the self-diagnosis mode of combination meter. Refer to MWI-62, "On Board Diagnosis Function". Check that the segment of information display is displayed normally. D Is the inspection result normal? YES >> GO TO 2. Е NO >> Replace the combination meter. 2.VISUAL CHECK (1) Check front bumper grille near the ICC sensor for contamination and/or foreign materials. F 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. Н >> 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. ${f 5}$.PERFORM RADAR ALIGNMENT Perform radar alignment. Refer to CCS-83, "TYPE 1: Description". Perform action test. Refer to <u>DAS-325</u>, "DCA: <u>Description</u>". Check that the vehicle ahead detection performance improves. Does it improve? YES >> INSPECTION END NO >> GO TO 6. M 6.REPLACE ICC SENSOR Replace the ICC sensor. Refer to CCS-135, "Removal and Installation". Perform radar alignment. Refer to CCS-83, "TYPE 1: Description". Ν Perform action test. Refer to DAS-325, "DCA: Description". Check that the vehicle ahead detection performance improves. Does it improve? DAS YES >> INSPECTION END NO >> GO TO 7. .REPLACE ADAS CONTROL UNIT Replace the ADAS control unit. Refer to DAS-161, "Removal and Installation".

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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 <u>DAS-325</u>, "<u>DCA</u>: <u>Description"</u> for action test.)

2. Check that the DCA/FCW system is normal.

>> INSPECTION END

THE SYSTEM OPERATES EVEN WHEN USING TURN SIGNAL

< SYMPTOM DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

THE SYSTEM OPERATES EVEN WHEN USING TURN SIGNAL

Description INFOID:0000000009644786

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-176, "LDW: System Description"
- LDP: DAS-178, "LDP: System Description"

Diagnosis Procedure

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-365, "Symptom Table".

2. CHECK SELF-DIAGNOSIS RESULTS

- Perform "All DTC Reading" with CONSULT.
- Check if the DTC is detected in self-diagnosis results of "ICC/ADAS" Refer to DAS-264, "DTC Index".

Is any DTC detected?

- YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts.
- >> Replace ADAS control unit. Refer to DAS-161, "Removal and Installation". NO

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[DRIVER ASSISTANCE SYSTEM]

NORMAL OPERATING CONDITION

Description

PRECAUTIONS FOR DISTANCE CONTROL ASSIST (DCA) SYSTEM

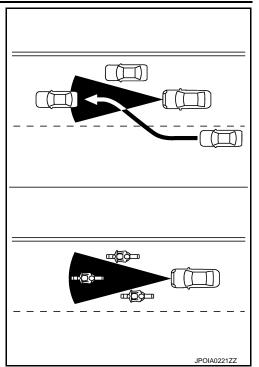
- If the vehicle ahead comes to a stop, the vehicle decelerates to a standstill within the limitations of the system. The system will cancel once it judges that the vehicle has come to a standstill with a warning chime. To prevent the vehicle from moving, the driver must depress the brake pedal.
- The 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.

< SYMPTOM DIAGNOSIS >

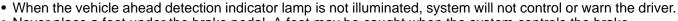
[DRIVER ASSISTANCE SYSTEM]

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- 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.

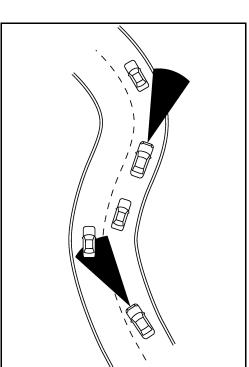


- When driving on some roads, such as winding, hilly, curved, narrow roads, or roads which are under construction, the sensor may detect vehicles in a different lane, or may temporarily not detect a vehicle traveling ahead. This may cause the system to work inappropriately. The detection of vehicles 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.



- 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)].

PRECAUTIONS FOR PREDICTIVE FORWARD COLLISION WARNING (PFCW)



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< 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.
- 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 (LDW)

- 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,
- 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 other vehicle in front of the vehicle, 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 LANE DEPARTURE PREVENTION (LDP)

- LDP system will not steer the vehicle to keep it in the lane, and will not 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.
- When the LDP system is operating, avoid excessive or sudden steering maneuvers. Otherwise, driver could lose control of the vehicle.
- The LDP system will not operate at speeds below approximately 70 km/h (45 MPH) or if it cannot detect lane
 markers
- The LDP system may not function properly under the following conditions, and do not use the LDP system:
- During bad weather (rain, fog, snow, wind, etc.).

< SYMPTOM DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

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- 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 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 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 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 own vehicle, which obstructs the lane camera unit detection
- 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 (BSW) & 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 a 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, wind, 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.

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[DRIVER ASSISTANCE SYSTEM]

- When driving in a makeshift 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 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 BCl 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:

< SYMPTOM DIAGNOSIS >

[DRIVER ASSISTANCE SYSTEM]

- 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.

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ACCELERATOR PEDAL ASSEMBLY

< REMOVAL AND INSTALLATION >

[DRIVER ASSISTANCE SYSTEM]

REMOVAL AND INSTALLATION

ACCELERATOR PEDAL ASSEMBLY

Exploded View

Refer to <u>ACC-4</u>, "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-324, "Description".

DYNAMIC DRIVER ASSISTANCE SWITCH

< REMOVAL AND INSTALLATION >

[DRIVER ASSISTANCE SYSTEM]

DYNAMIC DRIVER ASSISTANCE SWITCH

Exploded View

Dynamic driver assistance switch is integrated in the steering switch. Refer to <u>ST-30, "Exploded View"</u>. **NOTE:**

Always remove dynamic driver assistance switch together with steering wheel.

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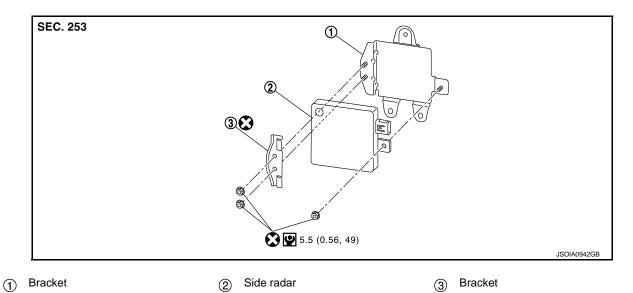
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SIDE RADAR

Removal and Installation

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EXPLODED VIEW

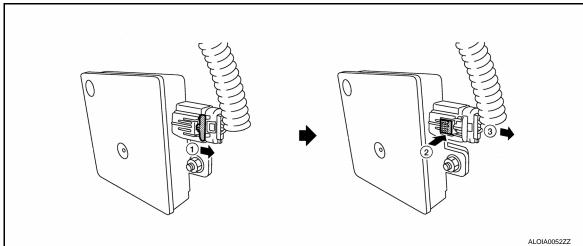


: N-m (kg-m, in-lb)

REMOVAL AND INSTALLATION

Removal

- 1. Remove the rear bumper fascia. Refer to EXT-21, "Removal and Installation".
- 2. Remove the side radar connector.



- 3. Remove the mounting nut.
- 4. Remove the side radar RH/LH.

Installation

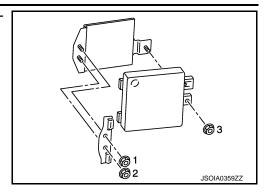
Note the following, and install in the reverse order of removal.

SIDE RADAR

< REMOVAL AND INSTALLATION >

[DRIVER ASSISTANCE SYSTEM]

- 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:0000000009644797

REMOVAL AND INSTALLATION

Removal

- Remove the front door sash inner cover. Refer to <u>INT-16</u>, "<u>FRONT DOOR SASH INNER COVER</u>: <u>Removal and Installation</u>".
- 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

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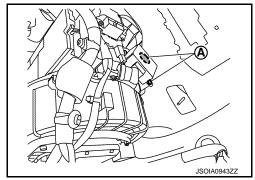
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REMOVAL

- 1. Remove grove box. Refer to IP-12, "Removal and Installation".
- 2. Remove steering force control module mounting bolts and move steering force control module to obtain space for work. Refer to <u>STC-427</u>, "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]

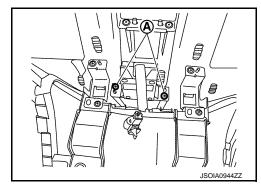
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DRIVER ASSISTANCE BUZZER

Removal and Installation

REMOVAL

- 1. Remove the instrument panel. Refer to IP-12, "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 > [CHASSIS CONTROL]

PRECAUTION

PRECAUTIONS

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

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, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, 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:

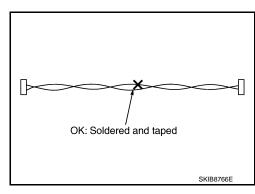
Always observe the following items for preventing accidental activation.

- 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, and wait at least 3 minutes before performing any service.

Precautions for Harness Repair

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).



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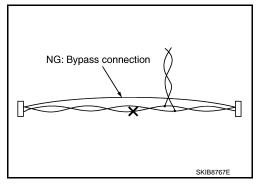
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PRECAUTIONS

< PRECAUTION > [CHASSIS CONTROL]

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

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- · 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.
- Active trace control function, active lane control function, LDP function, LDW function, and blind spot intervention function are not always activated in any driving conditions.
- The settings of automatic driver positioner and combination meter are reset when the battery terminal is disconnected.
- 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 <u>DMS-16</u>, "<u>Log-in Function</u>".
- When starting the vehicle or stopping the engine during Log-in function change, the operation results may not be reflected. Refer to <u>DMS-16</u>, "<u>Log-in Function</u>".
- 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-17. "Infiniti Drive Mode Selector: Work Flow".
- After replace the chassis control module, depress brake pedal and check that the stop lamp turns ON.

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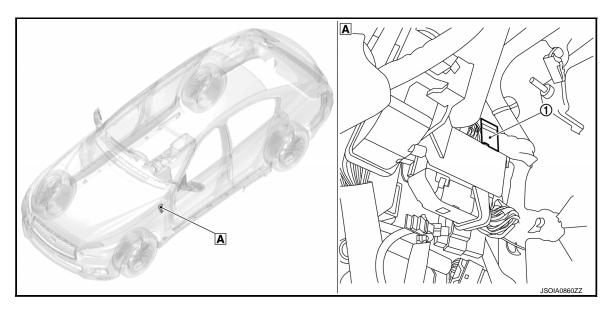
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SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location



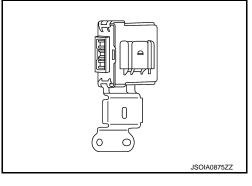
A inside of dash side finisher LH

No.	Component parts	Function
1	Chassis control module	DAS-393, "Chassis Control Module"

Chassis Control Module

Chassis control module controls the following systems based on the signals from each sensor, switch, and control unit.

- · Active trace control
- Active lane control
- Infiniti InTuition
- Infiniti drive mode selector
- Log-in function



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SYSTEM

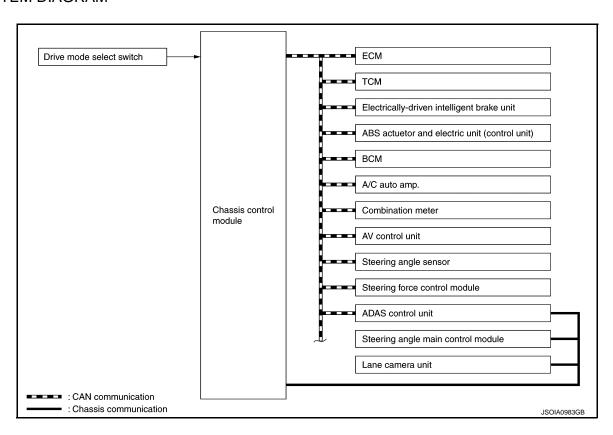
System Description

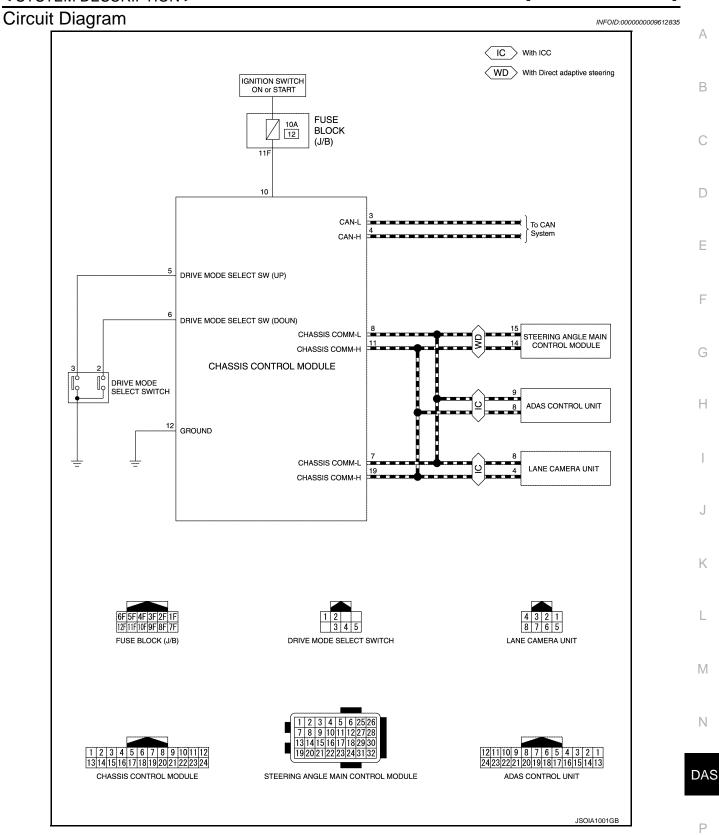
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- Chassis control to integrally control the driving system was adopted.
- Chassis control module inputs the necessary information for control from CAN communication and each switch and integrally controls each system. Refer to the following table for systems controlled and input/output signals.

System		Reference page
ACTIVE TRACE CONTROL		BRC-41, "ACTIVE TRACE CONTROL FUNCTION : System Description"
Active lane control		DAS-547, "ACTIVE LANE CONTROL : System Description"
Infiniti InTuition	Infiniti drive mode selector function	DMS-7, "Infiniti Drive Mode Selector : System Description"
Infiniti in Luition	Log-in function	DMS-9, "LOG-IN FUNCTION : System Description"

SYSTEM DIAGRAM





Fail-Safe (Chassis Control Module)

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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
C1B90-01 C1B91-01	The following functions are suspended. • Active lane control function • LDW function • LDP function
	Blind spot intervention function
C1B92-01	The following functions are suspended. Active trace control function Active lane control function LDW function LDP function Blind spot intervention function
C1B93-01	The following functions are suspended.
C1B94-01	 Active trace control function LDW function LDP function Blind spot intervention function
C1B95-01	The following functions are suspended. Active trace control function Active lane control function LDW function LDP function Blind spot intervention function Infiniti InTuition function Intelligent cruise control function
C1B96-01	The following functions are suspended. LDW function LDP function Blind spot intervention function Intelligent cruise control function
C1B98-01	Normal control
C1B99-01	The following functions are suspended. Active trace control function Active lane control function LDW function LDP function Blind spot intervention function Infiniti InTuition function
C1BA0-01	The following functions are suspended.
C1BA2-01	Active trace control function
C1BA5-01	Normal control
C1BA6-01	The following functions are suspended. • Infiniti InTuition function
C1BA7-01	The following functions are suspended. • Active lane control function
C1BA9-01	The following functions are suspended. • LDW function
C1BAA-01	LDW function LDP function Blind spot intervention function
C1BAB-01	The following functions are suspended. • Active trace control function
C1BAC-01	The following functions are suspended.
C1BAD-01	LDP function
C1BAE-01	Blind spot intervention function
C1BAF-01	The following functions are suspended. • Blind spot intervention function
C1BB0-01	Normal control

SYSTEM

DTC	Vehicle condition	
C1BB2-01	The following functions are suspended.	_
C1BB3-01	Active trace control function Active lane control function	
C1BB4-01	LDW function	
	LDP function	
C1BB5-01	Blind spot intervention function Infiniti InTuition function	
C1BB6-01	Normal control	_
C1BB7-01	The following functions are suspended.	_
C1BB8-01	Active trace control function	
C1BB9-01	Active lane control function LDW function	
C1BB9-01	• LDP function	
	Blind spot intervention function	
C1BBB-01	Infiniti InTuition function	_
C1BBC-01	Normal control	_
	The following functions are suspended. • Active trace control function	
	Active lane control function	
C1BBD-01	LDW function LDP function	
	 LDP function Blind spot intervention function 	
	Infiniti InTuition function	
C1BC0-01	The following functions are suspended.	_
C1BC1-01	Active trace control function Active lane control function	
C1BC2-01		_
C1BC3-01	The following functions are suspended. • Active trace control function	
C1BC4-01	Normal control	_
C1BC5-01		_
C1BC6-01	The following functions are suspended.	
U1000-01	Active trace control function	
01000-01	The following functions are suspended.	_
U1010-01	Active trace control function	
	Active lane control function	
U1A30-01	The following functions are suspended.	_
U1A31-01	Active lane control function LDW function	
U1A32-01	LDP function	
	Blind spot intervention function	_
U1A34-01	The following functions are suspended. • Active trace control function	
	Active lane control function	
U1A35-01	LDW function	
	 LDP function Blind spot intervention function 	
	The following functions are suspended.	- [
	Active lane control function	1
U1A36-01	LDW functionLDP function	
	Blind spot intervention function	
	The following functions are suspended.	_
U1A39-01	LDW function	
- -	LDP function	

< SYSTEM DESCRIPTION >

DTC	Vehicle condition
U1A3B-01	The following functions are suspended. Active trace control function Active lane control function LDW function LDP function Blind spot intervention function
U1A3D-01	The following functions are suspended. LDW function LDP function Blind spot intervention function
U1A3E-01	Normal control
U1A3F-01	The following functions are suspended. • Infiniti InTuition function
U1A42-01	The following functions are suspended.
U1A43-01	Active trace control function
U1A45-01	The following functions are suspended. • Active lane control function
U1A48-01	The following functions are suspended. Active trace control function LDW function LDP function Blind spot intervention function
U1A4A-01	The following functions are suspended. Active lane control function LDW function LDP function Blind spot intervention function Infiniti InTuition function
U1A4B-01	The following functions are suspended. • Active trace control function • Active lane control function • Infiniti InTuition function
U1A4C-01	Normal control
U1A4E-01	The following functions are suspended. • Active trace control function

INFORMATION DISPLAY (COMBINATION METER)

INFORMATION DISPLAY (COMBINATION METER): Chassis Control Display

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DESIGN/PURPOSE

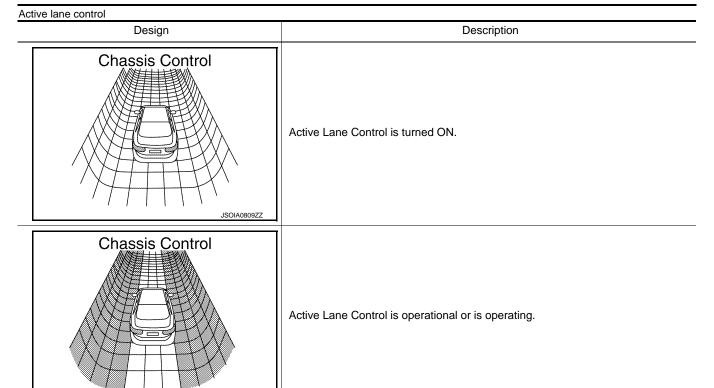
- The warning message is displayed on the vehicle information display when chassis control detected the system malfunction.
- When the aiming of lane camera unit is incomplete, a warning message is displayed.
- Each chassis control system information is displayed on the vehicle information display.

Warning Message

Design	Warning Message	
_	Chassis Control System Error See Owner's Manual	

System Information

ctive trace control			
Design	Description	/-	
Chassis Control JSOIA0806ZZ	Active trace control inactive	E C	
Chassis Control JSOIA1052ZZ	Active trace control is active. (Steering angle is less than the specified angle.)	F	
Chassis Control JSOIA0807ZZ	Active trace control is active. (Steering angle is the specified angle or more in the leftward direction.)		
Chassis Control JSOIA0808ZZ	Active trace control is active. (Steering angle is the specified angle or more in the rightward direction.)	D	



SYNCHRONIZATION WITH MASTER WARNING LAMP

Applicable

Refer to MWI-34, "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 system malfunction is detected. Refer to <u>DAS-422</u>, "<u>DTC Index</u>".
- Lane camera system malfunction is detected. Refer to DAS-573, "DTC Index".

Indicator operating

- Active trace control: Refer to BRC-41, "ACTIVE TRACE CONTROL FUNCTION: System Description".
- Active lane control: Refer to DAS-547, "ACTIVE LANE CONTROL: System Description".

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DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

CONSULT Function

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	 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-422, "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 switch operating status (Off: close / On: open).
BRAKE SWITCH 2	Off / On	Displays brake switch operating status (Off: open / On: close).
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.

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< 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-M8/A1-A6	Displays the shift position.
PRESS SENSOR	bar	Displays the brake fluid pressure.
DRIVE MODE SELECTOR	STD / SPORT / ECO / SNOW / PERSO	Displays the drive mode select switch selection 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 the operation request status to Direct Adaptive Steering.
ROAD DISTORTION*	1/m	Displays the road distortion rate radius.
ALC COMMAND ST ANG*	rad	Displays the steering command value to Direct Adaptive Steering.
ST WHL FORCE TORQUE*	Nm	Displays the estimated value for the steering wheel force torque.
ALC COMMAND ST WHL FORCE*	N	Displays the steering reaction force command value to Direct Adaptive Steering.
ADAS COND*	NORMAL / ABNOR	Displays ADAS control unit function status.
WIPER STATUS*	Off / LOW / HIGH / MALF	Displays wiper operating status.

^{*:} Models with Active Lane 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.

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[CHASSIS CONTROL]

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	tem Unit]	Description
THROTTLE CONTROL	[NORMAL/INCORR/PREV/INPOSSI]	Displays the electric throttle status.
SHIFT POSITION	[Off/P/R/N/D(A)/S/L/B /1-6/M1-M8/A1-A6]	Displays the shift position.
BRAKE SWITCH 2	[Off / On]	Displays brake switch operating status (Off: close / On: open).
BRAKE SWITCH 1	[Off / On]	Displays brake switch operating status (Off: open / On: close).
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.
ACCELE PEDAL MALF	[NORMAL / ABNOR]	Displays the accelerator pedal 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.
DRV TRQ CTRL MODE	[INITIAL/NORMAL/STOP 1/ STOP 2 / LIMIT 1 / PROHIBI]	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.
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/PERSO/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.
STRG SETTING	[STD / SPT / TOUR / SPT-L]	Displays steering characteristic.
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.

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< SYSTEM DESCRIPTION >

	em Jnit]	Description
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 Steer ing.
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.

< SYSTEM DESCRIPTION >

[CHASSIS CONTROL]

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	em nit]	Description
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 CAN- CEL	[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.

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.

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Test item	Operation	Description	
COMMAND STEERING ANGLE	Start	Transmits the steering command value 0 deg \rightarrow 0.00349 deg (hold it for approximately 2 seconds) \rightarrow 0 deg (hold it for approximately 2 seconds) \rightarrow 0.00349 deg (hold it for approximately 2 seconds) \rightarrow 0 deg to the steering force control module.	
COMMAND ST WHL FORCE	Start	Transmits the steering reaction force command value 0 N \rightarrow 0.6 N (hold it for approximately 2 seconds) \rightarrow 0 N (hold it for approximately 2 seconds) \rightarrow 0.6 N (hold it for approximately 2 seconds) \rightarrow 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.	
ALC DISF	Off	Displays Active Lane Control inactive status on the information display in the combination meter.	
EL TIDE DICD	On	Displays the front LH tire on the information display in the combination meter.	
FL TIRE DISP	Off	Does not display the front LH tire on the information display in the combination meter.	
ED TIDE DIOD	On	Displays the front RH tire on the information display in the combination meter.	
FR TIRE DISP	Off	Does not display the front RH tire on the information display in the combination meter.	
	On	Displays the rear LH tire on the information display in the combination meter.	
RL TIRE DISP	Off	Does not display the rear LH tire on the information display in the combition 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.	
	NO DISP	Does not display the turning status on the information display in the combination meter.	
TURN DISP	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.	
	LEVEL 1		
ALO LEVEL	LEVEL 2	Displays Active Lane Control corresponding to the selected level on the in-	
ALC LEVEL	LEVEL 3	formation display in the combination meter.	
	LEVEL 4		
ALC OFFICE	On	Displays Active Lane Control active status on the information display in the combination meter.	
ALC SETTING	Off	Displays Active Lane Control inactive status on the information display in the combination meter.	
4T0 4 DIOD	On	Displays active trace control function active status on the information display in the combination meter.	
ATC 1 DISP	Off	Displays active trace control function inactive status on the information display in the combination meter.	
ATO O DIOD	On	Displays active trace control function active status on the information display in the combination meter.	
ATC 2 DISP	Off	Displays active trace control function inactive status on the information display in the combination meter.	

< SYSTEM DESCRIPTION >

[CHASSIS CONTROL]

Test item	Operation	Description
ATC 4 DISP	On	Displays active trace control function active status on the information display in the combination meter.
ATC 4 DISP	Off	Displays active trace control function inactive status on the information display in the combination meter.

WORK SUPPORT

Work support items	Description
ERASE LAST DRIVER INFORMATION	Erases the information for the previous driver.
ERASE KEY ALLOTEMENT 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 • 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	
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	

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[CHASSIS CONTROL]

Cause of cancellation	Lane departure prevention	Blind spot intervention	Description	
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, IBA 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 un- clear		×	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	×	×	_	

RE/PROGRAMMING, CONFIGURATION

Configuration includes the following functions.

< SYSTEM DESCRIPTION >

[CHASSIS CONTROL]

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.
Read/White Configuration	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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[CHASSIS CONTROL]

ECU DIAGNOSIS INFORMATION

CHASSIS CONTROL MODULE

Reference Value

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
	When chassis control module is normal	Off
CONTROL MODULE MALF	When chassis control module malfunction is detected	On
	When diagnosis of CAN communication mal- function is detected	Off
CAN DIAG STATUS	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 Stopped	0 km/h (0 MPH)
VEHICLE SPEED	Driving*	Almost same reading as speedometer (within ±10%)
ED WILEEL ODEED	Vehicle stopped	0 rpm
FR WHEEL SPEED	Driving [*]	Increases according to vehicle speed
	Vehicle stopped	0 rpm
FL WHEEL SPEED	Driving [*]	Increases according to vehicle speed
	Vehicle stopped	0 rpm
RR WHEEL SPEED	Driving [*]	Increases according to vehicle speed
	Vehicle stopped	0 rpm
RL WHEEL SPEED	Driving [*]	Increases according to vehicle speed
	When driving straight	0±3.5 deg
STEERING ANG SENSOR	When steering wheel is steered to RH by 90°	Approx. +90 deg
	When steering wheel is steered to LH by 90°	Approx. –90 deg
	Vehicle stopped	Approx. 0 G
DECEL G SENSOR	When during acceleration	Positive value
	When during deceleration	Negative value
	Vehicle stopped	Approx. 0 G
SIDE G SENSOR	When right turn	Negative value
	When left turn	Positive value
	Vehicle stopped	Approx. 0 deg/s
YAW RATE SENSOR	When right turn	Negative value
	When left turn	Positive value
ACCELE DEDAL DOCUTION	When accelerator pedal is released	0%
ACCELE PEDAL POSITION	When accelerator pedal is depressed	0 – 100%

< ECU DIAGNOSIS INFORMATION >

[CHASSIS 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
	When brake pedal is not depressed	Off
BRAKE SWITCH 2	When brake pedal is depressed	On
	When brake pedal is depressed	Off
BRAKE SWITCH 1	When brake pedal is not depressed	On
DDF00 OFNOOD	When brake pedal is not depressed	Approx. 0 bar
PRESS SENSOR	when brake pedal is depressed	0 – 255 bar
450	When ABS function is normal	NORMAL
ABS	When ABS function malfunction is detected	ABNOR
	When ABS function is normal	NORMAL
ABS MALF	When ABS function malfunction is detected	ABNOR
	When EBD function is normal	NORMAL
EBD	When EBD function malfunction is detected	ABNOR
	When accelerator pedal is normal	NORMAL
ACCELE PEDAL MALF	When accelerator pedal malfunction is detected	ABNOR
	When TCS function is normal	NORMAL
TCS	When TCS function malfunction is detected	ABNOR
TOO MALE	When TCS function is normal	NORMAL
TCS MALF	When TCS function malfunction is detected	ABNOR
(DO	When VDC function is normal	NORMAL
VDC	When VDC function malfunction is detected	ABNOR
1/D0 1/1/15	When VDC function is normal	NORMAL
VDC MALF	When VDC function malfunction is detected	ABNOR
AND OFF OMITOLI	When VDC OFF switch is OFF	Off
VDC OFF SWITCH	When VDC OFF switch is ON	On
	When parking brake is inactive	Off
PARKING BRAKE	When parking brake is active	On
	When correction coefficients are initialized	INITIAL
	When correction is executed	NORMAL
DDV TDQ OTDL MODE	When correction is stopped (computing is impossible)	STOP 1
DRV TRQ CTRL MODE	When correction is stopped (computing is possible)	STOP 2
	When correction is limited	LIMIT 1
	When correction is prohibited	PROHIBI

< ECU DIAGNOSIS INFORMATION >

Monitor item	Condition	Reference values in normal operation
DRV TRQ CTRL PERMIS 1	When correction is permitted (basic requirement)	PERMIS
	When correction is not permitted (basic requirement)	NO PER
DDV TDQ QTDL DEDWQ Q	When correction is permitted (system requirement)	PERMIS
DRV TRQ CTRL PERMIS 2	When correction is not permitted (system requirement)	NO PER
DRV TRQ CTRL STOP	When correction is requested to stop	REQ
DIV TRQ CTRESTOR	When correction is not requested to stop	NO REQ
DRV TRQ CTRL PROHIBIT	When prohibition of correction is requested	REQ
DRV TRQ CTRL PROHIBIT	When prohibition of correction is not requested	NO REQ
	When drive mode select switch is "STAN-DARD" mode	STD
	When drive mode select switch is "SPORT" mode	SPORT
DRIVE MODE SELECTOR	When drive mode select switch is "SNOW" mode	SNOW
	When drive mode select switch is "ECO" mode	ECO
	When drive mode select switch is "PERSON-AL" mode	PERSO
	When drive mode select switch is not select	NOT SET
	When log-in is possible	NO PER
LOG-IN PERMIS	When log-in is not possible	PERMIS
	When Intelligent Key is not linked	Off
I-KEY LINK	When Intelligent Key is linked	On
	When logged in with "USER A" Intelligent Key	USER A
	When logged in with "USER B" Intelligent Key	USER B
USER	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
	When the engine/transmission setting with drive mode select switch is in "SNOW" mode	SNOW

< ECU DIAGNOSIS INFORMATION >

[CHASSIS CONTROL]

Monitor item	Condition	Reference values in normal operation
	When the steering system setting with drive mode select switch is in "STANDARD" mode (Effort: Middle /Response: Middle)	STD
	When the steering system setting with drive mode select switch is in "SPORT" mode (Effort: Heavy / Response: Quick)	SPT
STRG SETTING	When the steering system setting with drive mode select switch is in "TOURING" mode (Effort: Light / Response: Casual)	TOUR
	When the steering system setting with drive mode select switch is in "SPORT-L" mode (Effort: Middle / Response: Quick)	SPT-L
	When Active Lane Control setting with drive mode select switch is "OFF"	Off
ALC SETTING	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
ATC SETTING	When active trace control function setting with drive mode select switch is "OFF"	Off
ATC SETTING	When Active Lane Control setting with drive mode select switch is "ON"	On
	When drive mode select switch is "STAN-DARD" mode	STD
	When drive mode select switch is "SNOW" mode	SNOW
COMBI METER	When drive mode select switch is "PERSON-AL" 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 0	When active trace control function is inactive	Off
ATC 2	When active trace control function is active	On
ATC 4	When active trace control function is inactive	Off
ATC 4	When active trace control function is active	On
EL TIDE DISC	When the front LH tire is not displayed on the information display in the combination meter	DEF
FL TIRE DISP	When the front LH tire is displayed on the information display in the combination meter	1
ED TIDE DISD	When the front RH tire is not displayed on the information display in the combination meter	DEF
FR TIRE DISP	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
RL TIRE DISP	When the rear LH tire is displayed on the information display in the combination meter	1

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Monitor item	Condition	Reference values in normal operation
DD TIDE DIED	When the rear RH tire is not displayed on the information display in the combination meter	DEF
RR TIRE DISP	When the rear RH tire is displayed on the information display in the combination meter	1
	When the straight-ahead status is displayed on the information display in the combination meter	N STEER
TURN DISP	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
	When Active Lane Control is turned ON.	0
ALC LEVEL	When Active Lane Control is operational or is operating.	1 – 4
ALC CTATUC	When Active Lane Control is OFF	INACT
ALC STATUS	When Active Lane Control is ON	ACT
ATC DICD	When the activation of active trace control function is not displayed on the information display in the combination meter	Off
ATC DISP	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 CVCTEM	When Active Lane Control is OFF	Off
ALC SYSTEM	When Active Lane Control is ON	On
LANE MADIZED (LLI)	When left side lane marker is not detected.	NOT
LANE MARKER (LH)	when left side lane marker is detected.	DETECT
LANE MADIZED (DLI)	When right side lane marker is not detected.	NOT
LANE MARKER (RH)	When right side lane marker is detected.	DETECT
TUDN CIONAL /LU\	When turn signal lamps is OFF	Off
TURN SIGNAL (LH)	When turn signal lamp LH is blinking	On
TUDNI CICNAL (DLI)	When turn signal lamps is OFF	Off
TURN SIGNAL (RH)	When turn signal lamp RH is blinking	On
	When turn signal lamps is OFF	Off
	When turn signal lamp LH is blinking	LEFT
TURN SIGNAL SWITCH	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
DAGI	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

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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
	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
	When driving straight	Approx. 0 rad
ST PINION ANG	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
SI WILL FORCE TORQUE	When steering wheel is steered	MAX ± 32 N·m
	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
COMMAND ST WHL FORCE	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
EDW DIOI	When LDW function malfunction is detected	MALF
LDP DISP	When LDP function is ON	On
EDI DIGI	When LDP function malfunction is detected	MALF
	When blind spot intervention function is ON	On
BSI DISP	When blind spot intervention function malfunction is detected	MALF
	When steering switch is normal	OK
ST SWITCH COND	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
DOW COND	When BSW function malfunction is detected	ABNOR
ADAS COND	When ADAS control unit is normal	NORMAL
ADAG GOND	When ADAS control malfunction is detected	ABNOR
COLLISION WARN	When the collision warning is OFF	Off
OOLLIGIOIV WARAIV	When the collision warning is ON	On
ICC ACTTIVE	When ICC function is inactive	Off
	When ICC function is active	On
IBA ACTIVE	When forward emergency brake function is inactive	Off
IBA ACTIVE	When forward emergency brake function is active	On
DR BUZZER STATUS	Displayed but not used	_
LDW COND	When LDW function is ON	On
LDW COND	When LDW function malfunction is detected	MALF

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Monitor item	Condition	Reference values in normal operation
I DD COND	When LDP function is ON	On
LDP COND	When LDP function malfunction is detected	MALF
	When blind spot intervention function is ON	On
BSI COND	When blind spot intervention function malfunction is detected	MALF
	When not cancel	NONE
	When slippery road	SLIP
LDP BRAKE CANCEL	When drive mode select switch is "SNOW" mode	SNOW
	When VDC OFF switch is OFF	VDC OF
	When not cancel	NONE
	When slippery road	SLIP
BSI BRAKE CANCEL	When drive mode select switch is "SNOW" mode	SNOW
	When VDC OFF switch is OFF	VDC OF
	When Lane camera unit is normal	NORMAL
CAMERA COND	When Lane camera unit malfunction is detected.	ABNOR
CAMERA TEMP COND	When the temperature around lane camera unit is normal	NORMAL
CAWIERA TEIVIF COND	When the temperature around the lane camera unit is high	ABNOR
	When communication between chassis control module and lane camera unit is normal	NORMAL
CAMERA COMM COND	When communication between chassis control module and lane camera unit malfunction is detected	ABNOR
CAMERA AIMING	When lane camera aiming is completed	COMP
CAMERA AMMING	When lane camera aiming is not completed	INCOMP
CAMERA HIGH TEMP (LDW)	When the temperature around lane camera unit is normal. (LDW ON)	NORMAL
CAMERA HIGH TEMP (LDW)	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
CAMERATION TEMP (LDF)	When the temperature around the lane camera unit is high. (LDP ON)	ABNOR
CAMERA HIGH TEMP (RSI)	When the temperature around lane camera unit is normal. (Blind spot intervention ON)	NORMAL
CAMERA HIGH TEMP (BSI)	When the temperature around the lane camera unit is high. (Blind spot intervention ON)	ABNOR
	When the side radar is normal	NORMAL
SIDE RADAR BLOCK CANCEL	Side radar is blocked and temporarily deactivated.	BLOCK
DOLLAMD DEO (LL)	When blind spot intervention function (LH) is inactive	Off
BSI LAMP REQ (LH)	When blind spot intervention function (LH) is active	On

< ECU DIAGNOSIS INFORMATION >

[CHASSIS CONTROL]

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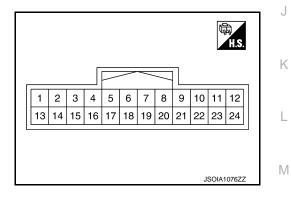
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Monitor item	Condition	Reference values in normal operation
BSI LAMP REQ (RH)	When blind spot intervention function (RH) is inactive	Off
DOLLANII NEW (IXII)	When blind spot intervention function (RH) is active	On
LANE DEPARTURE DISP (LH)	When not deviating the LH side lane	NO DISP
EANE DELANTONE DISI (EII)	When deviating the LH side lane	DEVIAT
LANE DEPARTURE DISP (RH)	When not deviating the RH side lane	NO DISP
LANE DEFARTORE DISF (KII)	When deviating the RH side lane	DEVIAT
LDP/BSI ACTIVE	When LDP function and blind spot intervention function are inactive	Off
EDP/BGI ACTIVE	When LDP function or blind spot intervention function are active	On
	When diagnosis of ADAS control unit is normal	NORMAL
ADAS COND	When diagnosis of ADAS control unit malfunction is detected	ABNOR
	When driver assistance buzzer is normal	NORMAL
DR BUZZER COND	when driver assistance buzzer malfunction is detected	ABNOR
OUTSIDE TEMP	Ignition switch ON	(-40°C) - (+72°C)
	When front wiper is inactive	Off
WIPER STATUS	When front wiper is active (low and intermittent)	LOW
	When front wiper is active (high)	HIGH
	When front wiper malfunction is detected	MALF

^{*:} Check tire pressure under normal conditions.

TERMINAL LAYOUT



PHYSICAL VALUES

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< ECU DIAGNOSIS INFORMATION >

	nal No. e color)	Description		- Condition		Value (Approx.)	
+	_	Signal name	Input/ Output				
3 (R) ^{*1} (P) ^{*2}		CAN-L	_	_	_	_	
4 (L)		CAN-H	_	_	_	_	
5		DRIVE MODE SELECT SWITCH (UP)	Input	Ignition switch	Up switch is not pressed	6.4 – 16 V	
(V)		DRIVE MODE SELECT SWITCH (OF)	input	ON	Up switch is pressed	0 V	
6 (G)		DRIVE MODE SELECT SWITCH (DOWN)	Input	Ignition switch	Down switch is not pressed	6.4 – 16 V	
(G) 				ON	Down switch is pressed	0 V	
7 (W)	Ground	CHASSIS COMM-L	_	_	_	_	
8 (W)		CHASSIS COMM-L		_	_	_	
10 (G)		IGN	Input	Ignition switch ON		6.4 – 16 V	
11 (L)		CHASSIS COMM-H	_	_	_	_	
12 (B)		GROUND	_	Ignition switch ON	_	0 V	
19 (L)		CHASSIS COMM-H	_	_	_	_	

^{*1:} With Gateway

Fail-Safe (Chassis Control Module)

INFOID:0000000009612840

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
C1B90-01	The following functions are suspended.
C1B91-01	 Active lane control function LDW function LDP function Blind spot intervention function
C1B92-01	The following functions are suspended. • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function
C1B93-01	The following functions are suspended.
C1B94-01	 Active trace control function LDW function LDP function Blind spot intervention function

^{*2:} Without Gateway

< ECU DIAGNOSIS INFORMATION >

[CHASSIS CONTROL]

DTC	Vehicle condition	
C1B95-01	The following functions are suspended. Active trace control function Active lane control function LDW function LDP function Blind spot intervention function Infiniti InTuition function	
C1B96-01	 Intelligent cruise control function The following functions are suspended. LDW function LDP function Blind spot intervention function Intelligent cruise control function 	
C1B98-01	Normal control	
C1B99-01	The following functions are suspended. Active trace control function Active lane control function LDW function LDP function Blind spot intervention function Infiniti InTuition function	
C1BA0-01	The following functions are suspended.	
C1BA2-01	Active trace control function	
C1BA5-01	Normal control	
C1BA6-01	The following functions are suspended. Infiniti InTuition function	
C1BA7-01	The following functions are suspended. • Active lane control function	
C1BA9-01	The following functions are suspended.	
C1BAA-01	LDW function LDP function Blind spot intervention function	
C1BAB-01	The following functions are suspended. • Active trace control function	
C1BAC-01	The following functions are suspended.	
C1BAD-01	LDP function	
C1BAE-01	Blind spot intervention function	
C1BAF-01	The following functions are suspended. • Blind spot intervention function	
C1BB0-01	Normal control	
C1BB2-01	The following functions are suspended. • Active trace control function	
C1BB3-01	Active lane control function	
C1BB4-01	LDW function LDP function	
C1BB5-01	Blind spot intervention function Infiniti InTuition function	
C1BB6-01	Normal control	
C1BB7-01	The following functions are suspended.	
C1BB8-01	Active trace control function Active lane control function	
C1BB9-01	LDW function	
C1BBA-01	LDP function Blind spot intervention function	
C1BBB-01	Infiniti InTuition function	
C1BBC-01	Normal control	

DTC	Vehicle condition	
C1BBD-01	The following functions are suspended. Active trace control function Active lane control function LDW function LDP function Blind spot intervention function Infiniti InTuition function	
C1BC0-01	The following functions are suspended.	
C1BC1-01	Active trace control function Active lane control function	
C1BC2-01	The following functions are suspended.	
C1BC3-01	Active trace control function	
C1BC4-01	Normal control	
C1BC5-01		
C1BC6-01	The following functions are suspended. • Active trace control function	
U1000-01	Active trace control function	
U1010-01	The following functions are suspended. • Active trace control function • Active lane control function	
U1A30-01	The following functions are suspended.	
U1A31-01	Active lane control function LDW function	
U1A32-01	LDV function LDP function Blind spot intervention function	
U1A34-01	The following functions are suspended.	
U1A35-01	 Active trace control function Active lane control function LDW function LDP function Blind spot intervention function 	
U1A36-01	The following functions are suspended. • Active lane control function • LDW function • LDP function • Blind spot intervention function	
U1A39-01	The following functions are suspended. • LDW function • LDP function • Blind spot intervention function	
U1A3B-01	The following functions are suspended. • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function	
U1A3D-01	The following functions are suspended. • LDW function • LDP function • Blind spot intervention function	
U1A3E-01	Normal control	
U1A3F-01	The following functions are suspended. Infiniti InTuition function	
U1A42-01	The following functions are suspended.	
U1A43-01	Active trace control function	
U1A45-01	The following functions are suspended. • Active lane control function	

< ECU DIAGNOSIS INFORMATION >

[CHASSIS CONTROL]

DTC	Vehicle condition	
U1A48-01	The following functions are suspended. • Active trace control function • LDW function • LDP function • Blind spot intervention function	
U1A4A-01	The following functions are suspended. • Active lane control function • LDW function • LDP function • Blind spot intervention function • Infiniti InTuition function	
U1A4B-01	The following functions are suspended. • Active trace control function • Active lane control function • Infiniti InTuition function	
U1A4C-01	Normal control	
U1A4E-01	The following functions are suspended. • Active trace control function	

DTC Inspection Priority Chart

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When multiple DTCs are displayed simultaneously, check them one by one according to the following priority list.

Priority	Detected item (DTC)	
1	U1000-01 CAN COMM CIRCUIT U1010-01 CONTROL UNIT (CAN)	
2	U1A30-01 DAST COMM U1A31-01 DAST COMM U1A32-01 CAMERA COMM U1A34-01 BRAKE CONTROL COMM U1A35-01 BRAKE CONTROL COMM U1A36-01 BCM/IPDM COMM U1A39-01 COMBINATION METER COMM U1A39-01 TCM COMM U1A3B-01 TCM COMM U1A3F-01 ADAS COMM U1A3F-01 AV COMM U1A3F-01 AV COMM U1A42-01 STEERING ANGLE SENSOR COMM U1A43-01 STEERING ANGLE SENSOR COMM U1A48-01 ECM/HPCM COMM U1A48-01 CONTROL MODULE (CAN) U1A4B-01 CONTROL MODULE (CAN) U1A4E-01 ECM/HPCM COMM	
3	C1BBD-01 VARIANT CODING	
4	C1B98-01 ADAS SYSTEM	

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< ECU DIAGNOSIS INFORMATION >

[CHASSIS CONTROL]

Priority	Detected item (DTC)
5	C1B90-01 DAST SYSTEM C1B91-01 CAMERA SYSTEM C1B92-01 BRAKE CONTROL SYSTEM C1B93-01 ENGINE/HEV SYSTEM C1B94-01 TM SYSTEM C1B96-01 ADAS SYSTEM C1B96-01 ADAS SYSTEM C1BA0-01 ADAS/CHASSIS CTRL BRAKE SYS C1BA0-01 STEERING ANGLE SENSOR C1BA5-01 AVSYSTEM C1BA6-01 AV SYSTEM C1BA7-01 ALC SYSTEM C1BA7-01 ALC SYSTEM C1BA7-01 ALC SYSTEM C1BA8-01 NP RANGE C1BA8-01 STOP LAMP SW C1BA8-01 STOP LAMP SW C1BA8-01 OPERATION SW CIRC C1BA8-01 ACCELERATER PEDAL C1BA8-01 BSW SYSTEM C1BA0-01 BSW SYSTEM C1BA0-01 TR WHEEL SENSOR C1BC0-01 FR WHEEL SENSOR C1BC0-01 FR WHEEL SENSOR C1BC2-01 RR WHEEL SENSOR C1BC3-01 RL WHEEL SENSOR C1BC3-01 RL WHEEL SENSOR C1BC3-01 RL WHEEL SENSOR C1BC5-01 SIDE G SENSOR C1BC5-01 SIDE G SENSOR C1BC5-01 PRESSURE SENSOR
6	C1BB5-01 IGN POWER SUPPLY C1BB6-01 IGN POWER SUPPLY
7	C1B95-01 CONTROL MODULE C1B99-01 CONTROL MODULE C1BB3-01 CONTROL MODULE C1BB3-01 CONTROL MODULE C1BB4-01 CONTROL MODULE C1BB7-01 CONTROL MODULE C1BB8-01 CONTROL MODULE C1BB9-01 CONTROL MODULE C1BB9-01 CONTROL MODULE C1BBA-01 CONTROL MODULE C1BBA-01 CONTROL MODULE C1BBB-01 CONTROL MODULE C1BBC-01 CONTROL MODULE

DTC Index

DTC	Display item	Refer to
C1B90-01	DAST SYSTEM	DAS-436, "DTC Description"
C1B91-01	CAMERA SYSTEM	DAS-438, "DTC Description"
C1B92-01	BRAKE CONTROL SYSTEM	DAS-440, "DTC Description"
C1B93-01	ENGINE/HEV SYSTEM	DAS-442, "DTC Description"
C1B94-01	TM SYSTEM	DAS-444, "DTC Description"
C1B95-01	CONTROL MODULE	DAS-446, "DTC Description"
C1B96-01	ADAS SYSTEM	DAS-447, "DTC Description"
C1B98-01	ADAS SYSTEM	DAS-449, "DTC Description"
C1B99-01	CONTROL NODULE	DAS-451, "DTC Description"
C1BA0-01	ADAS/CHASSIS CTRL BRAKE SYS	DAS-452, "DTC Description"
C1BA2-01	STEERING ANGLE SENSOR	DAS-454, "DTC Description"
C1BA5-01	ADAS/CHASSIS CTRL ENGINE SYS	DAS-455, "DTC Description"
C1BA6-01	AV SYSTEM	DAS-456, "DTC Description"

< ECU DIAGNOSIS INFORMATION >

[CHASSIS CONTROL]

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DTC	Display item	Refer to
C1BA7-01	ALC SYSTEM	DAS-458, "DTC Description"
C1BA9-01	NP RANGE	DAS-460, "DTC Description"
C1BAA-01	GEAR POSITION	DAS-462, "DTC Description"
C1BAB-01	STOP LAMP SW	DAS-464, "DTC Description"
C1BAC-01	OPERATION SW CIRC	DAS-466, "DTC Description"
C1BAD-01	ACCELERATER PEDAL	DAS-468, "DTC Description"
C1BAE-01	ACCELERATER PEDAL	DAS-470, "DTC Description"
C1BAF-01	BSW SYSTEM	DAS-472, "DTC Description"
C1BB0-01	DR BUZZER SYSTEM	DAS-474, "DTC Description"
C1BB2-01	CONTROL MODULE	DAS-475, "DTC Description"
C1BB3-01	CONTROL MODULE	DAS-476, "DTC Description"
C1BB4-01	CONTROL MODULE	DAS-477, "DTC Description"
C1BB5-01	IGN POWER SUPPLY	DAS-478, "DTC Description"
C1BB6-01	IGN POWER SUPPLY	DAS-481, "DTC Description"
C1BB7-01	CONTROL MODULE	DAS-483, "DTC Description"
C1BB8-01	CONTROL MODULE	DAS-484, "DTC Description"
C1BB9-01	CONTROL MODULE	DAS-485, "DTC Description"
C1BBA-01	CONTROL MODULE	DAS-486, "DTC Description"
C1BBB-01	CONTROL MODULE	DAS-487, "DTC Description"
C1BBC-01	CONTROL MODULE	DAS-488, "DTC Description"
C1BBD-01	VARIANT CODING	DAS-489, "DTC Description"
C1BC0-01	FR WHEEL SENSOR	DAS-490, "DTC Description"
C1BC1-01	FL WHEEL SENSOR	DAS-492, "DTC Description"
C1BC2-01	RR WHEEL SENSOR	DAS-494, "DTC Description"
C1BC3-01	RL WHEEL SENSOR	DAS-496, "DTC Description"
C1BC4-01	DECEL G SENSOR	DAS-498, "DTC Description"
C1BC5-01	SIDE G SENSOR	DAS-499, "DTC Description"
C1BC6-01	PRESSURE SENSOR	DAS-501, "DTC Description"
U1000-01	CAN COMM CIRCUIT	DAS-502, "DTC Description"
U1010-01	CONTROL UNIT (CAN)	DAS-503, "DTC Description"
U1A30-01	DAST COMM	DAS-504, "DTC Description"
U1A31-01	DAST COMM	DAS-507, "DTC Description"
U1A32-01	CAMERA COMM	DAS-509, "DTC Description"
U1A34-01	BRAKE CONTROL COMM	DAS-511, "DTC Description"
U1A35-01	BRAKE CONTROL COMM	DAS-513, "DTC Description"
U1A36-01	BCM/IPDM COMM	DAS-515. "DTC Description"
	COMBINATION METER COMM	
U1A39-01		DAS-517, "DTC Description"
U1A3B-01	TCM COMM	DAS-519, "DTC Description"
U1A3D-01	ADAS COMM	DAS-521, "DTC Description"
U1A3E-01	ADAS COMM	DAS-523, "DTC Description"
U1A3F-01	AV COMM	DAS-525, "DTC Description"
U1A42-01	STEERING ANGLE SENSOR COMM	DAS-527, "DTC Description"
U1A43-01	STEERING ANGLE SENSOR COMM	DAS-529, "DTC Description"
U1A45-01	DR BUZZER COMM	DAS-531, "DTC Description"

Revision: 2013 October **DAS-423** 2014 Q50

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< ECU DIAGNOSIS INFORMATION >

DTC	Display item	Refer to
U1A48-01	ECM/HPCM COMM	DAS-533, "DTC Description"
U1A4A-01	CONTROL MODULE (CAN)	DAS-535, "DTC Description"
U1A4B-01	CONTROL MODULE (CAN)	DAS-536, "DTC Description"
U1A4C-01	A/C AUTO AMP. COMM	DAS-537, "DTC Description"
U1A4E-01	ECM/HPCM COMM	DAS-539, "DTC Description"

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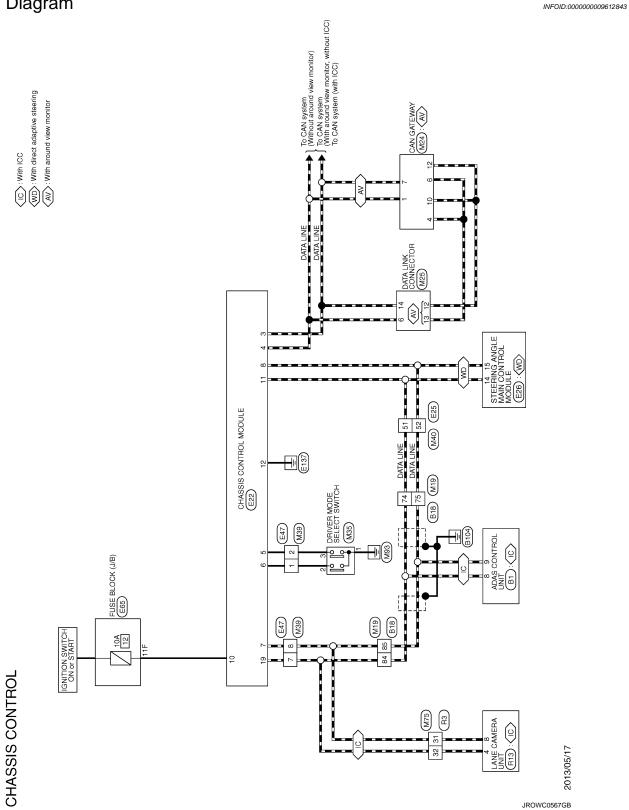
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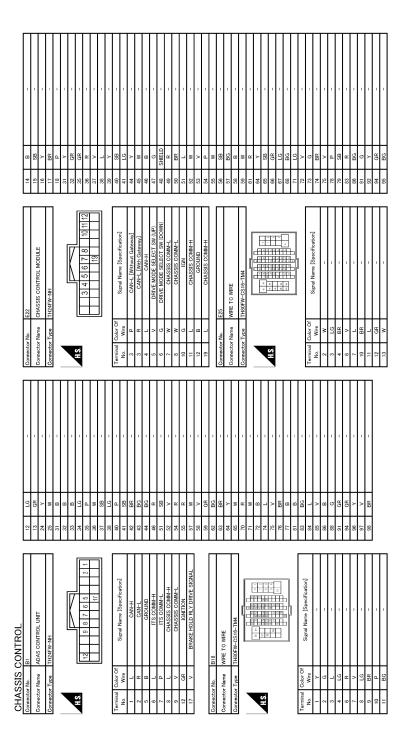
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WIRING DIAGRAM

CHASSIS CONTROL

Wiring Diagram





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51 Y = 2		ation of the state	ctor Na	1 3 4 5 6 7 9 10 11 12 9 10 11 12 9 10 11 12 9 10 11 12 9 10 11 12 9 10 11 12 9 10 12 9 10 12 9 12
2F BR 3F P P 6F P R 1 P P P P P P P P P P P P P P P P P	ctor No. M19 Ctor Name Wife TO Wife etcr Type ITHSOMM-CS16	Terminal Color Of Signal Name No. Wire Signal Name Sig	++++++	25 W W 32 B B B B B B B B B B B B B B B B B B
Connector No. E47 Connector Name WIRE TO WIRE Connector Type TH32MW-NH	1 2 3 4 1 8 2 28 28 28 28 2		ctor Na	H.S.
	CONTROL MODULE 4 5 6 25 1011 118 30 121 23 24 32	Signal Name (Specification) TOROUGE SENSOR MAIN SIGNAL TOROUGE SENSOR SLIB SIGNAL STEERNO MAIN SIGNAL STEERNO MAIN AND MAIN SIGNAL STEERNO MAIN AND MOTION RESOLVES SAME SIGNAL STEERNO MAIN AND MOTION RESOLVES SAME SIGNAL STEERNO MAIN AND MOTION RESOLVES SAME (SE-54) STEERNO MAIN AND MOTION RESOLVES SAME (SE-54) STEERNO MAIN AND MAIN TOWN RESOLVES SAME (SE-54) TOROUGE SENSOR GROUND.	TOROUE SERSON FOWER SUPPLY STREED, AND LEAD HOUT DOWNER SUPPLY STREED, AND LEAD HOUT DOWNER, SUPPLY STREED, AND LEAD HOUT DOWNER, SUPPLY STREED, AND LEAD HOUT DOWNER, SUPPLY BACK SECONMANUEL AND COMMANDED TO HOUT BACK STOWNER TORS TO THE GOVERNOUS BACK STOWNER SUPPLY BACK STOWNER TO STREED FOR SUPPLY BACK STOWN	BOOK UP STOWN TO DOMINION THOUGH THE SEG SOUNDS AND SEG SOUNDS AND SEG SOUNDS AND SEG SOUND SEG

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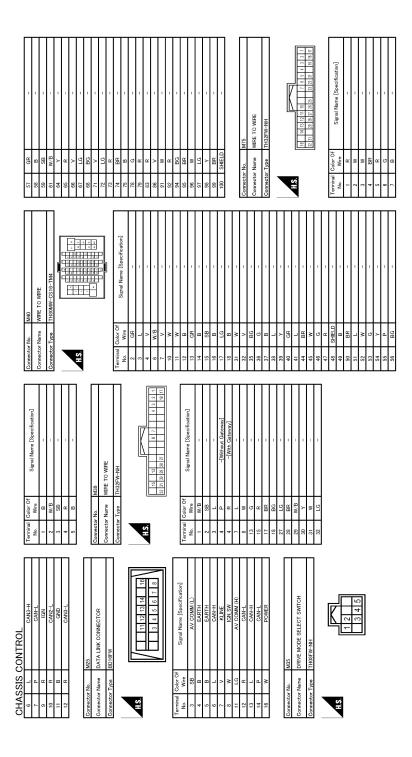
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CHAS	10	11	12	13	14	91	17	82	61	21	22	23	ęş	56	27	28	67	5 6	35	١	Connector No.	Connector Name	Connector Type		1	Ę	2		Terminal	-	2	3	4	2	9	7	9	= 5	7 .	92	17	8	19	21

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[CHASSIS CONTROL]

BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow (INFOID:000000000612844

DETAILED FLOW

${f 1}$.INTERVIEW FROM THE CUSTOMER

Clarify customer complaints before inspection. First of all, perform an interview utilizing <u>DAS-431</u>, "<u>Diagnostic Work Sheet</u>" 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-418. "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

(P)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

(P)With CONSULT

Perform DTC confirmation procedures for the error-detected system.

NOTF:

If some DTCs are detected at the some time, determine the order for performing the diagnosis based on <u>DAS-421</u>, "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 <u>DAS-</u>391, "Precautions for Harness Repair".

5. REPAIR OR REPLACE ERROR-DETECTED PARTS

- Repair or replace error-detected parts.
- 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

(P)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

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< BASIC INSPECTION >		

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Is the s	ymptom reproduced?
YES	>> GO TO 3.
NO	>> INSPECTION END

Diagnostic Work Sheet

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

		I	nterview sheet								
Customer name	MR/MS	Registration number			Initial year registration						
Harrie		Vehicle type			VIN			F			
Storage date		Engine, Traction motor			Mileage	km	(Mile)			
		☐ Does not op	perate () fur	nction			
		□ Warning lan	np for () turn:	s ON.			
Symptom		☐ Noise			□ Vibration						
		☐ Other ()			
First occurren	ce	☐ Recently	☐ Other ()			
Frequency of	occurrence	☐ Always	\square Always \square Under a certain conditions of \square Sometimes (time(s)/day)								
		☐ Irrelevant									
Climate con-	Weather	☐ Fine ☐	Cloud □ Rai	in □S	Snow □ Oth	ers (<u> </u>			
ditions	Temperature	□ Hot □W	/arm □ Cool	☐ Cold	☐ Tempera	ture [Approx.	°C (°F)]			
	Relative humidity	☐ High	☐ Moderate	I	□ Low						
Road condition	าร	□ Urban area □ Mountainou	☐ Suburb as road (uphill or do		□ Highwa □ Rough	•		K			
Operating con	dition, etc.		ng 🔲 During :		n □ At co	onstant speed o	driving	L			
Other conditio	ns							N			

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DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[CHASSIS CONTROL]

	Interview sheet													
Customer	MR/MS	Registration number		Initial year registration										
name		Vehicle type		VIN										
Storage date		Engine, Traction motor		Mileage		km (Mile)							
Vehicle equipn	nent													
Memo														
Memo														

Revision: 2013 October **DAS-432** 2014 Q50

ADDITIONAL SERVICE WHEN REPLACING CHASSIS CONTROL MODULE < BASIC INSPECTION > [CHASSIS CONTROL]

ADDITIONAL SERVICE WHEN REPLACING CHASSIS CONTROL MOD-ULE

Description INFOID:0000000000012846

When replaced the chassis control module, configuration of the chassis control module is required. Refer to DAS-434, "Work Procedure".

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CONFIGURATION (CHASSIS CONTROL MODULE)

< BASIC INSPECTION > [CHASSIS CONTROL]

CONFIGURATION (CHASSIS CONTROL MODULE)

Work Procedure

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 <u>DAS-542</u>, "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-542, "Removal and Installation".

>> GO TO 6.

6. WRITING (AUTOMATIC WRITING)

(P)CONSULT Configuration

- 1. Select "After Replace ECU" of "Re/programming, Configuration" or that of "Read / Write Configuration".
- 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) [CHASSIS CONTROL] < BASIC INSPECTION > Replace the chassis control module. Refer to DAS-542, "Removal and Installation". Α >> GO TO 8. 8.WRITING (MANUAL WRITING) (E)CONSULT Configuration 1. Select "Manual Configuration". 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". D >> GO TO 9. 9. VERIFYING TYPE ID (2) Е 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: F 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 Turn the ignition switch OFF. 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-401, "CONSULT Function".

11. PERFORMING SUPPLEMENTARY WORK

- Perform the self-diagnosis of all systems.
- Erase self-diagnosis results.

>> End of work.

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C1B90-01 DIRECT ADAPTIVE STEERING SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

DTC/CIRCUIT DIAGNOSIS

C1B90-01 DIRECT ADAPTIVE STEERING SYSTEM

DTC Description

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1B90-01	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

(P)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 "C1B90-01" detected?

YES >> Proceed to <u>DAS-436</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612849

1. CHECK DIRECT ADADPTIVE STEERING SYSTEM

(With CONSULT

- 1. Perform self-diagnosis for "EPS/DAST 3".
- Perform self-diagnosis for "DAST 1".
- Perform self-diagnosis for "DAST 2".

Is DTC detected?

YES >> Check the DTC.

- "EPS/DAST 3": Refer to <u>STC-80, "DTC Index"</u>.
- "DAST 1": Refer to STC-95, "DTC Index".
- "DAST 2": Refer to STC-110, "DTC Index".

NO >> GO TO 2.

2. PERFORM SELF-DIAGNOSIS

C1B90-01 DIRECT ADAPTIVE STEERING 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 "C1B90-01", "U1000-01" or other DTC detected?

YES ("C1B90-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

YES ("U1000-01")>>Refer to LAN-26. "Trouble Diagnosis Flow Chart".

YES (other DTC)>>Check the DTC.

NO >> INSPECTION END

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[CHASSIS CONTROL]

C1B91-01 CAMERA SYSTEM

DTC Description

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1B91-01	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

(P)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 "C1B91-01" detected?

YES >> Proceed to <u>DAS-438</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612851

1. CHECK LANE CAMERA UNIT SYSTEM

With CONSULT

Perform self-diagnosis for "LANE CAMERA".

Is DTC detected?

YES >> Check the DTC. Refer to <u>DAS-573</u>, "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 "C1B91-01", "U1000-01", "U1A4B" or other DTC detected?

YES ("C1B91-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

C1B91-01 CAMERA SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

YES ("U1000-01")>>Refer to <u>LAN-26, "Trouble Diagnosis Flow Chart"</u>. YES ("U1A4B-01")>>Refer to <u>DAS-536, "Diagnosis Procedure"</u>.

YES (other DTC) >> Check the DTC.

NO >> INSPECTION END

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C1B92-01 BRAKE CONTROL SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1B92-01 BRAKE CONTROL SYSTEM

DTC Description

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1B92-01	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

(P)With CONSULT

Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1B92-01" detected?

YES >> Proceed to <u>DAS-440</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612853

${f 1}.$ check abs actuator and electric unit (control unit)

(With CONSULT

Perform self-diagnosis for "ABS".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-57, "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.
- Turn the ignition switch ON.
- 4. Perform "All DTC Reading".

Is DTC "C1B92-01", "U1000-01" or other DTC detected?

C1B92-01 BRAKE CONTROL SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

YES ("C1B92-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

YES ("U1000-01")>>Refer to LAN-26, "Trouble Diagnosis Flow Chart".

YES (other DTC)>>Check the DTC.

NO >> INSPECTION END

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[CHASSIS CONTROL]

C1B93-01 ENGINE SYSTEM

DTC Description

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1B93-01	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

(P)With CONSULT

Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1B93-01" detected?

YES >> Proceed to <u>DAS-442</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612855

1. CHECK ECM SYSTEM

(With CONSULT

Perform self-diagnosis for "ENGINE".

Is DTC detected?

YES >> Check the DTC. Refer to EC-106, "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.
- Turn the ignition switch ON.
- 4. Perform "All DTC Reading".

Is DTC "C1B93-01", "U1000-01" or other DTC detected?

C1B93-01 ENGINE SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

YES ("C1B93-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

YES ("U1000-01")>>Refer to LAN-26, "Trouble Diagnosis Flow Chart".

YES (other DTC)>>Check the DTC.

NO >> INSPECTION END

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C1B94-01 TRANSMISSION SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1B94-01 TRANSMISSION SYSTEM

DTC Description

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1B94-01	TM SYSTEM (Transmission system)	When a malfunction is detected in transmission system.

POSSIBLE CAUSE

- Transmission system
- TCM
- 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

(P)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.

Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1B94-01" detected?

YES >> Proceed to DAS-444, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612857

1. CHECK TRANSMISSION SYSTEM

With CONSULT

Perform self-diagnosis for "TRANSMISSION".

Is DTC detected?

YES >> Check the DTC. Refer to TM-85, "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.
- Turn the ignition switch ON.
- 4. Perform "All DTC Reading".

Is DTC "C1B94-01", "U1000-01" or other DTC detected?

C1B94-01 TRANSMISSION SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

YES ("C1B94-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

YES ("U1000-01")>>Refer to LAN-26, "Trouble Diagnosis Flow Chart".

YES (other DTC)>>Check the DTC.

NO >> INSPECTION END

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[CHASSIS CONTROL]

C1B95-01 CONTROL MODULE

DTC Description

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1B95-01	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
- · 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

(P)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 "C1B95-01" detected?

YES >> Proceed to DAS-446, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612859

1. PERFORM SELF-DIAGNOSIS

(With CONSULT

- Erase self-diagnosis result for "CHASSIS CONTROL".
- 2. Turn the ignition switch OFF and wait for 10 seconds or more.
- Turn the ignition switch ON.
- Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1B95-01" detected?

YES >> Replace the chassis control module. Refer to <u>DAS-542</u>, "Removal and Installation".

NO >> INSPECTION END

C1B96-01 ADAS SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1B96-01 ADAS SYSTEM

DTC Description

INFOID:0000000009612860

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DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1B96-01	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

(P)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.

Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1B96-01" detected?

YES >> Proceed to <u>DAS-447</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612861

1. CHECK ADAS CONTROL UNIT SYSTEM

(With CONSULT

Perform self-diagnosis for "ICC/ADAS".

Is DTC detected?

YES >> Check the DTC. Refer to <u>DAS-44</u>, "<u>DTC Index</u>".

NO >> GO TO 2.

2.PERFORM SELF-DIAGNOSIS

()With CONSULT

- Erase self-diagnosis result for "CHASSIS CONTROL".
- 2. Turn the ignition switch OFF and wait for 10 seconds or more.
- Turn the ignition switch ON.
- 4. Perform "All DTC Reading".

Is DTC "C1B96-01", "U1000-01" or other DTC detected?

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C1B96-01 ADAS SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

YES ("C1B96-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

YES ("U1000-01")>>Refer to LAN-26, "Trouble Diagnosis Flow Chart".

YES (other DTC)>>Check the DTC.

NO >> INSPECTION END

C1B98-01 ADAS SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1B98-01 ADAS SYSTEM

DTC Description

INFOID:0000000009612862

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DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1B98-01	ADAS SYSTEM (Advanced Driver Assistance system)	When a signal transmitted from ADAS is malfunctioning.

POSSIBLE CAUSE

- 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

(P)With CONSULT

Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1B98-01" detected?

YES >> Proceed to <u>DAS-449</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident"

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612863

CHECK ECM SYSTEM

With CONSULT

Perform self-diagnosis for "ENGINE".

Is DTC detected?

YES >> GO TO 2.

NO >> GO TO 3.

2.CHECK ADAS CONTROL UNIT SYSTEM

(I)With CONSULT

Perform self-diagnosis for "ICC/ADAS".

Is DTC detected?

YES >> Check the DTC. Refer to DAS-44, "DTC Index".

NO >> GO TO 3.

3.PERFORM SELF-DIAGNOSIS

(With CONSULT

- 1. Erase self-diagnosis result for "CHASSIS CONTROL".
- Turn the ignition switch OFF and wait for 10 seconds or more.
- Turn the ignition switch ON.
- Perform "All DTC Reading".

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C1B98-01 ADAS SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Is DTC "C1B98-01", "U1000-01" or other DTC detected?

YES ("C1B98-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

YES ("U1000-01")>>Refer to LAN-26, "Trouble Diagnosis Flow Chart".

YES (other DTC)>>Check the DTC.

NO >> INSPECTION END

C1B99-01 CONTROL MODULE

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1B99-01 CONTROL MODULE

DTC Description

INFOID:0000000009612864

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DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1B99-01	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

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

(P)With CONSULT

Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1B99-01" detected?

>> Proceed to DAS-451, "Diagnosis Procedure". YES

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

M INFOID:0000000009612865

PERFORM SELF-DIAGNOSIS

With CONSULT

- 1. Erase self-diagnosis result for "CHASSIS CONTROL".
- Turn the ignition switch OFF and wait for 10 seconds or more.
- Turn the ignition switch ON.
- Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1B99-01" detected?

YES >> Replace the chassis control module. Refer to <u>DAS-542, "Removal and Installation"</u>.

>> INSPECTION END NO

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DAS-451 Revision: 2013 October 2014 Q50

C1BA0-01 ADAS/CHASSIS CONTROL BRAKE SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BA0-01 ADAS/CHASSIS CONTROL BRAKE SYSTEM

DTC Description

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BA0-01	ADAS/CHASSIS CTRL BRAKE SYS (ADAS/Chassis Control brake system)	 When receiving from ABS actuator and electric unit (control unit) that the value of the brake system signal transmitted from ADAS control unit to ABS actuator and electric unit (control unit) is malfunctioning. When receiving from ABS actuator and electric unit (control unit) that the value of the brake system signal transmitted from the chassis control module to ABS actuator and electric unit (control unit) is malfunctioning.

POSSIBLE CAUSE

- ADAS control unit
- · ABS actuator and electric unit (control unit)
- · 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

(P)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 "C1BA0-01" and/or "C1BA7-01" detected?

YES ("C1BA0-01")>>Proceed to DAS-452, "Diagnosis Procedure".

YES ("C1BA0-01" and "C1BA7-01")>>Perform self-diagnosis for "ICC/ADAS".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612870

1. CHECK ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) SYSTEM

With CONSULT

Perform self-diagnosis for "ABS".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-57, "DTC Index".

NO >> GO TO 2.

2. PERFORM SELF-DIAGNOSIS

With CONSULT

- 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".

C1BA0-01 ADAS/CHASSIS CONTROL BRAKE SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

YES ("C1BA0-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

YES ("U1000-01")>>Refer to LAN-26, "Trouble Diagnosis Flow Chart".

YES (other DTC)>>Check the DTC.

NO >> INSPÉCTION END

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C1BA2-01 STEERING ANGLE SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BA2-01 STEERING ANGLE SENSOR

DTC Description

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BA2-01	STEERING ANGLE SENSOR (Steering angle sensor)	When a malfunction is detected in steering angle sensor system.

POSSIBLE CAUSE

- Steering angle sensor
- · 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

(P)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.

Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BA2-01" detected?

YES >> Proceed to <u>DAS-454</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612872

1. CHECK STEERING ANGLE SENSOR SYSTEM

With CONSULT

Perform self-diagnosis for "ABS".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-57, "DTC Index".

NO >> GO TO 2.

2.PERFORM SELF-DIAGNOSIS

With CONSULT

- Erase self-diagnosis result for "CHASSIS CONTROL".
- 2. Turn the ignition switch OFF and wait for 10 seconds or more.
- Turn the ignition switch ON.
- 4. Perform "All DTC Reading".

Is DTC "C1BA2-01", "U1000-01" or other DTC detected?

YES ("C1BA2-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

YES ("U1000-01")>>Refer to LAN-26, "Trouble Diagnosis Flow Chart".

YES (other DTC)>>Check the DTC.

NO >> INSPECTION END

C1BA5-01 ADAS/CHASSIS CONTROL ENGINE SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BA5-01 ADAS/CHASSIS CONTROL ENGINE SYSTEM

DTC Description

INFOID:0000000009612877

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INFOID:0000000009612878

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BA5-01	ADAS/CHASSIS CTRL ENGINE SYS (ADAS/Chassis control engine system)	 When receiving from ECM that the value of the engine system signal transmitted from ADAS control unit to ECM is malfunctioning. When receiving from ECM that the value of the engine system signal transmitted from the chassis control module to ECM is malfunctioning.

POSSIBLE CAUSE

- ADAS control unit
- · Chassis control unit

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

(P)With CONSULT

Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BA5-01" detected?

YES >> Proceed to <u>DAS-455</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident"

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

 ${f 1}$.CHECK ADAS CONTROL UNIT SYSTEM

(With CONSULT

Perform self-diagnosis for "ICC/ADAS".

Is DTC detected?

YES >> Check the DTC. Refer to DAS-44, "DTC Index".

NO

>> GO TO 2. 2 . PERFORM SELF-DIAGNOSIS

(With CONSULT

- Erase self-diagnosis result for "CHASSIS CONTROL".
- Turn the ignition switch OFF and wait for 10 seconds or more.
- Turn the ignition switch ON.
- Perform "All DTC Reading".

Is DTC "C1BA5-01", "U1000-01" or other DTC detected?

YES ("C1BA5-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

YES ("U1000-01")>>Refer to LAN-26, "Trouble Diagnosis Flow Chart".

YES (other DTC)>>Check the DTC.

>> INSPECTION END NO

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DAS-455 Revision: 2013 October 2014 Q50

C1BA6-01 AV SYSTEM

DTC Description

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BA6-01	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

(P)With CONSULT

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 "C1BA6-01" detected?

YES >> Proceed to <u>DAS-456</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612880

1. CHECK AV SYSTEM

With CONSULT

1. Perform self-diagnosis for "MULTI AV".

Is DTC detected?

YES >> Check the DTC. Refer to AV-89, "DTC Index".

NO >> GO TO 2.

2.PERFORM SELF-DIAGNOSIS

With CONSULT

- 1. Erase self-diagnosis result for "CHASSIS CONTROL".
- 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 "C1BA6-01", "U1000-01" or other DTC detected?

YES ("C1BA6-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

C1BA6-01 AV SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

YES ("U1000-01")>>Refer to <u>LAN-26</u>, "<u>Trouble Diagnosis Flow Chart</u>".
YES (other DTC)>>Check the DTC.
NO >> INSPECTION END

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C1BA7-01 ACTIVE LANE CONTROL SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BA7-01 ACTIVE LANE CONTROL SYSTEM

DTC Description

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BA7-01	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

(P)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 "C1BA7-01" detected?

YES >> Proceed to <u>DAS-458</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612882

1. CHECK DIRECT ADAPTIVE SETTRING SYSTEM

With CONSULT

Perform self-diagnosis for "DAST 1".

Is DTC detected?

YES >> Check the DTC. Refer to STC-95, "DTC Index".

NO >> GO TO 2.

2. PERFORM SELF-DIAGNOSIS

(With CONSULT

- 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 "C1BA7-01", "U1000-01" or other DTC detected?

YES ("C1BA7")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

YES ("U1000")>>Refer to LAN-26, "Trouble Diagnosis Flow Chart".

YES (other DTC)>>Check the DTC.

C1BA7-01 ACTIVE LANE CONTROL SYSTEM

< DTC/CIRCUIT DIAGNOSIS > [CHASSIS CONTROL]

NO >> INSPECTION END

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C1BA9-01 NP RANGE

DTC Description

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BA9-01	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
- 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

(P)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 "C1BA9-01" detected?

YES >> Proceed to <u>DAS-460</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612886

1. CHECK TRANSMISSION SYSTEM

With CONSULT

Perform self-diagnosis for "TRANSMISSION".

Is DTC detected?

YES >> Check the DTC. Refer to TM-85, "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.
- Turn the ignition switch ON.
- 4. Perform "All DTC Reading".

Is DTC "C1BA9-01", "U1000-01" or other DTC detected?

YES ("C1BA9-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

C1BA9-01 NP RANGE

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

YES ("U1000-01")>>Refer to <u>LAN-26</u>, "<u>Trouble Diagnosis Flow Chart</u>".
YES (other DTC)>>Check the DTC.
NO >> INSPECTION END

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[CHASSIS CONTROL]

C1BAA-01 GEAR POSITION

DTC Description

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BAA-01	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
- 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

(P)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-01" detected?

YES >> Proceed to DAS-462, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612888

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-01" 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.

Perform self-diagnosis for "CHASSIS CONTROL".

C1BAA-01 GEAR POSITION	FOLLA COLO CONTROL 1
< DTC/CIRCUIT DIAGNOSIS >	[CHASSIS CONTROL]
Is DTC "C1BAA-01" detected? YES >> GO TO 3.	
NO >> GO TO 4.	
3.CHECK TRANSMISSION SYSTEM	
With CONSULT	
Perform self-diagnosis for "TRANSMISSION".	
<u>Is DTC detected?</u> YES >> Check the DTC. Refer to <u>TM-85</u> , " <u>DTC Index</u> ".	
NO >> GO TO 4.	
4.PERFORM SELF-DIAGNOSIS	
With CONSULT	
 Erase self-diagnosis result for "CHASSIS CONTROL". 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-01", "U1000-01" or other DTC detected?	
YES ("C1BAA-01")>>Replace the chassis control module. Refer to DAS-542, "Re	emoval and Installation".
YES ("U1000-01")>>Refer to LAN-26, "Trouble Diagnosis Flow Chart". YES (other DTC)>>Check the DTC.	
NO >> INSPECTION END	

DAS

[CHASSIS CONTROL]

C1BAB-01 STOP LAMP SWITCH

DTC Description

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BAB-01	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

(I) 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-01" detected?

YES >> Proceed to DAS-464, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612890

1. CHECK STOP LAMP SWITCH SYSTEM

With CONSULT

Perform self-diagnosis for "ABS".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-57, "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.
- Turn the ignition switch ON.
- 4. Perform "All DTC Reading".

Is DTC "C1BAB-01", "U1000-01" or other DTC detected?

YES ("C1BAB-01")>>Replace the chassis control module. Refer to <u>DAS-542, "Removal and Installation"</u>.

YES ("U1000-01")>>Refer to LAN-26, "Trouble Diagnosis Flow Chart".

YES (other DTC)>>Check the DTC.

C1BAB-01 STOP LAMP SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

NO >> INSPECTION END

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C1BAC-01 OPERATION SWITCH SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BAC-01 OPERATION SWITCH SYSTEM

DTC Description

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BAC-01	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

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-01" detected?

YES >> Proceed to DAS-466, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612892

1. CHECK STEERING SWITCH SYSTEM

With CONSULT

Perform self-diagnosis for "ICC/ADAS".

Is DTC detected?

YES >> Check the DTC. Refer to DAS-44, "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.
- Turn the ignition switch ON.
- 4. Perform "All DTC Reading".

Is DTC "C1BAC-01", "U1000-01" or other DTC detected?

YES ("C1BAC-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

YES ("U1000-01")>>Refer to LAN-26, "Trouble Diagnosis Flow Chart".

YES (other DTC)>>Check the DTC.

C1BAC-01 OPERATION SWITCH SYSTEM

< DTC/CIRCUIT DIAGNOSIS > [CHASSIS CONTROL]

NO >> INSPECTION END

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C1BAD-01 ACCELERATOR PEDAL SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BAD-01 ACCELERATOR PEDAL SYSTEM

DTC Description

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BAD-01	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

(P)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.
- 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-01" detected?

YES >> Proceed to DAS-468, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612894

1. CHECK ACCELERATOR PEDAL SYSTEM (ECM)

With CONSULT

Perform self-diagnosis for "ENGINE".

Is DTC detected?

YES >> Check the DTC. Refer to EC-106, "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.

C1BAD-01 ACCELERATOR PEDAL SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

4. Perform "All DTC Reading".

Is DTC "C1BAD-01", "U1000-01" or other DTC detected?

YES ("C1BAD-01")>>Replace the chassis control module. Refer to <u>DAS-542, "Removal and Installation"</u>. YES ("U1000-01")>>Refer to <u>LAN-26, "Trouble Diagnosis Flow Chart"</u>.

YES (other DTC)>>Check the DTC.

>> INSPÉCTION END NO

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C1BAE-01 ACCELERATOR PEDAL SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BAE-01 ACCELERATOR PEDAL SYSTEM

DTC Description

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BAE-01	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

(P)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.
- 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-01" detected?

YES >> Proceed to DAS-470, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009697178

1. CHECK DISTANCE CONTROL ASSIST SYSTEM

With CONSULT

Perform self-diagnosis for "ENGINE".

Is DTC detected?

YES >> Check the DTC. Refer to EC-106, "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.
- Turn the ignition switch ON.

C1BAE-01 ACCELERATOR PEDAL SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

4. Perform "All DTC Reading".

Is DTC "C1BAE-01", "U1000-01" or other DTC detected?

YES ("C1BAE-01")>>Replace the chassis control module. Refer to <u>DAS-542, "Removal and Installation"</u>. YES ("U1000-01")>>Refer to <u>LAN-26, "Trouble Diagnosis Flow Chart"</u>.

YES (other DTC)>>Check the DTC.

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C1BAF-01 BLIND SPOT WARNING SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BAF-01 BLIND SPOT WARNING SYSTEM

DTC Description

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BAF-01	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

(I) 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-01" detected?

YES >> Proceed to DAS-472, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612898

1. CHECK BLIND SPOT WARNING SYSTEM

With CONSULT

Perform self-diagnosis for "ICC/ADAS".

Is DTC detected?

YES >> Check the DTC. Refer to DAS-44, "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.
- Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BAF-01", "U1000-01" or other DTC detected?

YES ("C1BAF-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

YES ("U1000-01")>>Refer to LAN-26, "Trouble Diagnosis Flow Chart".

YES (other DTC)>>Check the DTC.

C1BAF-01 BLIND SPOT WARNING SYSTEM

< DTC/CIRCUIT DIAGNOSIS > [CHASSIS CONTROL]

NO >> INSPECTION END

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C1BB0-01 DRIVER ASSISTANCE BUZZER SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BB0-01 DRIVER ASSISTANCE BUZZER SYSTEM

DTC Description

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BB0-01	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

(P)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 "C1BB0-01" detected?

YES >> Proceed to <u>DAS-474</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612900

1. CHECK DRIVER ASSISTANCE BUZZER SYSTEM

With CONSULT

Perform self-diagnosis for "ICC/ADAS".

Is DTC detected?

YES >> Check the DTC. Refer to DAS-44, "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.
- Turn the ignition switch ON.
- 4. Perform "ALL DTC Reading".

Is DTC "C1BB0-01", "U1000-01" or other DTC detected?

YES ("C1BB0-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

YES ("U1000-01")>>Refer to LAN-26. "Trouble Diagnosis Flow Chart".

YES (other DTC)>>Check the DTC.

C1BB2-01 CONTROL MODULE

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BB2-01 CONTROL MODULE

DTC Description

INFOID:0000000009612901

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DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BB2-01	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

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

(P)With CONSULT

Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BB2-01" detected?

YES >> Proceed to <u>DAS-475</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612902

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 "C1BB2-01" detected?

YES >> Replace the chassis control module. Refer to <u>DAS-542</u>, "Removal and Installation".

NO >> INSPECTION END

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Revision: 2013 October DAS-475 2014 Q50

[CHASSIS CONTROL]

C1BB3-01 CONTROL MODULE

DTC Description

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BB3-01	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

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

(P)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.

Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BB3-01" detected?

YES >> Proceed to <u>DAS-476</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612904

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.
- Turn the ignition switch ON.
- Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BB3-01" detected?

YES >> Replace the chassis control module. Refer to <u>DAS-542</u>, "Removal and Installation".

C1BB4-01 CONTROL MODULE

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BB4-01 CONTROL MODULE

DTC Description

INFOID:0000000009612905

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DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BB4-01	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

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

(P)With CONSULT

Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BB4-01" detected?

YES >> Proceed to <u>DAS-477</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612906

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.
- Turn the ignition switch ON.
- 4. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BB4-01" detected?

YES >> Replace the chassis control module. Refer to <u>DAS-542</u>, "Removal and Installation".

NO >> INSPECTION END

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C1BB5-01 IGNITION POWER SUPPLY

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BB5-01 IGNITION POWER SUPPLY

DTC Description

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BB5-01	IGN POWER SUPPLY (Ignition power supply)	Ignition power supply voltage of chassis control module is as shown below. • Ignition power supply voltage: 6.4 V ≥ 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

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

(P)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 "C1BB5-01" detected?

YES >> Proceed to <u>DAS-478</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612908

1. CHECK CONNECTOR

- Turn the ignition switch OFF.
- Disconnect chassis control module harness connector
- 3. Check the connector for disconnection or looseness.
- 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 DELF-DIAGNOSIS (1)

1. Connect chassis control module harness connector.

C1BB5-01 IGNITION POWER SUPPLY

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

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2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BB5-01" detected?

YES >> GO TO 3.

NO >> INSPECTION END

3.CHECKCHASSIS CONTROL MODULE IGNITION POWER SUPPLY (1)

- 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 co	ntrol module	_	Voltage
Connector	Terminal		(Approx.)
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 co	ntrol module	_	Voltage
Connector Terminal			(Approx.)
E22	10	Ground	6.4 – 16 V

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4. CHECK CHASSIS CONTROL MODULE IGNITION POWER SUPPLY CIRCUIT

- Turn the ignition switch OFF.
- 2. Check the 10A fuse (#12).
- 3. Check the continuity and for short circuit between chassis control module harness connector terminal (10) and 10A fuse (#12).
- 4. Check the continuity between chassis control module harness connector and the ground.

Chassis co	ntrol module	_	Continuity
Connector Terminal			Continuity
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.

${f 5.}$ CHECK CHASSIS CONTROL MODULE GROUND CIRCUIT

Turn the ignition switch OFF.

2. Check the continuity between chassis control module harness connector and ground.

	Chassis co	ntrol module	_	Continuity
	Connector Terminal			Continuity
-	E22	12	Ground	Existed

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace error-detected parts.

6.PERFORM DELF-DIAGNOSIS (2)

- 1. Connect chassis control module harness connector.
- Perform self-diagnosis for "CHASSIS CONTROL".

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Revision: 2013 October **DAS-479** 2014 Q50

C1BB5-01 IGNITION POWER SUPPLY

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Is DTC "C1BB5-01" detected?

YES >> Replace the chassis control module. Refer to <u>DAS-542</u>, "Removal and Installation".

C1BB6-01 IGNITION POWER SUPPLY

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BB6-01 IGNITION POWER SUPPLY

DTC Description

INFOID:0000000009612909

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DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BB6-01	IGNITION POWER SUPPLY (ignition power supply)	Ignition power supply voltage of chassis control module is as shown below. • Ignition power supply voltage: 16 V ≤ Ignition power supply voltage

POSSIBLE CAUSE

- · Harness or connector
- Fuse
- · Ignition power supply system
- Battery
- 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.

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>> GO TO 2.

2.CHECK DTC DETECTION

(P)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 "C1BB6-01" detected?

YES >> Proceed to <u>DAS-481</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612910

1. CHECK CONNECTOR

- 1. Turn the ignition switch OFF.
- 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 DELF-DIAGNOSIS (1)

- 1. Connect chassis control module harness connector.
- Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BB6-01" detected?

YES >> GO TO 3.

NO >> INSPECTION END

${f 3.}$ CHECKCHASSIS CONTROL MODULE IGNITION POWER SUPPLY (1)

- Turn the ignition switch OFF.
- Disconnect chassis control module harness connector.

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C1BB6-01 IGNITION POWER SUPPLY

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

3. Check the voltage between chassis control module harness connector and ground.

Chassis control module			Voltage
Connector	Terminal		(Approx.)
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
Connector Terminal			(Approx.)
E22	10	Ground	6.4 – 16 V

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK CHASSIS CONTROL MODULE IGNITION POWER SUPPLY CIRCUIT

- Turn the ignition switch OFF.
- 2. Check the 10A fuse (#12).
- 3. Check the continuity and for short circuit between chassis control module harness connector terminal (10) and 10A fuse (#12).
- 4. Check the continuity between chassis control module harness connector and the ground.

Chassis control module		_	Continuity
Connector	Terminal	_	Continuity
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.

5. 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 cor	ntrol module		Continuity
Connector	Terminal		Continuity
E22	12	Ground	Existed

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace error-detected parts.

O.PERFORM DELF-DIAGNOSIS (1)

- 1. Connect chassis control module harness connector.
- 2. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BB6-01" detected?

YES >> Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

C1BB7-01 CONTROL MODULE

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BB7-01 CONTROL MODULE

DTC Description

INFOID:0000000009612911

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DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BB7-01	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

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

(P)With CONSULT

Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BB7-01" detected?

>> Proceed to DAS-483, "Diagnosis Procedure". YES

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

M INFOID:0000000009612912

PERFORM SELF-DIAGNOSIS

With CONSULT

- 1. Erase self-diagnosis result for "CHASSIS CONTROL".
- Turn the ignition switch OFF and wait for 10 seconds or more.
- Turn the ignition switch ON.
- Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BB7-01" detected?

YES >> Replace the chassis control module. Refer to <u>DAS-542, "Removal and Installation"</u>.

>> INSPECTION END NO

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DAS-483 Revision: 2013 October 2014 Q50

[CHASSIS CONTROL]

C1BB8-01 CONTROL MODULE

DTC Description

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BB8-01	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

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

(P)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.

Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BB8-01" detected?

YES >> Proceed to <u>DAS-484</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612914

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.
- Turn the ignition switch ON.
- Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BB8-01" detected?

YES >> Replace the chassis control module. Refer to <u>DAS-542</u>, "Removal and Installation".

C1BB9-01 CONTROL MODULE

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BB9-01 CONTROL MODULE

DTC Description

INFOID:0000000009612915

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DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BB9-01	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

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

(P)With CONSULT

Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BB9-01" detected?

>> Proceed to DAS-485, "Diagnosis Procedure". YES

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

M INFOID:0000000009612916

PERFORM SELF-DIAGNOSIS

With CONSULT

- 1. Erase self-diagnosis result for "CHASSIS CONTROL".
- Turn the ignition switch OFF and wait for 10 seconds or more.
- Turn the ignition switch ON.
- Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BB9-01" detected?

YES >> Replace the chassis control module. Refer to <u>DAS-542, "Removal and Installation"</u>.

>> INSPECTION END NO

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DAS-485 Revision: 2013 October 2014 Q50

C1BBA-01 CONTROL MODULE

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BBA-01 CONTROL MODULE

DTC Description

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BBA-01	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

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

(P)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.

Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BBA-01" detected?

YES >> Proceed to <u>DAS-486</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612918

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.
- Turn the ignition switch ON.
- Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BBA-01" detected?

YES >> Replace the chassis control module. Refer to <u>DAS-542</u>, "Removal and Installation".

C1BBB-01 CONTROL MODULE

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BBB-01 CONTROL MODULE

DTC Description

INFOID:0000000009612919

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DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BBB-01	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

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

(P)With CONSULT

Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BBB-01" detected?

YES >> Proceed to <u>DAS-487</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612920

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-01" detected?

YES >> Replace the chassis control module. Refer to <u>DAS-542</u>, "Removal and Installation".

NO >> INSPECTION END

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C1BBC-01 CONTROL MODULE

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BBC-01 CONTROL MODULE

DTC Description

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BBC-01	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

(II) With CONSULT

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-01" detected?

YES >> Proceed to <u>DAS-488</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: İNSPECTION END

Diagnosis Procedure

INFOID:0000000009612922

1.PERFORM SELF-DIAGNOSIS

With CONSULT

- 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.
- Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BBC-01" detected?

YES >> Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

C1BBD-01 VARIANT CODING

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BBD-01 VARIANT CODING

DTC Description

INFOID:0000000009612923

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DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition	
C1BBD-01	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

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

(P)With CONSULT

Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BBD-01" detected?

YES >> Proceed to <u>DAS-489</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612924

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.
- Turn the ignition switch ON.
- 4. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "C1BBD-01" detected?

YES >> Perform configuration. Refer to DAS-434, "Work Procedure".

NO >> INSPECTION END

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Revision: 2013 October DAS-489 2014 Q50

C1BC0-01 FRONT RIGHT WHEEL SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BC0-01 FRONT RIGHT WHEEL SENSOR

DTC Description

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BC0-01	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

(P)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 "C1BC0-01" detected?

YES >> Proceed to DAS-490, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612926

1. CHECK FRONT RH WHEEL SENSOR SYSTEM

With CONSULT

Perform self-diagnosis for "ABS".

Is DTC detected?

YES >> Check the DTC. Refer to <u>BRC-57</u>, "<u>DTC Index</u>".

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.

C1BC0-01 FRONT RIGHT WHEEL SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Perform "All DTC Reading".

Is DTC "C1BC0-01", "U1000-01" or other DTC detected?

YES ("C1BC0-01")>>Replace the chassis control module. Refer to <u>DAS-542, "Removal and Installation"</u>. YES ("U1000-01")>>Refer to <u>LAN-26, "Trouble Diagnosis Flow Chart"</u>.

YES (other DTC)>>Check the DTC.

>> INSPÉCTION END NO

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C1BC1-01 FRONT LEFT WHEEL SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BC1-01 FRONT LEFT WHEEL SENSOR

DTC Description

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BC1-01	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

(P)With CONSULT

- 1. Start the engine.
- Drive the vehicle at approx. 30 km/h (19 MPH) or more for approx. 1 minute.
- 3. Stop the vehicle.
- 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 "C1BC1-01" detected?

YES >> Proceed to DAS-492, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612928

1. CHECK FRONT LH WHEEL SENSOR SYSTEM

With CONSULT

Perform self-diagnosis for "ABS".

Is DTC detected?

YES >> Check the DTC. Refer to <u>BRC-57</u>, "<u>DTC Index</u>".

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.
- Turn the ignition switch ON.

C1BC1-01 FRONT LEFT WHEEL SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Perform "All DTC Reading".

Is DTC "C1BC1-01", "U1000-01" or other DTC detected?

YES ("C1BC1-01")>>Replace the chassis control module. Refer to <u>DAS-542, "Removal and Installation"</u>. YES ("U1000-01")>>Refer to <u>LAN-26, "Trouble Diagnosis Flow Chart"</u>.

YES (other DTC)>>Check the DTC.

>> INSPÉCTION END NO

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C1BC2-01 REAR RIGHT WHEEL SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BC2-01 REAR RIGHT WHEEL SENSOR

DTC Description

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BC2-01	RR WHEEL SENSOR (Rear right wheel sensor)	When a malfunction is detected in rear right wheel sensor system.

POSSIBLE CAUSE

- · Rear right wheel sensor
- Rear right sensor rotor
- ABS actuator and electric unit (control unit)
- · 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

(P)With CONSULT

- 1. Start the engine.
- 2. Drive the vehicle at approx. 30 km/h (19 MPH) or more for approx. 1 minute.
- 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 "C1BC2-01" detected?

YES >> Proceed to <u>DAS-494</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612930

1. CHECK REAR RH WHEEL SENSOR SYSTEM

(With CONSULT

Perform self-diagnosis for "ABS".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-57, "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.
- Turn the ignition switch ON.
- 4. Perform "All DTC Reading".

C1BC2-01 REAR RIGHT WHEEL SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Is DTC "C1BC2-01", "U1000-01" or other DTC detected?

YES ("C1BC2-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

YES ("U1000-01")>>Refer to LAN-26, "Trouble Diagnosis Flow Chart".

YES (other DTC)>>Check the DTC.

NO >> INSPECTION END

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C1BC3-01 REAR LEFT WHEEL SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BC3-01 REAR LEFT WHEEL SENSOR

DTC Description

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BC3-01	RL WHEEL SENSOR (Rear left wheel sensor)	When a malfunction is detected in rear left wheel sensor system.

POSSIBLE CAUSE

- · Rear left wheel sensor
- Rear left sensor rotor
- ABS actuator and electric unit (control unit)
- · 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

(P)With CONSULT

- 1. Start the engine.
- 2. Drive the vehicle at approx. 30 km/h (19 MPH) or more for approx. 1 minute.
- 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 "C1BC3-01" detected?

YES >> Proceed to <u>DAS-496</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612932

1. CHECK REAR LH WHEEL SENSOR SYSTEM

With CONSULT

Perform self-diagnosis for "ABS".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-57, "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.
- Turn the ignition switch ON.
- 4. Perform "All DTC Reading".

C1BC3-01 REAR LEFT WHEEL SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Is DTC "C1BC3-01", "U1000-01" or other DTC detected?

YES ("C1BC3-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

YES ("U1000-01")>>Refer to LAN-26, "Trouble Diagnosis Flow Chart".

YES (other DTC)>>Check the DTC.

NO >> INSPECTION END

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[CHASSIS CONTROL]

C1BC4-01 DECEL G SENSOR

DTC Description

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BC4-01	DECEL G SENSOR (Decel G sensor)	When a malfunction is detected in decel G sensor system.

POSSIBLE CAUSE

- Yaw rate/side/decel G sensor [integrated in ABS actuator and electric unit (control unit)]
- ABS actuator and electric unit (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

(P)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 "C1BC4-01" detected?

YES >> Proceed to <u>DAS-498</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612934

1. CHECK DECEL G SENSOR SYSTEM

(With CONSULT

Perform self-diagnosis for "ABS".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-57, "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.
- Turn the ignition switch ON.
- 4. Perform "All DTC Reading".

Is DTC "C1BC4-01", "U1000-01" or other DTC detected?

YES ("C1BC4-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

YES ("U1000-01")>>Refer to LAN-26. "Trouble Diagnosis Flow Chart".

YES (other DTC)>>Check the DTC.

C1BC5-01 SIDE G SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BC5-01 SIDE G SENSOR

DTC Description

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DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BC5-01	SIDE G SENSOR (Side G sensor)	When a malfunction is detected in side G sensor system.

POSSIBLE CAUSE

- Yaw rate/side/decel G sensor [integrated in ABS actuator and electric unit (control unit)]
- ABS actuator and electric unit (control unit)
- · 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

(P)With CONSULT

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 "C1BC5-01" detected?

YES >> Proceed to DAS-499, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612936

1. CHECK SIDE G SENSOR SYSTEM

(With CONSULT

Perform self-diagnosis for "ABS".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-57, "DTC Index".

NO >> GO TO 2.

2.perform self-diagnosis

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(■)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.
- Perform "All DTC Reading".

Is DTC "C1BC5-01", "U1000-01" or other DTC detected?

YES ("C1BC5-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

YES ("U1000-01")>>Refer to LAN-26, "Trouble Diagnosis Flow Chart".

YES (other DTC)>>Check the DTC.

C1BC5-01 SIDE G SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BC6-01 PRESSURE SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

C1BC6-01 PRESSURE SENSOR

DTC Description

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DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
C1BC6-01	PRESSURE SENSOR (Pressure sensor)	When a malfunction is detected in brake fluid pressure system.

POSSIBLE CAUSE

- ABS actuator and electric unit (control unit)
- 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

(P)With CONSULT

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 "C1BC6-01" detected?

YES >> Proceed to <u>DAS-501</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612938

1. CHECK BRAKE FLUID PRESSURE SYSTEM

With CONSULT

Perform self-diagnosis for "ABS".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-57, "DTC Index".

NO >> GO TO 2.

2 . PERFORM SELF-DIAGNOSIS

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With CONSULT

- 1. Erase self-diagnosis result for "CHASSIS CONTROL".
- Turn the ignition switch OFF and wait for 10 seconds or more.
- Turn the ignition switch ON.
- Perform "All DTC Reading".

Is DTC "C1BC6-01", "U1000-01" or other DTC detected?

YES ("C1BC6-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

YES ("U1000-01")>>Refer to LAN-26, "Trouble Diagnosis Flow Chart".

YES (other DTC)>>Check the DTC.

NO >> INSPECTION END

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U1000-01 CAN COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

U1000-01 CAN COMM CIRCUIT

DTC Description

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
U1000-01	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

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

(P)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 "U1000-01" detected?

YES >> Proceed to <u>DAS-502</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612940

Proceed to LAN-26. "Trouble Diagnosis Flow Chart".

U1010-01 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

U1010-01 CONTROL UNIT (CAN)

DTC Description

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DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
U1010-01	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

(P)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 "U1010-01" detected?

Y1ES >> Proceed to DAS-503, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612944

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-542, "Removal and Installation".

NO >> Repair or replace error-detected parts.

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U1A30-01 DIRECT ADAPTIVE STEERING COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

U1A30-01 DIRECT ADAPTIVE STEERING COMMUNICATION

DTC Description

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
U1A30-01	DAST COMM (Direct adaptive steering communication)	 When chassis control module is not receiving CAN communication signal (between chassis control module and steering force control module) for 2 seconds or more. When chassis control module is not receiving chassis communication signal (between chassis control module and steering angle main control module) for 2 seconds or more.

POSSIBLE CAUSE

- Steering force control module
- · Steering angle main 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

(P)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 "U1A30-01" detected?

YES >> Proceed to <u>DAS-504</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612946

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-43, "Intermittent Incident".

"TRANSMIT DIAG" is other than "OK">>GO TO 2.

"EPS/DAST 3" other than "OK">>GO TO 3.

"DAST 1" other than "OK">>GO TO 4.

U1A30-01 DIRECT ADAPTIVE STEERING COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

2.check transmitting side unit

- 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 7.

NO >> Recheck terminals for damage or loose connection. Refer to <u>LAN-16</u>, "<u>Precautions for Harness Repair</u>", and GO TO 7.

3.check steering force control module

- 1. Turn the ignition switch OFF.
- 2. Disconnect steering force control module harness connector.
- 3. Check steering force control module 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 <u>LAN-16</u>, "<u>Precautions for Harness</u> Repair", and GO TO 5.

4. CHECK STEERING ANGLE MAIN CONTROL MODULE

- 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 6.

NO >> Recheck terminals for damage or loose connection. Refer to <u>LAN-16</u>, "<u>Precautions for Harness Repair</u>", and GO TO 6.

5. PFEFORM SELF-DIAGNOSIS (STEERING FORCE CONTROL MODULE)

With CONSULT

- 1. Connect steering force control module harness connector.
- 2. Erase self-diagnosis result for "EPS/DAST 3".
- 3. Turn the ignition switch OFF and wait for 10 seconds or more.
- 4. Turn the ignition switch ON.
- Perform self-diagnosis for "EPS/DAST 3".

Is DTC detected?

YES >> Check the DTC. Refer to STC-80, "DTC Index".

NO >> GO TO 7.

6.PFEFORM 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. Refer to STC-95, "DTC Index".

NO >> GO TO 7.

7. PERFORM SELF-DIAGNOSIS

With CONSULT

1. Erase self-diagnosis result for "CHASSIS CONTROL".

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U1A30-01 DIRECT ADAPTIVE STEERING COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[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 "U1000-01", "U1A30-01" or other DTC detected?

YES ("U1000-01")>>Refer to LAN-26, "Trouble Diagnosis Flow Chart".

YES ("U1A30-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

YES (other DTC)>>Check the DTC.

U1A31-01 DIRECT ADAPTIVE STEERING COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

U1A31-01 DIRECT ADAPTIVE STEERING COMMUNICATION

DTC Description

INFOID:0000000009612947

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DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
U1A31-01	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

(P)With CONSULT

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 "U1A31-01" detected?

YES >> Proceed to <u>DAS-507</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612948

1. CHECK CAN DIAGNOSIS SUPPORT MONITOR

()With CONSULT

- 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-43, "Intermittent Incident".

"TRANSMIT DIAG" is other than "OK">>GO TO 2.

"DAST 1" other than "OK">>GO TO 3.

2.CHECK TRANSMITTING SIDE UNIT

- 1. Turn the ignition switch OFF.
- 2. Disconnect chassis control module harness connector.

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U1A31-01 DIRECT ADAPTIVE STEERING COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

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 5.

NO >> Recheck terminals for damage or loose connection. Refer to <u>LAN-16</u>, "<u>Precautions for Harness</u> <u>Repair</u>", and GO TO 5.

3.check steering angle main control module

- 1. Turn the ignition switch OFF.
- 2. Disconnect steering angle main control module harness connector.
- 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 4.

NO >> Recheck terminals for damage or loose connection. Refer to <u>LAN-16</u>, "<u>Precautions for Harness Repair</u>", and GO TO 4.

4. PFEFORM SELF-DIAGNOSIS (STEERING ANGLE MAIN CONTROL MODULE)

With CONSULT

- 1. Connect steering angle main control module harness connector.
- 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 5.

5. PERFORM SELF-DIAGNOSIS

(With CONSULT

- 1. Connect chassis control module harness connector.
- Erase self-diagnosis result for "CHASSIS CONTROL".
- 3. Turn the ignition switch OFF and wait for 10 seconds or more.
- Turn the ignition switch ON.
- Perform "All DTC Reading".

Is DTC "U1000-01", "U1A31-01" or other DTC detected?

YES ("U1000-01")>>Refer to LAN-26, "Trouble Diagnosis Flow Chart".

YES ("U1A31-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

YES (other DTC)>>Check the DTC.

U1A32-01 CAMERA COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

U1A32-01 CAMERA COMMUNICATION

DTC Description

INFOID:0000000009612949

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DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
U1A32-01	CAMERA COMM (Camera communication)	When chassis control module is not receiving chassis communication signal (between chassis control module and lane camera unit) for 2 seconds or more.

POSSIBLE CAUSE

- Lane camera unit
- · Chassis control module
- · 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

(P)With CONSULT

Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "U1A32-01" detected?

YES >> Proceed to <u>DAS-509</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612950

1. CHECK CAN DIAGNOSIS SUPPORT MONITOR

With CONSULT

- 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-43, "Intermittent Incident".

- "TRANSMIT DIAG" is other than "OK">>GO TO 2.
- "LANE CAMERA" other than "OK">>GO TO 3.

2.CHECK TRANSMITTING SIDE UNIT

- 1. Turn the ignition switch OFF.
- 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.

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Revision: 2013 October **DAS-509** 2014 Q50

U1A32-01 CAMERA COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Is the inspection result normal?

YES >> GO TO 5.

NO >> Recheck terminals for damage or loose connection. Refer to <u>LAN-16</u>, "<u>Precautions for Harness Repair</u>", and GO TO 5.

3.CHECK LANE CAMERA UNIT

- 1. Turn the ignition switch OFF.
- 2. Disconnect lane camera unit harness connector.
- Check lane camera harness connector terminals (chassis communication line) or damage or loose connection.

Is the inspection result normal?

YES >> GO TO 4.

NO >> Recheck terminals for damage or loose connection. Refer to <u>LAN-16</u>, "<u>Precautions for Harness Repair</u>", and GO TO 4.

PFEFORM SELF-DIAGNOSIS (LANE CAMERA UNIT)

With CONSULT

- 1. Connect lane camera harness connector.
- 2. Erase self-diagnosis result for "LANE CAMERA".
- 3. Turn the ignition switch OFF and wait for 10 seconds or more.
- 4. Turn the ignition switch ON.
- 5. Perform self-diagnosis for "LANE CAMERA".

Is DTC detected?

YES >> Check the DTC. Refer to <u>DAS-573</u>, "DTC Index".

NO >> GO TO 5.

5. PERFORM SELF-DIAGNOSIS

(With CONSULT

- Connect chassis control module harness connector.
- Erase self-diagnosis result for "CHASSIS CONTROL".
- 3. Turn the ignition switch OFF and wait for 10 seconds or more.
- Turn the ignition switch ON.
- 5. Perform "All DTC Reading".

Is DTC "U1000-01", "U1A32-01" or other DTC detected?

YES ("U1000-01")>>Refer to LAN-26, "Trouble Diagnosis Flow Chart".

YES ("U1A32-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

YES (other DTC)>>Check the DTC.

U1A34-01 BRAKE CONTROL COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

U1A34-01 BRAKE CONTROL COMMUNICATION

DTC Description

INFOID:0000000009612951

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DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
U1A34-01	BRAKE CONTROL COMM (Brake control communication)	When chassis control module is not receiving CAN communication signal [between chassis control module and ABS actuator and electric unit (control unit)] for 2 seconds or more.

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

(P)With CONSULT

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 "U1A34-01" detected?

YES >> Proceed to <u>DAS-511</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43. "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612952

1. CHECK CAN DIAGNOSIS SUPPORT MONITOR

(With CONSULT

- Select "CAN Diagnosis Support Monitor". of "CHASSIS CONTROL".
- 2. Check malfunction history between each control unit connected to chassis control module.

DAS-511

Check the result of "PAST"?

All items are "OK">>Refer to GI-43, "Intermittent Incident".

"TRANSMIT DIAG" is other than "OK">>GO TO 2.

"ABS" other than "OK">>GO TO 3.

2.CHECK TRANSMITTING SIDE UNIT

- 1. Turn the ignition switch OFF.
- 2. Disconnect chassis control module harness connector.

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2014 Q50

U1A34-01 BRAKE CONTROL COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

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 5.

NO >> Recheck terminals for damage or loose connection. Refer to <u>LAN-16</u>, "<u>Precautions for Harness</u> <u>Repair</u>", and GO TO 5.

3.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.
- 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 4.

NO >> Recheck terminals for damage or loose connection. Refer to <u>LAN-16</u>, "<u>Precautions for Harness Repair</u>", and GO TO 4.

4. PFEFORM SELF-DIAGNOSIS [ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)]

With CONSULT

- 1. Connect ABS actuator and electric unit (control unit) harness connector.
- 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-57, "DTC Index".

NO >> GO TO 5.

5. PERFORM SELF-DIAGNOSIS

(With CONSULT

- 1. Connect chassis control module harness connector.
- 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.
- Perform "All DTC Reading".

Is DTC "U1000-01", "U1A34-01" or other DTC detected?

YES ("U1000-01")>>Refer to LAN-26, "Trouble Diagnosis Flow Chart".

YES ("U1A34-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

YES (other DTC)>>Check the DTC.

U1A35-01 BRAKE CONTROL COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

U1A35-01 BRAKE CONTROL COMMUNICATION

DTC Description

INFOID:0000000009612953

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DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
U1A35-01	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

(P)With CONSULT

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 "U1A35-01" detected?

YES >> Proceed to <u>DAS-513</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612954

1. CHECK CAN DIAGNOSIS SUPPORT MONITOR

()With CONSULT

- 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-43, "Intermittent Incident".

"TRANSMIT DIAG" is other than "OK">>GO TO 2.

"ABS" other than "OK">>GO TO 3.

2.CHECK TRANSMITTING SIDE UNIT

- 1. Turn the ignition switch OFF.
- Disconnect chassis control module harness connector.

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Revision: 2013 October DAS-513 2014 Q50

U1A35-01 BRAKE CONTROL COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

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 5.

NO >> Recheck terminals for damage or loose connection. Refer to <u>DAS-391, "Precautions for Harness Repair"</u>, and GO TO 5.

3.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.
- 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 4.

NO >> Recheck terminals for damage or loose connection. Refer to <u>DAS-391</u>, "<u>Precautions for Harness Repair</u>", and GO TO 4.

4. PFEFORM SELF-DIAGNOSIS [ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)]

(With CONSULT

- 1. Connect ABS actuator and electric unit (control unit) harness connector.
- 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-57, "DTC Index".

NO >> GO TO 5.

5. PERFORM SELF-DIAGNOSIS

(With CONSULT

- 1. Connect chassis control module harness connector.
- Erase self-diagnosis result for "CHASSIS CONTROL".
- Turn the ignition switch OFF and wait for 10 seconds or more.
- 4. Turn the ignition switch ON.
- Perform "All DTC Reading".

Is DTC "U1000-01", "U1A35-01" or other DTC detected?

YES ("U1000-01")>>Refer to LAN-26, "Trouble Diagnosis Flow Chart".

YES ("U1A35-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

YES (other DTC)>>Check the DTC.

U1A36-01 BCM COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

U1A36-01 BCM COMMUNICATION

DTC Description

INFOID:0000000009612955

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DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
U1A36-01	BCM/IPDM COMM (BCM/IPDM communication)	When chassis control module is not receiving CAN communication signal (between chassis control module and BCM) for 2 seconds or more.

POSSIBLE CAUSE

- BCM
- Chassis control module
- CAN 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

(P)With CONSULT

Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "U1A36-01" detected?

YES >> Proceed to <u>DAS-515</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612956

1. CHECK CAN DIAGNOSIS SUPPORT MONITOR

With CONSULT

- 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-43, "Intermittent Incident".

"TRANSMIT DIAG" is other than "OK">>GO TO 2.

"BCM" other than "OK">>GO TO 3.

2.CHECK TRANSMITTING SIDE UNIT

- 1. Turn the ignition switch OFF.
- Disconnect chassis control module harness connector.
- Check the chassis control module harness connector terminals No. 3 and 4 for damage or loose connection.

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Revision: 2013 October **DAS-515** 2014 Q50

U1A36-01 BCM COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Is the inspection result normal?

YES >> GO TO 5.

NO >> Recheck terminals for damage or loose connection. Refer to <u>LAN-16</u>, "<u>Precautions for Harness Repair</u>", and GO TO 5.

3.CHECK BCM

- 1. Turn the ignition switch OFF.
- 2. Disconnect BCM harness connector.
- 3. Check BCM harness connector terminals (CAN communication line) or damage or loose connection.

Is the inspection result normal?

YES >> GO TO 4.

NO >> Recheck terminals for damage or loose connection. Refer to <u>LAN-16</u>, "<u>Precautions for Harness Repair</u>", and GO TO 4.

4.PFEFORM SELF-DIAGNOSIS (BCM)

With CONSULT

- Connect BCM harness connector.
- Erase self-diagnosis result for "BCM".
- 3. Turn the ignition switch OFF and wait for 10 seconds or more.
- 4. Turn the ignition switch ON.
- 5. Perform self-diagnosis for "BCM".

Is DTC detected?

YES >> Check the DTC. Refer to BCS-62, "DTC Index".

NO >> GO TO 5.

5. PERFORM SELF-DIAGNOSIS

With CONSULT

- 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.
- Turn the ignition switch ON.
- 5. Perform "All DTC Reading".

Is DTC "U1000-01", "U1A36-01" or other DTC detected?

YES ("U1000-01")>>Refer to LAN-26, "Trouble Diagnosis Flow Chart".

YES ("U1A36-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

YES (other DTC)>>Check the DTC.

U1A39-01 COMBINATION METER COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

U1A39-01 COMBINATION METER COMMUNICATION

DTC Description

INFOID:0000000009612957

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DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
U1A39-01	COMBINATION METER COMM (Combination meter communication)	When chassis control module is not receiving CAN communication signal (between chassis control module and combination meter) for 2 seconds or more.

POSSIBLE CAUSE

- Combination meter
- Chassis control module
- CAN communication line

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

(P)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.

Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "U1A39-01" detected?

YES >> Proceed to <u>DAS-517</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:000000009612958

1. CHECK CAN DIAGNOSIS SUPPORT MONITOR

With CONSULT

- Select "CAN Diagnosis Support Monitor" of "CHASSIS CONTROL".
- Check malfunction history between each control unit connected to chassis control module.

Check the result of "PAST"?

All items are "OK">>Refer to GI-43, "Intermittent Incident".

- "TRANSMIT DIAG" is other than "OK">>GO TO 2.
- "METER/M&A" other than "OK">>GO TO 3.

2.CHECK TRANSMITTING SIDE UNIT

- Turn the ignition switch OFF.
- Disconnect chassis control module harness connector.
- Check the chassis control module harness connector terminals No. 3 and 4 for damage or loose connection.

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Revision: 2013 October **DAS-517** 2014 Q50

U1A39-01 COMBINATION METER COMMUNICATION

[CHASSIS CONTROL]

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 5.

NO >> Recheck terminals for damage or loose connection. Refer to <u>LAN-16</u>, "<u>Precautions for Harness Repair</u>", and GO TO 5.

3. CHECK COMBINATION METER

- 1. Turn the ignition switch OFF.
- 2. Disconnect combination meter harness connector.
- Check combination meter harness connector terminals (CAN communication line) or damage or loose connection.

Is the inspection result normal?

YES >> GO TO 4.

NO >> Recheck terminals for damage or loose connection. Refer to <u>LAN-16</u>, "<u>Precautions for Harness Repair</u>", and GO TO 4.

4.PFEFORM SELF-DIAGNOSIS (COMBINATION METER)

With CONSULT

- 1. Connect combination meter harness connector.
- Erase self-diagnosis result for "MATER/M&A".
- 3. Turn the ignition switch OFF and wait for 10 seconds or more.
- 4. Turn the ignition switch ON.
- 5. Perform self-diagnosis for "METER/M&A".

Is DTC detected?

YES >> Check the DTC. Refer to MWI-80, "DTC Index".

NO >> GO TO 5.

5. PERFORM SELF-DIAGNOSIS

(With CONSULT

- Connect chassis control module harness connector.
- 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 "U1000-01", "U1A39-01" or other DTC detected?

YES ("U1000-01")>>Refer to LAN-26, "Trouble Diagnosis Flow Chart".

YES ("U1A39-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

YES (other DTC)>>Check the DTC.

U1A3B-01 TCM COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

U1A3B-01 TCM COMMUNICATION

DTC Description

INFOID:0000000009612959

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DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
U1A3B-01	TCM COMM (TCM communication)	When chassis control module is not receiving CAN communication signal (between chassis control module and TCM) for 2 seconds or more.

POSSIBLE CAUSE

- TCM
- 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

(P)With CONSULT

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 "U1A3B-01" detected?

YES >> Proceed to <u>DAS-519</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612960

1. CHECK CAN DIAGNOSIS SUPPORT MONITOR

(With CONSULT

- 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-43, "Intermittent Incident".

"TRANSMIT DIAG" is other than "OK">>GO TO 2.

"TRANSMISSION" other than "OK">>GO TO 3.

2. CHECK TRANSMITTING SIDE UNIT

- 1. Turn the ignition switch OFF.
- Disconnect chassis control module harness connector.
- 3. Check the chassis control module harness connector terminals No. 3 and 4 for damage or loose connection.

DAS-519

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U1A3B-01 TCM COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Is the inspection result normal?

YES >> GO TO 5.

NO >> Recheck terminals for damage or loose connection. Refer to <u>LAN-16</u>, "<u>Precautions for Harness Repair</u>", and GO TO 5.

3.CHECK TCM

- Turn the ignition switch OFF.
- 2. Disconnect TCM harness connector.
- 3. Check TCM harness connector terminals (CAN communication line) or damage or loose connection.

Is the inspection result normal?

YES >> GO TO 4.

NO >> Recheck terminals for damage or loose connection. Refer to <u>LAN-16</u>, "<u>Precautions for Harness Repair</u>", and GO TO 4.

4.PFEFORM SELF-DIAGNOSIS (TCM)

With CONSULT

- Connect TCM harness connector.
- Erase self-diagnosis result for "TRANSMISSION".
- 3. Turn the ignition switch OFF and wait for 10 seconds or more.
- 4. Turn the ignition switch ON.
- 5. Perform self-diagnosis for "TRANSMISSION".

Is DTC detected?

YES >> Check the DTC. Refer to TM-85, "DTC Index".

NO >> GO TO 5.

5. PERFORM SELF-DIAGNOSIS

With CONSULT

- 1. Connect chassis control module harness connector.
- 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.
- Perform "Āll DTC Reading".

Is DTC "U1000-01", "U1A3B-01" or other DTC detected?

YES ("U1000-01")>>Refer to LAN-26, "Trouble Diagnosis Flow Chart".

YES ("U1A3B-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

YES (other DTC)>>Check the DTC.

U1A3D-01 ADAS COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

U1A3D-01 ADAS COMMUNICATION

DTC Description

INFOID:0000000009612961

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DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
U1A3D-01	ADAS COMM (Advanced Driver Assistance system communication)	 When chassis control module is not receiving CAN communication signal (between chassis control module and ADAS control unit) for 2 seconds or more. When chassis control module is not receiving chassis communication signal (between chassis control module and ADAS control unit) for 2 seconds or more.

POSSIBLE CAUSE

- ADAS control unit
- · Chassis control module
- Chassis communication line
- CAN communication line

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

(P)With CONSULT

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 "U1A3D-01" detected?

YES >> Proceed to <u>DAS-521</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612962

1. CHECK CAN DIAGNOSIS SUPPORT MONITOR

With CONSULT

Select "CAN Diagnosis Support Monitor" of "CHASSIS CONTROL".

Check malfunction history between each control unit connected to chassis control module.

Check the result of "PAST"?

All items are "OK">>Refer to GI-43, "Intermittent Incident".

"TRANSMIT DIAG" is other than "OK">>GO TO 2.

"ICC/ADAS" other than "OK">>GO TO 3.

2.CHECK TRANSMITTING SIDE UNIT

- Turn the ignition switch OFF.
- Disconnect chassis control module harness connector.

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Revision: 2013 October DAS-521 2014 Q50

U1A3D-01 ADAS COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

- 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 5.

NO >> Recheck terminals for damage or loose connection. Refer to <u>LAN-16</u>, "<u>Precautions for Harness Repair</u>", and GO TO 5.

3.CHECK ADAS CONTROL UNIT

- 1. Turn the ignition switch OFF.
- 2. Disconnect ADAS control unit harness connector.
- Check ADAS control unit harness connector terminals (CAN communication line and chassis communication line) or damage or loose connection.

Is the inspection result normal?

YES >> GO TO 4.

NO >> Recheck terminals for damage or loose connection. Refer to <u>LAN-16</u>, "<u>Precautions for Harness Repair</u>", and GO TO 4.

PFEFORM SELF-DIAGNOSIS (ADAS CONTROL UNIT)

With CONSULT

- 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.
- Perform self-diagnosis for "ICC/ADAS".

Is DTC detected?

YES >> Check the DTC. Refer to <u>DAS-44</u>, "<u>DTC Index</u>".

NO >> GO TO 5.

5. PERFORM SELF-DIAGNOSIS

()With CONSULT

- Connect chassis control module harness connector.
- Erase self-diagnosis result for "CHASSIS CONTROL".
- 3. Turn the ignition switch OFF and wait for 10 seconds or more.
- Turn the ignition switch ON.
- 5. Perform "All DTC Reading".

Is DTC "U1000-01", "U1A3D-01" other DTC detected?

YES ("U1000-01")>>Refer to LAN-26, "Trouble Diagnosis Flow Chart".

YES ("U1A3D-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

YES (other DTC)>>Check the DTC.

U1A3E-01 ADAS COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

U1A3E-01 ADAS COMMUNICATION

DTC Description

INFOID:0000000009612963

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DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
U1A3E-01	ADAS COMM (Advanced Driver Assistance system communication)	 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

(P)With CONSULT

Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "U1A3E-01" detected?

>> Proceed to <u>DAS-523</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

1. CHECK CAN DIAGNOSIS SUPPORT MONITOR

With CONSULT

Select "CAN Diagnosis Support Monitor" of "CHASSIS CONTROL".

Check malfunction history between each control unit connected to chassis control module.

Check the result of "PAST"?

All items are "OK">>Refer to GI-43, "Intermittent Incident".

"TRANSMIT DIAG" is other than "OK">>GO TO 2.

"ICC/ADAS" other than "OK">>GO TO 3.

2.CHECK TRANSMITTING SIDE UNIT

- 1. Turn the ignition switch OFF.
- Disconnect chassis control module harness connector. 2.
- 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)

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INFOID:0000000009612964

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DAS-523 Revision: 2013 October 2014 Q50

U1A3E-01 ADAS COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Is the inspection result normal?

YES >> GO TO 5.

NO >> Recheck terminals for damage or loose connection. Refer to <u>LAN-16</u>, "<u>Precautions for Harness Repair</u>", and GO TO 5.

3.CHECK ADAS CONTROL UNIT

- 1. Turn the ignition switch OFF.
- 2. Disconnect ADAS control unit harness connector.
- Check ADAS control unit harness connector terminals (CAN communication line) or damage or loose connection.

Is the inspection result normal?

YES >> GO TO 4.

NO >> Recheck terminals for damage or loose connection. Refer to <u>LAN-16</u>, "<u>Precautions for Harness Repair</u>", and GO TO 4.

4. PFEFORM 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-44, "DTC Index".

NO >> GO TO 5.

5. PERFORM SELF-DIAGNOSIS

(With CONSULT

- Connect chassis control module harness connector.
- 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 "U1000-01", "U1A3E-01" or other DTC detected?

YES ("U1000-01")>>Refer to LAN-26, "Trouble Diagnosis Flow Chart".

YES ("U1A3E-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

YES (other DTC)>>Check the DTC.

U1A3F-01 AV COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

U1A3F-01 AV COMMUNICATION

DTC Description

INFOID:0000000009612965

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DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
U1A3F-01	AV COMM (AV communication)	When chassis control module is not receiving CAN communication signal (between chassis control module and display control unit) for 30 seconds or more.

POSSIBLE CAUSE

- Display control unit
- · Chassis control module
- CAN communication line

FAIL-SAFE

The following functions are suspended.

Infiniti InTuition function

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

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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

(P)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 "U1A3F-01" detected?

YES >> Proceed to DAS-525, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612966

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-43, "Intermittent Incident".

"TRANSMIT DIAG" is other than "OK">>GO TO 2.

"MALTI AV" other than "OK">>GO TO 3.

2.check transmitting side unit

- Turn the ignition switch OFF.
- Disconnect chassis control module harness connector.
- 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 5.

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Revision: 2013 October DAS-525 2014 Q50

U1A3F-01 AV COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

NO >> Recheck terminals for damage or loose connection. Refer to <u>LAN-16</u>, "<u>Precautions for Harness</u> Repair", and GO TO 5.

3. CHECK DISPLAY CONTROL UNIT

- 1. Turn the ignition switch OFF.
- 2. Disconnect display control unit harness connector.
- Check display control unit harness connector terminals (CAN communication line) or damage or loose connection

Is the inspection result normal?

YES >> GO TO 4.

NO >> Recheck terminals for damage or loose connection. Refer to <u>LAN-16</u>, "<u>Precautions for Harness Repair</u>", and GO TO 4.

4.PFEFORM SELF-DIAGNOSIS (DISPLAY CONTROL UNIT)

With CONSULT

- 1. Connect display control unit harness connector.
- Erase self-diagnosis result for "MALTI AV".
- 3. Turn the ignition switch OFF and wait for 10 seconds or more.
- Turn the ignition switch ON.
- 5. Perform self-diagnosis for "MALTI AV".

Is DTC detected?

YES >> Check the DTC. Refer to AV-89, "DTC Index".

NO >> GO TO 5.

5. PERFORM SELF-DIAGNOSIS

(With CONSULT

- 1. Connect chassis control module harness connector.
- 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 "U1000-01", "U1A3F-01" or other DTC detected?

YES ("U1000-01")>>Refer to LAN-26, "Trouble Diagnosis Flow Chart".

YES ("U1A3F-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

YES (other DTC)>>Check the DTC.

U1A42-01 STEERING ANGLE SENSOR COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

U1A42-01 STEERING ANGLE SENSOR COMMUNICATION

DTC Description

INFOID:0000000009612967

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DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
U1A42-01	STEERING ANGLE SENSOR COMM (Steering angle sensor communication)	When chassis control module is not receiving CAN communication signal (between chassis control module and steering angle sensor) for 2 seconds or more.

POSSIBLE CAUSE

- · Steering angle sensor
- · Chassis control module
- CAN communication line

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

(P)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 "U1A42-01" detected?

YES >> Proceed to DAS-527, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612968

1. CHECK CAN DIAGNOSIS SUPPORT MONITOR

With CONSULT

Select "CAN Diagnosis Support Monitor" of "CHASSIS CONTROL".

Check malfunction history between each control unit connected to chassis control module.

Check the result of "PAST"?

All items are "OK">>Refer to GI-43, "Intermittent Incident".

"TRANSMIT DIAG" is other than "OK">>GO TO 2.

"STRG" other than "OK">>GO TO 3.

2.CHECK TRANSMITTING SIDE UNIT

- Turn the ignition switch OFF.
- Disconnect chassis control module harness connector.
- Check the chassis control module harness connector terminals No. 3 and 4 for damage or loose connection.

Is the inspection result normal?

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U1A42-01 STEERING ANGLE SENSOR COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

YES >> GO TO 5.

NO >> Recheck terminals for damage or loose connection. Refer to <u>LAN-16</u>, "<u>Precautions for Harness Repair</u>", and GO TO 5.

3.check steering angle sensor

- 1. Turn the ignition switch OFF.
- Disconnect steering angle sensor harness connector.
- Check steering angle sensor harness connector terminals (CAN communication line) or damage or loose connection.

Is the inspection result normal?

YES >> GO TO 4.

NO >> Recheck terminals for damage or loose connection. Refer to <u>LAN-16</u>, "<u>Precautions for Harness Repair</u>", and GO TO 4.

4.PFEFORM SELF-DIAGNOSIS [ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)]

With CONSULT

- 1. Connect steering angle sensor harness connector.
- 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-57, "DTC Index".

NO >> GO TO 5.

5. PERFORM SELF-DIAGNOSIS

With CONSULT

- 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.
- Perform "All DTC Reading".

Is DTC "U1000-01", "U1A42-01" other DTC detected?

YES ("U1000-01")>>Refer to LAN-26, "Trouble Diagnosis Flow Chart".

YES ("U1A42-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

YES (other DTC)>>Check the DTC.

U1A43-01 STEERING ANGLE SENSOR COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

U1A43-01 STEERING ANGLE SENSOR COMMUNICATION

DTC Description

INFOID:0000000009612969

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DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
U1A43-01	STEERING ANGLE SENSOR COMM (Steering angle sensor communication)	A calculated signal value differs between a signal transmitted from the steering angle sensor and a signal received from chassis control module via CAN communication.

POSSIBLE CAUSE

- Steering angle sensor
- · Chassis control module
- CAN communication line

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

(P)With CONSULT

Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "U1A43-01" detected?

YES >> Proceed to DAS-529, "Diagnosis Procedure".

>> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612970 M

1. CHECK CAN DIAGNOSIS SUPPORT MONITOR

(With CONSULT

Select "CAN Diagnosis Support Monitor" of "CHASSIS CONTROL".

Check malfunction history between each control unit connected to chassis control module.

Check the result of "PAST"?

All items are "OK">>Refer to GI-43, "Intermittent Incident".

"TRANSMIT DIAG" is other than "OK">>GO TO 2.

"STRG" other than "OK">>GO TO 3.

2.CHECK TRANSMITTING SIDE UNIT

- 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 connec-

Is the inspection result normal?

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DAS-529 Revision: 2013 October 2014 Q50

U1A43-01 STEERING ANGLE SENSOR COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

YES >> GO TO 5.

NO >> Recheck terminals for damage or loose connection. Refer to <u>LAN-16</u>, "<u>Precautions for Harness Repair</u>", and GO TO 5.

3. CHECK STEERING ANGLE SENSOR

- 1. Turn the ignition switch OFF.
- Disconnect steering angle sensor harness connector.
- Check steering angle sensor harness connector terminals (CAN communication line) or damage or loose connection.

Is the inspection result normal?

YES >> GO TO 4.

NO >> Recheck terminals for damage or loose connection. Refer to <u>LAN-16</u>, "<u>Precautions for Harness Repair</u>", and GO TO 4.

4. PFEFORM SELF-DIAGNOSIS [ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)]

With CONSULT

- 1. Connect steering angle sensor 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.
- Perform self-diagnosis for "ABS".

Is DTC detected?

YES >> Check the DTC. Refer to BRC-57, "DTC Index".

NO >> GO TO 5.

5. PERFORM SELF-DIAGNOSIS

With CONSULT

- 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.
- Turn the ignition switch ON.
- Perform "All DTC Reading".

Is DTC "U1000-01", "U1A43-01" or other DTC detected?

YES ("U1000-01")>>Refer to LAN-26, "Trouble Diagnosis Flow Chart".

YES ("U1A43-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

YES (other DTC)>>Check the DTC.

U1A45-01 DRIVER ASSISTANCE BUZZER COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

U1A45-01 DRIVER ASSISTANCE BUZZER COMMUNICATION

DTC Description

INFOID:0000000009612971

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DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
U1A45-01	DR BUZZER COMM (Driver assistance buzzer communication)	When chassis control module is not receiving CAN communication signal (between chassis control module and ADAS control unit) and ITS communication signal (between ADAS control unit and driver assistance buzzer control module) for 2 seconds or more.

POSSIBLE CAUSE

- Driver assistance buzzer control module
- ADAS control unit
- Chassis control module
- ITS communication line
- Chassis communication line
- CAN communication line

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

(P)With CONSULT

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 "U1A45-01" detected?

YES >> Proceed to <u>DAS-531</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612972

1. CHECK CAN DIAGNOSIS SUPPORT MONITOR

With CONSULT

Select "CAN Diagnosis Support Monitor" of "CHASSIS CONTROL".

Check malfunction history between each control unit connected to chassis control module.

Check the result of "PAST"?

All items are "OK">>Refer to GI-43, "Intermittent Incident".

"TRANSMIT DIAG" is other than "OK">>GO TO 2.

"ICC/ADAS" other than "OK">>GO TO 3.

2.CHECK TRANSMITTING SIDE UNIT

- Turn the ignition switch OFF.
- 2. Disconnect chassis control module harness connector.

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Revision: 2013 October DAS-531 2014 Q50

U1A45-01 DRIVER ASSISTANCE BUZZER COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

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 <u>LAN-16</u>, "<u>Precautions for Harness</u> <u>Repair</u>", and GO TO 6.

3. CHECK ADAS CONTROL UNIT

- 1. Turn the ignition switch OFF.
- Disconnect ADAS control unit harness connector.
- Check ADAS control unit harness connector terminals (CAN communication line) or damage or loose connection
- Check ADAS control unit harness connector terminals (ITS communication line) or damage or loose connection.

Is the inspection result normal?

YES >> GO TO 4.

NO >> Recheck terminals for damage or loose connection. Refer to <u>LAN-16</u>, "<u>Precautions for Harness Repair</u>", and GO TO 4.

4. CHECK DRIVER ASSISTANCE BUZZER

- Disconnect driver assistance buzzer harness connector.
- Check driver assistance buzzer harness connector terminals (ITS 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 <u>LAN-16</u>, "<u>Precautions for Harness</u> Repair", and GO TO 5.

5. PFEFORM ADAS CONTROL UNIT

()With CONSULT

- Connect driver assistance buzzer harness connector.
- Connect ADAS control unit harness connector.
- Erase self-diagnosis result for "ICC/ADAS".
- 4. Turn the ignition switch OFF and wait for 10 seconds or more.
- 5. Turn the ignition switch ON.
- 6. Perform self-diagnosis for "ICC/ADAS".

Is DTC detected?

YES >> Check the DTC. Refer to DAS-44, "DTC Index".

NO >> GO TO 6.

6. PERFORM SELF-DIAGNOSIS

(With CONSULT

- 1. Connect chassis control module harness connector.
- Erase self-diagnosis result for "CHASSIS CONTROL".
- 3. Turn the ignition switch OFF and wait for 10 seconds or more.
- Turn the ignition switch ON.
- 5. Perform "All DTC Reading".

Is DTC "U1000-01", "U1A45-01" or other DTC detected?

YES ("U1000-01")>>Refer to LAN-26, "Trouble Diagnosis Flow Chart".

YES ("U1A45-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

YES (other DTC)>>Check the DTC.

U1A48-01 ECM COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

U1A48-01 ECM COMMUNICATION

DTC Description

INFOID:0000000009612973

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DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
U1A48-01	ECM/HPCM COMM (ECM/HPCM communication)	When chassis control module is not receiving CAN communication signal (between chassis control module and ECM) for 2 seconds or more.

POSSIBLE CAUSE

- ECM
- Chassis control module
- CAN communication line

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

(P)With CONSULT

Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "U1A48-01" detected?

YES >> Proceed to <u>DAS-533</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612974

1. CHECK CAN DIAGNOSIS SUPPORT MONITOR

With CONSULT

- Select and "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-43, "Intermittent Incident".

- "TRANSMIT DIAG" is other than "OK">>GO TO 2.
- "ENGINE" other than "OK">>GO TO 3.

2.CHECK TRANSMITTING SIDE UNIT

- 1. Turn the ignition switch OFF.
- Disconnect chassis control module harness connector.
- Check the chassis control module harness connector terminals No. 3 and 4 for damage or loose connection.

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U1A48-01 ECM COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

Is the inspection result normal?

YES >> GO TO 5.

NO >> Recheck terminals for damage or loose connection. Refer to <u>LAN-16</u>, "<u>Precautions for Harness Repair</u>", and GO TO 5.

3.CHECK ECM

- 1. Turn the ignition switch OFF.
- 2. Disconnect ECM harness connector.
- 3. Check ECM harness connector terminals (CAN communication line) or damage or loose connection.

Is the inspection result normal?

YES >> GO TO 4.

NO >> Recheck terminals for damage or loose connection. Refer to <u>LAN-16</u>, "<u>Precautions for Harness Repair</u>", and GO TO 4.

4.PFEFORM SELF-DIAGNOSIS (ECM)

With CONSULT

- Connect ECM harness connector.
- 2. Erase self-diagnosis result for "ENGINE".
- 3. Turn the ignition switch OFF and wait for 10 seconds or more.
- 4. Turn the ignition switch ON.
- 5. Perform self-diagnosis for "ENGINE".

Is DTC detected?

YES >> Check the DTC. Refer to EC-106, "DTC Index".

NO >> GO TO 5.

5. PERFORM SELF-DIAGNOSIS

With CONSULT

- 1. Connect chassis control module harness connector.
- 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.
- Perform "Āll DTC Reading".

Is DTC "U1000-01", "U1A48-01" or other DTC detected?

YES ("U1000-01")>>Refer to LAN-26, "Trouble Diagnosis Flow Chart".

YES ("U1A48-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

YES (other DTC)>>Check the DTC.

U1A4A-01 CONTROL MODULE (CAN)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

U1A4A-01 CONTROL MODULE (CAN)

DTC Description

INFOID:0000000009612975

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DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
U1A4A-01	CONTROL MODULE (CAN) [Control module (CAN)]	When a malfunction is detected in chassis control module (transmission via CAN communication is impossible) When a malfunction is detected in chassis control module (transmission via chassis communication is impossible)

POSSIBLE CAUSE

Chassis control module

FAIL-SAFE

The following functions are suspended.

- Active lane control function
- LDW function
- LDP function
- Blind spot intervention function
- 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

(P)With CONSULT

Turn the ignition switch OFF to ON.

CAUTION:

Be sure to wait of 10 seconds after turning ignition switch OFF or ON.

Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "U1A4A-01" detected?

>> Proceed to <u>DAS-535</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

1. PERFORM SELF-DIAGNOSIS

INFOID:0000000009612976

With CONSULT

- 1. Erase self-diagnosis result for "CHASSIS CONTROL".
- 2. Turn the ignition switch OFF and wait for 10 seconds or more.
- Turn the ignition switch ON.
- Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "U1A4A-01" detected?

YES >> Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

NO >> INSPECTION END

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U1A4B-01 CONTROL MODULE (CAN)

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

U1A4B-01 CONTROL MODULE (CAN)

DTC Description

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
U1A4B-01	CONTROL MODULE (CAN) [Control module (CAN)	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
- 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

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 "U1A4B-01" detected?

YES >> Proceed to DAS-536, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612978

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.
- Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "U1A4B-01" detected?

YES >> Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

U1A4C-01 A/C AUTO AMP. COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

U1A4C-01 A/C AUTO AMP. COMMUNICATION

DTC Description

INFOID:0000000009612979

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DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
U1A4C-01	A/C AUTO AMP. COMM (A/C auto amp. communication)	When chassis control module is receiving CAN communication signal (between chassis control module and A/C auto amp.) for 2 seconds or more.

POSSIBLE CAUSE

- A/C auto amp.
- Chassis control module
- 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

(E)With CONSULT

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 "U1A4C-01" detected?

YES >> Proceed to <u>DAS-537</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009612980

1. CHECK CAN DIAGNOSIS SUPPORT MONITOR

With CONSULT

- Select "CAN Diagnosis Support Monitor" of "CHASSIS CONTROL".
- Check malfunction history between each control unit connected to chassis control module.

Check the result of "PAST"?

All items are "OK">>Refer to GI-43, "Intermittent Incident".

"TRANSMIT DIAG" is other than "OK">>GO TO 2.

"HVAC" other than "OK">>GO TO 3.

2.CHECK TRANSMITTING SIDE UNIT

- Turn the ignition switch OFF.
- Disconnect chassis control module harness connector.
- 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 5.

NO >> Recheck terminals for damage or loose connection. Refer to <u>LAN-16</u>, "<u>Precautions for Harness Repair</u>", and GO TO 5.

3.CHECK A/C AUTO AMP.

1. Turn the ignition switch OFF.

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U1A4C-01 A/C AUTO AMP. COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

- 2. Disconnect A/C auto amp. harness connector.
- Check A/C auto amp. harness connector terminals (CAN communication line) or damage or loose connection.

Is the inspection result normal?

YES >> GO TO 4.

NO >> Recheck terminals for damage or loose connection. Refer to <u>LAN-16</u>, "<u>Precautions for Harness Repair</u>", and GO TO 4.

4.PFEFORM SELF-DIAGNOSIS (A/C AUTO AMP.)

(With CONSULT

- 1. Connect A/C auto amp. harness connector.
- 2. Erase self-diagnosis result for "HVAC".
- 3. Turn the ignition switch OFF and wait for 10 seconds or more.
- 4. Turn the ignition switch ON.
- 5. Perform self-diagnosis for "HVAC".

Is DTC detected?

YES >> Check the DTC. Refer to <u>HAC-37</u>, "DTC Index".

NO >> GO TO 5.

5. PERFORM SELF-DIAGNOSIS

(With CONSULT

- 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.
- Turn the ignition switch ON.
- 5. Perform self-diagnosis for "CHASSIS CONTROL".

Is DTC "U1000-01", "U1A4C-01" or other DTC detected?

YES ("U1000-01")>>Refer to LAN-26, "Trouble Diagnosis Flow Chart".

YES ("U1A4C-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

YES (other DTC)>>Check the DTC.

U1A4E-01 ECM COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

U1A4E-01 ECM COMMUNICATION

DTC Description

INFOID:0000000009729388

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DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition
U1A4E-01	ECM/HPCM COMM (ECM/HPCM communication)	A calculated signal value differs between a signal transmitted from the ECM and a signal received from chassis control module via CAN communication.

POSSIBLE CAUSE

- ECM
- · Chassis control module
- CAN communication line

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

(P)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 "U1A4E-01" detected?

YES >> Proceed to DAS-539, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009729389

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-43, "Intermittent Incident".

"TRANSMIT DIAG" is other than "OK">>GO TO 2.

"ENGINE" other than "OK">>GO TO 3.

2.check transmitting side unit

- Turn the ignition switch OFF.
- Disconnect chassis control module harness connector.
- 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 5.

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U1A4E-01 ECM COMMUNICATION

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

NO >> Recheck terminals for damage or loose connection. Refer to <u>LAN-16</u>, "<u>Precautions for Harness Repair</u>", and GO TO 5.

3.CHECK ECM

- 1. Turn the ignition switch OFF.
- 2. Disconnect ECM harness connector.
- Check ECM harness connector terminals (CAN communication line) or damage or loose connection.

Is the inspection result normal?

YES >> GO TO 4.

NO >> Recheck terminals for damage or loose connection. Refer to <u>LAN-16</u>, "<u>Precautions for Harness</u> <u>Repair</u>", and GO TO 4.

4.PFEFORM SELF-DIAGNOSIS (ECM)

With CONSULT

- 1. Connect ECM harness connector.
- Erase self-diagnosis result for "ENGINE".
- 3. Turn the ignition switch OFF and wait for 10 seconds or more.
- 4. Turn the ignition switch ON.
- 5. Perform self-diagnosis for "ENGINE".

Is DTC detected?

YES >> Check the DTC. Refer to EC-106, "DTC Index".

NO >> GO TO 5.

5. 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.
- Perform "All DTC Reading".

Is DTC "U1000-01", "U1A4E-01" or other DTC detected?

YES ("U1000-01")>>Refer to LAN-26, "Trouble Diagnosis Flow Chart".

YES ("U1A4E-01")>>Replace the chassis control module. Refer to DAS-542, "Removal and Installation".

YES (other DTC)>>Check the DTC.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CHASSIS CONTROL]

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure

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1. CHECK CHASSIS CONTROL MODULE IGNITION POWER SUPPLY

- Turn the ignition switch OFF.
- Disconnect chassis control module harness connector.
- Check the voltage between chassis control module harness connector and ground.

Chassis co	ntrol module		Voltage
Connector	Terminal	vollage	
E22	10	Ground	Approx. 0 V

4. Turn the ignition switch ON **CAUTION:**

Never start the engine.

5. Check the voltage between chassis control module harness connector and ground.

Chassis co	ntrol module		Voltage
Connector	Terminal		
E22	10	Ground	6.4 – 16 V

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK CHASSIS CONTROL MODULE IGNITION POWER SUPPLY CIRCUIT

- Turn the ignition switch OFF.
- Check the 10A fuse (#12).
- 3. Check the continuity and short circuit between chassis control module harness connector terminal (10) and 10A fuse (#12).

Is the inspection result normal?

>> Perform trouble diagnosis for ignition power supply.

3.CHECK CHASSIS CONTROL MODULE GROUND CIRCUIT

Check the continuity between chassis control module harness connector and ground.

Chassis control module			Continuity
Connector	Terminal		Continuity
E22	12	Ground	Existed

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. DAS

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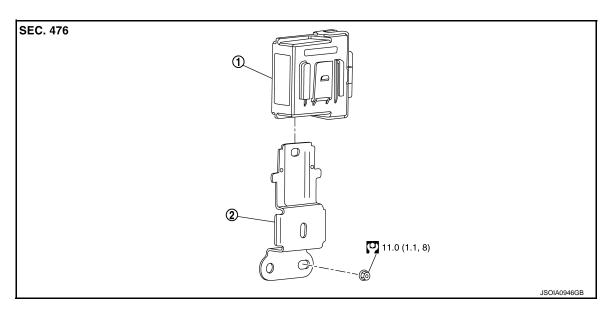
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REMOVAL AND INSTALLATION

CHASSIS CONTROL MODULE

Exploded View



(1) Chassis control module

Bracket



Removal and Installation

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REMOVAL

CAUTION:

When replacing chassis control module, configuration of chassis control module is required. Refer to DAS-434, "Work Procedure".

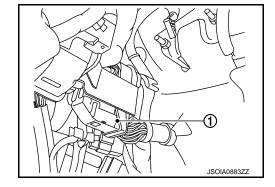
NOTE:

If the chassis control module is replaced, user registration information is erased, and all setting items for Infiniti InTuition related parts are erased.

- Remove the parking brake pedal assembly. Refer to PB-8, "Removal and Installation".
- 2. Separate the harness connector (1).
- 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 <u>DAS-434</u>, "Work <u>Procedure"</u>.
- After replace the chassis control module, depress brake pedal and check that the stop lamp turns ON.

PRECAUTION

PRECAUTIONS

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

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, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, 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.

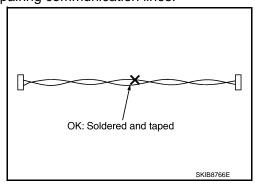
- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the
 ignition ON or engine running, never use air or electric power tools or strike near the sensor(s) with
 a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing
 serious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

Precautions For Harness Repair

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).



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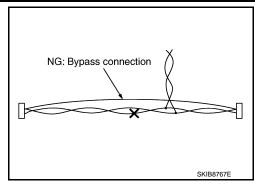
PRECAUTIONS

< PRECAUTION >

[ACTIVE LANE CONTROL]

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:0000000009725575

WARNING:

Be careful of traffic conditions and safety around the vehicle when performing road test. **CAUTION**:

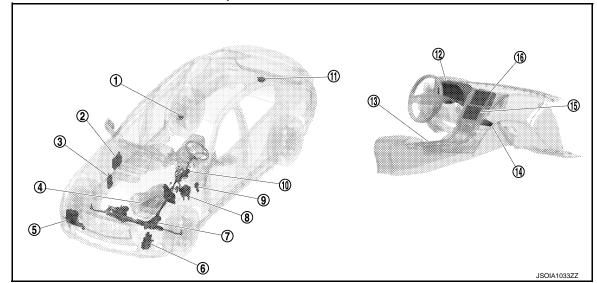
- Never use the Active Lane Control when driving with free rollers or a chassis dynamometer.
- Never perform the active test while driving.
- Never disassemble and remodel the lane camera unit.
- Do not use the lane camera unit that is removed from the vehicle.

SYSTEM DESCRIPTION

COMPONENT PARTS ACTIVE LANE CONTROL

ACTIVE LANE CONTROL: Component Parts Location

INFOID:0000000009725576



No.	Component	Function
1	Lane camera unit	Refer to DAS-546, "Lane Camera Unit".
2	Steering force control module	 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-35, "Component Parts Location".
3	ВСМ	 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-4, "BODY CONTROL SYSTEM: Component Parts Location".
4	тсм	Transmits the signal related to A/T control to chassis control module via CAN communication.
(5)	Steering angle sub control module	 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-35, "Component Parts Location".
6	Steering angle main control module	 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-35. "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)	 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-9. "Component Parts Location".
9	Chassis control module	 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 <u>DAS-393</u>, "Component Parts Location".

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COMPONENT PARTS

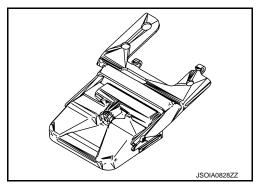
< SYSTEM DESCRIPTION >

[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	 Transmits LDP ON signal to chassis control module via chassis communication. For the details of the location, refer to <u>DAS-165</u>, "<u>Component Parts Location</u>".
12	Combination meter	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.	 Transmits ambient temperature signal to chassis control module via CAN communication. For the details of the location, refer to HAC-5, "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	 Transmits the setting state of Active Lane Control to chassis control module via CAN communication. For the details of the location, refer to <u>AV-14, "Component Parts Location"</u>.

Lane Camera Unit

- Lane camera unit detects the lane marker in travel lane and located above the inside mirror.
- Lane camera unit transmits the detected lane condition signal to chassis control module via chassis communication
- Lane camera unit is equipped with the diagnosis function that performs the diagnosis with CONSULT.



[ACTIVE LANE CONTROL]

SYSTEM

ACTIVE LANE CONTROL

ACTIVE LANE CONTROL: System Description

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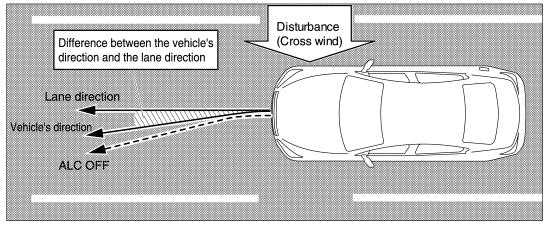
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OUTLINE

- 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.



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NOTE:

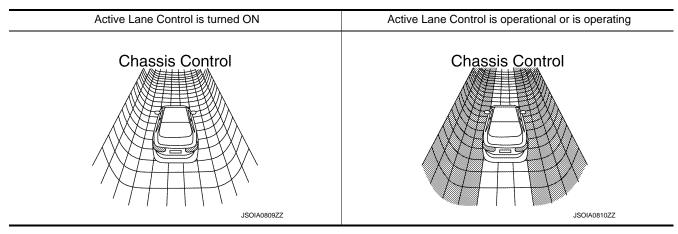
- When the vehicle approaches to the traffic lane, the vehicle is controlled by LDP system. Refer to <u>DAS-178.</u> "LDP: System <u>Description"</u>.
- For the details of "Direct Adaptive Steering", Refer to STC-40, "DIRECT ADAPTIVE STEERING: System Description".
- Active Trace Control can be set to ON (enabled) or OFF (disabled). Refer to <u>DAS-555</u>, "ACTIVE LANE <u>CONTROL</u>: Menu <u>Displayed by Pressing Each Switch"</u>.

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.

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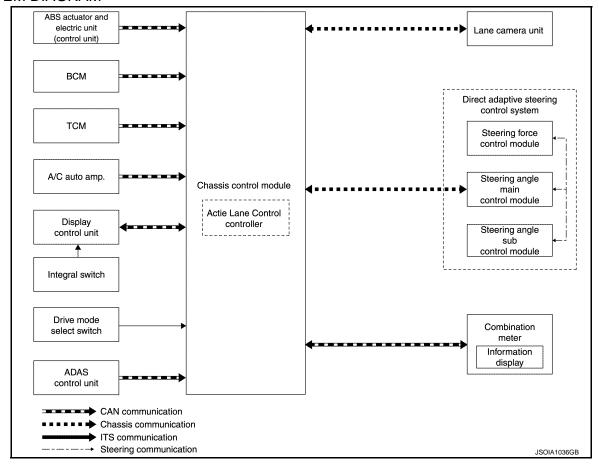
OPARATING AND CANCELLATION CONDITION

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	Both side lane marker is detecting.Driving in lane	Both side marker is 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 Trace 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 Trace Control may not function properly, depending on the situation. Refer to DAS-556, "Precautions for Active Lane Control".

SYSTEM DIAGRAM



INPUT/OUTPUT SIGNAL ITEM

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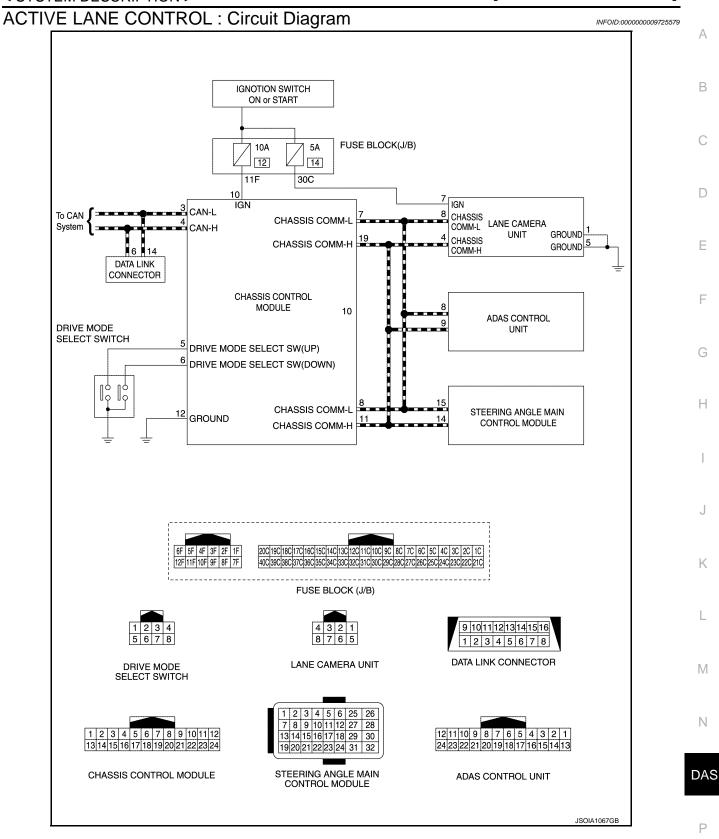
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Reception unit	Transmit unit		Signal name	Description
	Lane camera	Chassis	Detected lane condition signal	Receives detection results of lane marker
	unit	communi- cation	Lane camera unit condition signal	Receives lane camera unit condition
			Direct adaptive steering status signal	Receives status of Direct Adaptive Steering
	Steering angle main control	Chassis communi- cation	Direct adaptive steering malfunction signal	Receives a malfunction state of Direct Adaptive Steering
	module		Steering force actuator status signal	Receives torque state of steering force actuator.
			ALC permission signal	Receives a permission state of the ALC.
			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
	ABS actuator and electric unit	CAN com-	VDC operation signal	Receives an operational state of VDC
	(control unit)	munication	EBD operation signal	Receives an operational state of EBD
Chassis control			Vehicle speed signal (ABS)	Receives wheel speeds of front wheels
module			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
	ВСМ	CAN com- munication	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
	ТСМ	CAN com- munication	Shift position signal	Receives a selector lever position
	A/C auto amp.	CAN com- munication	Ambient temperature signal	Receives an ambient temperature
	Display control unit	CAN com- munication	System selection signal	Receives a selection state of each item in "Driver Assistance"
	ADAS control unit	Chassis communi- cation	LDP ON signal	Receives an ON/OFF state of LDP
	Drive mode se- lect switch	Hard wire	Drive mode select switch signal	Detects the snow mode selection.
Steering angle		Chassis	Steering angle request signal	Transmits steering angle request signal
main control module		communi- cation	Steering reaction force request signal	Transmits steering reaction force request signal
	Chassis control module	Chassis communication CAN communication	Vehicle speed signal	Receives a vehicle speed calculated by the chassis control module
Lane camera unit			Snow mode signal	Receives a selection state of each item in "Driver Assistance"
			Turn indicator signal	Receives a turn indicator signal received from BCM
Combination			Master warning signal	Transmits master warning signal to indicate.
meter			ALC system display signal	Transmits a signal to display a state of the system on the information display



ACTIVE LANE CONTROL: Fail-Safe (Chassis Control Module)

INFOID:0000000009785321

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
C1B90-01 C1B91-01	The following functions are suspended. • Active lane control function • LDW function • LDP function • Blind spot intervention function
C1B92-01	The following functions are suspended. • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function
C1B93-01	The following functions are suspended.
C1B94-01	 Active trace control function LDW function LDP function Blind spot intervention function
C1B95-01	The following functions are suspended. Active trace control function Active lane control function LDW function LDP function Blind spot intervention function Infiniti InTuition function Intelligent cruise control function
C1B96-01	The following functions are suspended. LDW function LDP function Blind spot intervention function Intelligent cruise control function
C1B98-01	Normal control
C1B99-01	The following functions are suspended. Active trace control function Active lane control function LDW function LDP function Blind spot intervention function Infiniti InTuition function
C1BA0-01	The following functions are suspended.
C1BA2-01	Active trace control function
C1BA5-01	Normal control
C1BA6-01	The following functions are suspended. • Infiniti InTuition function
C1BA7-01	The following functions are suspended. • Active lane control function
C1BA9-01	The following functions are suspended.
C1BAA-01	LDW function LDP function Blind spot intervention function
C1BAB-01	The following functions are suspended. • Active trace control function
C1BAC-01	The following functions are suspended.
C1BAD-01	LDP function
C1BAE-01	Blind spot intervention function
C1BAF-01	The following functions are suspended. • Blind spot intervention function
C1BB0-01	Normal control

SYSTEM

[ACTIVE LANE CONTROL]

DTC	Vehicle condition
C1BB2-01	The following functions are suspended.
C1BB3-01	Active trace control function Active lane control function
C1BB4-01	LDW function
	• LDP function
C1BB5-01	Blind spot intervention function Infiniti InTuition function
C1BB6-01	Normal control
C1BB7-01	
	The following functions are suspended. • Active trace control function
C1BB8-01	Active lane control function
C1BB9-01	LDW function LDP function
C1BBA-01	Blind spot intervention function
C1BBB-01	Infiniti InTuition function
C1BBC-01	Normal control
	The following functions are suspended.
	 Active trace control function Active lane control function
C1BBD-01	LDW function
	LDP function
	 Blind spot intervention function Infiniti InTuition function
C1BC0-01	The following functions are suspended.
	Active trace control function
C1BC1-01	Active lane control function
C1BC2-01	The following functions are suspended.
C1BC3-01	Active trace control function
C1BC4-01	Normal control
C1BC5-01	
C1BC6-01	The following functions are suspended. • Active trace control function
U1000-01	_ Active trace control function
	The following functions are suspended.
U1010-01	Active trace control function
	Active lane control function
U1A30-01	The following functions are suspended. • Active lane control function
U1A31-01	LDW function
U1A32-01	LDP function Rlind and intervention function
114 4 0 4 0 4	Blind spot intervention function The first
U1A34-01	The following functions are suspended. • Active trace control function
	Active lane control function
U1A35-01	LDW function LDP function
	 LDP function Blind spot intervention function
	The following functions are suspended.
	Active lane control function
U1A36-01	LDW function LDP function
	Blind spot intervention function
	The following functions are suspended.
U1A39-01	LDW function
	LDP function

SYSTEM

[ACTIVE LANE CONTROL]

DTC	Vehicle condition
U1A3B-01	The following functions are suspended. • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function
U1A3D-01	The following functions are suspended. • LDW function • LDP function • Blind spot intervention function
U1A3E-01	Normal control
U1A3F-01	The following functions are suspended. • Infiniti InTuition function
U1A42-01	The following functions are suspended.
U1A43-01	Active trace control function
U1A45-01	The following functions are suspended. • Active lane control function
U1A48-01	The following functions are suspended. • Active trace control function • LDW function • LDP function • Blind spot intervention function
U1A4A-01	The following functions are suspended. Active lane control function LDW function LDP function Blind spot intervention function Infiniti InTuition function
U1A4B-01	The following functions are suspended. • Active trace control function • Active lane control function • Infiniti InTuition function
U1A4C-01	Normal control
U1A4E-01	The following functions are suspended. • Active trace control function

OPERATION

< SYSTEM DESCRIPTION >

[ACTIVE LANE CONTROL]

OPERATION

ACTIVE LANE CONTROL

ACTIVE LANE CONTROL: Menu Displayed by Pressing Each Switch

INFOID:0000000009725580

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DESCRIPTION

Active Trace Control can be set to ON (enabled) or OFF (disabled) on the integral switch screen. In addition, function level (Low / High) can be set.

- · Low: Small steering feedback to aid lane tracking
- High: Additional steering feedback to aid lane tracking

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

SETTING FOLLOW

On the integral switch screen

- 1. Push the MENU button and touch "Drive Assistance" on the lower display.
- 2. Touch "Lane Assistance".
- When Active Lane Control is selected to ON (enabled) or OFF (disabled), touch "Active lane control".
 NOTE:

When "Lane Departure Prevention" is turned OFF, Active Lane Control is turned OFF automatically.

4. When setting of Active Lane Control is changed, touch "Active lane control setting" and select [Low] or [High].

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HANDLING PRECAUTION

Precautions for Active Lane Control

INFOID:0000000009725581

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

- 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 in certain roads, weather or driving conditions.
- Using Active Lane Control 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.
- When Active Lane Control is operating, avoid excessive or sudden steering maneuvers. Otherwise, you could lose control of the vehicle.
- 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 function properly under the following conditions, and do not use Active Lane Control:
- During bad weather (rain, fog, snow, wind, 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 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 other vehicle in front of the vehicle, 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 in or exiting from tollgates.
- When driving on roads with 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:0000000009725582

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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-573, "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

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	
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	

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DIAGNOSIS SYSTEM (LANE CAMERA UNIT)

[ACTIVE LANE CONTROL]

Monitored [Unit]		Description
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.
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

DIAGNOSIS SYSTEM (LANE CAMERA UNIT)

< SYSTEM DESCRIPTION >

[ACTIVE LANE CONTROL]

Monitored item [Unit]		Description	
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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< SYSTEM DESCRIPTION >

[ACTIVE LANE CONTROL]

DIAGNOSIS SYSTEM (CHASSIS CONTROL MODULE)

CONSULT Function

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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	 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-422, "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 switch operating status (Off: close / On: open).
BRAKE SWITCH 2	Off / On	Displays brake switch operating status (Off: open / On: close).
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.

< SYSTEM DESCRIPTION >

[ACTIVE	LANE	CONTRO	OL]

Item name	Indication/Unit	Display item
SHIFT POSITION	Off/P/R/N/D(A) /S/L/B/1-6/M 1-M8/A1-A6	Displays the shift position.
PRESS SENSOR	bar	Displays the brake fluid pressure.
DRIVE MODE SELECTOR	STD / SPORT / ECO / SNOW / PERSO	Displays the drive mode select switch selection 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 the operation request status to Direct Adaptive Steering.
ROAD DISTORTION*	1/m	Displays the road distortion rate radius.
ALC COMMAND ST ANG*	rad	Displays the steering command value to Direct Adaptive Steering.
ST WHL FORCE TORQUE*	Nm	Displays the estimated value for the steering wheel force torque.
ALC COMMAND ST WHL FORCE*	N	Displays the steering reaction force command value to Direct Adaptive Steering.
ADAS COND*	NORMAL / ABNOR	Displays ADAS control unit function status.
WIPER STATUS*	Off / LOW / HIGH / MALF	Displays wiper operating status.

^{*:} Models with Active Lane 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.

	tem Jnit]	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.

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< SYSTEM DESCRIPTION >

MODULE) [ACTIVE LANE CONTROL]	
oscription	

	tem Jnit]	Description
THROTTLE CONTROL	[NORMAL/INCORR/PREV/INPOSSI]	Displays the electric throttle status.
SHIFT POSITION	[Off/P/R/N/D(A)/S/L/B /1-6/M1-M8/A1-A6]	Displays the shift position.
BRAKE SWITCH 2	[Off / On]	Displays brake switch operating status (Off: close / On: open).
BRAKE SWITCH 1	[Off / On]	Displays brake switch operating status (Off: open / On: close).
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.
ACCELE PEDAL MALF	[NORMAL / ABNOR]	Displays the accelerator pedal 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.
DRV TRQ CTRL MODE	[INITIAL/NORMAL/STOP1/ STOP2/LIMIT1/PROHIBI]	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/de crease drive torque.
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/PERSO/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.
STRG SETTING	[STD / SPT / TOUR / SPT-L]	Displays steering characteristic.
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.

DIAGNOSIS SYSTEM

< SYSTEM DESCRIPTION >

FR TIRE DISP

RL TIRE DISP

RR TIRE DISP

TURN DISP

Item [Unit]

)N >	[ACTIVE LANE CONTROL
em nit]	Description
[DEF / 1]	Displays the status of front RH tire displayed on the information display in the combination meter.
[DEF / 1]	Displays the status of rear LH tire displayed on the information display in the combination meter.
[DEF / 1]	Displays the status of rear RH tire displayed on the information display in the combination meter.
[N STEER / LEFT / RIGHT]	Displays the turning direction of active trace control function on the information display in the combination meter.
[0-4]	Displays active/inactive status of Active Lane Control.
[INACT / ACT]	Display Active Lane Control operating status.
[Off / On]	Displays the operating status of active trace control function on the information display in the combination meter.
[Off / On]	Displays the operating status of Active Lane Control on the information display in the combination meter.
[Off / On]	Display Active Lane Control activation status.
[NOT / DETECT]	Displays the lane marker (LH) detection status.
[NOT / DETECT]	Displays the lane marker (RH) detection status.
[Off / On]	Displays the turn signal switch (LH) operating status.
[Off / On]	Displays the turn signal switch (RH) operating status.
[Off / LEFT / RIGHT / MALF]	Displays the turn signal switch operating status.
[Off / On]	Displays Direct Adaptive Steering operating status.

		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.
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.

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< SYSTEM DESCRIPTION >

[ACTIVE	LANE	CONTROL	.]
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	em nit]	Description	
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 CAN- CEL	[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.	

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.

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Test item	Operation	Description	
COMMAND STEERING ANGLE	Start	Transmits the steering command value 0 deg \rightarrow 0.00349 deg (hold it for proximately 2 seconds) \rightarrow 0 deg (hold it for approximately 2 seconds) \rightarrow 0.00349 deg (hold it for approximately 2 seconds) \rightarrow 0 deg to the steering force control module.	
COMMAND ST WHL FORCE	Start	Transmits the steering reaction force command value 0 N \rightarrow 0.6 N (hold for approximately 2 seconds) \rightarrow 0 N (hold it for approximately 2 seconds) \rightarrow 0 N (hold it for approximately 2 seconds) \rightarrow 0 N to the steering force co trol 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 DISD	On	Displays Active Lane Control active status on the information display in the combination meter.	
ALC DISP	Off	Displays Active Lane Control inactive status on the information display in the combination meter.	
EL TIDE DIOD	On	Displays the front LH tire on the information display in the combination meter.	
FL TIRE DISP	Off	Does not display the front LH tire on the information display in the combination meter.	
	On	Displays the front RH tire on the information display in the combination meter.	
FR TIRE DISP	Off	Does not display the front RH tire on the information display in the combination meter.	
	On	Displays the rear LH tire on the information display in the combination meter.	
RL TIRE DISP	Off	Does not display the rear LH tire on the information display in the combination meter.	
	On	Displays the rear RH tire on the information display in the combination meter.	
RR TIRE DISP	Off	Does not display the rear RH tire on the information display in the combination meter.	
-	NO DISP	Does not display the turning status on the information display in the combination meter.	
TURN DISP	LH	Displays the LH turning status on the information display in the combineter.	
	RH	Displays the RH turning status on the information display in the combination meter.	
	LEVEL 1		
ALC LEVEL	LEVEL 2	Displays Active Lane Control corresponding to the selected level on the in-	
ALC LEVEL	LEVEL 3	formation display in the combination meter.	
	LEVEL 4		
ALC OFTING	On	Displays Active Lane Control active status on the information display in the combination meter.	
ALC SETTING	Off	Displays Active Lane Control inactive status on the information display in the combination meter.	
ATO A DIOD	On	Displays active trace control function active status on the information display in the combination meter.	
ATC 1 DISP	Off	Displays active trace control function inactive status on the information display in the combination meter.	
	On	Displays active trace control function active status on the information display in the combination meter.	
ATC 2 DISP	Off	Displays active trace control function inactive status on the information dis-	

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< SYSTEM DESCRIPTION >

[ACTIVE LANE CONTROL]

Test item	Operation	Description	
ATC 4 DISP	On	Displays active trace control function active status on the information display in the combination meter.	
ATC 4 DISP	Off	Displays active trace control function inactive status on the information display in the combination meter.	

WORK SUPPORT

Work support items	Description
ERASE LAST DRIVER INFORMATION	Erases the information for the previous driver.
ERASE KEY ALLOTEMENT 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 • 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	
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	

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[ACTIVE LANE CONTROL]

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Cause of cancellation	Lane departure prevention	Blind spot intervention	Description	
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, IBA 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	
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.

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< SYSTEM DESCRIPTION >

[ACTIVE LANE CONTROL]

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.

< ECU DIAGNOSIS INFORMATION >

[ACTIVE LANE CONTROL]

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ECU DIAGNOSIS INFORMATION

LANE CAMERA UNIT

Reference Value

VALUES ON THE DIAGNOSIS TOOL

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
CAIN FIGHTEINF	When the temperature around the lane camera unit is high	High
VHCL SPD SE	While driving	Approximately equivalent to speedometer reading
	Turn signal lamp LH and RH blinking	LH/RH
TURN SIGNAL	Turn signal lamp LH blinking	LH
TORN SIGNAL	Turn signal lamp RH blinking	RH
	Turn signal lamps OFF	Off
LANE DETOTILL	Left side lane marker is detected	On
LANE DETCT LH	Left side lane marker is not detected	Off
LANE DETOT DU	Right side lane marker is detected	On
LANE DETCT RH	Right side lane marker is not detected	Off
CDOCC LANE LLI	The vehicle is crossing left side lane marker	On
CROSS LANE LH	The vehicle is not crossing left side lane marker	Off
CDOCC LANE DU	The vehicle is crossing right side lane marker	On
CROSS LANE RH	The vehicle is not crossing right side lane marker	Off
WARN LANE LH	The vehicle is traveling on the left side lane marker.	On
WARN LAINE LIT	The vehicle is traveling the center of traffic lane.	Off
WARN LANE RH	The vehicle is traveling on the right side lane marker.	On
WARN LANE RH	The vehicle is traveling the center of traffic lane.	Off
VALID POS LH	Lateral position for left side lane marker is valid	VLD
VALID POS LIT	Lateral position for left side lane marker is invalid.	INVLD
VALID POS RH	Lateral position for right side lane marker is valid.	VLD
VALID POS KIT	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.
LATERAL SPEED	Lane marker is detecting.	Displays lateral speed for the lane of the vehicle.

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< ECU DIAGNOSIS INFORMATION >

[ACTIVE LANE CONTROL]

Monitor Item	Condition	Value/Status	
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	
AIMINO DONE	Camera aiming is not adjusted	NG	
AIMING RESULT	Camera aiming is completed	OK	
AIMING KEGOLI	Camera aiming is not completed	NOK	
	No target is detected.	TARGET	
	Yaw angle beyond the allowable range is detected.	YAW	
	Roll angle beyond the allowable range is detected.	ROLL	
AIM NG REASON	Pitch angle beyond the allowable range is detected.	PITCH	
AIN NG REASON	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	_	
NITIALIZE	NOTE: The item is indicated, but not used	_	
RUNTIME AIMOFFSET (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 AIMOFFSET(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	
RUNTIME AIM COUNT	NOTE: The item is indicated, but not used	_	

< ECU DIAGNOSIS INFORMATION >

[ACTIVE LANE CONTROL]

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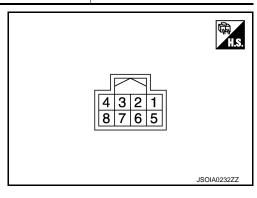
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Monitor Item	Condition	Value/Status
ROM WRITING COUNT	NOTE: The item is indicated, but not used	_
CAMERA START	Lane camera unit is starting.	START
CAMERA START	Lane camera unit starting is completed.	COMP
GIVE UP	Lane marker can be detected.	ОК
GIVE OF	Lane marker can not be detected.	NG
READY	Operating conditions are not satisfied.	NOT
READT	Operating conditions are satisfied.	COMP
	Lane marker is not detected	NONE
	Solid line is detected.	SOLID
	Dashed line is detected.	DASHED
MARK TYPE LH	Bott's dots is detected.	BOTT's
WARR THE LIT	Fork road (bifurcation) is detected.	FORK
	Slow down area is detected.	SLOW
	Tar strips is detected.	TAR
	Irregularity road is detected.	IRGLTY
	Lane marker is not detected	NONE
	Solid line is detected.	SOLID
	Dashed line is detected.	DASHED
MARK TYPE RH	Bott's dots is detected.	BOTT's
WARK LIPE KIT	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

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	nal No. color)	Description		Condition	Value	
+	_	Signal name	Input/ Output	Condition	(Approx.)	
1 (B)		Ground	_	_	0 V	
4 (L)		Chassis communication-H	_	_	_	
5 (B)	Ground	Ground	_	_	0 V	
7 (V)		Ignition power supply	Input	Ignition switch	12 V – 14 V	
8 (W)		Chassis communication-L	_	_	_	

Fail-safe (Lane Camera Unit)

INFOID:0000000009725585

FAIL-SAFE CONTROL BY DTC

If lane camera unit detects any DTC, following functions are suspended. And any warning is indicated on the combination meter.

Function	Indication
Active Lane Control	Chassis control warning is displayed
Lane Departure Warning (LDW)	LDW warning display (yellow) is displayed
Lane Departure Prevention (LDP)	LDP warning display (yellow) is displayed and a beep is sounded
Blind Spot Intervention	BSW/BSI warning display (yellow) is displayed and a beep is sounded

TEMPORARY DISABLED STATUS AT HIGH TEMPERATURE

- If the vehicle is parked in direct sunlight under high temperature conditions, following functions are suspended. And camera high temperature message is indicated on the combination meter.
- When interior temperature is reduced, and system warning is stopped. Then the system can be operated again by dynamic driver assistance switch ON.

Function	Indication	
Active Lane Control	_	
Lane Departure Warning (LDW)	Camera high temperature message is displayed. Then LDW warning display (yellow) is blinked	
Lane Departure Prevention (LDP)	Camera high temperature message is displayed. Then LDP warning display (yellow) is blinked	
Blind Spot Intervention	Camera high temperature message is displayed. Then Blind Spot Intervention warning display (yellow) is blinked	

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.

Priority	Detected items (DTC)
1	U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN)
2	C1B01: CAM AIMING INCMP C1B03: ABNRML TEMP DETECT
3	C1B00: CAMERA UNIT MALF

< ECU DIAGNOSIS INFORMATION >

[ACTIVE LANE CONTROL]

DTC Index

×: Applicable

DTC		Warning display			Fail-safe				
		Chassis control warning message	LDW system warning	LDP system warning	Blind Spot Intervention system warning	Active Lane Control	LDW/LDP	Blind Spot Intervention	Reference
C1B00	CAMERA UNIT MALF	ON	ON	ON	ON	×	×	×	DAS-613
C1B01	CAM AIMING INCMP	ON	ON	ON	ON	×	×	×	DAS-614
C1B03	ABNRML TEMP DETECT	_	Message ↓ Blink	Message ↓ OFF	Message ↓ OFF	×	×	×	DAS-615
U1000	CAN COMM CIRCUIT	ON	ON	ON	ON	×	×	×	DAS-611
U1010	CONTROL UNIT (CAN)	ON	ON	ON	ON	×	×	×	DAS-612

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[ACTIVE LANE CONTROL]

CHASSIS CONTROL MODULE

Reference Value

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	
	When chassis control module is normal	Off	
CONTROL MODULE MALF	When chassis control module malfunction is detected	On	
CAN DIAG STATUS	When diagnosis of CAN communication mal- function is detected	Off	
CAN DIAG STATUS	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 Stopped	0 km/h (0 MPH)	
VEHICLE SPEED	Driving*	Almost same reading as speedometer (within ±10%)	
ED WILLEL ODEED	Vehicle stopped	0 rpm	
FR WHEEL SPEED	Driving [*]	Increases according to vehicle speed	
	Vehicle stopped	0 rpm	
FL WHEEL SPEED	Driving*	Increases according to vehicle speed	
	Vehicle stopped	0 rpm	
RR WHEEL SPEED	Driving*	Increases according to vehicle speed	
	Vehicle stopped	0 rpm	
RL WHEEL SPEED	Driving [*]	Increases according to vehicle speed	
	When driving straight	0±3.5 deg	
STEERING ANG SENSOR	When steering wheel is steered to RH by 90°	Approx. +90 deg	
	When steering wheel is steered to LH by 90°	Approx. –90 deg	
	Vehicle stopped	Approx. 0 G	
DECEL G SENSOR	When during acceleration	Positive value	
	When during deceleration	Negative value	
	Vehicle stopped	Approx. 0 G	
SIDE G SENSOR	When right turn	Negative value	
	When left turn	Positive value	
	Vehicle stopped	Approx. 0 deg/s	
YAW RATE SENSOR	When right turn	Negative value	
	When left turn	Positive value	
ACCELE PEDAL POSITION	When accelerator pedal is released	0%	
ACCELE FEDAL POSITION	When accelerator pedal is depressed	0 – 100%	

CHASSIS CONTROL MODULE

< ECU DIAGNOSIS INFORMATION >

[ACTIVE LANE CONTROL]

Monitor item	Condition	Reference values in normal operation
	When electric throttle control actuator is normal	NORMAL
	When the electric throttle control actuator does not achieve the requirement (measured value is inaccurate)	INCORR
THROTTLE CONTROL	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
NDAKE OM/TOLLO	When brake pedal is not depressed	Off
BRAKE SWITCH 2	When brake pedal is depressed	On
DAKE OMITOUA	When brake pedal is depressed	Off
BRAKE SWITCH 1	When brake pedal is not depressed	On
DECC CENCOD	When brake pedal is not depressed	Approx. 0 bar
PRESS SENSOR	when brake pedal is depressed	0 – 255 bar
	When ABS function is normal	NORMAL
ABS	When ABS function malfunction is detected	ABNOR
	When ABS function is normal	NORMAL
ABS MALF	When ABS function malfunction is detected	ABNOR
	When EBD function is normal	NORMAL
EBD	When EBD function malfunction is detected	ABNOR
	When accelerator pedal is normal	NORMAL
ACCELE PEDAL MALF	When accelerator pedal malfunction is detected	ABNOR
700	When TCS function is normal	NORMAL
CS	When TCS function malfunction is detected	ABNOR
OO MALE	When TCS function is normal	NORMAL
CS MALF	When TCS function malfunction is detected	ABNOR
/DO	When VDC function is normal	NORMAL
/DC	When VDC function malfunction is detected	ABNOR
DOM	When VDC function is normal	NORMAL
DC MALF	When VDC function malfunction is detected	ABNOR
(DO OFF OM/TOL)	When VDC OFF switch is OFF	Off
/DC OFF SWITCH	When VDC OFF switch is ON	On
	When parking brake is inactive	Off
PARKING BRAKE	When parking brake is active	On
	When correction coefficients are initialized	INITIAL
	When correction is executed	NORMAL
	When correction is stopped (computing is impossible)	STOP 1
DRV TRQ CTRL MODE	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	
DRV INQ CIRL PERIVIS I	When correction is not permitted (basic requirement)	NO PER	
DRV TRQ CTRL PERMIS 2	When correction is permitted (system requirement)	PERMIS	
DIV TRQ CTRE FERIVIS 2	When correction is not permitted (system requirement)	NO PER	
DRV TRQ CTRL STOP	When correction is requested to stop	REQ	
DRV IRQ CIRL STOP	When correction is not requested to stop	NO REQ	
DDV/TDO CTDL DDOUIDIT	When prohibition of correction is requested	REQ	
DRV TRQ CTRL PROHIBIT	When prohibition of correction is not requested	NO REQ	
	When drive mode select switch is "STAN-DARD" mode	STD	
	When drive mode select switch is "SPORT" mode	SPORT	
DRIVE MODE SELECTOR	When drive mode select switch is "SNOW" mode	SNOW	
	When drive mode select switch is "ECO" mode	ECO	
	When drive mode select switch is "PERSON-AL" mode	PERSO	
	When drive mode select switch is not select	NOT SET	
LOG-IN PERMIS	When log-in is possible	NO PER	
LOG-IN PERIVIS	When log-in is not possible	PERMIS	
	When Intelligent Key is not linked	Off	
I-KEY LINK	When Intelligent Key is linked	On	
	When logged in with "USER A" Intelligent Key	USER A	
	When logged in with "USER B" Intelligent Key	USER B	
USER	When logged in with "USER C" Intelligent Key	USER C	
	When logged in with an Intelligent Key without user registration	GUEST	
	When the engine/transmission setting with drive mode select switch is in "SPORT" mode	SPORT	
ENGINE/TM SETTING	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	
	When the engine/transmission setting with drive mode select switch is in "SNOW" mode	SNOW	

< ECU DIAGNOSIS INFORMATION >

[ACTIVE LANE CONTROL]

Monitor item	Condition	Reference values in normal operation
	When the steering system setting with drive mode select switch is in "STANDARD" mode (Effort: Middle /Response: Middle)	STD
STRG SETTING	When the steering system setting with drive mode select switch is in "SPORT" mode (Effort: Heavy / Response: Quick)	SPT
STRG SETTING	When the steering system setting with drive mode select switch is in "TOURING" mode (Effort: Light / Response: Casual)	TOUR
	When the steering system setting with drive mode select switch is in "SPORT-L" mode (Effort: Middle / Response: Quick)	SPT-L
	When Active Lane Control setting with drive mode select switch is "OFF"	Off
ALC SETTING	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
ATC SETTING	When active trace control function setting with drive mode select switch is "OFF"	Off
7110 02111110	When Active Lane Control setting with drive mode select switch is "ON"	On
	When drive mode select switch is "STAN-DARD" mode	STD
	When drive mode select switch is "SNOW" mode	SNOW
COMBI METER	When drive mode select switch is "PERSON-AL" mode	PERSO
	When drive mode select switch is "SPORT" mode	SPORT
	When drive mode select switch is "ECO" mode	
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
The Biol	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

< ECU DIAGNOSIS INFORMATION >

[ACTIVE LANE CONTROL]

Monitor item	Condition	Reference values in normal operation
DD TIDE DISD	When the rear RH tire is not displayed on the information display in the combination meter	DEF
RR TIRE DISP	When the rear RH tire is displayed on the information display in the combination meter	1
	When the straight-ahead status is displayed on the information display in the combination meter	N STEER
TURN DISP	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
	When Active Lane Control is turned ON.	0
ALC LEVEL	When Active Lane Control is operational or is operating.	1 – 4
ALC STATUS	When Active Lane Control is OFF	INACT
ALC STATUS	When Active Lane Control is ON	ACT
ATC DISD	When the activation of active trace control function is not displayed on the information display in the combination meter	Off
ATC DISP	When the activation of active trace control function is displayed on the information display in the combination meter	On
ALC DICD	When the activation of Active Lane Control is not displayed on the information display in the combination meter	Off
ALC DISP	When the activation of Active Lane Control is displayed on the information display in the combination meter	On
ALC OVOTEM	When Active Lane Control is OFF	Off
ALC SYSTEM	When Active Lane Control is ON	On
LANE MADIZED (LLI)	When left side lane marker is not detected.	NOT
LANE MARKER (LH)	when left side lane marker is detected.	DETECT
LANG MADIZED (DU)	When right side lane marker is not detected.	NOT
LANE MARKER (RH)	When right side lane marker is detected.	DETECT
TUDN SIGNAL /LU\	When turn signal lamps is OFF	Off
TURN SIGNAL (LH)	When turn signal lamp LH is blinking	On
TUDNI CICNAL (DLI)	When turn signal lamps is OFF	Off
TURN SIGNAL (RH)	When turn signal lamp RH is blinking	On
	When turn signal lamps is OFF	Off
	When turn signal lamp LH is blinking	LEFT
TURN SIGNAL SWITCH	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
DAGI	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

< ECU DIAGNOSIS INFORMATION >

[ACTIVE LANE CONTROL]

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Monitor item	Condition	Reference values in normal operation
COMMAND OT ANO	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
COMMAND ST ANG	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
	When driving straight	Approx. 0 rad
ST PINION ANG	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
31 WHL FORCE TORQUE	When steering wheel is steered	MAX ± 32 N·m
	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
COMMAND ST WHL FORCE	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
EBW BIOI	When LDW function malfunction is detected	MALF
LDP DISP	When LDP function is ON	On
	When LDP function malfunction is detected	MALF
	When blind spot intervention function is ON	On
BSI DISP	When blind spot intervention function malfunction is detected	MALF
	When steering switch is normal	OK
ST SWITCH COND	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
NDNO OUND	When ADAS control malfunction is detected	ABNOR
COLLISION WARN	When the collision warning is OFF	Off
	When the collision warning is ON	On
ICC ACTTIVE	When ICC function is inactive	Off
	When ICC function is active	On
IBA ACTIVE	When forward emergency brake function is inactive	Off
IDA ACTIVE	When forward emergency brake function is active	On
DR BUZZER STATUS	Displayed but not used	_
I DW COND	When LDW function is ON	On
LDW COND	When LDW function malfunction is detected	MALF

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< ECU DIAGNOSIS INFORMATION >

[ACTIVE LANE CONTROL]

Monitor item	Condition	Reference values in normal operation	
LDP COND	When LDP function is ON	On	
LDF COND	When LDP function malfunction is detected	MALF	
	When blind spot intervention function is ON	On	
BSI COND	When blind spot intervention function malfunction is detected	MALF	
	When not cancel	NONE	
	When slippery road	SLIP	
LDP BRAKE CANCEL	When drive mode select switch is "SNOW" mode	SNOW	
	When VDC OFF switch is OFF	VDC OF	
	When not cancel	NONE	
	When slippery road	SLIP	
BSI BRAKE CANCEL	When drive mode select switch is "SNOW" mode	SNOW	
	When VDC OFF switch is OFF	VDC OF	
	When Lane camera unit is normal	NORMAL	
CAMERA COND	When Lane camera unit malfunction is detected.	ABNOR	
CAMERA TEMP COND	When the temperature around lane camera unit is normal	NORMAL	
CAMERA TEMP COND	When the temperature around the lane camera unit is high	ABNOR	
	When communication between chassis control module and lane camera unit is normal	NORMAL	
CAMERA COMM COND	When communication between chassis control module and lane camera unit malfunction is detected	ABNOR	
CAMERA AIMING	When lane camera aiming is completed	COMP	
CAMERA AIMING	When lane camera aiming is not completed	INCOMP	
CAMERA HIGH TEMP (LDW)	When the temperature around lane camera unit is normal. (LDW ON)	NORMAL	
CAMERATION TEMP (LDW)	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	
CAMERA HIGH TEMP (LDP)	When the temperature around the lane camera unit is high. (LDP ON)	ABNOR	
CAMEDA HICH TEMP (PCI)	When the temperature around lane camera unit is normal. (Blind spot intervention ON)	NORMAL	
CAMERA HIGH TEMP (BSI)	When the temperature around the lane camera unit is high. (Blind spot intervention ON)	ABNOR	
	When the side radar is normal	NORMAL	
SIDE RADAR BLOCK CANCEL	Side radar is blocked and temporarily deactivated.	BLOCK	
DOLLAMD DEO /LLN	When blind spot intervention function (LH) is inactive	Off	
BSI LAMP REQ (LH)	When blind spot intervention function (LH) is active	On	

< ECU DIAGNOSIS INFORMATION >

[ACTIVE LANE CONTROL]

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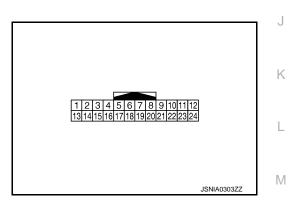
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Monitor item	Condition	Reference values in normal operation
BSI LAMP REQ (RH)	When blind spot intervention function (RH) is inactive	Off
BSI LAIMIF INEQ (INTI)	When blind spot intervention function (RH) is active	On
LANE DEPARTURE DISP (LH)	When not deviating the LH side lane	NO DISP
EARL DEFAILTOILE DIOI (EII)	When deviating the LH side lane	DEVIAT
LANE DEPARTURE DISP (RH)	When not deviating the RH side lane	NO DISP
LANE DEPARTORE DISP (RH)	When deviating the RH side lane	DEVIAT
LDP/BSI ACTIVE	When LDP function and blind spot intervention function are inactive	Off
LDF/B3I ACTIVE	When LDP function or blind spot intervention function are active	On
	When diagnosis of ADAS control unit is normal	NORMAL
ADAS COND	When diagnosis of ADAS control unit malfunction is detected	ABNOR
	When driver assistance buzzer is normal	NORMAL
DR BUZZER COND	when driver assistance buzzer malfunction is detected	ABNOR
OUTSIDE TEMP	Ignition switch ON	(-40°C) - (+72°C)
	When front wiper is inactive	Off
WIPER STATUS	When front wiper is active (low and intermittent)	LOW
	When front wiper is active (high)	HIGH
	When front wiper malfunction is detected	MALF

^{*:} Check tire pressure under normal conditions.

TERMINAL LAYOUT



PHYSICAL VALUES

DAS

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	nal No. e color)	Description		Condition		Value
+	_	Signal name	Input/ Output		Condition	(Approx.)
3 (R) ^{*1} (P) ^{*2}		CAN-L	_	_	_	_
4 (L)		CAN-H	_	_	_	_
5		DDIVE MODE OF FOT OWITCH (UD)	1	Ignition	Up switch is not pressed	6.4 – 16 V
(V)		DRIVE MODE SELECT SWITCH (UP)	Input	switch ON	Up switch is pressed	0 V
6 (G)		DRIVE MODE SELECT SWITCH (DOWN)	Input	Ignition switch	Down switch is not pressed	6.4 – 16 V
(G)		, ,	ON	Down switch is pressed	0 V	
7 (W)	Ground	CHASSIS COMM-L	_	_	_	_
8 (W)		CHASSIS COMM-L	_	_	_	_
10 (G)		IGN	Input	ı	gnition switch ON	6.4 – 16 V
11 (L)		CHASSIS COMM-H	_	_	_	_
12 (B)		GROUND	_	Ignition switch ON	_	0 V
19 (L)		CHASSIS COMM-H	_	_	_	_

^{*1:} With Gateway

Fail-Safe (Chassis Control Module)

INFOID:0000000009729283

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
C1B90-01	The following functions are suspended.
C1B91-01	 Active lane control function LDW function LDP function Blind spot intervention function
C1B92-01	The following functions are suspended. • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function
C1B93-01	The following functions are suspended.
C1B94-01	 Active trace control function LDW function LDP function Blind spot intervention function

^{*2:} Without Gateway

< ECU DIAGNOSIS INFORMATION >

[ACTIVE LANE CONTROL]

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DTC	Vehicle condition
C1B95-01	The following functions are suspended. Active trace control function Active lane control function LDW function LDP function Blind spot intervention function Infiniti InTuition function Intelligent cruise control function
C1B96-01	The following functions are suspended. LDW function LDP function Blind spot intervention function Intelligent cruise control function
C1B98-01	Normal control
C1B99-01	The following functions are suspended. Active trace control function Active lane control function LDW function LDP function Blind spot intervention function Infiniti InTuition function
C1BA0-01	The following functions are suspended.
C1BA2-01	Active trace control function
C1BA5-01	Normal control
C1BA6-01	The following functions are suspended. Infiniti InTuition function
C1BA7-01	The following functions are suspended. • Active lane control function
C1BA9-01	The following functions are suspended.
C1BAA-01	LDW function LDP function Blind spot intervention function
C1BAB-01	The following functions are suspended. • Active trace control function
C1BAC-01	The following functions are suspended.
C1BAD-01	LDP function
C1BAE-01	Blind spot intervention function
C1BAF-01	The following functions are suspended. • Blind spot intervention function
C1BB0-01	Normal control
C1BB2-01	The following functions are suspended.
C1BB3-01	Active trace control function Active lane control function
C1BB4-01	LDW function
C1BB5-01	 LDP function Blind spot intervention function Infiniti InTuition function
C1BB6-01	Normal control
C1BB7-01	The following functions are suspended.
C1BB8-01	Active trace control function Active lane control function
C1BB9-01	LDW function
C1BBA-01	LDP function Blind spot intervention function
C1BBB-01	Infiniti InTuition function
C1BBC-01	Normal control

[ACTIVE LANE CONTROL]

DTC	<u> </u>	Vehicle condition
C1BBD-01	The following functions are suspended. • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function • Infiniti InTuition function	
C1BC0-01	The following functions are suspended.	
C1BC1-01	Active trace control function Active lane control function	
C1BC2-01	The following functions are suspended.	
C1BC3-01	Active trace control function	
C1BC4-01	Normal control	
C1BC5-01		
C1BC6-01	The following functions are suspended. Active trace control function	
U1000-01	7,64,76 (14,65) 55,111,61,61	
U1010-01	The following functions are suspended. • Active trace control function • Active lane control function	
U1A30-01	The following functions are suspended.	
U1A31-01	Active lane control function LDW function	
U1A32-01	LDP function Blind spot intervention function	
U1A34-01	The following functions are suspended.	
U1A35-01	 Active trace control function Active lane control function LDW function LDP function Blind spot intervention function 	
U1A36-01	The following functions are suspended. • Active lane control function • LDW function • LDP function • Blind spot intervention function	
U1A39-01	The following functions are suspended. • LDW function • LDP function • Blind spot intervention function	
U1A3B-01	The following functions are suspended. • Active trace control function • Active lane control function • LDW function • LDP function • Blind spot intervention function	
U1A3D-01	The following functions are suspended. • LDW function • LDP function • Blind spot intervention function	
U1A3E-01	Normal control	
U1A3F-01	The following functions are suspended. Infiniti InTuition function	
U1A42-01	The following functions are suspended.	_
U1A43-01	Active trace control function	
U1A45-01	The following functions are suspended. • Active lane control function	

< ECU DIAGNOSIS INFORMATION >

[ACTIVE LANE CONTROL]

INFOID:0000000009729284

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DTC	Vehicle condition	
U1A48-01	The following functions are suspended. • Active trace control function • LDW function • LDP function • Blind spot intervention function	В
U1A4A-01	The following functions are suspended. Active lane control function LDW function LDP function Blind spot intervention function Infiniti InTuition function	C
U1A4B-01	The following functions are suspended. • Active trace control function • Active lane control function • Infiniti InTuition function	E
U1A4C-01	Normal control	
U1A4E-01	The following functions are suspended. • Active trace control function	F

DTC Inspection Priority Chart

When multiple DTCs are displayed simultaneously, check them one by one according to the following priority liet

Priority	Detected item (DTC)	
1	U1000-01 CAN COMM CIRCUIT U1010-01 CONTROL UNIT (CAN)	
2	U1A30-01 DAST COMM U1A31-01 DAST COMM U1A32-01 CAMERA COMM U1A34-01 BRAKE CONTROL COMM U1A35-01 BRAKE CONTROL COMM U1A36-01 BCM/IPDM COMM U1A39-01 COMBINATION METER COMM U1A39-01 TCM COMM U1A3B-01 TCM COMM U1A3F-01 ADAS COMM U1A3F-01 AV COMM U1A3F-01 AV COMM U1A42-01 STEERING ANGLE SENSOR COMM U1A43-01 STEERING ANGLE SENSOR COMM U1A48-01 ECM/HPCM COMM U1A48-01 CONTROL MODULE (CAN) U1A4B-01 CONTROL MODULE (CAN) U1A4E-01 ECM/HPCM COMM	
3	C1BBD-01 VARIANT CODING	
4	C1B98-01 ADAS SYSTEM	

[ACTIVE LANE CONTROL]

Priority	Detected item (DTC)
5	C1B90-01 DAST SYSTEM C1B91-01 CAMERA SYSTEM C1B92-01 BRAKE CONTROL SYSTEM C1B93-01 ENGINE/HEV SYSTEM C1B93-01 TM SYSTEM C1B96-01 ADAS SYSTEM C1B96-01 ADAS SYSTEM C1BA0-01 ADAS/CHASSIS CTRL BRAKE SYS C1BA2-01 STEERING ANGLE SENSOR C1BA2-01 STEERING ANGLE SENSOR C1BA5-01 ADAS/CHASSIS CTRL ENGINE SYS C1BA6-01 AV SYSTEM C1BA7-01 ALC SYSTEM C1BA9-01 NP RANGE C1BA9-01 NP RANGE C1BA8-01 GEAR POSITION C1BAB-01 STOP LAMP SW C1BAC-01 OPERATION SW CIRC C1BAC-01 OPERATION SW CIRC C1BAC-01 ACCELERATER PEDAL C1BAE-01 BSW SYSTEM C1BAE-01 BSW SYSTEM C1BB0-01 TR WHEEL SENSOR C1BC1-01 FL WHEEL SENSOR C1BC2-01 RR WHEEL SENSOR C1BC2-01 RL WHEEL SENSOR C1BC3-01 RL WHEEL SENSOR C1BC5-01 SIDE G SENSOR C1BC5-01 SIDE G SENSOR C1BC5-01 SIDE G SENSOR
6	C1BB5-01 IGN POWER SUPPLY C1BB6-01 IGN POWER SUPPLY
7	 C1B95-01 CONTROL MODULE C1B99-01 CONTROL MODULE C1BB2-01 CONTROL MODULE C1BB3-01 CONTROL MODULE C1BB4-01 CONTROL MODULE C1BB7-01 CONTROL MODULE C1BB8-01 CONTROL MODULE C1BB9-01 CONTROL MODULE C1BBA-01 CONTROL MODULE C1BBA-01 CONTROL MODULE C1BBB-01 CONTROL MODULE C1BBC-01 CONTROL MODULE

DTC Index

DTC	Display item	Refer to
C1B90-01	DAST SYSTEM	DAS-436, "DTC Description"
C1B91-01	CAMERA SYSTEM	DAS-438, "DTC Description"
C1B92-01	BRAKE CONTROL SYSTEM	DAS-440, "DTC Description"
C1B93-01	ENGINE/HEV SYSTEM	DAS-442, "DTC Description"
C1B94-01	TM SYSTEM	DAS-444, "DTC Description"
C1B95-01	CONTROL MODULE	DAS-446, "DTC Description"
C1B96-01	ADAS SYSTEM	DAS-447, "DTC Description"
C1B98-01	ADAS SYSTEM	DAS-449, "DTC Description"
C1B99-01	CONTROL NODULE	DAS-451, "DTC Description"
C1BA0-01	ADAS/CHASSIS CTRL BRAKE SYS	DAS-452, "DTC Description"
C1BA2-01	STEERING ANGLE SENSOR	DAS-454, "DTC Description"
C1BA5-01	ADAS/CHASSIS CTRL ENGINE SYS	DAS-455, "DTC Description"
C1BA6-01	AV SYSTEM	DAS-456, "DTC Description"

< ECU DIAGNOSIS INFORMATION >

[ACTIVE LANE CONTROL]

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DTC	Display item	Refer to
C1BA7-01	ALC SYSTEM	DAS-458, "DTC Description"
C1BA9-01	NP RANGE	DAS-460, "DTC Description"
C1BAA-01	GEAR POSITION	DAS-462, "DTC Description"
C1BAB-01	STOP LAMP SW	DAS-464, "DTC Description"
C1BAC-01	OPERATION SW CIRC	DAS-466, "DTC Description"
C1BAD-01	ACCELERATER PEDAL	DAS-468, "DTC Description"
C1BAE-01	ACCELERATER PEDAL	DAS-470, "DTC Description"
C1BAF-01	BSW SYSTEM	DAS-472, "DTC Description"
C1BB0-01	DR BUZZER SYSTEM	DAS-474, "DTC Description"
C1BB2-01	CONTROL MODULE	DAS-475, "DTC Description"
C1BB3-01	CONTROL MODULE	DAS-476, "DTC Description"
C1BB4-01	CONTROL MODULE	DAS-477, "DTC Description"
C1BB5-01	IGN POWER SUPPLY	DAS-478, "DTC Description"
C1BB6-01	IGN POWER SUPPLY	DAS-481, "DTC Description"
C1BB7-01	CONTROL MODULE	DAS-483, "DTC Description"
C1BB8-01	CONTROL MODULE	DAS-484, "DTC Description"
C1BB9-01	CONTROL MODULE	DAS-485, "DTC Description"
C1BBA-01	CONTROL MODULE	DAS-486, "DTC Description"
C1BBB-01	CONTROL MODULE	DAS-487, "DTC Description"
C1BBC-01	CONTROL MODULE	DAS-488, "DTC Description"
C1BBD-01	VARIANT CODING	DAS-489, "DTC Description"
C1BC0-01	FR WHEEL SENSOR	DAS-490, "DTC Description"
C1BC1-01	FL WHEEL SENSOR	DAS-492, "DTC Description"
C1BC2-01	RR WHEEL SENSOR	DAS-494, "DTC Description"
C1BC3-01	RL WHEEL SENSOR	DAS-496, "DTC Description"
C1BC4-01	DECEL G SENSOR	DAS-498, "DTC Description"
C1BC5-01	SIDE G SENSOR	DAS-499, "DTC Description"
C1BC6-01	PRESSURE SENSOR	DAS-501, "DTC Description"
U1000-01	CAN COMM CIRCUIT	DAS-502, "DTC Description"
U1010-01	CONTROL UNIT (CAN)	DAS-503, "DTC Description"
U1A30-01	DAST COMM	DAS-504, "DTC Description"
U1A31-01	DAST COMM	DAS-507, "DTC Description"
U1A32-01	CAMERA COMM	DAS-509, "DTC Description"
U1A34-01	BRAKE CONTROL COMM	DAS-511, "DTC Description"
U1A35-01	BRAKE CONTROL COMM	DAS-513. "DTC Description"
U1A36-01	BCM/IPDM COMM	DAS-515, "DTC Description"
U1A39-01	COMBINATION METER COMM	DAS-517, "DTC Description"
U1A3B-01	TCM COMM	DAS-519, "DTC Description"
U1A3D-01	ADAS COMM	DAS-521, "DTC Description"
U1A3E-01	ADAS COMM	DAS-523, "DTC Description"
U1A3F-01	AV COMM	DAS-525, "DTC Description"
U1A42-01	STEERING ANGLE SENSOR COMM	DAS-527, "DTC Description"
U1A43-01	STEERING ANGLE SENSOR COMM	DAS-529, "DTC Description"
U1A45-01	DR BUZZER COMM	DAS-531, "DTC Description"

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< ECU DIAGNOSIS INFORMATION >

[ACTIVE LANE CONTROL]

DTC	Display item	Refer to
U1A48-01	ECM/HPCM COMM	DAS-533, "DTC Description"
U1A4A-01	CONTROL MODULE (CAN)	DAS-535, "DTC Description"
U1A4B-01	CONTROL MODULE (CAN)	DAS-536, "DTC Description"
U1A4C-01	A/C AUTO AMP. COMM	DAS-537, "DTC Description"
U1A4E-01	ECM/HPCM COMM	DAS-539, "DTC Description"

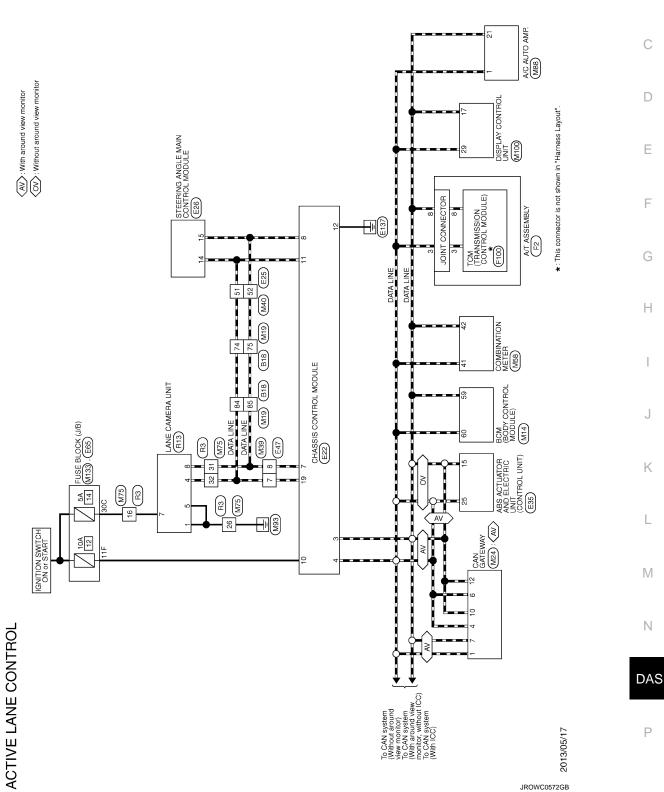
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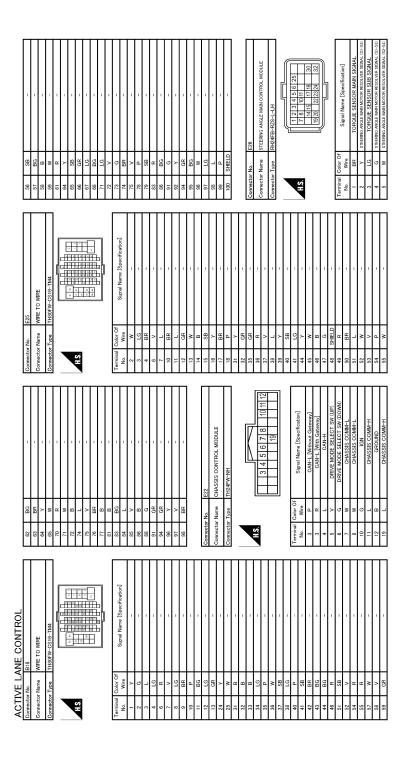
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WIRING DIAGRAM

ACTIVE LANE CONTROL

Wiring Diagram





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Gonnactor No F65	1		Connector Type TH12FW-NH		<u> </u>	\$ E	6F 5F 3F 2F 1F	408448 SF 7F	5		la O	Wire	10 W = 10 C	7 ≥	H	2F BR -	3F P	5F P -		7F R -	8F L -	9F L -		Commonton No E9	т	Connector Name A/I ASSEMBLY	Connector Type RK10FG-DGY	<			(5 4 3 2 1	10 8 7 8	-11		lar C		g (2 P BALLERY PUWER SUPPLY (MEMORY BACK-UP.)	-1			_	BACK-U	8 P CAN-L
30 R VDC OFF SW SIGNAL	SHIELD	34 G IGN		Gonnector No.	Γ	Connector Name WIRE 10 WIRE	Connector Type TH32MW-NH					3 4 7 8	7.118		Terminal Color Of	No. Wire Signal Name [Specification]	1 G	2 v –	3 L		4 R -[With Gateway]	7	+	2 3	╀	H	Н	7	29 W	31 20	╀	ł												
ACTIVE LANE CONTROL	TORQUE SENSOR GROUND	TORQUE SENSOR POWER SUPPLY	R STEERING ANGLE MAIN MOTOR RESOLVER SIGNAL (R1-R2)	1	CHASSIS COMMUNICATION-L	BG BACK UP SIGNAL (FROM STEERING ANGLE SUB CONTROL MODULE)	SB BACK UP SIGNAL (FROM STEERING FORCE CONTROL MODULE)	FLEXRAY COMMUNICATION-H	FLEXRAY C	GR BACK UP SIGNAL (TO STEERING ANGLE SUB CONTROL MODULE)	CAN WAKE UP	BACK UP SIGNAL (TO STEERING FORCE CONTROL MODULE)	IGNITION POWER SUPPLY, IFROM STEERING ANGLE SUB CONTROL MODULES COOLINID	GR GROUND			E35	Connector Name ARS ACTUATOR AND FLECTRIC UNIT (CONTROL UNIT)		SAZ30FB-SJZ4-U			20 00		1 5 7 8 9 10 18 3			Ferminal Color Of Signal Name [Specification]	Wire	ONDONO	G VALVE BATTERY		S	GR RR LH WHEEL SENSOR SIGNAL	똢	+	GR FR RH WHEEL SENSOR POWER SUPPLY	VACUUM SENSOR SIGNAL	Ξ.	RR RH WHEEL SENSOR SIGNAL	RR RH WHEEL SENSOR POWER SUPPLY	4	BG FR LH WHEEL SENSOR POWER SUPPLY	CAN-H

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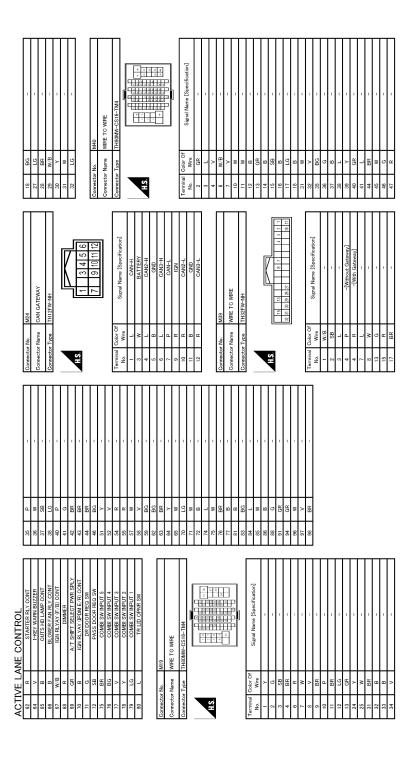
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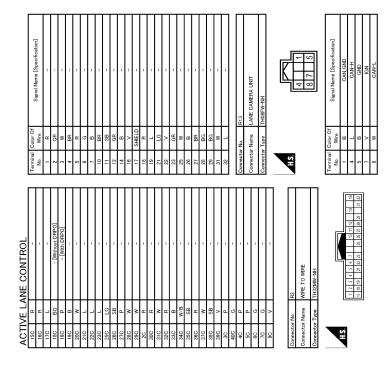
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1	44	Y FUEL LEVEL SENSOR GROUND	OR GROUND	Connector No.	or No.	M88	16 SB	AV COMM (L)
	45	W BATTERY POWER SUPPLY	SUPPLY	,	Г	0.00	17 P	CAN-L
1	46	R IGNITION SIGNAL	SNAL	Connec	Connector Name	A/C AUTO AMP.	19 R	DIMMER SIGNAL
	47	LG AV COMMUNICATION SIGNAL (H)	N SIGNAL (H)	Connec	or Type	Connector Type TH40FW-NH	20 BR	REVERSE SIGNAL
	48	L	N SIGNAL (L)				├	GND
	21	BR FUEL LEVEL SENSOR SIGNAL	OR SIGNAL	-			H	
1	52	L		\ _			H	CAMERA SWITCH SIGNAL
1				HS			H	AV COMM (H)
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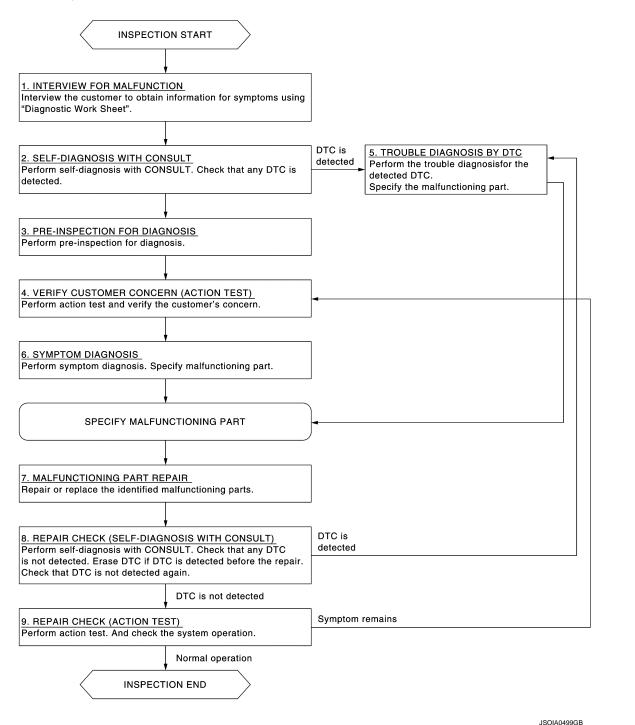
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BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

OVERALL SEQUENCE



DETAILED FLOW

1.INTERVIEW FOR MALFUNCTION

Interview the customer to obtain information about symptoms using "Diagnostic Work Sheet". (Refer to <u>DAS-597</u>, "Diagnostic Work Sheet".)

NOTE:

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 <u>DAS-599</u>, "Inspection Procedure".

>> GO TO 4.

4. ACTION TEST

Perform Active Lane Control action test to check the operation status. Refer to DAS-600, "Description".

>> GO TO 6.

5. TROUBLE DIAGNOSIS BY DTC

- 1. Check the DTC in the self-diagnosis results.
- Perform trouble diagnosis for the detected DTC following.
- "CHASSIS CONTROL": Refer to <u>DAS-573, "DTC Index"</u>.
- "LANE CAMERA": Refer to DAS-573, "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-616, "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.
- 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-600, "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:0000000009802063

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 Ye	VIN						
Engine #		Trans.			Mileage			
Incident Date		Manuf. Date			In Service Date			
Symptoms								
	☐ Master warning lamp	☐ Stays ON		☐ Stays				
In the Assolute with a larger	☐ Chassis warning message	□ Displayed		□Notd	isplayed			
Indicator/Warning lamps	☐ Active Lane Control display	☐ ALC OFF ☐ ALC is turn	ned ON	☐ ALC	is operational or is operating			
	Other lamps	☐ Stays ON ☐ Turned ON	l occasional	☐ Stays ly ☐ Othe				
Functions	☐ The vehicle dose not run straight while ALC is functioning. ☐ Steering wheel feel is not good while ALC in functioning. ☐ ALC dose not function. ☐ ALC function is not felt. ☐ Others ()							
0 100								
Conditions								
Frequency	Continuously		☐ Intermitte	ently 				
Light conditions	☐Not affected ☐In the daytime ☐Direct light	☐ At night ☐ Backlight		☐ Sunrise/sunset (Strong light) ☐ Others (
Driving conditions	☐ Not affected ☐ Vehicle speed	MPH (km/h)	☐Vehicle is	s stopped			
Weather conditions	☐ Not affected ☐ Fine ☐ Clouding	Raining		☐ Snowing ☐ Others ()			
Road conditions	☐ Not affected ☐ Highway ☐ Uneven roads	☐ In town ☐ Winding roa	ds	□ Others ()			
Lane maker conditions	□ Not affected □ Clear	□Unclear		□ Others ()			
Other conditions								

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PRE-INSPECTION FOR DIAGNOSIS	
1 Driefe mer Zeffert	LANE CONTROL]
PRE-INSPECTION FOR DIAGNOSIS	
Inspection Procedure	INFOID:000000009725591
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-23, "Wheelarch Height" (2WD) or FSU-46, "Wheelar	ch Height" (AWD).
Is vehicle height appropriate?	
YES >> INSPECTION END NO >> Repair vehicle to appropriate height.	
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[ACTIVE LANE CONTROL]

ACTION TEST

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;
- System description for Active Lane Control: Refer to <u>DAS-547</u>, "ACTIVE LANE CONTROL: System <u>Description"</u>.
- Handling precaution: Refer to DAS-556, "Precautions for Active Lane Control".

Inspection Procedure

INFOID:0000000009725593

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 <u>DAS-547</u>, "ACTIVE LANE CONTROL: System <u>Description"</u>.
- Handling precaution: Refer to <u>DAS-556</u>, "<u>Precautions for Active Lane Control"</u>.

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.
- Turn dynamic driver assistance switch ON (LDP system is ON).
- Check that the Active Lane Control operating according to the following table.

NOTE:

For the operating conditions, refer to DAS-547, "ACTIVE LANE CONTROL: System Description".

Vehicle condition	Active Lane Control	Indication on the combination meter
_	OFF	Chassis Control JSOIA0806ZZ
Operating conditions are not		Chassis Control
satisfied	Active Lane Control is turned ON	JSOIA0809ZZ
Operating conditions are gatic	Active Lane Control is operational	Chassis Control
Operating conditions are satisfied	or is operating	JSOIA0810ZZ

Does it operate normally?

YES >> INSPECTION END

NO >> Perform symptom diagnosis. Specify malfunctioning part. Refer to DAS-616. "Symptom Table".

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ADDITIONAL SERVICE WHEN REPLACING LANE CAMERA UNIT [NSPECTION > [ACTIVE LANE CONTROL]]

< BASIC INSPECTION >

ADDITIONAL SERVICE WHEN REPLACING LANE CAMERA UNIT

Description INFOID:00000000097255594

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

1.CAMERA AIMING ADJUSTMENT

Perform the camera aiming adjustment with CONSULT. Refer to DAS-603, "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 <u>DAS-573</u>, "DTC Index".

NO >> GO TO 3.

${f 3.}$ ACTIVE LANE CONTROL ACTION TEST

- 1. Perform the Active Lane Control action test. Refer to DAS-600, "Description".
- 2. Check that the Active Lane Control operates normally.

>> WORK END

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CAMERA AIMING ADJUSTMENT

< BASIC INSPECTION >

[ACTIVE LANE CONTROL]

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INFOID:0000000009725597

CAMERA AIMING ADJUSTMENT

Description INFOID:0000000009725596

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)

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-573, "DTC Index" (LANE CAMERA).

"C1B01" or no DTC>>GO TO 2.

2.preparation before camera aiming adjustment

- Perform pre-inspection for diagnosis. Refer to <u>DAS-599</u>. "Inspection Procedure".
- Adjust the tire pressure to the specified pressure value.
- 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. (A/T models)
- 6. Shift the shift lever to "N" position and release the parking brake.(M/T models)

CAUTION:

Use wheel chocks to the wheels to prevent the vehicle from moving.

- 7. Clean the windshield.
- 8. 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

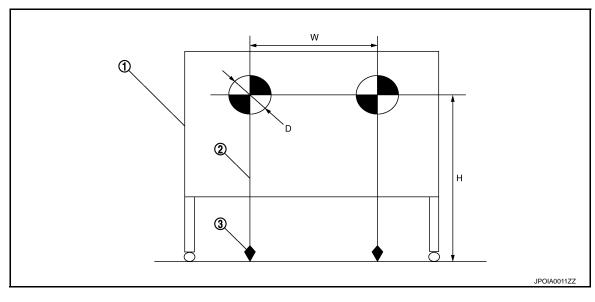
Prepare the aiming adjustment jig according to the following procedure and the figure.

- 1. Print out the target mark attached in this service manual. Refer to DAS-608, "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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INFOID:0000000009725598



Board
 String
 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 cen- : 600 mm (23.62 in)

ter from a left target center (W)

>> Proceed to DAS-604, "Work Procedure (Target Setting)".

Work Procedure (Target Setting)

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

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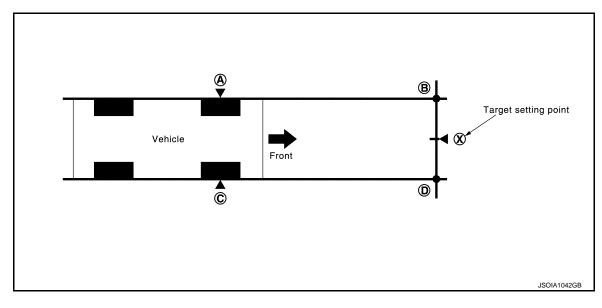
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 $\mathbb{A} - \mathbb{B} (\mathbb{C} - \mathbb{D})$

: 3850 mm (151.57 in)

- 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.

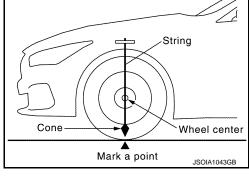
NOTE:

Use the steel tape measure which can measure 10m (32.81 ft) or more

- 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
- (151.57 in) from point (A).
- 4. Remove a measuring tape.

CAUTION:

Be careful so that a marking point is not changed.



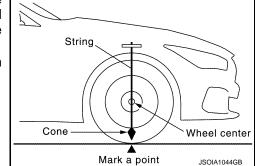
- Lengthen straight a measuring tape as follows. And then fix it with tapes.
- A measuring tape contacts with the side of the front right side tire from rear right side tire.
- A measuring tape lengthens approximately 4 m (13.12 ft) or more from the front end of vehicle.

Use the steel tape measure which can measure 10m (32.81 ft) or more

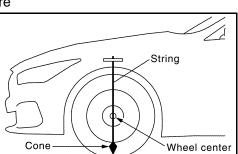
- Mark point © on a measuring tape. Hang a string with a cone from the fender so as to pass through the center of wheel, and then mark a point at the center of the lateral surface of the wheel.
- 7. Mark point (1) on a measuring tape at the positions 3850 mm (151.57 in) from point ©.
- 8. Remove a measuring tape.

CAUTION:

Be careful so that a marking point is not changed.



- then fix it with tapes.
- 10. Mark point (X) at the center of point (B) and (D) on a measuring tape.



CAUTION:

Make sure that B to X is equal to D to X.

Remove a measuring tape.

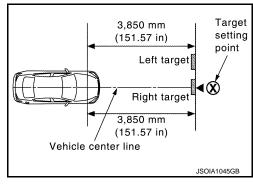
CAUTION:

Be careful so that a marking point is not changed.

12. Position the center of the right target to point of \otimes .

CAUTION:

- Be sure to place the board that the cross of the target is horizontal and vertical.
- Fix point
 \infty with a cone that hung down from the right side target.
 - >> Proceed to <u>DAS-606</u>, "Work <u>Procedure (Camera Aiming Adjustment)"</u>.



INFOID:0000000009725599

Work Procedure (Camera Aiming Adjustment)

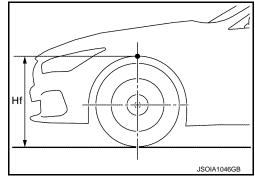
CAUTION:

Perform the adjustment under unloaded vehicle condition.

1. CHECK VEHICLE HEIGHT

Measure both side of front wheelarch height (Hf). Then calculate "Dh".

```
Dh [mm] = (Hfl + Hfr) ÷ 2 – "A"
where,
Hfl: Front left wheelarch height [mm]
Hfr: Front right wheelarch height [mm]
"A";
Except for Mexico: 710
For Mexico: 705
```



CAUTION:

Be sure to measure wheelarch height correctly.

NOTE:

"Dh" may be calculated as a minus value.

>> GO TO 2.

2. CAMERA AIMING ADJUSTMENT

(P)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:

- 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.

CAMERA AIMING ADJUSTMENT

< BASIC INSPECTION >

[ACTIVE LANE CONTROL]

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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.	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	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.	 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 <u>DAS-573</u> , " <u>DTC Index</u> ".
No target is detected. Position the target appropriately again. Perform the aiming again.	Lane camera unit cannot detect the target. 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. 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. 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. 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 in Then perform the aiming again
The target is unclear. Correct the possible cause. Perform the aiming again.	The target image is not clear. 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 in 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. 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.

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-604, "Work <a href="Procedure (Target Setting)". or GO TO 2.

Revision: 2013 October **DAS-607** 2014 Q50

CAMERA AIMING ADJUSTMENT

< BASIC INSPECTION >

[ACTIVE LANE CONTROL]

4.PERFORM SELF-DIAGNOSIS

(I) 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 <u>DAS-573</u>, "<u>DTC Index</u>".

NO >> WORK END

Work Procedure (Target Mark Sample)

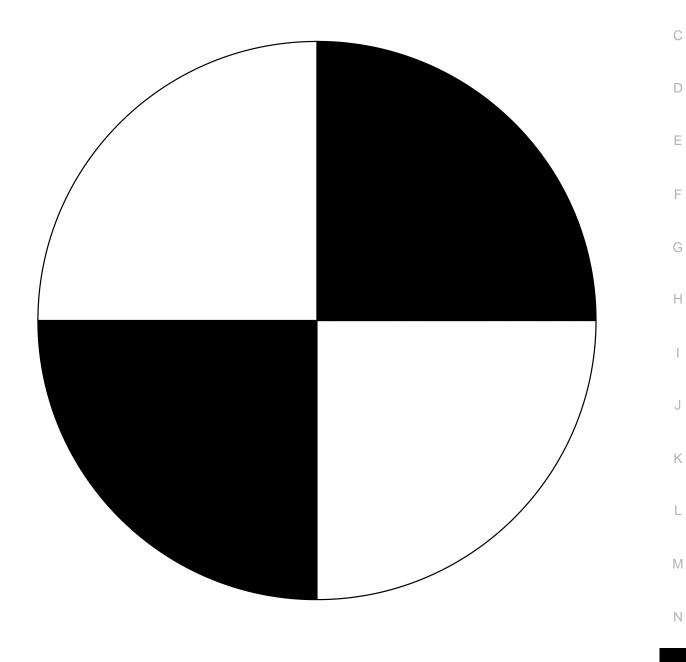
INFOID:0000000009725600

NOTE:

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Print this illustration so that the diameter of the circle is 200 mm (7.87 in).



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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:0000000009725601

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		
(-	+)	(-)	Condition	Voltage	
Lane ca	Lane camera unit			(Approx.)	
Connector	Terminal	Ground	switch		
R13	7	Oround	OFF	0 V	
IXIO	,		ON	12 V	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair the lane camera unit power supply circuit.

${f 3.}$ 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 ca	mera unit		Continuity
Connector	Terminal	Ground	Continuity
R13	1	Giodila	Existed
1013	5		LAISIGU

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:0000000009725602

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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

(P)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.

Perform self-diagnosis for "LANE CAMERA".

Is DTC "U1000" detected?

YES >> Proceed to <u>DAS-611</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009725603

Perform the Chassis communication (CAN communication) system trouble diagnosis. Then repair or replace the malfunctioning parts.

Refer to LAN-26, "Trouble Diagnosis Flow Chart".

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U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

[ACTIVE LANE CONTROL]

U1010 CONTROL UNIT (CAN)

DTC Description

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

(P)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 <u>DAS-612</u>, "<u>Diagnosis Procedure</u>".

NO-1 >> To check malfunction symptom before repair: Refer to GI-43, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000009725605

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn the LDP system ON.
- Perform "All DTC Reading" with CONSULT.
- Check if the "U1010" is detected as the current malfunction in "Self Diagnostic Result" of "LANE CAM-ERA".

Is "U1010" detected as the current malfunction?

YES >> Replace the lane camera unit. Refer to DAS-620, "Removal and Installation".

NO >> INSPECTION END

C1B00 CAMERA UNIT MALF

< DTC/CIRCUIT DIAGNOSIS >

[ACTIVE LANE CONTROL]

C1B00 CAMERA UNIT MALF

DTC Description

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INFOID:0000000009725607

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

(P)With CONSULT

- 1. Start the engine.
- 2. Perform "All DTC Reading" with CONSULT.
- Check if the "C1B00" is detected as the current malfunction in "Self Diagnostic Result" of "LANE CAM-ERA".

Is "C1B00" detected as the current malfunction?

YES >> Refer to <u>DAS-613</u>, "<u>Diagnosis Procedure</u>".

NO >> INSPECTION END

Diagnosis Procedure

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-573, "DTC Index".

NO >> Replace the lane camera unit. Refer to <u>DAS-620, "Removal and Installation"</u>.

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C1B01 CAM AIMING INCMP

< DTC/CIRCUIT DIAGNOSIS >

[ACTIVE LANE CONTROL]

C1B01 CAM AIMING INCMP

DTC Description

DTC DETECTION LOGIC

DTC	Display Item (Trouble diagnosis content)	Malfunction detected condition	
C1B01 CAM AIMING INCMP (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.
- Check if the "C1B01" is detected as the current malfunction in "Self Diagnostic Result" of "LANE CAM-ERA".

Is "C1B01" detected as the current malfunction?

YES >> Refer to <u>DAS-614</u>, "<u>Diagnosis Procedure</u>".

NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000009725609

1.CAMERA AIMING ADJUSTMENT

- 1. Perform the camera aiming. Refer to DAS-603, "Description".
- Erase all self-diagnosis results with CONSULT.
- Perform "All DTC Reading".
- 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-620, "Removal and Installation".

NO >> INSPECTION END

C1B03 ABNRML TEMP DETECT

< DTC/CIRCUIT DIAGNOSIS >

[ACTIVE LANE CONTROL]

C1B03 ABNRML TEMP DETECT

DTC Description

INFOID:0000000009725610

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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:0000000009725611

1. COOLING LANE CAMERA UNIT

- 1. Wait for 10 minutes or more to cool the lane camera unit.
- Erase All self-diagnosis results with CONSULT.
- 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 <u>DAS-620</u>, "Removal and Installation".

NO >> INSPECTION END

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INFOID:0000000009725612

SYMPTOM DIAGNOSIS

ACTIVE LANE CONTROL

Symptom Table

NOTE:

- For the operational conditions of Active Lane Control, refer to DAS-547, "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
	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-556. "Precautions for Active Lane Control".
			 Road wheel tire condition is abnormal Road wheel tire size is ab- normal. 	Check the road wheel tire.
Hard to drive along a traffic lane during the use of Active Lane Control.	The vehicle pulls to one direction.	Continuously	 Wheel alignment Direct Adaptive Steering malfunction Lane camera unit installa- tion condition 	Symptom diagnosis "THE VEHICLE PULLS TO ONE SIDE" Refer to DAS-616, "Symptom Ta- ble".
		Temporarily	Lane marker detecting condition (Certain roads, weather or driving conditions.)	System is normally. Confirm the using situation of the customer. Refer to DAS-556. "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-556, "Precautions for Active Lane Control".
	Increase in steer- ing effort	When changing the traveling lane. (Turn signal is not used.)	Operation condition	Confirm the operating condition. Refer to DAS-547, "ACTIVE LANE CONTROL: System Description".
		After the use of turn signal	Operation condition	Confirm the operating condition. Refer to DAS-547, "ACTIVE LANE CONTROL: System Description".
Steering effort fluctuates during Active Lane Control.		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-556, "Precautions for Active Lane Control".
	Steering effort fluctu	ates abruptly.	Lane marker detecting condition (Certain roads, weather or driving conditions.)	System is normally. Confirm the using situation of the customer. Refer to DAS-556, "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-556. "Precautions for Active Lane Control".

ACTIVE LANE CONTROL

< SYMPTOM DIAGNOSIS >

[ACTIVE LANE CONTROL]

Symptom		Possible cause	Inspection item
	Active Lane Control information is not displayed on the vehicle information display.	Active Lane Control setting	Check Active Lane Control setting Refer to DAS-555, "ACTIVE LANE CONTROL: Menu Displayed by Pressing Each Switch".
Active Lane Control is not functioning.	Not functioning adequately	Lane marker detecting condition (Certain roads, weather or driving conditions.)	System is normally. Confirm the using situation of the customer. Refer to DAS-556, "Precautions for Active Lane Control".
		The vehicle speed is low	Confirm the operating condition. Refer to DAS-547, "ACTIVE LANE CONTROL: System Description".

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THE VEHICLE PULLS TO ONE SIDE

< SYMPTOM DIAGNOSIS >

[ACTIVE LANE CONTROL]

THE VEHICLE PULLS TO ONE SIDE

Description INFOID:000000009784907

The vehicle pulls to one side continuously during traveling straight

NOTE:

- For the operational conditions of Active Lane Control, refer to DAS-547, "ACTIVE LANE CONTROL: System Description".
- For the handling precautions of Active Lane Control, refer to DAS-556, "Precautions for Active Lane Control".

Diagnosis Procedure

INFOID:0000000009784908

1. CHECK WHEEL ALIGNMENT

Check wheel alignment. Refer to <u>FSU-6</u>, "<u>Inspection</u>" (2WD) or <u>FSU-30</u>, "<u>DIRECT ADAPTIVE STEERING</u>: <u>Inspection</u>" (AWD).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace malfunctioning parts.

2. CHECK DIRECT ADAPTIVE STEERING

- 1. Perform "All DTC Reading" with CONSULT.
- Check if the DTC is detected in self-diagnosis results for Direct Adaptive Steering. Refer to <u>STC-80, "DTC Index"</u>.

Is any DTC detected?

YES >> Perform diagnosis on the detected DTC and repair or replace the malfunctioning parts.

NO >> GO TO 3.

3.CHECK LANE CAMERA UNIT INSTALLATION CONDITION

Check lane camera unit installation condition (installation position, properly tightened, a bent bracket). <u>Is it properly installed?</u>

- YES >> System is normally. Confirm the using situation of the customer. Refer to <u>DAS-556</u>, "<u>Precautions</u> for Active Lane Control".
- NO >> Install lane camera unit properly, and perform camera aiming. Refer to DAS-603, "Description".

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[ACTIVE LANE CONTROL]

NORMAL OPERATING CONDITION ACTIVE LANE CONTROL

ACTIVE LANE CONTROL: Description

INFOID:0000000009725613

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- 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 in certain roads, weather or driving conditions.
- Using Active Lane Control 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.
- When Active Lane Control is operating, avoid excessive or sudden steering maneuvers. Otherwise, you could lose control of the vehicle.
- 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 function properly under the following conditions, and do not use Active Lane Control:
- During bad weather (rain, fog, snow, wind, 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 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 other vehicle in front of the vehicle, which obstructs the lane camera unit detection
- 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 in or exiting from tollgates.
- When driving on roads with widening or narrowing lane width.

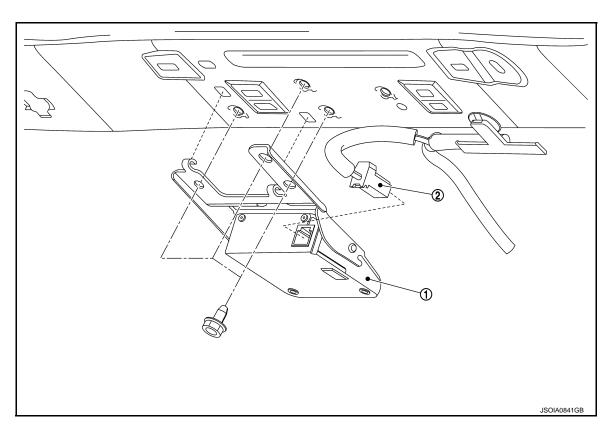
DAS-619 Revision: 2013 October 2014 Q50

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REMOVAL AND INSTALLATION

LANE CAMERA UNIT

Exploded View



1 Lane camera unit

(2) Lane camera unit harness connector

Removal and Installation

INFOID:0000000009725615

REMOVAL

- 1. Remove headlining assembly. Refer to INT-42, "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 <u>DAS-603</u>, "Work Procedure (Preparation)".