SECTION BODY CONTROL SYSTEM

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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.

Always observe the following items for preventing accidental activation.

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

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

WARNING:

Always observe the following items for preventing accidental activation.

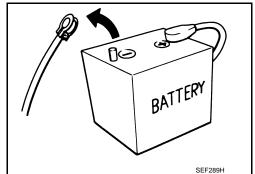
- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious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

Precautions for Removing Battery Terminal

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

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

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



NOTE:

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

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

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PRECAUTIONS

< PRECAUTION >

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

NOTE:

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

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

NOTE:

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

SYSTEM DESCRIPTION

COMPONENT PARTS
BODY CONTROL SYSTEM

BODY CONTROL SYSTEM : Component Parts Location



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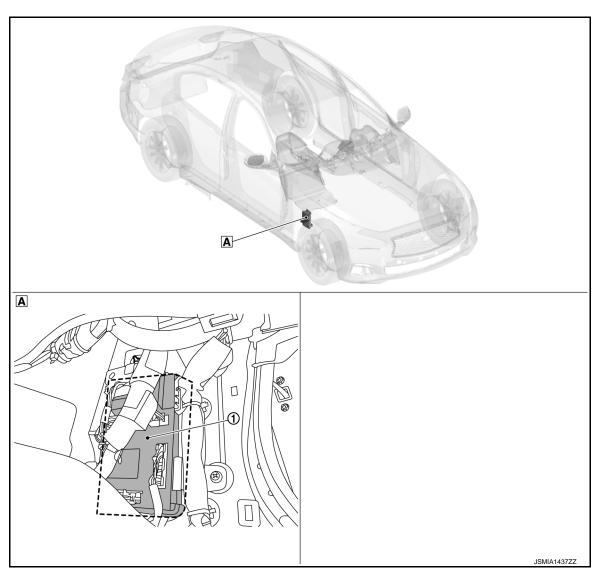
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① BCM

A Behind of dash side finisher RH

POWER CONSUMPTION CONTROL SYSTEM

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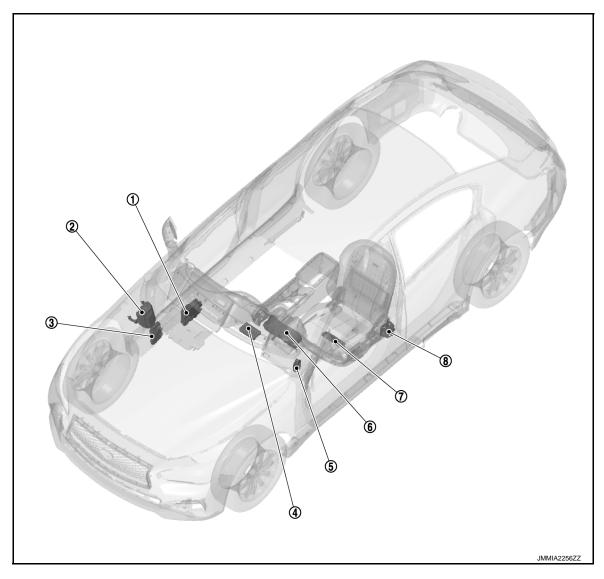
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POWER CONSUMPTION CONTROL SYSTEM: Component Parts Location

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- Steering force control module Refer to <u>STC-113</u>, "Component <u>Parts Location"</u>.
- (4) TCU
 Refer to AV-699, "Component Parts
 Location".
- Driver seat control unit Refer to <u>ADP-7</u>, "Component Parts <u>Location"</u>.
- PDM E/R
 Refer to PCS-5, "Component Parts
 Location".
- 6 CAN gateway
 Refer to LAN-282, "Component
 Parts Location".
- Pre-crash seat belt control unit (driver side)
 Refer to <u>SBC-5</u>, "PRE-CRASH
 SEAT BELT SYSTEM: Component
 Parts Location".
- BCM
 Refer to BCS-5, "BODY CONTROL
 SYSTEM: Component Parts Location".
- 6 Combination meter

SYSTEM

< SYSTEM DESCRIPTION >

SYSTEM BODY CONTROL SYSTEM

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BODY CONTROL SYSTEM: System Description

OUTLINE

- BCM (Body Control Module) controls the various electrical components. It inputs the information required to the control from CAN communication and the signal received from each switch and sensor.
- BCM has combination switch reading function for reading the operation status of combination switches (light, turn signal, wiper and washer) in addition to a function for controlling the operation of various electrical components. It also has the signal transmission function as the passed point of signal and the power saving control function that reduces the power consumption with the ignition switch OFF.
- BCM is equipped with the diagnosis function that performs the diagnosis with CONSULT and various settings.

BCM CONTROL FUNCTION LIST

System	Reference
Combination switch reading system	BCS-9, "COMBINATION SWITCH READING SYSTEM: System Description"
Signal buffer system	BCS-12, "SIGNAL BUFFER SYSTEM : System Description"
Power consumption control system	BCS-13, "POWER CONSUMPTION CONTROL SYSTEM: System Description"
Shipping mode control system	BCS-15, "SHIPPING MODE CONTROL SYSTEM: System Description"
Headlamp system	EXL-18, "HEADLAMP SYSTEM : System Description"
Auto light system	EXL-20, "AUTO LIGHT SYSTEM : System Description"
High beam assist system	EXL-23. "HIGH BEAM ASSIST SYSTEM : System Description"
Daytime running light system	EXL-27, "DAYTIME RUNNING LIGHT SYSTEM : System Description"
Turn signal and hazard warning lamp system	EXL-34, "TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM: System Description"
Parking, license plate side marker and tail lamps system	EXL-35, "PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMP SYSTEM: System Description"
Front fog lamp system	EXL-43. "FRONT FOG LAMP SYSTEM : System Description"
Exterior lamp battery saver system	EXL-45, "EXTERIOR LAMP BATTERY SAVER SYSTEM: System Description"
Interior room lamp control system	INL-8, "INTERIOR ROOM LAMP CONTROL SYSTEM : System Description"
Interior room lamp battery saver system	INL-12, "INTERIOR ROOM LAMP BATTERY SAVER SYSTEM: System Description"
Illumination control system	INL-14, "ILLUMINATION CONTROL SYSTEM : System Description"
Front wiper and washer system	WW-9. "FRONT WIPER AND WASHER SYSTEM (WITH RAIN SENSOR): System Description" (With rain sensor) WW-14, "FRONT WIPER AND WASHER SYSTEM (WITH- OUT RAIN SENSOR): System Description" (Without rain sensor)
Rear window defogger system	DEF-7, "System Description"
Warning chime system	WCS-7, "WARNING CHIME SYSTEM : System Description"
Power door lock system	DLK-16. "System Description"
Intelligent Key system	DLK-19. "INTELLIGENT KEY SYSTEM : System Description"
Trunk lid opener system	DLK-46. "System Description"

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< SYSTEM DESCRIPTION >

System		Reference	
Intelligent Key system/Engine start function		SEC-10, "INTELLIGENT KEY SYSTEM/ENGINE START FUNC-TION: System Description"	
Infiniti Vehicle Immobilizer System-NATS		SEC-19, "INFINITI VEHICLE IMMOBILIZER SYSTEM-NATS: System Description"	
Vehicle security system	Theft warning alarm	SEC-27, "VEHICLE SECURITY SYSTEM : System Description"	
verlicle security system	Panic alarm	OLO-27, VEHIOLE GEODITH GTOTEM: Oystem Description	
Power window system		PWC-10, "System Description"	
TPMS (Tire Pressure Monitoring System)		WT-11, "System Description"	

BODY CONTROL SYSTEM: Fail-safe

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FAIL-SAFE CONTROL BY DTC

BCM performs fail-safe control when any DTC are detected.

Display contents of CONSULT	Fail-safe
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking
B2195: ANTI-SCANNING	Inhibit engine cranking
B2198: NATS ANTENNA AMP	Inhibit engine cranking
B219B: ID DISCORD SVT-BCM	Inhibit engine cranking
B2608: STARTER RELAY	Inhibit engine cranking
B260F: ENG STATE SIG LOST	Inhibit engine cranking
B261B: RES ENG RUN STUCK MALFNC	Fuel cut
B26F1: IGN RELAY OFF	Inhibit engine cranking
B26F2: IGN RELAY ON	Inhibit engine cranking
B26F3: START CONT RLY ON	Inhibit engine cranking
B26F4: START CONT RLY OFF	Inhibit engine cranking
B26F7: BCM	Inhibit engine cranking by Intelligent Key system
B26FE: HOOD SW CAN DIAG ERROR	Inhibit remote engine start

FAIL-SAFE CONTROL BY RAIN SENSOR MALFUNCTION

BCM detects the rain sensor serial link error and the rain sensor malfunction.

BCM controls the following fail-safe when rain sensor has a malfunction.

- Front wiper switch AUTO and sensing rain drop: The condition just before the activation of fail-safe is maintained until the front wiper switch is turned OFF.
- Front wiper switch AUTO and not sensing rain drop: Front wiper is LO operation until the front wiper switch is turned off.

FAIL-SAFE CONTROL OF COMBINATION SWITCH READING FUNCTION CAUSED BY LOW POWER SUPPLY VOLTAGE

If voltage of battery power supply lower, BCM maintains combination switch reading to the status when input voltage is less than approximately 9 V.

NOTE:

When voltage of battery power supply is approximately 9 V or more, combination switch reading function returns to normal operation.

COMBINATION SWITCH READING SYSTEM

COMBINATION SWITCH READING SYSTEM: System Description

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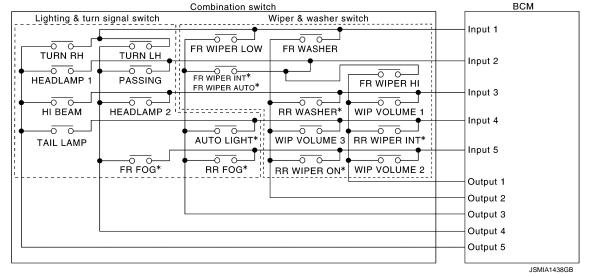
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SYSTEM DIAGRAM



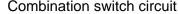
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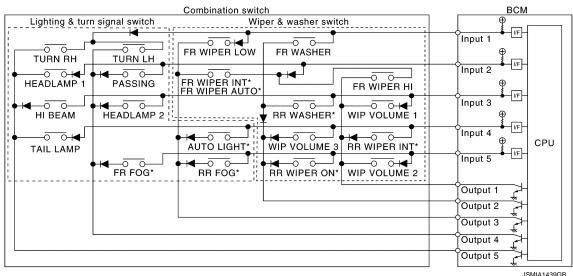
- *: If so equipped.
- TAIL LAMP switch links lighting switch 1ST and 2ND positions.

OUTLINE

- BCM reads the status of the combination switch (light, turn signal, wiper and washer) and recognizes the status of each switch.
- BCM has a combination of 5 output terminals (OUTPUT 1 5) and 5 input terminals (INPUT 1 5). It reads a
 maximum of 20 switch status.

COMBINATION SWITCH MATRIX





NOTE:

- *: If so equipped.
- TAIL LAMP switch links lighting switch 1ST and 2ND positions.

Combination switch INPUT-OUTPUT system list

System	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4	OUTPUT 5
INPUT 1	_	FR WASHER	FR WIPER LOW	TURN LH	TURN RH
INPUT 2	FR WIPER HI	_	FR WIPER INT/AU- TO*	PASSING	HEADLAMP 1

< SYSTEM DESCRIPTION >

System	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4	OUTPUT 5
INPUT 3	WIP VOLUME 1	RR WASHER*	_	HEADLAMP 2	HI BEAM
INPUT 4	RR WIPER INT*	WIP VOLUME 3	AUTO LIGHT*	_	TAIL LAMP
INPUT 5	WIP VOLUME 2	RR WIPER ON*	RR FOG*	FR FOG*	_

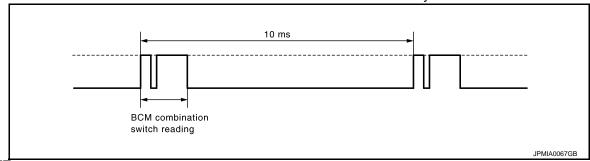
NOTE:

- *: If so equipped.
- Headlamp has a dual system switch.

COMBINATION SWITCH READING FUNCTION

Description

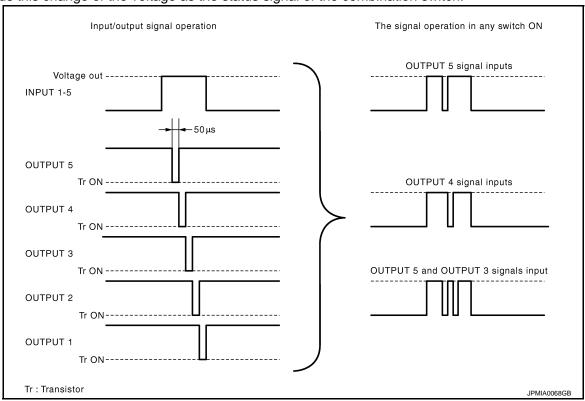
BCM reads the status of the combination switch at 10 ms interval normally.



NOTE:

BCM reads the status of the combination switch at 60 ms interval when BCM is controlled at low power consumption control mode.

- BCM operates as follows and judges the status of the combination switch.
- It operates the transistor on OUTPUT side in the following order: OUTPUT $5 \rightarrow 4 \rightarrow 3 \rightarrow 2 \rightarrow 1$, and outputs voltage waveform.
- The voltage waveform of OUTPUT corresponding to the formed circuit is input into the interface on INPUT side if any (1 or more) switches are ON.
- It reads this change of the voltage as the status signal of the combination switch.

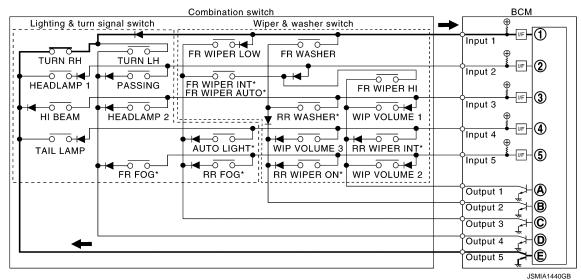


Operation Example

In the following operation example, the combination of the status signals of the combination switch is replaced as follows: INPUT 1 - 5 to "1 - 5" and OUTPUT 1 - 5 to "A - E".

Example 1: When a switch (TURN RH switch) is turned ON

The circuit between OUTPUT 4 and INPUT 5 is formed when the TAIL LAMP switch is turned ON.

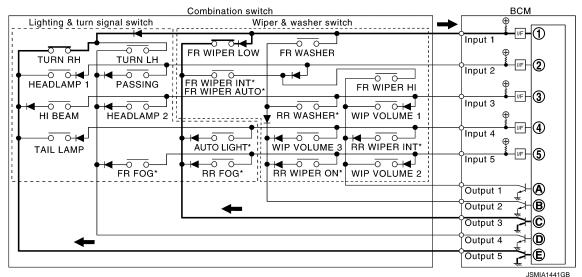


NOTE:

- *: If so equipped.
- TAIL LAMP switch links lighting switch 1ST and 2ND positions.
- BCM detects the combination switch status signal "1E" when the signal of OUTPUT 5 is input to INPUT 1.
- BCM judges that the TURN RH switch is ON when the signal "1E" is detected.

Example 2: When some switches (TURN RH switch, FR WIPER LOW switch) are turned ON

• The circuits between OUTPUT 5 and INPUT 1 and between OUTPUT 3 and INPUT 1 are formed when the TURN RH switch and FR WIPER LOW switch are turned ON.



NOTE:

- *: If so equipped.
- TAIL LAMP switch links lighting switch 1ST and 2ND positions.
- BCM detects the combination switch status signal "1CE" when the signals of OUTPUT 3 and OUTPUT 5 are input to INPUT 1.
- BCM judges that the TURN RH switch and FR WIPER LOW switch are ON when the signal "1CE" is detected.

WIPER VOLUME DIAL POSITION

BCM judges the INT VOLUME 1 - 7 by the status of WIP VOLUME 1, 2 and 3 switches.

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CONSULT data monitor		Switch status			
Monitor item	Value/Status	WIP VOLUME 1	WIP VOLUME 2	WIP VOLUME 3	
	1	ON	ON	ON	
	2	ON	ON	OFF	
	3	ON	OFF	OFF	
INT VOLUME	4	OFF	OFF	OFF	
	5	OFF	OFF	ON	
	6	OFF	ON	ON	
	7	OFF	ON	OFF	

NOTE:

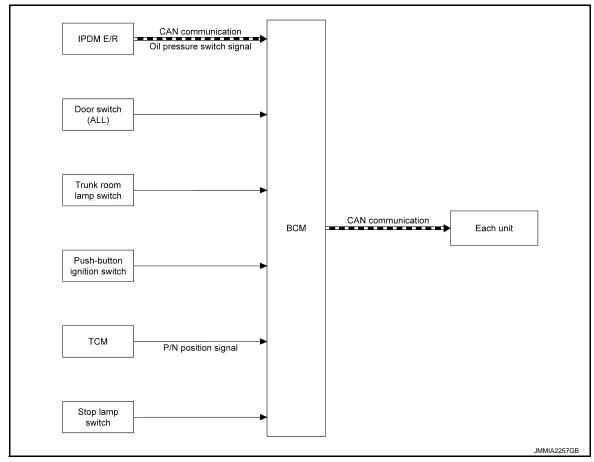
For details of wiper volume dial position, refer to <u>WW-9</u>, <u>"FRONT WIPER AND WASHER SYSTEM (WITH RAIN SENSOR)</u>: <u>System Description</u> (with rain sensor) or <u>WW-14</u>, <u>"FRONT WIPER AND WASHER SYSTEM (WITHOUT RAIN SENSOR)</u>: <u>System Description</u> (without rain sensor).

SIGNAL BUFFER SYSTEM

SIGNAL BUFFER SYSTEM : System Description

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SYSTEM DIAGRAM



OUTLINE

BCM has the signal transmission function that outputs/transmits each input/received signal to each unit. Signal transmission function list

Signal name	Input	Output	Description
Oil pressure switch signal	IPDM E/R (CAN)	Combination meter (CAN) TCU (CAN)	Transmits the received oil pressure switch signal via CAN communication.
Door switch signal	Any door switch	Combination meter (CAN) Driver seat control unit (CAN) IPDM E/R (CAN) Pre-crash seat belt control unit (CAN) Around view monitor control unit (CAN)	Inputs the door switch signal and transmits it via CAN communication.
Trunk switch signal	Trunk room lamp switch	Combination meter (CAN)	Inputs the trunk room lamp switch signal and transmits trunk switch signal via CAN communication.
Ignition switch ON signalIgnition switch signal	Push-button ignition switch (Push switch)	Driver seat control unit (CAN) IPDM E/R (CAN) Pre-crash seat belt control unit (CAN)	Inputs the push-button ignition switch (push switch) signal and transmits the ignition switch status judged with BCM via CAN communication.
Interlock/PNP switch signal	тсм	IPDM E/R (CAN)	Inputs the P/N position signal via CAN communication.
Stop lamp switch signal	Stop lamp switch	TCM (CAN)	Inputs the stop lamp switch 1 signal and stop lamp switch 2 signal, and transmits it via CAN communication.

POWER CONSUMPTION CONTROL SYSTEM

POWER CONSUMPTION CONTROL SYSTEM: System Description

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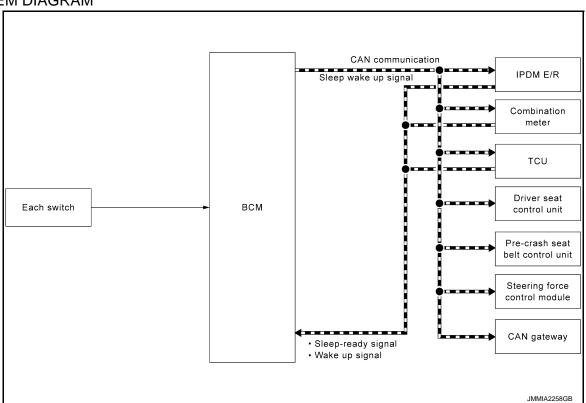
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SYSTEM DIAGRAM



OUTLINE

SYSTEM

< SYSTEM DESCRIPTION >

- BCM incorporates a power saving control function that reduces the power consumption according to the vehicle status.
- BCM switches the status (control mode) by itself with the power saving control function. It performs the sleep request to each unit (IPDM E/R, combination meter, TCU, driver seat control unit, pre-crash seat belt control unit, CAN gateway and steering force control module) that operates with the ignition switch OFF.

Normal mode (wake-up)

- CAN communication is normally performed with other units
- Each control with BCM is operating properly

CAN communication sleep mode (CAN sleep)

- CAN transmission is stopped
- Control with BCM only is operating

Low power consumption mode (BCM sleep)

- Low power consumption control is active
- CAN transmission is stopped

LOW POWER CONSUMPTION CONTROL WITH BCM

BCM reduces the power consumption with the following operation in the low power consumption mode.

• The reading interval of the each switches changes from 10 ms interval to 60 ms interval.

Sleep mode activation

- BCM receives the sleep-ready signal (ready) from IPDM E/R and TCU via CAN communication.
- BCM transmits the sleep wake up signal (sleep) to each unit when all of the CAN sleep conditions are fulfilled.
- Each unit stops the transmission of CAN communication with the sleep wake up signal. BCM is in CAN communication sleep mode.
- BCM is in the low power consumption mode and perform the low power consumption control when all of the BCM sleep conditions are fulfilled with CAN sleep condition.

Sleep condition

CAN sleep condition	BCM sleep condition	
Receiving the sleep-ready signal (ready) from all units I minute after turning Ignition switch OFF Warning chime: Not operation Intelligent Key warning buzzer: Not operation Stop lamp switch: OFF Turn signal indicator lamp: Not operation Exterior lamp: OFF Door lock status: No change CONSULT communication status: Not communication Meter display signal: Non-transmission Door switch status: No change	Interior room lamp battery saver: Time out* Infiniti Vehicle Immobilizer System (IVIS) - NATS: Not operation Remote keyless entry receiver communication status: No communication RAP system: OFF	

NOTE:

*: Refer to <u>INL-12</u>, "<u>INTERIOR ROOM LAMP BATTERY SAVER SYSTEM</u>: <u>System Description</u>" for details of the interior room lamp battery saver time.

Wake-up operation

- BCM transmits sleep wake up signal (wake up) to each unit when any condition listed below is established, and then goes into normal mode from low power consumption mode.
- Each unit starts transmissions with CAN communication by receiving sleep wake up signals. Each unit transmit wake up signals to BCM with CAN communication to convey the start of CAN communication.

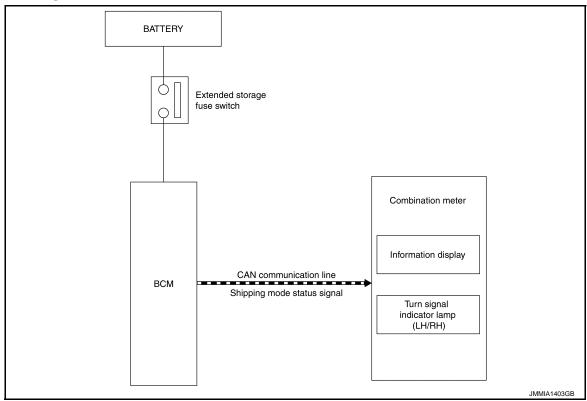
BCM wake-up condition	CAN wake-up condition	
 Door key cylinder switch: NEUTRAL → LOCK, NEUTRAL → UNLOCK Door lock and unlock switch: NEUTRAL → LOCK, NEUTRAL → UNLOCK Extended storage fuse switch: OFF → ON, ON → OFF Trunk lid opener cancel switch: OFF → ON, ON → OFF Front door lock assembly (driver side) (unlock sensor): OFF → ON, ON → OFF One touch unlock sensor (driver door) signal: Receiving One touch unlock sensor (passenger door) signal: Receiving Power window or sunroof communication: Receiving 	 Receiving the sleep-ready signal (Not-ready) from any units Push-button ignition switch (push switch): OFF→ ON Hazard switch: OFF → ON HI BEAM switch: OFF → ON, ON → OFF PASSING switch: OFF → ON, ON → OFF HEADLAMP 1 switch: OFF → ON, ON → OFF HEADLAMP 2 switch: OFF → ON, ON → OFF TAIL LAMP switch: OFF → ON FR FOG switch: OFF → ON, ON → OFF Driver door switch: OFF → ON, ON → OFF Passenger door switch: OFF → ON, ON → OFF Rear RH door switch: OFF → ON, ON → OFF Rear LH door switch: OFF → ON, ON → OFF Trunk room lamp switch: OFF → ON, ON → OFF Driver door request switch: OFF → ON Passenger door request switch: OFF → ON Trunk lid opener switch: OFF → ON Trunk lid opener request switch: OFF → ON Stop lamp switch: ON Remote keyless entry receiver communication: Receiving 	_

SHIPPING MODE CONTROL SYSTEM

SHIPPING MODE CONTROL SYSTEM: System Description

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SYSTEM DIAGRAM



DESCRIPTION

- BCM switches the status (shipping mode or normal mode) by itself according to the extended storage fuse switch condition, and transmits shipping mode status signal to combination meter and each unit via CAN communication.
- When shipping mode function operates, each control unit does not detect DTCs.
- BCM control functions are limited in shipping mode. Refer to BCS-98, "Description".
- The combination meter displays extended storage fuse warning message* on the information display, and turns the turn signal indicator lamp (LH/RH) ON, when BCM is in shipping mode.

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^{*:} When shipping mode function operates, "SHIPPING MODE ON PUSH STORAGE FUSE" is displayed.

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM: CONSULT Function (BCM - COMMON ITEM)

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APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
Work Support	Changes the setting for each system function.
Self Diagnostic Result	Displays the diagnosis results judged by BCM.
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from BCM.
Data Monitor	The BCM input/output signals are displayed.
Active Test	The signals used to activate each device are forcibly supplied from BCM.
Ecu Identification	The BCM part number is displayed.
Configuration	 Read and save the vehicle specification. Write the vehicle specification when replacing BCM.

SYSTEM APPLICATION

BCM can perform the following functions for each system.

NOTE:

It can perform the diagnosis modes except the following for all sub system selection items.

×: Applicable item Diagnosis mode System Sub system selection item Work Support **Data Monitor** Active Test Door lock DOOR LOCK × X REAR DEFOGGER Rear window defogger × X X Warning chime **BUZZER** × X Interior room lamp timer INT LAMP × × × Exterior lamp **HEAD LAMP** × × × **WIPER** Wiper and washer × **FLASHER** Turn signal and hazard warning lamps AIR CONDITONER* X · Intelligent Key system INTELLIGENT KEY × × X · Engine start system Combination switch COMB SW X Body control system **BCM** × **IVIS - NATS IMMU** X × \times **BATTERY SAVER** Interior room lamp battery saver X \times X Trunk lid open **TRUNK** × THEFT ALM Vehicle security system X \times \times RAP system **RETAINED PWR** X Signal buffer system SIGNAL BUFFER × X AIR PRESSURE MONITOR* X

FREEZE FRAME DATA (FFD)

The BCM records the following vehicle condition at the time a particular DTC is detected, and displays on CONSULT.

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^{*:} This item is not used.

< SYSTEM DESCRIPTION >

CONSULT screen item	Indication/Unit		Description	
Vehicle Speed km/h		Vehicle speed of the moment a particular DTC is detected		
Odo/Trip Meter	km	Total mileage (Odomete	er value) of the moment a particular DTC is detected	
	SLEEP>LOCK		While turning BCM status from low power consumption mode to normal mode (Power supply position is "LOCK"*)	
	SLEEP>OFF		While turning BCM status from low power consumption mode to normal mode (Power supply position is "OFF".)	
	LOCK>ACC		While turning power supply position from "LOCK" *to "ACC"	
	ACC>ON		While turning power supply position from "ACC" to "IGN"	
	RUN>ACC		While turning power supply position from "RUN" to "ACC" (Vehicle is stopping and selector lever is except P position.)	
	CRANK>RUN		While turning power supply position from "CRANKING" to "RUN" (From cranking up the engine to run it)	
	RUN>URGENT		While turning power supply position from "RUN" to "ACC" (Emergency stop operation)	
	ACC>OFF	Power position status of the moment a particular DTC is detected*	While turning power supply position from "ACC" to "OFF"	
	OFF>LOCK		While turning power supply position from "OFF" to "LOCK"*	
Vehicle Condition	OFF>ACC		While turning power supply position from "OFF" to "ACC"	
	ON>CRANK		While turning power supply position from "IGN" to "CRANKING"	
	OFF>SLEEP		While turning BCM status from normal mode (Power supply position is "OFF".) to low power consumption mode	
	LOCK>SLEEP		While turning BCM status from normal mode (Power supply position is "LOCK"*.) to low power consumption mode	
	LOCK		Power supply position is "LOCK" (Ignition switch OFF)*	
	OFF		Power supply position is "OFF" (Ignition switch OFF)	
	ACC		Power supply position is "ACC" (Ignition switch ACC)	
	ON		Power supply position is "IGN" (Ignition switch ON with engine stopped)	
	ENGINE RUN		Power supply position is "RUN" (Ignition switch ON with engine running)	
	CRANKING		Power supply position is "CRANKING" (At engine cranking)	
IGN Counter	0 - 39	The number is 0 where The number increases whenever ignition swit	that ignition switch is turned ON after DTC is detected in a malfunction is detected now. If the slike $1 \rightarrow 2 \rightarrow 338 \rightarrow 39$ after returning to the normal condition each OFF \rightarrow ON. If 0.39 until the self-diagnosis results are erased if it is over 39.	

NOTE

- *: Power supply position shifts to "LOCK" from "OFF", when ignition switch is in the OFF position, selector lever is in the P position, and any of the following conditions are met.
- · Closing door
- Opening door
- Door is locked using door request switch
- Door is locked using Intelligent Key

The power supply position shifts to "ACC" when the push-button ignition switch (push switch) is pushed at "LOCK".

DOOR LOCK

DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)

INFOID:0000000013502495

BCM CONSULT FUNCTION

CONSULT performs the following functions via CAN communication with BCM.

WORK SUPPORT

< SYSTEM DESCRIPTION >

Monitor item	Description
DOOR LOCK-UNLOCK SET	Selective unlock function mode can be changed to operation with this mode On: Operate Off: Non-operation
AUTO UNLOCK TYPE	Automatic door lock/unlock function (unlock operation) mode can be selected from the following in this mode • MODE1: All doors are unlocked • MODE2: Only driver door is unlocked
AUTO LOCK FUNCTION	Automatic door lock/unlock function (lock operation) mode can be selected from the following in the mode • MODE1: All doors are locked when vehicle speed more than 24 km/h (15 MPH) • MODE2: All doors are locked when shifting the selector lever from P position to other than the P position • MODE3: Non-operation • Off: Non-operation
AUTO UNLOCK FUNCTION	Automatic door lock/unlock function (unlock operation) mode can be selected from the following in this mode • MODE1: All doors are unlocked when the power supply position is changed from ON to OFF • MODE2: All doors are unlocked when shifting the selector lever from any position other than the P to P position • MODE3: Non-operation • Off: Non-operation
SIGNATURE LIGHT SETTING	Signature light function can be changed to operation with this mode On: Operate Off: Non-operation

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	Contents
REQ SW -DR	Indicated [On/Off] condition of door request switch (driver side)
REQ SW -AS	Indicated [On/Off] condition of door request switch (passenger side)
REQ SW -BD/TR	Indicated [On/Off] condition of trunk lid opener request switch
DOOR SW-DR	Indicated [On/Off] condition of front door switch (driver side)
DOOR SW-AS	Indicated [On/Off] condition of front door switch (passenger side)
DOOR SW-RR	Indicated [On/Off] condition of rear door switch RH
DOOR SW-RL	Indicated [On/Off] condition of rear door switch LH
DOOR SW-BK	NOTE: This item is displayed, but cannot be monitored
CDL LOCK SW	Indicated [On/Off] condition of lock signal from door lock and unlock switch
CDL UNLOCK SW	Indicated [On/Off] condition of unlock signal from door lock and unlock switch
KEY CYL LK-SW	Indicated [On/Off] condition of lock signal from door key cylinder switch
KEY CYL UN-SW	Indicated [On/Off] condition of unlock signal from door key cylinder switch
SHOCK SENSOR	NOTE: This item is displayed, but cannot be monitored

ACTIVE TEST

Test item	Description
DOOR LOCK	 This test is able to check door lock/unlock operation ALL LOCK: The all door lock actuators are locked. ALL UNLK: The all door lock actuators are unlocked.

REAR WINDOW DEFOGGER

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< SYSTEM DESCRIPTION >

REAR WINDOW DEFOGGER: CONSULT Function (BCM - REAR DEFOGGER)

INFOID:0000000013502985

WORK SUPPORT

Service item	Setting item	Description
	MODE1*	NOTE
SET R-DEF TIMER	MODE2	NOTE: Do not use this function.
	MODE3	

^{*:} Factory setting

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	Description
PUSH SW	Indicates [On/Off] condition of push switch
REAR DEF SW	Displays "Press (On)/other (Off)" status determined with the rear window defogger switch

ACTIVE TEST

Test Item	Description
REAR DEFOGGER	Rear window defogger operates when "On" on CONSULT screen is touched

BUZZER

BUZZER: CONSULT Function (BCM - BUZZER)

INFOID:0000000013502509

CONSULT APPLICATION ITEMS

Test item	Diagnosis mode	Description
	Self Diagnostic Result	Displays the diagnosis results judged by BCM.
BUZZER	Data Monitor	Displays BCM input data in real time.
DUZZEK	Active Test	Operation of electrical loads can be checked by sending driving signal to them.
	Ecu Identification	The BCM part number is displayed.

SELF DIAG RESULT

Refer to BCS-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.

Display item [Unit]	Description
PUSH SW [On/Off]	Status of push-button ignition switch judged by BCM.
UNLK SEN-DR [On/Off]	Status of unlock sensor judged by BCM.
VEH SPEED 1 [km/h]	Value of vehicle speed signal received from combination meter with CAN communication line.
TAIL LAMP SW [On/Off]	Status of lighting switch judged by BCM using the combination switch readout function.

< SYSTEM DESCRIPTION >

Display item [Unit]	Description
FR FOG SW [On/Off]	Status of front fog lamp switch judged by BCM using the combination switch readout function.
DOOR SW-DR [On/Off]	Status of driver side door switch judged by BCM.
CDL LOCK SW [On/Off]	Status of door lock unlock switch judged by BCM.

ACTIVE TEST

Display item [Unit]	Description
SEAT BELT WARN TEST	The seat belt warning chime operation can be checked by operating the relevant function (On/Off).
LIGHT WARN ALM	The light warning chime operation can be checked by operating the relevant function (On/Off).
REVERSE WARNING	This item is displayed, but cannot be monitored.

NOTE:

Some items are not available according to vehicle specification.

INT LAMP

INT LAMP: CONSULT Function (BCM - INT LAMP)

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WORK SUPPORT

Service item	Setting item	Setting
SCENARIO LIGHTING SETTING	On	NOTE:
SCENARIO EIGITTING SETTING	Off*	Do not use this function since interior room lamp control is changed.
SET I/L D-UNLCK INTCON	On	Without interior room lamp timer function
SET I/E D-ONLOR INTOON	Off*	With interior room lamp timer function
FOG LAMP OVERRIDE	On	With front fog override function
FOG LAWIF OVERRIDE	Off*	Without front fog override function

^{*:} Factory setting

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]	Description
REQ SW -DR [On/Off]	Indicated [On/Off] condition of door request switch (driver side)
REQ SW -AS [On/Off]	Indicated [On/Off] condition of door request switch (passenger side)
REQ SW -RR [On/Off]	NOTE: This item is displayed, but cannot be monitored
REQ SW -RL [On/Off]	NOTE: This item is displayed, but cannot be monitored
PUSH SW [On/Off]	Indicates [On/Off] condition of push-button ignition switch
UNLK SEN -DR [On/Off]	Indicates [On/Off] condition of driver door UNLOCK status
DOOR SW-DR [On/Off]	Indicated [On/Off] condition of front door switch (driver side)

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Monitor item [Unit]	Description
DOOR SW-AS [On/Off]	Indicated [On/Off] condition of front door switch (passenger side)
DOOR SW-RR [On/Off]	Indicated [On/Off] condition of rear door switch RH
DOOR SW-RL [On/Off]	Indicated [On/Off] condition of rear door switch LH
DOOR SW-BK [On/Off]	NOTE: This item is displayed, but cannot be monitored
CDL LOCK SW [On/Off]	Indicated [On/Off] condition of lock signal from door lock and unlock switch
CDL UNLOCK SW [On/Off]	Indicated [On/Off] condition of unlock signal from door lock and unlock switch
KEY CYL LK-SW [On/Off]	Indicated [On/Off] condition of lock signal from door key cylinder switch
KEY CYL UN-SW [On/Off]	Indicated [On/Off] condition of unlock signal from door key cylinder switch
TRNK/HAT MNTR [On/Off]	Indicates [On/Off] condition of trunk room lamp switch
RKE-LOCK [On/Off]	Indicates [On/Off] condition of LOCK signal from Intelligent Key
RKE-UNLOCK [On/Off]	Indicates [On/Off] condition of UNLOCK signal from Intelligent Key

ACTIVE TEST

Test item	Operation	Description
INT LAMP On		Outputs interior room lamp control signal.
INT LAIVIP	Off	Stops interior room lamp control signal.
STEP LAMP TEST	On	Outputs step lamp control signal.
OTET LAWI TEOT	Off	Stops step lamp control signal.

HEADLAMP

HEADLAMP : CONSULT Function (BCM - HEAD LAMP)

INFOID:0000000013502504

WORK SUPPORT

Service item Setting item		Setting	
	MODE 1*	Normal	
CUSTOM A/LIGHT SETTING	MODE 2	More sensitive setting than normal setting. (Turns ON earlier than normal operation.)	
COSTONI A/LIGITI SETTING	MODE 3	More sensitive setting than MODE 2. (Turns ON earlier than MODE 2.)	
	MODE 4	Less sensitive setting than normal setting. (Turns ON later than normal operation.)	

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Service item	Setting item	Setting		
	MODE 1*	45 sec.		
	MODE 2	Without delay timer function		
	MODE 3	30 sec.		
ILL DELAY SET	MODE 4	60 sec.	Sets delay timer function timer operation time.	
	MODE 5	90 sec.	(All doors closed)	
	MODE 6	120 sec.		
	MODE 7	150 sec.		
	MODE 8	180 sec.		
TWILIGHT On	MODE 1	Without twilight function		
I WILIGHT OII	MODE 2*	With twilight ON function		
	MODE 1	Without wiper link function		
	MODE 2	With wiper LO and HI		
WIPER LINK	MODE 3*	With wiper INT, LO and HI		
	MODE 4	NOTE: This item is displayed, but cannot be used.		

^{*:} Factory setting

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]	Description
PUSH SW [On/Off]	Indicates [On/Off] condition of push-button ignition switch
ENGINE STATE [STOP/STALL/CRANK/RUN]	Indicates [STOP/STALL/CRANK/RUN] condition of engine states
VEH SPEED 1 [km/h]	Indicates [km/h] condition of vehicle speed signal from combination meter
TURN SIGNAL R [On/Off]	
TURN SIGNAL L [On/Off]	
TAIL LAMP SW [On/Off]	
HI BEAM SW [On/Off]	
HEAD LAMP SW1 [On/Off]	Each switch status that BCM judges from the combination switch reading function.
HEAD LAMP SW2 [On/Off]	
PASSING SW [On/Off]	
AUTO LIGHT SW [On/Off]	
FR FOG SW [On/Off]	
RR FOG SW [On/Off]	NOTE: This item is displayed, but cannot be monitored.

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Monitor item [Unit]	Description
DOOR SW-DR [On/Off]	Indicated [On/Off] condition of front door switch (driver side)
DOOR SW-AS [On/Off]	Indicated [On/Off] condition of front door switch (passenger side)
DOOR SW-RR [On/Off]	Indicated [On/Off] condition of rear door switch RH
DOOR SW-RL [On/Off]	Indicated [On/Off] condition of rear door switch LH
DOOR SW-BK [On/Off]	NOTE: This item is displayed, but cannot be monitored.
OPTI SEN (DTCT) [V]	The value of outside brightness voltage input from the optical sensor
OPTI SEN (FILT) [V]	The value of outside brightness voltage filtered by BCM
OPTICAL SENSOR [On/Off/NG]	NOTE: This item is displayed, but cannot be monitored.

ACTIVE TEST

Test item	Operation	Description
FR FOG LAMP	On	Transmits the front fog light request signal to IPDM E/R via CAN communication to turn the front fog lamp ON.
	Off	Stops the front fog light request signal transmission.
RR FOG LAMP	On	NOTE:
KK I OG LAWF	Off	This item is displayed, but cannot be tested.
DAYTIME RUNNING LIGHT	On	Transmits the daytime running light request signal to IPDM E/R via CAN communication to turn the daytime running light ON.
	Off	Stops the daytime running light request signal transmission.
ILL DIM SIGNAL	On	 Transmits the dimmer signal to combination meter via CAN communication and dims combination meter. Transmits the dimmer signal to display control unit and dims display.
	Off	Stops the dimmer signal transmission.

WIPER

WIPER: CONSULT Function (BCM - WIPER)

INFOID:0000000013502508

WORK SUPPORT

Service item	Setting item	Description		
RAIN SENSOR*1	On* ³	With rain sensor (Front wiper intermittent time linked with the rain sensor, vehicle speed, and AUTO dial position)	The setting of front wiper AUTO operation can be changed	
	Off	Without rain sensor (Front wiper intermittent time linked with the vehicle speed and AUTO dial position)		
WIPER SPEED SETTING*2	On	Linked with vehicle speed (Front wiper intermittent time linked with the vehicle speed and wiper intermittent dial position.)	The setting of front wiper INT operation can be changed.	
	Off* ³	Not linked with vehicle speed (Front wiper intermittent time linked with the wiper intermittent dial position.)		

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Service item	Setting item	Description	
FR RR DRIP	On* ³	Front wiper drop wipe ON	The setting of drop wipe
	Off	Front wiper drop wipe OFF	operation can be changed

^{*1:} With rain sensor

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]	Description		
PUSH SW [Off/On]	The switch status input from push-button ignition switch.		
VEH SPEED 1 [km/h]	Displays the value of the vehicle speed signal received from combination meter via CAN communication.		
FR WIPER HI [Off/On]			
FR WIPER LOW [Off/On]			
FR WASHER SW [Off/On]	Status of each switch judged by BCM using the combination switch reading function		
FR WIPER INT [Off/On]			
FR WIPER STOP [Off/On]	Displays the status of the front wiper position signal received from IPDM E/R via CAN communication.		
INT VOLUME [1 – 7]	Status of each switch judged by BCM using the combination switch reading function		
RR WIPER ON [Off/On]	NOTE: The item is indicated, but not monitored.		
RR WIPER INT [Off/On]	NOTE: The item is indicated, but not monitored.		
RR WASHER SW [Off/On]	NOTE: The item is indicated, but not monitored.		
RR WIPER STOP [Off/On]	NOTE: The item is indicated, but not monitored.		
H/L WSR SW [Off/On]	NOTE: This item is indicated, but not monitored		
RAIN SENSOR* [OFF/LOW/HIGH/SPLASH/NG]	Request signal from rain sensor detected by BCM is displayed		

^{*:} For models without rain sensor, this item is displayed, but can not be monitored.

ACTIVE TEST

Test item	Operation	Description
FR WIPER	Hi	Transmits the front wiper request signal (HI) to IPDM E/R via CAN communication to operate the front wiper HI operation.
	Lo	Transmits the front wiper request signal (LO) to IPDM E/R via CAN communication to operate the front wiper LO operation.
	INT	Transmits the front wiper request signal (INT) to IPDM E/R via CAN communication to operate the front wiper INT operation.
	Off	Stops transmitting the front wiper request signal to stop the front wiper operation.

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^{*2:} Without rain sensor

^{*3:} Factory setting

< SYSTEM DESCRIPTION >

Test item	Operation	Description
RR WIPER	NOTE: The item is i	ndicated, but not used.
HEADLAMP WASHER	NOTE: The item is i	ndicated, but not used.

FLASHER

FLASHER: CONSULT Function (BCM - FLASHER)

INFOID:0000000013502505

WORK SUPPORT

Service item	Setting item	Setting
3-TIME FLASHER SETTING	On*	With 3-time flasher function
	Off	Without 3-time flasher function

^{*:} Factory setting

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]	Description	
REQ SW -DR [On/Off]	Indicated [On/Off] condition of door request switch (driver side)	
REQ SW -AS [On/Off]	Indicated [On/Off] condition of door request switch (passenger side)	
PUSH SW [On/Off]	Indicates [On/Off] condition of push-button ignition switch	
TURN SIGNAL R [On/Off]	Fach quitab status that DCM datasta from the combination quitab yearling from the	
TURN SIGNAL L [On/Off]	 Each switch status that BCM detects from the combination switch reading function 	
HAZARD SW [On/Off]	The switch status input from the hazard switch.	
RKE-LOCK [On/Off]	Indicates [On/Off] condition of LOCK signal from Intelligent Key	
RKE-UNLOCK [On/Off]	Indicates [On/Off] condition of UNLOCK signal from Intelligent Key	
RKE-PANIC [On/Off]	NOTE: This item is displayed, but cannot be monitored.	

ACTIVE TEST

Test item	Operation	Description
	RH	Outputs the voltage to blink the right side turn signal lamps.
FLASHER	LH	Outputs the voltage to blink the left side turn signal lamps.
	Off	Stops the voltage to turn the turn signal lamps OFF.

INTELLIGENT KEY

INTELLIGENT KEY: CONSULT Function (BCM - INTELLIGENT KEY)

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< SYSTEM DESCRIPTION >

Monitor item	Description		
INSIDE ANT DIAGNOSIS	This function allows inside key antenna self-diagnosis		
LOCK/UNLOCK BY I-KEY	Door lock function (door request switch) mode can be changed to operation in this mode On: Operate Off: Non-operation		
ENGINE START BY I-KEY	Engine start function mode can be changed to operation with this modeOn: OperateOff: Non-operation		
TRUNK/GLASS HATCH OPEN	Reminder function (trunk lid opener request switch) mode can be changed to operation with this mode On: Operate Off: Non-operation		
AUTO LOCK SET	Auto door lock operation time can be changed in this mode • MODE 1: OFF • MODE 2: 30 sec. • MODE 3: 1 minute • MODE 4: 2 minutes • MODE 5: 3 minutes • MODE 6: 4 minutes • MODE 7: 5 minutes		
SHORT CRANKING OUTPUT	Starter motor can operate during the times below		
CONFIRM KEY FOB ID	It can be checked whether Intelligent Key ID code is registered or not in this mode		
RETRACTABLE MIRROR SET	NOTE: This item is displayed, but cannot be used		
TOUCH SENSOR UNLOCK FUNCTION SETTING	One touch unlock function can be changed to operation with this mode On: Operate Off: Non-operation		
IGN/ACC BATTERY SAVER	Ignition battery saver system mode can be changed to operation with this mode On: Operate Off: Non-operation		
REMOTE ENGINE STARTE	NOTE: This item is displayed, but cannot be used		
INTELLIGENT KEY LINK SET	NOTE: This item is displayed, but cannot be used		
ANSWER BACK	Reminder function (door request switch and Intelligent Key) mode can be selected from the following with this mode On: S mode (buzzer or horn reminder non-operation) Off: C mode (buzzer or horn operate)		
ANSWER BACK I-KEY LOCK UN- LOCK	Reminder function (door request switch) mode can be selected from the following with this mode BUZZER: Sound Intelligent Key warning buzzer HORN: Sound horn Off: Only hazard warning lamp operate INVALID: This item is displayed, but cannot be used		
ANSWERBACK KEYLESS LOCK UNLOCK	Reminder function (Intelligent Key) mode can be selected from the following with this mode On: Horn and hazard warning lamp operate Off: Only hazard warning lamp operate		
WELCOME LIGHT OP SET	NOTE: This item is displayed, but cannot be used		

SELF-DIAG RESULT

Refer to BCS-63, "DTC Index".

DATA MONITOR **NOTE**:

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< SYSTEM DESCRIPTION >

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	
REQ SW -DR	Indicates [On/Off] condition of front door request switch (driver side)	
REQ SW -AS	Indicates [On/Off] condition of front door request switch (passenger side)	
REQ SW -BD/TR	Indicates [On/Off] condition of trunk lid opener request switch	
PUSH SW	Indicates [On/Off] condition of push-button ignition switch	
SHFTLCK SLNID PWR SPLY	Indicates [On/Off] condition of the power supply from BCM to shift lock solenoid	
CLUCH SW	NOTE: This item is displayed, but cannot be monitored	
BRAKE SW 1	Indicates [On/Off]* condition of stop lamp switch power supply	
BRAKE SW 2	Indicates [On/Off] condition of stop lamp switch	
DETE/CANCL SW	Indicates [On/Off] condition of P position	
SFT PN/N SW	Indicates [On/Off] condition of P or N position	
UNLK SEN -DR	Indicates [On/Off] condition of driver door UNLOCK status	
PUSH SW -IPDM	Indicates [On/Off] condition of push-button ignition switch	
IGN RLY1 -F/B	Indicates [On/Off] condition of ignition relay 1	
DETE SW -IPDM	Indicates [On/Off] condition of P position	
SFT PN -IPDM	Indicates [On/Off] condition of P or N position	
SFT P -MET	Indicates [On/Off] condition of P position	
SFT N -MET	Indicates [On/Off] condition of N position	
ENGINE STATE	Indicates [STOP/STALL/CRANK/RUN] condition of engine states	
VEH SPEED 1	Display the vehicle speed signal received from combination meter by numerical value [km/h]	
VEH SPEED 2	Display the vehicle speed signal received from ABS or VDC or TCM by numerical value [km/h]	
DOOR STAT-DR	Indicates [LOCK/READY/UNLK] condition of driver door status	
DOOR STAT-AS	Indicates [LOCK/READY/UNLK] condition of passenger door status	
DOOR STAT-RR	Indicates [LOCK/READY/UNLK] condition of rear door RH status	
DOOR STAT-RL	Indicates [LOCK/READY/UNLK] condition of rear door LH status	
BK DOOR STATE	NOTE: This item is displayed, but cannot be monitored	
ID OK FLAG	Indicates [Set/Reset] condition of Intelligent Key ID	
PRMT ENG STRT	Indicates [Set/Reset] condition of engine start possibility	
PRMT RKE STRT	NOTE: This item is displayed, but cannot be monitored	
I-KEY OK FLAG	Indicates [KEY On/NOT On] condition of Intelligent Key ID and Intelligent Key is detected inside vehicle	
PRBT ENG STRT	Indicates whether or not the engine is in start prohibited status	
ID AUTHENT CANCEL TIMER	Indicates whether or not it is in engine start possible status when Intelligent Key verification is unnecessary	
ACC BATTERY SAVER	Indicates [On/Off] whether or not ignition battery saver is in operation	
CRNK PRBT TMR	Indicates [On/Off] whether or not in cranking prohibited status due to starter motor protection function operation	
AUT CRANK TMR	Indicates [On/Off] whether or not in AUTO CRANKING MODE status	
CRNK PRBT TME	Indicates the time for changing from cranking prohibited status to cranking possible status	
AUT CRANK TMR	Indicates the time that AUTO CRANKING MODE operates	
CRANKING TME	Indicates the cranking operation time	

< SYSTEM DESCRIPTION >

Monitor Item	Condition
SHORT CRANK	NOTE: This item is displayed, but not used
DETE SW PWR	Indicates [On/Off] condition of the power supply from BCM to the A/T shift selector (detention switch)
IGN RLY3-REQ	Indicates [On/Off] condition of blower relay control signal
ACC RLY-REQ	Indicates [On/Off] condition of accessory relay control signal
RKE OPE COUN1	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing
RKE OPE COUN2	NOTE: This item is displayed, but cannot be monitored
TRNK/HAT MNTR	Indicates [On/Off] condition of trunk room lamp switch
RKE-LOCK	Indicates [On/Off] condition of LOCK signal from Intelligent Key
RKE-UNLOCK	Indicates [On/Off] condition of UNLOCK signal from Intelligent Key
RKE-TR/BD	Indicates [On/Off] condition of trunk open signal from Intelligent Key
RKE-PANIC	Indicates [On/Off] condition of panic alarm signal from Intelligent Key
RKE-MODE CHG	NOTE: This item is displayed, but cannot be monitored
RKE PBD	NOTE: This item is displayed, but cannot be monitored

^{*:} OFF is displayed when brake pedal is depressed while brake switch power supply is OFF.

ACTIVE TEST

Test item	Description
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation On: Operates Off: Non-operation
INSIDE BUZZER	This test is able to check warning chime in combination meter operation Take Out: Take away warning chime sounds when CONSULT screen is touched Key: Key warning chime sounds when CONSULT screen is touched Knob: OFF position warning chime sounds when CONSULT screen is touched Off: Non-operation
INDICATOR	This test is able to check information display (combination meter) operation KEY ON: [Intelligent Key system malfunction] displays when CONSULT screen is touched KEY IND: [Steering lock unit ID registration complete] displays when CONSULT screen is touched Off: Non-operation
INT LAMP	This test is able to check interior room lamp operation On: Operates Off: Non-operation
FLASHER	This test is able to check hazard warning lamp operation The hazard warning lamps are activated after "LH/RH/Off" on CONSULT screen is touched
HORN	This test is able to check horn operation • On: Operates
IGN CONT2	This test is able to operate the blower relay in fuse block (J/B) On: Operates Off: Non-operation
ENGINE SW ILLUMI	This test is able to check push-ignition switch illumination operation Push-ignition switch illumination illuminates when "On" on CONSULT screen is touched
PUSH SWITCH INDICATOR	This test is able to check push-ignition switch indicator operation when "On" on CONSULT screen is touched
ACC CONT	This test is able to operate the accessory relay in fuse block (J/B) On: Operates Off: Non-operation

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< SYSTEM DESCRIPTION >

Test item	Description
IGN CONT1	This test is able to operate the ignition relay in IPDM E/R On: Operates Off: Non-operation
IGNITION RELAY	This test is able to operate the ignition relay in fuse block (J/B) On: Operates Off: Non-operation
ST CONT LOW	This test is able to operate the starter relay in IPDM E/R On: Non-operation Off: Operates
BATTERY SAVER	This test is able to check interior room lamp battery saver operation On: Outputs interior room lamp power supply to turn interior room lamps ON. Off: Cuts interior room lamp power supply to turn interior room lamps OFF.
TRUNK/BACK DOOR	This test is able to check trunk lid open operation. This actuator opens when "Open" on CONSULT screen is touched.
RETRACTABLE MIRROR	NOTE: This item is displayed, but cannot be used
INTELLIGENT KEY LINK(CAN)	NOTE: This item is displayed, but cannot be used
REVERSE LAMP TEST	NOTE: This item is displayed, but cannot be used
DOOR HANDLE LAMP TEST	This test is able to check outside handle lamp operation On: Operates Off: Non-operation
DR SEAT LAMP TEST	NOTE: This item is displayed, but cannot be used
AS SEAT LAMP TEST	NOTE: This item is displayed, but cannot be used
SHIFT SPOT LAMP TEST	NOTE: This item is displayed, but cannot be used
TRUNK/LUGGAGE LAMP TEST	This test is able to check trunk room lamp operation On: Operates Off: Non-operation
KEYFOB P/W TEST	This test is able to check keyless power window up/down operation • Up: Non-operation • Down*: Power window and sunroof open • Off: Non-operation
SHIFTLOCK SORENOID TEST	NOTE: This item is displayed, but cannot be used

^{*:} When ignition switch is OFF, driver door opened, power window and sunroof is closed.

COMB SW

COMB SW: CONSULT Function (BCM - COMB SW)

INFOID:0000000012792454

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]	Description
FR WIPER HI [Off/On]	Displays the status of the FR WIPER HI switch in combination switch judged by BCM with the combination switch reading function.
FR WIPER LOW [Off/On]	Displays the status of the FR WIPER LOW switch in combination switch judged by BCM with the combination switch reading function.

< SYSTEM DESCRIPTION >

Monitor item [UNIT]	Description	
FR WASHER SW [Off/On]	Displays the status of the FR WASHER switch in combination switch judged by BCM with the combination switch reading function.	1
FR WIPER INT [Off/On]	Displays the status of the FR WIPER INT/AUTO switch in combination switch judged by BCM with the combination switch reading function.	
INT VOLUME [1 - 7]	Displays the status of wiper volume dial position judged by BCM with the combination switch reading function.	
RR WIPER ON [Off/On]	NOTE: This item is displayed, but cannot be monitored	(
RR WIPER INT [Off/On]	NOTE: This item is displayed, but cannot be monitored	ı
RR WASHER SW [Off/On]	NOTE: This item is displayed, but cannot be monitored	
TURN SIGNAL R [Off/On]	Displays the status of the TURN RH switch in combination switch judged by BCM with the combination switch reading function.	
TURN SIGNAL L [Off/On]	Displays the status of the TURN LH switch in combination switch judged by BCM with the combination switch reading function.	
TAIL LAMP SW [Off/On]	Displays the status of the TAIL LAMP switch in combination switch judged by BCM with the combination switch reading function.	
HI BEAM SW [Off/On]	Displays the status of the HI BEAM switch in combination switch judged by BCM with the combination switch reading function.	(
HEAD LAMP SW 1 [Off/On]	Displays the status of the HEADLAMP 1 switch in combination switch judged by BCM with the combination switch reading function.	
HEAD LAMP SW 2 [Off/On]	Displays the status of the HEADLAMP 2 switch in combination switch judged by BCM with the combination switch reading function.	
PASSING SW [Off/On]	Displays the status of the PASSING switch in combination switch judged by BCM with the combination switch reading function.	
AUTO LIGHT SW [Off/On]	Displays the status of the AUTO LIGHT switch in combination switch judged by BCM with the combination switch reading function.	
FR FOG SW [Off/On]	Displays the status of the FR FOG switch in combination switch judged by BCM with the combination switch reading function.	
RR FOG SW [Off/On]	NOTE: This item is displayed, but cannot be monitored	

BCM

BCM: CONSULT Function (BCM - BCM)

INFOID:0000000012792455

WORK SUPPORT

Item	Description
RESET SETTING VALUE	Return a value set with Work Support of each system to a default value in factory shipment.

IMMU

IMMU: CONSULT Function (BCM - IMMU)

INFOID:0000000013502500

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.

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BCS

< SYSTEM DESCRIPTION >

Monitor item	Content
CONFRM ID ALL	
CONFIRM ID4	Indicates [Yet] at all time.
CONFIRM ID3	Switches to [Done] when a registered Intelligent Key backside is contacted to push-button igni-
CONFIRM ID2	tion switch.
CONFIRM ID1	
NOT REGISTERED	Indicates [ID OK] when key ID that is registered is received or is not yet received. Indicates [ID NG] when key ID that is not registered is received.
TP 4	
TP 3	Indicates the number of IDs that are registered.
TP 2	
TP 1	
PUSH SW	Indicates [On/Off] condition of push-button ignition switch.

ACTIVE TEST

Test item	Description
THEFT IND	This test is able to check security indicator lamp operation. Security indicator lamp is turned on when "On" on CONSULT screen touched.

BATTERY SAVER

BATTERY SAVER: CONSULT Function (BCM - BATTERY SAVER)

INFOID:0000000013502507

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]	Description
REQ SW -DR [On/Off]	Indicated [On/Off] condition of door request switch (driver side)
REQ SW -AS [On/Off]	Indicated [On/Off] condition of door request switch (passenger side)
REQ SW -RR [On/Off]	NOTE: This item is displayed, but cannot be monitored
REQ SW -RL [On/Off]	NOTE: This item is displayed, but cannot be monitored
PUSH SW [On/Off]	Indicates [On/Off] condition of push-button ignition switch
UNLK SEN -DR [On/Off]	Indicates [On/Off] condition of driver door UNLOCK status
DOOR SW-DR [On/Off]	Indicated [On/Off] condition of front door switch (driver side)
DOOR SW-AS [On/Off]	Indicated [On/Off] condition of front door switch (passenger side)
DOOR SW-RR [On/Off]	Indicated [On/Off] condition of rear door switch RH
DOOR SW-RL [On/Off]	Indicated [On/Off] condition of rear door switch LH
DOOR SW-BK [On/Off]	NOTE: This item is displayed, but cannot be monitored

< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description
CDL LOCK SW [On/Off]	Indicated [On/Off] condition of lock signal from door lock and unlock switch
CDL UNLOCK SW [On/Off]	Indicated [On/Off] condition of unlock signal from door lock and unlock switch
KEY CYL LK-SW [On/Off]	Indicated [On/Off] condition of lock signal from door key cylinder switch
KEY CYL UN-SW [On/Off]	Indicated [On/Off] condition of unlock signal from door key cylinder switch
TRNK/HAT MNTR [On/Off]	Indicates [On/Off] condition of trunk room lamp switch
RKE-LOCK [On/Off]	Indicates [On/Off] condition of LOCK signal from Intelligent Key
RKE-UNLOCK [On/Off]	Indicates [On/Off] condition of UNLOCK signal from Intelligent Key

ACTIVE TEST

Test item	Operation	Description
BATTERY SAVER	Off	Outputs interior room lamp power supply.
	On	Stops interior room lamp power supply.

TRUNK

TRUNK: CONSULT Function (BCM - TRUNK)

INFOID:0000000013502497

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	Contents
PUSH SW	Indicates [On/Off] condition of push-button ignition switch
UNLK SEN -DR	Indicates [On/Off] condition of unlock sensor
VEH SPEED 1	Indicates [km/h] condition of vehicle speed signal from combination meter
KEY CYL SW-TR	NOTE: This item is displayed, but cannot be monitored
TR CANCEL SW	Indicates [On/Off] condition of trunk lid opener cancel switch
TR/BD OPEN SW	Indicates [On/Off] condition of trunk lid opener switch
TRNK/HAT MNTR	Indicates [On/Off] condition of trunk room lamp switch
RKE-TR/BD	Indicates [On/Off] condition of trunk open signal from Intelligent Key

THEFT ALM

THEFT ALM: CONSULT Function (BCM - THEFT)

INFOID:0000000013502498

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	Description
REQ SW -DR	Indicates [On/Off] condition of door request switch (driver side).
REQ SW -AS	Indicates [On/Off] condition of door request switch (passenger side).

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Monitored Item	Description
REQ SW -RR	NOTE: This item is indicated, but not monitored.
REQ SW -RL	NOTE: This item is indicated, but not monitored.
REQ SW -BD/TR	Indicates [On/Off] condition of trunk lid opener request switch.
PUSH SW	Indicates [On/Off] condition of push-button ignition switch
UNLK SEN -DR	Indicates [On/Off] condition of driver door UNLOCK status.
DOOR SW-DR	Indicates [On/Off] condition of front door switch (driver side).
DOOR SW-AS	Indicates [On/Off] condition of front door switch (passenger side).
DOOR SW-RR	Indicates [On/Off] condition of rear door switch RH.
DOOR SW-RL	Indicates [On/Off] condition of rear door switch LH.
DOOR SW-BK	NOTE: This item is indicated, but not monitored.
CDL LOCK SW	Indicates [On/Off] condition of lock signal from door lock/unlock switch.
CDL UNLOCK SW	Indicates [On/Off] condition of unlock signal from door lock/unlock switch.
KEY CYL LK-SW	Indicates [On/Off] condition of lock signal from door key cylinder switch.
KEY CYL UN-SW	Indicates [On/Off] condition of unlock signal from door key cylinder switch.
KEY CYL SW-TR	NOTE: This item is indicated, but not monitored.
TR/BD OPEN SW	Indicates [On/Off] condition of trunk lid opener switch.
TRNK/HAT MNTR	Indicates [On/Off] condition of trunk room lamp switch.
SEN CANCEL SW	NOTE: This item is indicated, but not monitored.
RKE-LOCK	Indicates [On/Off] condition of LOCK signal from Intelligent Key.
RKE-UNLOCK	Indicates [On/Off] condition of UNLOCK signal from Intelligent Key.
RKE-TR/BD	Indicates [On/Off] condition of TRUNK OPEN signal from Intelligent Key.

WORK SUPPORT

Service Item	Description
SECURITY ALARM SET	This mode is able to confirm and change security alarm "On" - "Off" setting.

ACTIVE TEST

Test Item	Description
FLASHER	This test is able to check turn signal lamp operation. Turn signal lamp is activated after "LH" or "RH" on CONSULT screen is touched.
THEFT IND	This test is able to check security indicator lamp operation. Security indicator lamp is turned on when "On" on CONSULT screen is touched.
VEHICLE SECURITY HORN	This test is able to check horn operation. Horn is activated for 0.5 seconds after "On" on CONSULT screen is touched.
HEADLAMP(HI)	This test is able to check headlamps operation. Headlamps are turned on when "On" on CONSULT screen is touched.

RETAIND PWR

RETAIND PWR: CONSULT Function (BCM - RETAINED PWR)

INFOID:0000000013502503

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.

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< SYSTEM DESCRIPTION >

Monitor Item	Description
DOOR SW-DR	Indicates [ON/OFF] condition of driver side door switch.
DOOR SW-AS	Indicates [ON/OFF] condition of passenger side door switch.

SIGNAL BUFFER

SIGNAL BUFFER: CONSULT Function (BCM - SIGNAL BUFFER)

INFOID:0000000012792461

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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]	Description
PUSH SW [Off/On]	Displays the status of the push-button ignition switch (push switch) judged by BCM.

ACTIVE TEST

Test item	Opera- tion	Description
OIL PRESSURE SW	Off	OFF
	On	BCM transmits the oil pressure switch signal to the combination meter via CAN communication, which illuminates the oil pressure warning lamp in the combination meter.

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ECU DIAGNOSIS INFORMATION

BCM

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
CONFRM ID ALL	The Intelligent Key ID that the NATS antenna amp. receives is not recognized by any Intelligent Key ID registered to BCM.	Yet
	The Intelligent Key ID that the NATS antenna amp. receives is recognized by any Intelligent Key ID registered to BCM.	Done
CONFIRM ID4	The Intelligent Key ID that the NATS antenna amp. receives is not recognized by the fourth Intelligent Key ID registered to BCM.	Yet
	The Intelligent Key ID that the NATS antenna amp. receives is recognized by the fourth Intelligent Key ID registered to BCM.	Done
CONFIRM ID3	The Intelligent Key ID that the NATS antenna amp. receives is not recognized by the third Intelligent Key ID registered to BCM.	Yet
	The Intelligent Key ID that the NATS antenna amp. receives is recognized by the third Intelligent Key ID registered to BCM.	Done
CONFIRM ID2	The Intelligent Key ID that the NATS antenna amp. receives is not recognized by the second Intelligent Key ID registered to BCM.	Yet
	The Intelligent Key ID that the NATS antenna amp. receives is recognized by the second Intelligent Key ID registered to BCM.	Done
CONFIRM ID1	The Intelligent Key ID that the NATS antenna amp. receives is not recognized by the first Intelligent Key ID registered to BCM.	Yet
	The Intelligent Key ID that the NATS antenna amp. receives is recognized by the first Intelligent Key ID registered to BCM.	Done
NOT REGISTERED	BCM detects registered Intelligent Key ID, or BCM does not detect Intelligent Key ID.	ID OK
	BCM detects non-registration Intelligent Key ID.	ID NG
TP 4	The ID of fourth Intelligent Key is not registered to BCM	Yet
	The ID of fourth Intelligent Key is registered to BCM	Done
TP 3	The ID of third Intelligent Key is not registered to BCM	Yet
	The ID of third Intelligent Key is registered to BCM	Done
TP 2	The ID of second Intelligent Key is not registered to BCM	Yet
	The ID of second Intelligent Key is registered to BCM	Done
TP 1	The ID of first Intelligent Key is not registered to BCM	Yet
	The ID of first Intelligent Key is registered to BCM	Done
REQ SW -DR	Driver door request switch is not pressed	Off
NEQ 3W -DR	Driver door request switch is pressed	On
BEO SW. AS	Passenger door request switch is not pressed	Off
REQ SW -AS	Passenger door request switch is pressed	On
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off
REQ SW -RL	NOTE: The item is indicated, but not monitored.	Off

Monitor Item		Value/Status	_	
DEO CW DD/TD	Trunk lid opener request swi	Off	- A	
REQ SW -BD/TR	Trunk lid opener request swi	On		
PUSH SW	Push-button ignition switch (Off	— В	
PUSH 3W	Push-button ignition switch (push switch) is pressed	On	
SHFTLCK SLNID PWR SPLY	When BCM is not supplying	power to shift lock solenoid	Off	_
SHELLOK STINID SAKE SELL	When BCM is supplying pow	ver to shift lock solenoid	On	С
CLUCH SW	NOTE: The item is indicated, but no	t monitored.	Off	_
BRAKE SW 1	The brake pedal is not depre	essed	Off	– D
DRAKE SW I	The brake pedal is depresse	ed	On	
	The brake pedal is depresse	ed when No. 19 fuse is blown	Off	Е
BRAKE SW 2	The brake pedal is not depre fuse is normal	essed when No. 19 fuse is blown, or No. 10	On	_
	Calcutar lover in D position	Release selector button	Off	F
DETE/CANCL SW	Selector lever in P position	Push selector button	0.5	
	Selector lever in any position	n other than P	On	
CET DN/N C/M	Selector lever in any position	n other than P or N	Off	– G
SFT PN/N SW	Selector lever in P or N posi	tion	On	_
S/L -LOCK	NOTE: The item is indicated, but no	t monitored.	Off	-
S/L -UNLOCK	NOTE: The item is indicated, but no	Off	_	
S/L RELAY-F/B	NOTE: The item is indicated, but no	t monitored.	Off	_ '
S/L LIMIT SW1	NOTE: The item is indicated, but no	t monitored.	Off	J
S/L LIMIT SW2	NOTE: The item is indicated, but no	t monitored.	Off	k
UNLK SEN -DR	Driver door is locked	Off	_ '	
ONER GEN DIC	Driver door is unlocked		On	
PUSH SW -IPDM	Push-button ignition switch (Off	L	
1 GOLLOW II DIN	Push-button ignition switch (On		
IGN RLY1 -F/B	Ignition switch in OFF or AC	C position	Off	D
ION ICET 1-170	Ignition switch in ON position	n	On	B(
DETE SW -IPDM	Selector lever in any position	n other than P Push selector button	Off	
	Selector lever in P position	Release selector button	On	_ ′
	Selector lever in any position	n other than P or N	Off	_
SFT PN -IPDM	Selector lever in P or N posi	On		
OFT D. MET	Selector lever in any position	n other than P	Off	_
SFT P -MET	Selector lever in P position	On	_	
	Selector lever in any position	n other than N	Off	_ F
SFT N -MET	Selector lever in N position		On	-
	Engine stopped		STOP	_
	While the engine stalls		STALL	_
ENGINE STATE	At engine cranking		CRANK	_
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Monitor Item	Condition	Value/Status
S/L LOCK-IPDM	NOTE: The item is indicated, but not monitored.	Off
S/L UNLK-IPDM	NOTE: The item is indicated, but not monitored.	Off
S/L RELAY-REQ	NOTE: The item is indicated, but not monitored.	Off
VEH SPEED 1	While driving	Equivalent to speed- ometer reading
VEH SPEED 2	While driving	Equivalent to speed- ometer reading
S/L ACK	NOTE: The item is indicated, but not monitored.	STAT
DOOD CTAT DD	Driver door is locked	LOCK
DOOR STAT-DR	Driver door is unlocked	UNLOCK
DOOD CTAT AC	Passenger door is locked	LOCK
DOOR STAT-AS	Passenger door is unlocked	UNLOCK
DOOD CTAT DD	Rear door RH is locked	LOCK
DOOR STAT-RR	Rear door RH is unlocked	UNLOCK
DOOD CTAT DI	Rear door LH is locked	LOCK
DOOR STAT-RL	Rear door LH is unlocked	UNLOCK
DV DOOD STATE	Trunk lid is locked	LOCK
BK DOOR STATE	Trunk lid is unlocked	UNLOCK
ID OK FLAG	NOTE: The item is indicated, but not monitored.	Reset
PRMT ENG STRT	When the engine start is prohibited	Reset
PRIVIT ENG STRT	When the engine start is permitted	Set
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset
I-KEY OK FLAG	Intelligent Key ID and Intelligent Key is detected outside vehicle	NOT On
I-NET ON FLAG	Intelligent Key ID and Intelligent Key is detected inside vehicle	KEY On
PRBT S/L LOCK	NOTE: The item is indicated, but not monitored.	Reset
PRBT ENG STRT	Not activated fail safe function	Reset
FRBI ENG SIKI	Engine start is prohibited by fail safe function	SET
ID AUTHENT CANCEL TIMER	Engine start is prohibited without Intelligent Key	STOP
ID AUTHENT CANCLE TIMEN	Engine start is permitted without Intelligent Key	OPRAT
ACC BATTERY SAVER	ACC battery saver timer is stop	STOP
ACC BATTERT SAVER	ACC battery saver timer is running	OPRAT
CRNK PRBT TMR	Cranking is permitted	Off
CRINC FROT TIVIR	Cranking is prohibited	On
AUT CRANK TMR	Not auto cranking	Off
ACT CRAING TIVIL	During auto cranking	On
CRNK PRBT TME	Cranking prohibit timer	sec
AUT CRANK TMR	Auto cranking timer	sec
CRANKING TME	Cranking timer	sec
SHORT CRANK	NOTE: The item is indicated, but not monitored.	_

Monitor Item	Condition	Value/Status
ST RLY-REQ	NOTE: The item is indicated, but not monitored.	Off
IGN RLY1 -REQ	NOTE: The item is indicated, but not monitored.	Off
IGN RLY2 -REQ	NOTE: The item is indicated, but not monitored.	Off
DETE SW PWR	NOTE: The item is indicated, but not monitored.	Off
IGN RLY3-REQ	NOTE: The item is indicated, but not monitored.	Off
S/L PWR	NOTE: The item is indicated, but not monitored.	Off
ACC RLY-REQ	NOTE: The item is indicated, but not monitored.	Off
RKE OPE COUN1	During the operation of the Intelligent Key	Operation frequency of the key
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	_
FR WIPER HI	Other than front wiper switch HI	Off
I IX VVIEEK FII	Front wiper switch HI	On
FR WIPER LOW	Other than front wiper switch LO	Off
FR WIPER LOW	Front wiper switch LO	On
	Front washer switch OFF	Off
FR WASHER SW	Front washer switch ON	On
	Other than front wiper switch INT/AUTO	Off
FR WIPER INT	Front wiper switch INT/AUTO	On
ED WIDED OTOD	Front wiper is not in STOP position	Off
FR WIPER STOP	Front wiper is in STOP position	On
INT VOLUME	Wiper volume dial is in a dial position 1 - 7	Wiper volume dial position
RR WIPER ON	NOTE: The item is indicated, but not monitored.	Off
RR WIPER INT	NOTE: The item is indicated, but not monitored.	Off
RR WASHER SW	NOTE: The item is indicated, but not monitored.	Off
RR WIPER STOP	NOTE: The item is indicated, but not monitored.	Off
TURN SIGNAL R	Other than turn signal switch RH	Off
TORN SIGNAL R	Turn signal switch RH	On
TURN SIGNAL L	Other than turn signal switch LH	Off
I UNIN SIGINAL L	Turn signal switch LH	On
FAIL LAMD CVV	Other than lighting switch 1ST or 2ND	Off
TAIL LAMP SW	Lighting switch 1ST or 2ND	On
LII DE AM OVA	Other than lighting switch HI	Off
HI BEAM SW	Lighting switch HI	On
LIEAD LANCE CIV.	Other than lighting switch 2ND	Off
HEAD LAMP SW 1	Lighting switch 2ND	On

Monitor Item	Condition	Value/Status
HEAD LAMP SW 2	Other than lighting switch 2ND	Off
TIEND ENWI OW 2	Lighting switch 2ND	On
PASSING SW	Other than lighting switch PASS	Off
FASSING SW	Lighting switch PASS	On
AUTO LIGHT SW	Other than lighting switch AUTO	Off
AUTO LIGHT SW	Lighting switch AUTO	On
ED EOC SW	Front fog lamp switch OFF	Off
FR FOG SW	Front fog lamp switch ON	On
RR FOG SW	NOTE: The item is indicated, but not monitored.	Off
	Driver door closed	Off
DOOR SW-DR	Driver door opened	On
	Passenger door closed	Off
DOOR SW-AS	Passenger door opened	On
	Rear RH door closed	Off
DOOR SW-RR	Rear RH door opened	On
	Rear LH door closed	Off
DOOR SW-RL	Rear LH door opened	On
	NOTE:	
DOOR SW-BK	The item is indicated, but not monitored.	Off
	Other than power door lock switch LOCK	Off
CDL LOCK SW	Power door lock switch LOCK	On
CDL UNLOCK SW	Other than power door lock switch UNLOCK	Off
	Power door lock switch UNLOCK	On
(E) (O) (I I C) (I)	Other than driver door key cylinder LOCK position	Off
KEY CYL LK-SW	Driver door key cylinder LOCK position	On
(E) (O) (1 1 1 1 1 O) (1	Other than driver door key cylinder UNLOCK position	Off
KEY CYL UN-SW	Driver door key cylinder UNLOCK position	On
KEY CYL SW-TR	NOTE:	Off
NET CTL SW-TR	The item is indicated, but not monitored.	Oil
HAZARD SW	Hazard switch is OFF	Off
TINE (IND OW	Hazard switch is ON	On
REAR DEF SW	Rear window defogger switch OFF	Off
REAR DEF 3W	Rear window defogger switch ON	On
H/L WSR SW	NOTE: The item is indicated, but not monitored.	Off
	Trunk lid opener cancel switch OFF	Off
TR CANCEL SW	Trunk lid opener cancel switch ON	On
	Trunk lid opener switch OFF	Off
TR/BD OPEN SW	While the trunk lid opener switch is turned ON	On
	Trunk lid closed	Off
TRNK/HAT MNTR	Trunk lid opened	On
FAN ON SIG	NOTE: The item is indicated, but not monitored.	Off
	NOTE:	
AIR COND SW	The item is indicated, but not monitored.	Off

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
SEN CANCEL SW	NOTE: The item is indicated, but not monitored.	Off
THERMO AMP	NOTE: The item is indicated, but not monitored.	Off
RKE-LOCK	LOCK button of the Intelligent Key is not pressed	Off
RNE-LOON	LOCK button of the Intelligent Key is pressed	On
RKE-UNLOCK	UNLOCK button of the Intelligent Key is not pressed	Off
RKE-UNLOCK	UNLOCK button of the Intelligent Key is pressed	On
RKE-TR/BD	TRUNK OPEN button of the Intelligent Key is not pressed	Off
IVIC-14/DD	TRUNK OPEN button of the Intelligent Key is pressed	On
RKE-PANIC	NOTE: The item is indicated, but not monitored.	Off
RKE-MODE CHG	NOTE: The item is indicated, but not monitored.	Off
RKE PBD	NOTE: The item is indicated, but not monitored.	Off
	Air bag signal (NORMAL) is detected.	NOMAL
SHOCK SENSOR	Air bag signal (AIR BAG OPEN) is detected.	On
	Air bag signal is not detected.	Off
ODTI CENI (DTCT)	Bright outside of the vehicle	Close to 5 V
OPTI SEN (DTCT)	Dark outside of the vehicle	Close to 0 V
OPTI SEN (FILT)	Bright outside of the vehicle (Lighting switch AUTO)	Close to 5 V
OPTI SEN (FILI)	Dark outside of the vehicle (Lighting switch AUTO)	Close to 1.50 V
OPTICAL SENSOR	NOTE: The item is indicated, but not monitored.	Off
	No rain (or very light rain)	Off
	Light rain	LOW
RAIN SENSOR	Heavy rain	HIGH
	When liquid is splashed on the front window	SPLSH
	Rain sensor internal error	NG

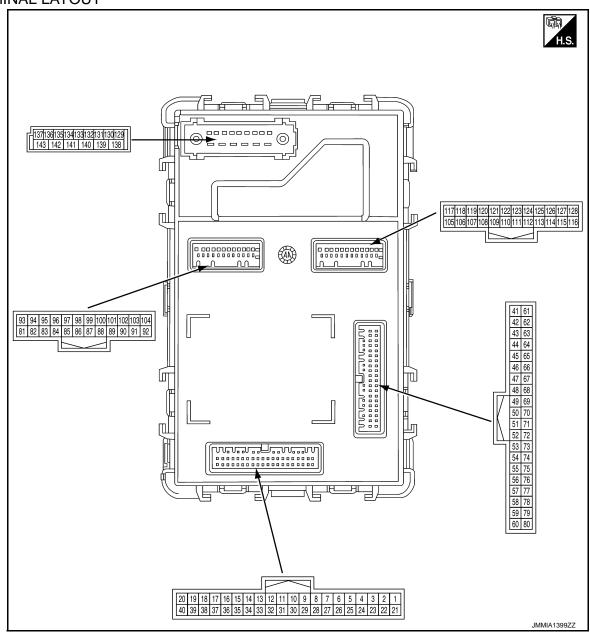
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TERMINAL LAYOUT



PHYSICAL VALUES

	nal No.	Description				Value
+ (VVire	color)	Signal name	Input/ Output		Condition	(Approx.)
1		Push-button ignition	Push-button ig-		Pressed	0 – 1.5 V
(R)	Ground	switch (Push switch)	Input	nput nition switch (push switch)	Not pressed	9 – 16 V
3	Ground	Sensor power sup-	Output	Output Ignition switch	OFF	0 V
(Y)	Ground	ply	Output		ON	4.65 - 5.5 V
4	Ground	Optical sensor		Ignition switch	When bright outside of the vehicle	Close to 5 V
(BG)	Ground	Optical serisor	Input	ON	When dark outside of the vehicle	Close to 0 V
5* ¹ (LG)	Ground	Shock status	Input		_	_

	inal No. e color)	Description			Condition	Value	
+	-	Signal name	Input/ Output		Condition	(Approx.)	/
					All switches OFF Turn signal switch RH	0 V	E
					Lighting switch 1ST	(V)	
10		Combination switch	_	Combination	Lighting switch 2ND	15	(
(W)	Ground	OUTPUT 5	Output	switch	Lighting switch HI	5 0 2 ms JPMIA0031GB 10.7 V	[
					All switches OFF	0 V	
					Turn signal switch LH		[
					Lighting switch 2ND	(V) 15	
11	Ground	Combination switch	Output	Combination	Lighting switch PASS	10	
(SB)	Ground	OUTPUT 4	Output	switch	Front fog lamp switch ON	0	(
					All switches OFF	0 V	
					Front wiper switch LO		ŀ
					Front wiper switch MIST	(V)	
12 (L)	Ground	Combination switch OUTPUT 3	Output	Combination switch	Front wiper switch INT/ AUTO	15 10 5 0	
					Lighting switch AUTO	2 ms JPMIA0034GB	,
					All quitables OFF	10.7 V	
					All switches OFF Front washer switch ON	0 V	ŀ
					Any of the condition below	(1/)	
13 (G)	Ground	Combination switch OUTPUT 2	Output	Combination switch	with all switches OFF INT VOLUME 1 INT VOLUME 5 INT VOLUME 6 NOTE: "INT VOLUME" in "DATA MONITOR" mode of		В
					"BCM" using CONSULT.	10.7 V	,
					All switches OFF	0 V	1
					Front wiper switch HI		
14 (P)	Ground	Combination switch OUTPUT 1	Output	Combination switch	Any of the condition below with all switches OFF INT VOLUME 1 INT VOLUME 2 INT VOLUME 3 INT VOLUME 6 INT VOLUME 7 NOTE: "INT VOLUME" in "DATA MONITOR" mode of	(V) 15 10 5 0 2 ms JPMIA0032GB 10.7 V	ı

	nal No.	Description				Value	
+	color)	Signal name	Input/ Output		Condition	(Approx.)	
15 (G)	Ground	One touch unlock sensor (driver door)	Input	Driver door out- side handle grip (backside)	Touch	(V) 15 10 5 0 JSMIA1404GB	
					Other than the above	9 – 16 V	
16 (G)	Ground	One touch unlock sensor (passenger door)	Input	Passenger door outside handle grip (backside)	Touch	(V) 15 10 5 0 JSMIA1404GB	
					Other than the above	9 – 16 V	
17 (P)	Ground	Receiver and sensor ground	Input	Ignition switch O	FF	0 V	
					ON	0 V	
18 (L)	Ground	Security indicator lamp control	Output	Security indicator lamp	Blinking (Ignition switch OFF)	(V) 15 10 5 0 1 s JPMIA0014GB	
					OFF	12 V	
20 (R)	Ground	Detention switch	Input	Selector lever	P position (Release selector button)	0 – 1.5 V	
(17)					Any position other than P	9 – 16 V	
21	Ground	Step lamp and foot	Output	Step lamp and	ON	0 – 1.5 V	
(SB)		lamp control		foot lamp	OFF	9 – 16 V	
25 (R)	Ground	Stop lamp switch 2	Input	Ignition switch O	FF .	9 – 16 V	
26	Ground	Extended storage	Input	Extended stor-	ON (Ignition switch OFF)	9 – 16 V	
(R)		fuse switch		age fuse switch	OFF	0 V	
27 (P)	Ground	Stop lamp switch 1	Input	Stop lamp switch	OFF (Brake pedal is not depressed)	0 V	
(')	(P)			- Witton	ON (Brake pedal is depressed)	9 - 16 V	

< ECU DIAGNOSIS INFORMATION >

	nal No. color)	Description				Value	А
+	-	Signal name	Input/ Output		Condition	(Approx.)	/ \
30 (W)	Ground	Front door lock assembly driver side (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V	B C D
					UNLOCK status (Unlock sensor switch ON)	0 V	
					ON	0 V	Е
33 (V)	Ground	Trunk lid opener cancel switch	Input	Trunk lid opener cancel switch	OFF	(V) 15 10 5	F
(-)					OFF	+ +10ms PKIB4956J	G
					Pressed	0 V	Н
36 (G)	Ground	Hazard switch	Input	Hazard switch	Not pressed	(V) 15 10 5 0 10 ms JPMIA0012GB	J
						1.1 V	K
39 (BR)	Ground	P/N position	Input	Selector lever	P or N position	(V) 15 10 5 0 10 ms JSMA1472GB	BCS
					Except P and N positions	0 V	N

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	nal No.	Description				Value
+ (Wire	color)	Signal name	Input/ Output		Condition	(Approx.)
48 (R)	Ground	Push-button ignition switch illumination power supply	Output	Push-button ig- nition switch	ACC NOTE: The pulse cycle changes depending on illumination at push-button ignition switch.	0 V (V) 15 10 5 2 ms JMMIA1405GB
52* ²	Ground	Dongle link	Input/	Ignition switch O	ON	2 ms JMMIA1406GB
(G)			Output			
54 (V)	Ground	Communication line	Input/ Output	Ignition switch O	N	(V) 15 10 5 0 20ms PKIA7023E 9.0 - 10 V
55 (R)	Ground	Rain sensor serial link	Input/ Output	Ignition switch O		12 V (V) 15 10 5 0 JPMIA0156GB 8.7 V
59 (P)	Ground	CAN-L	Input/ Output		_	_
60 (L)	Ground	CAN-H	Input/ Output		_	_
61 (G)	Ground	Rear window defog- ger relay control	Output	Ignition switch ON	Rear window defogger is not activated Rear window defogger is activated	9 – 16 V 0 – 1.5 V
62	_	<u> </u>		Ignition switch	When selector lever is in P or N position	9 – 16 V
(R)	Ground	Starter relay control	Output	ON	When selector lever is not in P or N position	0 – 0.5 V

Terminal No. Descr (Wire color)					Value
e color)	Signal name	Input/ Output		Condition	(Approx.)
Ground	Intelligent Key warn- ing buzzer	Output	Intelligent Key warning buzzer	Sounding NOTE: The pulse cycle changes depending on buzzer sounds.	0 - 0.5 V
				Not sounding	9 – 16 V
Ground	Outside handle lamp	Output	Outside handle	ON	0 – 0.5 V
Oroana	control	Carpar	lamp	OFF	9 – 16 V
				OFF or ACC	0 – 0.5 V
Ground	Blower relay control	Output	Ignition switch	ON	9 – 16 V
Ground	Ignition relay (F/B)	Output	lanition switch	OFF or ACC	0 – 0.5 V
Ciodila	control	Japan	.g	ON	9 – 16 V
Ground	Dimmer signal	Output	Ignition switch ON	Either of the following conditions • Lighting switch OFF • The area around the vehicle is bright (Shine a light on the optical sensor)	0 V
				The area around the vehi- cle is dark (Block the light from the optical sensor)	12 V
Ground	Detention switch	Output	Ignition switch	ACC or ON For 15 seconds after ignition switch OFF	9 – 16 V
	power supply			After 15 seconds after ignition switch OFF	0 – 0.5 V
Ground	Ignition relay (IPDM	Output	lanition switch	OFF or ACC	9 – 16 V
Ciound	E/R) control	Caiput	-gindon switch	ON	0 – 0.5 V
Ground	Driver door request	Input	Driver door re-	ON (Pressed)	0 – 1.5 V
2.230	switch		quest switch	OFF (Not pressed)	9 – 16 V
				ON (Pressed)	0 – 1.5 V
Ground	Passenger door request switch	Input	Passenger door request switch	OFF (Not pressed)	(V) 15 10 5 0
	Ground Ground Ground Ground Ground Ground Ground Ground	Ground Intelligent Key warning buzzer Ground Outside handle lamp control Ground Ignition relay (F/B) control Ground Dimmer signal Ground Ignition relay (IPDM E/R) control Ground Passenger door re-	Signal name Input/Output Ground Intelligent Key warning buzzer Output Ground Coutside handle lamp control Output Ground Ignition relay (F/B) Output Ground Dimmer signal Output Ground Coutput Output Ground Detention switch power supply Output Ground Ignition relay (IPDM control Output Ground Ignition relay (IPDM control Output Ground Driver door request switch Input Ground Passenger door re-Input Input Ground Input Input Ground Passenger door re-Input Input Ground Input Input Ground I	Signal name Input/ Output	Signal name Input/Output Condition

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	nal No.	Description				Value
+	color)	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF	(V) 15 10 5 0 2 ms JPMIA004
75 (BR)	Ground	Combination switch INPUT 5	Input	Combination switch	Front fog lamp switch ON	(V) 15 10 5 0 2 ms JPMIA0033
					Any of the condition below with all switches OFF INT VOLUME 1 INT VOLUME 2 INT VOLUME 6 INT VOLUME 7 NOTE: "INT VOLUME" in "DATA MONITOR" mode of "BCM" using CONSULT.	(V) 15 10 5 0 2 ms JPMIA0040

< ECU DIAGNOSIS INFORMATION >

	nal No. color)	Description				Value	А
+	-	Signal name	Input/ Output		Condition	(Approx.)	, (
					All switches OFF	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V	B C
					Lighting switch AUTO	(V) 15 10 5 0	E
76 (BG)	Ground	Combination switch INPUT 4	Input	Combination switch	Lighting switch 1ST	1.3 V (V) 15 10 2 ms JPMIA0036GB 1.3 V	G H
					Any of the condition below with all switches OFF INT VOLUME 1 INT VOLUME 5 INT VOLUME 6 NOTE: "INT VOLUME" in "DATA MONITOR" mode of "BCM" using CONSULT.	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V	J K L

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	nal No.	Description				Value
+ (Wire	color)	Signal name	Input/ Output		Condition	(Approx.)
		Combination switch INPUT 3	Input	Combination switch	All switches OFF	(V) 15 10 5 0 2 ms JPMIA0041GB
77	Ground				Lighting switch HI	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3 V
(V)					Lighting switch 2ND	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3 V
					Any of the condition below with all switches OFF INT VOLUME 1 INT VOLUME 2 INT VOLUME 3 NOTE: "INT VOLUME" in "DATA MONITOR" mode of "BCM" using CONSULT.	(V) 15 10 5 0 2 ms JPMIA0040GB 1.3 V

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	nal No. color)	Description	1	_	• 11.1	Value	
+	- COIOI)	Signal name	Input/ Output		Condition	(Approx.)	F
					All switches OFF	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V	(C
					Lighting switch PASS	(V) 15 10 5 0 2 ms JPMIA0037GB	E
78 (Y)	Ground	Combination switch INPUT 2	Input	Combination switch	Lighting switch 2ND	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3 V	ŀ
					Front wiper switch INT/ AUTO	(V) 15 10 5 0 2 ms JPMIA0038GB	ŀ
					Front wiper switch HI	(V) 15 10 5 0 2 ms JPMIA0040GB 1.3 V	B

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	nal No.	Description				Value
+ (vvire	color)	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF	(V) 15 10 5 0
					Turn signal switch LH	(V) 15 10 5 0 2 ms JPMIA0037GB
79 (LG)	Ground	Combination switch INPUT 1	Input	Combination switch	Turn signal switch RH	(V) 15 10 5 0 2 ms JPMIA0036GB
					Front wiper switch LO	(V) 15 10 5 0 2 ms JPMIA0038GB
					Front washer switch ON	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V
80	0	Trunk lid opener	la : 1	Trunk lid opener	ON (Pressed)	0 – 1.5 V
(L)	Ground	switch	Input	switch	OFF (Not pressed)	9 – 16 V

	inal No. e color)	Description			0 100	Value	А
+	-	Signal name	Input/ Output		Condition	(Approx.)	
82 (W)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (When rear LH door closed)	(V) 15 10 5 0 10 ms JPMIA0011GB	B C
					ON (When rear door LH opened)	11.8 V 0 V	E
					ON (Pressed)	0 – 1.5 V	
83 (L)	Ground	Trunk lid opener request switch	Input	Trunk lid opener request switch	OFF (Not pressed)	(V) 15 10 5 0 2 ms JMMIA1408GB	F G
85	Ground	Trunk room lamp	Output	Trunk room	OFF	9 – 16 V	Н
(P)	Ground	control	Output	lamp	ON	0 – 1 V	
91	Ground	Trunk lid open	Output	Trunk lid	OFF (Actuator is not activated)	0 V	
(GR)	Glound	Trank na open		TTUTIK IIU	OPEN (Actuator is activated)	9 – 16 V	ı
					Turn signal switch OFF	0 V	J
92 (W)	Ground	Turn signal RH out- put (Side and rear)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0 1 s	K
						6.5 V (Turn signal lamp turn on: 9 - 16 V)	ВС
						(V)	Ν
93 (G)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (When rear RH door closed)	10 5 0 JPMIA0011GB	0
						11.8 V	Р
					ON (When rear door RH opened)	0 V	

	nal No.	Description	1			Value
+ (Wire	color)	Signal name	Input/ Output		Condition	(Approx.)
94 (GR)	Ground	Passenger door switch	Input	Passenger door switch	OFF (When passenger door closed)	(V) 15 10 5 0 10 ms 10 ms JPMIA0011GB
					ON (When passenger door opened)	0 V
96 (V)	Ground	Driver door switch	Input	Driver door switch	OFF (When driver door closed)	(V) 15 10 5 0 10 ms 10 ms JPMIA0011GB
					ON (When driver door opened)	0 V
97 (R)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (When trunk lid closed)	(V) 15 10 5 0 10 ms 10 ms JPMIA0011GB
					ON (When trunk lid opened)	0 V
99	Ground	Inside key antenna (Trunk room) (-)	Output	Ignition switch ON and any door is open	When Intelligent Key is not in the antenna detection area	(V) 60 40 20 0 1 s
(GR)					When Intelligent Key is in the antenna detection area	(V) 60 40 20 0 1 s

	inal No. e color)	Description			Condition	Value	
+	-	Signal name	Input/ Output		Condition	(Approx.)	,
100	Od	Inside key antenna	0.4-4	Ignition switch	When Intelligent Key is not in the antenna detection area	(V) 60 40 20 0 1 s JSMIA1348GB	(
(W) Ground	(Trunk room) (+)	Output	ON and any door is open	When Intelligent Key is in the antenna detection area	(V) 60 40 20 0 1 s JSMIA1406GB		
101 Ground Rear b	Rear bumper anten-		When pressing the trunk lid opener request switch with all doors are locked and igni- tion switch OFF	When Intelligent Key is not in the antenna detection area	(V) 60 40 20 0 1 s JSMIA1504GB	I	
		Output		When Intelligent Key is in the antenna detection area	(V) 60 40 20 0 1 s JSMIA1505GB		
102	Ground	Rear bumper anten-	Output	When pressing the trunk lid opener request switch with all	When Intelligent Key is not in the antenna detection area	(V) 60 40 20 0 1 s JSMIA1504GB	В
(LG)	Giound	na (+)	Output	doors are locked and igni- tion switch OFF	When Intelligent Key is in the antenna detection area	(V) 60 40 20 0 1 s	

	nal No. color)	Description			O a little	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
					Turn signal switch OFF	0 V
103 (Y)	Ground	Turn signal LH out- put (Side and rear)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 s PKID0926E 6.5 V (Turn signal lamp turn on: 9 - 16 V)
					Turn signal switch OFF	0 V
105 (V)	Ground	Turn signal RH out- put (Front)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0 FKID0926E 6.5 V (Turn signal lamp turn on: 9 - 16 V)
107 (P)	Ground	Push-button ignition switch illumination ground	Input	Ignition switch O	N	0 V
111	Ground	ACC/ON indicator	Output	Ignition switch	OFF	9 – 16 V
(Y)	0.00	lamp	Carpar	ig.iiio.i oiiiio.i	ACC or ON	0 – 1.5 V
113 (SB)	Ground	Accessory relay control	Output	Ignition switch	OFF	0 – 0.5 V
(36)		CONTROL			ACC or ON	9 – 16 V
114 (LG)	Ground	Passenger door antenna (+)	Output	When pressing the front door request switch (passenger side) with all doors are locked and igni- tion switch OFF	When Intelligent Key is not in the antenna detection area	(V) 30 20 10 0 1 s JSMIA1506GB
					When Intelligent Key is in the antenna detection area	30 20 10 0 1 s JSMIA1507GB

	inal No. e color)	Description	1	Condition		Value	
+	e color)	Signal name	Input/ Output		Condition	(Approx.)	
115 (V) Ground		Passenger door an-	Output	When pressing the front door request switch (passenger side) with all doors are locked and igni- tion switch OFF	When Intelligent Key is not in the antenna detection area	(V) 30 20 10 0 1 s JSMIA1506GB	
	Ground	tenna (-)			When Intelligent Key is in the antenna detection area	(V) 30 20 10 0 1 1 s JSMIA1507GB	
116	Cround	Inside key antenna	Outout	Ignition switch	When Intelligent Key is not in the antenna detection area	(V) 60 40 20 0 1 s JSMIA1348GB	
116 (BR)	Ground	(Console) (+)	Output	ON and any door is open	When Intelligent Key is in the antenna detection area	(V) 60 40 20 0 1 s	
					Turn signal switch OFF	0 V	
117 (W/B)	Ground	Turn signal LH out- put (Front)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 PKID0926E 6.5 V (Turn signal lamp turn on: 9 - 16	

	nal No.	Description				Value
+	color)	Signal name	Input/ Output		Condition	(Approx.)
119	Ground	Remote keyless entry receiver commu-		Ignition switch	Waiting	(V) 15 10 5 0 200 ms JMMIA1409GB
(L)	Glodina	nication	Input	ON	When operating either button on Intelligent Key	(V) 15 10 5 0 200 ms JMMIA1410GB
121	Ground	Ground Driver door antenna (-)	Output	When pressing the front door request switch (driver side) with all doors are locked and ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 30 20 10 0 1 s JSMIA1506GB
(SB)	Ciodila				When Intelligent Key is in the antenna detection area	(V) 30 20 10 0 1 s JSMIA1507GB
122	0	Driver door antenna (+)	Output	When pressing the front door request switch (driver side) with all doors are locked and ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 30 20 10 0 1 s JSMIA1506GB
(BG)	Ground				When Intelligent Key is in the antenna detection area	(V) 30 20 10 0 1 s JSMIA1507GB

	inal No. e color)	Description			O and distant	Value	А
+	-	Signal name	Input/ Output		Condition	(Approx.)	/1
123		Inside key antenna		Ignition switch	When Intelligent Key is not in the antenna detection area	(V) 60 40 20 0 1 s JSMIA1348GB	B C D
(R)		(Instrument lower) (+)	Output	ON and any door is open	When Intelligent Key is in the antenna detection area	(V) 60 40 20 0 1 s	E
124	124	Inside key antenna (Instrument lower) (-)	Output	Ignition switch ON and any door is open	When Intelligent Key is not in the antenna detection area	(V) 60 40 20 0 1 s JSMIA1413GB	G H I
(G)	Ground				When Intelligent Key is in the antenna detection area	(V) 60 40 20 0 1 s	J K L
126 (B)	Ground	NATS antenna amp.	Input/ Output	Intelligent Key: Intelligent Key battery is re- moved	Brake pedal: Depressed	(V) 15 10 5 0 W W JSKIA3178ZZ	BCS N
127 (W)	Ground	NATS antenna amp.	Input/ Output	Intelligent Key: Intelligent Key battery is re- moved	Brake pedal: Depressed	(V) 30 20 10 0 	O P

	nal No.	Description				Value
+ (VVire	color)	Signal name	Input/ Output		Condition	(Approx.)
				Ignition switch	When Intelligent Key is not in the antenna detection area	(V) 60 40 20 0 1 s
128 (GR)	Ground	Inside key antenna (Console) (-)	Output	ON and any door is open	When Intelligent Key is in the antenna detection area	(V) 60 40 20 0 1 s
		Interior room lamp battery saw (Cuts the interior room lamp p			0 V	
129 (LG)	Ground	Interior room lamp power supply	Output	vated.	p battery saver is not acti- rior room lamp power sup-	9 – 16 V
130	Ground	Passenger door UN-	Output	Passenger door	UNLOCK (Actuator is activated)	9 – 16 V
(P)	Ground	LOCK	Output	r asseriger door	Other then UNLOCK (Actuator is not activated)	0 V
131 (Y)	Ground	Battery power sup- ply	Input	Ignition switch O	FF	9 – 16 V
132	Ground	Rear door LH/RH	Output	Rear door LH/	LOCK (Actuator is activated)	9 – 16 V
(V)	0.00	LOCK		RH	Other then LOCK (Actuator is not activated)	0 V
133	Ground	Rear door LH/RH	Output	Rear door LH/	UNLOCK (Actuator is activated)	9 – 16 V
(BR)	0.00	UNLOCK		RH	Other then UNLOCK (Actuator is not activated)	0 V
134 (B)	Ground	Ground	Output	Ignition switch O		0 V
135	Ground	Front doors and fuel	Output	Front doors and	LOCK (Actuator is activated)	9 – 16 V
(V)	Cround	lid LOCK	Japan	fuel lid	Other then LOCK (Actuator is not activated)	0 V
136 (V)	Ground	Interior room lamp	Output	Map lamp and personal lamp	When all doors are closed (Interior room lamp is turned OFF)	0 V
				(Door position)	Any doors opens (Interior room lamp is turned ON)	9 – 16 V
137	Ground	Driver door and fuel	Output	Driver door and	UNLOCK (Actuator is activated)	9 – 16 V
(LG)	Giodila	lid UNLOCK	Output	fuel lid	Other then UNLOCK (Actuator is not activated)	0 V

Terminal No.		Description			Value (Approx.)	
+ (Wire	ire color) Signal name Input/ Output Condition		Condition			
138 (R)* ³ (P)* ⁴	Ground	Rear doors lock actuator power supply	Input	Ignition switch ON	9 – 16 V	
139 (W)	Ground	Battery power sup- ply (F/L)	Input	Ignition switch OFF	9 – 16 V	
	Ground	Ignition switch ON C	Output	Ignition switch OFF	0 V	
140 (BR)				Within 45 second after ignition switch is turned OFF	9 – 16 V	
				Ignition switch ON		
141 (R)	Ground	Power supply (BAT)	Output	Ignition switch OFF	9 – 16 V	
142 (R)	Ground	Front door and fuel filler lid lock actuator power supply	Input	Ignition switch ON	9 – 16 V	
143 (B)	Ground	Ground	Output	Ignition switch OFF	0 V	

^{*1:} This harness is connected but not used.

Fail-safe

FAIL-SAFE CONTROL BY DTC

BCM performs fail-safe control when any DTC are detected.

Display contents of CONSULT	Fail-safe
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking
B2195: ANTI-SCANNING	Inhibit engine cranking
B2198: NATS ANTENNA AMP	Inhibit engine cranking
B219B: ID DISCORD SVT-BCM	Inhibit engine cranking
B2608: STARTER RELAY	Inhibit engine cranking
B260F: ENG STATE SIG LOST	Inhibit engine cranking
B261B: RES ENG RUN STUCK MALFNC	Fuel cut
B26F1: IGN RELAY OFF	Inhibit engine cranking
B26F2: IGN RELAY ON	Inhibit engine cranking
B26F3: START CONT RLY ON	Inhibit engine cranking
B26F4: START CONT RLY OFF	Inhibit engine cranking
B26F7: BCM	Inhibit engine cranking by Intelligent Key system
B26FE: HOOD SW CAN DIAG ERROR	Inhibit remote engine start

FAIL-SAFE CONTROL BY RAIN SENSOR MALFUNCTION

BCM detects the rain sensor serial link error and the rain sensor malfunction.

BCM controls the following fail-safe when rain sensor has a malfunction.

- Front wiper switch AUTO and sensing rain drop: The condition just before the activation of fail-safe is maintained until the front wiper switch is turned OFF.
- Front wiper switch AUTO and not sensing rain drop: Front wiper is LO operation until the front wiper switch is turned off.

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^{*2:} For Canada

^{*3:} For 2.0L turbo gasoline engine models

^{*4:} Except for 2.0L turbo gasoline engine models

FAIL-SAFE CONTROL OF COMBINATION SWITCH READING FUNCTION CAUSED BY LOW POWER SUPPLY VOLTAGE

If voltage of battery power supply lower, BCM maintains combination switch reading to the status when input voltage is less than approximately 9 V.

NOTE:

When voltage of battery power supply is approximately 9 V or more, combination switch reading function returns to normal operation.

DTC Inspection Priority Chart

INFOID:0000000012792465

If some DTCs are displayed at the same time, perform inspections one by one based on the following priority chart.

Priority	DTC
1	B2562: LOW VOLTAGE
2	U1000: CAN COMM U1010: CONTROL UNIT (CAN)
3	 B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2195: ANTI-SCANNING B2196: DONGLE NG B2198: NATS ANTENNA AMP B219B: ID DISCORD SVT-BCM B261B: RES ENG RUN STUCK MALFNC B26FE: HOOD SW CAN DIAG ERROR
4	B2555: STOP LAMP B2556: PUSH-BTN IGN SW B2557: VEHICLE SPEED B2601: SHIFT POSITION B2602: SHIFT POSITION B2603: SHIFT POSI STATUS B2604: PNP/CLUTCH SW B2605: PNP/CLUTCH SW B2605: PNP/CLUTCH SW B2606: STARTER RELAY B260F: ENG STATE SIG LOST B2614: BCM B2616: BCM B2616: BCM B2616: BCM B2618: PUSH-BTN IGN SW B2618: PUSH-BTN IGN SW B2618: VEHICLE TYPE B26F1: IGN RELAY OFF B26F2: IGN RELAY ON B26F3: START CONT RLY ON B26F3: START CONT RLY OFF B26F4: START CONT RLY OFF B26F6: BCM B26F6: BCM B26F7: BCM B26F7: BCM B26F7: BCM B26F7: BCM B26F7: BCM B26F7: INTELLIGENT TUNER COMM ERROR U0415: VEHICLE SPEED
5	B2621: INSIDE ANTENNA B2622: INSIDE ANTENNA B2623: INSIDE ANTENNA
6	 B259A: ROOM LAMP FUSE BLOWN B259B: DR TOUCH SENSOR B259C: PASS TOUCH SENSOR B2626: OUTSIDE ANTENNA B2627: OUTSIDE ANTENNA B2628: OUTSIDE ANTENNA

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NOTE:

The details of time display are as follows.

- CRNT: A malfunction is detected now.
- PAST: A malfunction was detected in the past.

IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data, refer to <u>BCS-17, "COM-MON ITEM"</u>.

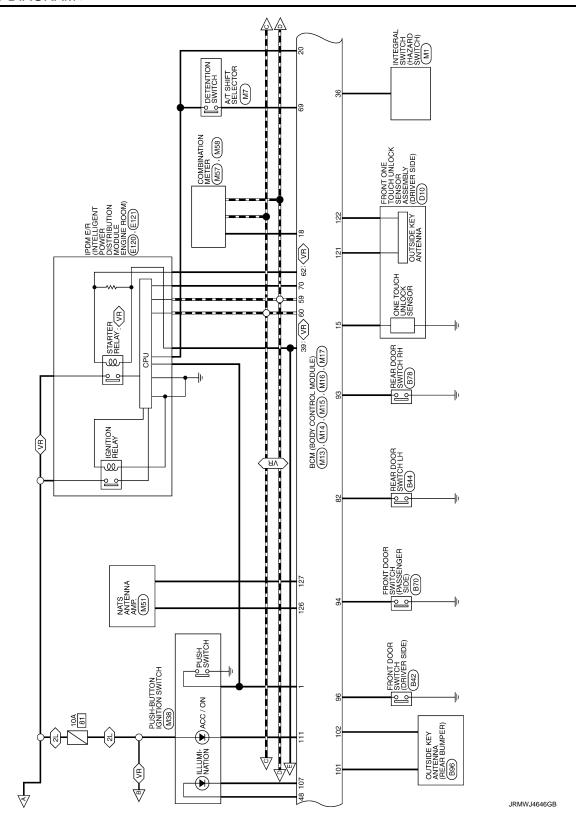
CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warning dis- play	Security indi- cator lamp ON	Reference
No DTC is detected. Further testing may be required.	_	_	_	_	_
U1000: CAN COMM	_	_	_	_	BCS-86
U1010: CONTROL UNIT (CAN)	_	_	_	_	BCS-87
U0415: VEHICLE SPEED	_	_	×	_	BCS-88
B2192: ID DISCORD BCM-ECM	×	_	_	×	SEC-101
B2193: CHAIN OF BCM-ECM	×	_	_	×	SEC-102
B2195: ANTI-SCANNING	×	_	_	×	SEC-104
B2196: DONGLE NG	×	_	_	_	SEC-105
B2198: NATS ANTENNA AMP	×	_		×	SEC-107
B219B: ID DISCORD SVT-BCM	×	_	_	×	SEC-153
B2555: STOP LAMP	_	×	×	_	SEC-109
B2556: PUSH-BTN IGN SW	_	×	×	_	SEC-112
B2557: VEHICLE SPEED	×	×	×	_	SEC-114
B2562: LOW VOLTAGE	_	×	_	_	BCS-89
B259A: ROOM LAMP FUSE BLOWN	_	_	_	_	BCS-90
B259B: DR TOUCH SENSOR	_	×	_	_	DLK-83
B259C: PASS TOUCH SENSOR	_	×	_	_	DLK-85
B2601: SHIFT POSITION	×	×	×	_	SEC-116
B2602: SHIFT POSITION	×	×	×	_	SEC-118
B2603: SHIFT POSI STATUS	×	×	×	_	SEC-121
B2604: PNP/CLUTCH SW	×	×	×	_	SEC-125
B2605: PNP/CLUTCH SW	×	×	×	_	SEC-128
B2608: STARTER RELAY	×	×	×	_	SEC-131
B260F: ENG STATE SIG LOST	×	×	×	_	SEC-133
B2614: BCM	_	×	×	_	PCS-81
B2615: BCM	_	×	×	_	PCS-84
B2616: BCM	_	×	×	_	PCS-87
B2618: BCM	_	×	×	_	PCS-90
B261A: PUSH-BTN IGN SW	_	×	×	_	PCS-92
B261B: RES ENG RUN STUCK MALFNC	×	×	×	_	SEC-155
B2621: INSIDE ANTENNA	_	×		_	DLK-87
B2622: INSIDE ANTENNA	_	×	_	_	DLK-90
B2623: INSIDE ANTENNA	_	×	_	_	DLK-93

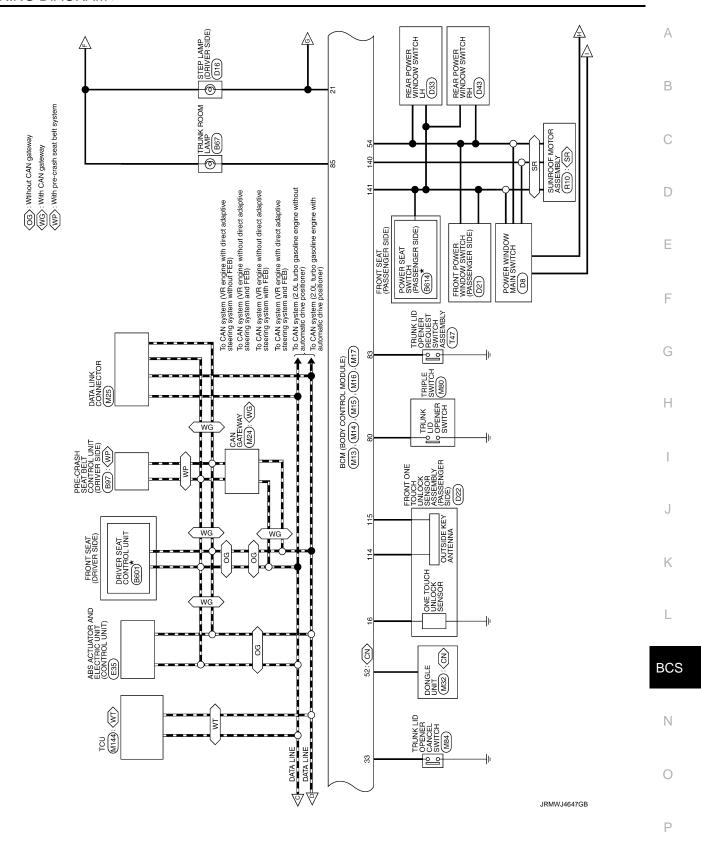
Revision: November 2016 BCS-63 2016 Q50

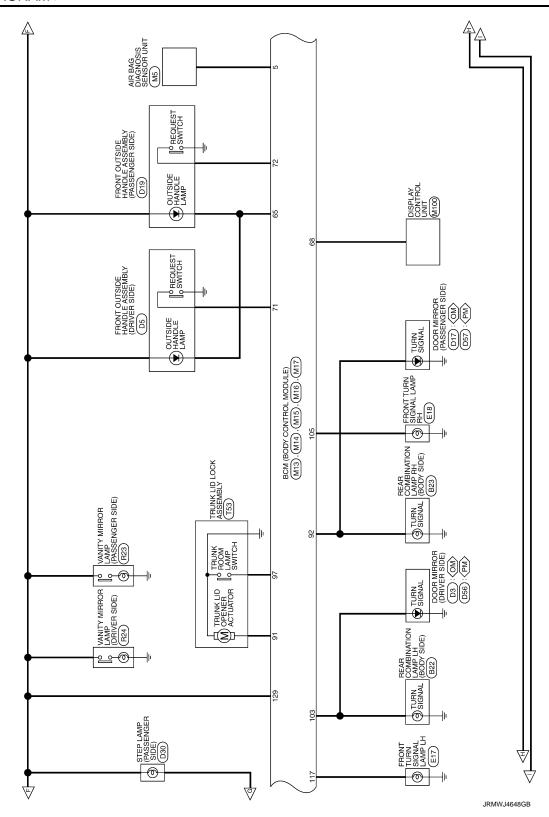
. 100 2 11 10 100 10 11 10 11 11 11 11 11 11 11							
CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warning dis- play	Security indi- cator lamp ON	Reference		
B2626: OUTSIDE ANTENNA	_	×	_	_	DLK-96		
B2627: OUTSIDE ANTENNA	_	×	_	_	DLK-98		
B2628: OUTSIDE ANTENNA	_	×	_	_	DLK-100		
B26F1: IGN RELAY OFF	×	×	×	_	PCS-94		
B26F2: IGN RELAY ON	×	×	×	_	PCS-96		
B26F3: START CONT RLY ON	×	×	×	_	SEC-135		
B26F4: START CONT RLY OFF	×	×	×	_	SEC-137		
B26F6: BCM	_	×	×	_	PCS-98		
B26F7: BCM	×	×	×	_	SEC-139		
B26F8: BCM	_	×	×	_	SEC-140		
B26FC: KEY REGISTRATION	_	×	×	_	SEC-141		
B26FE: HOOD SW CAN DIAG ER- ROR	×	×	×	_	SEC-141		
B26FF: INTELLIGENT TUNER COMM ERROR	_	×	×	_	DLK-102		

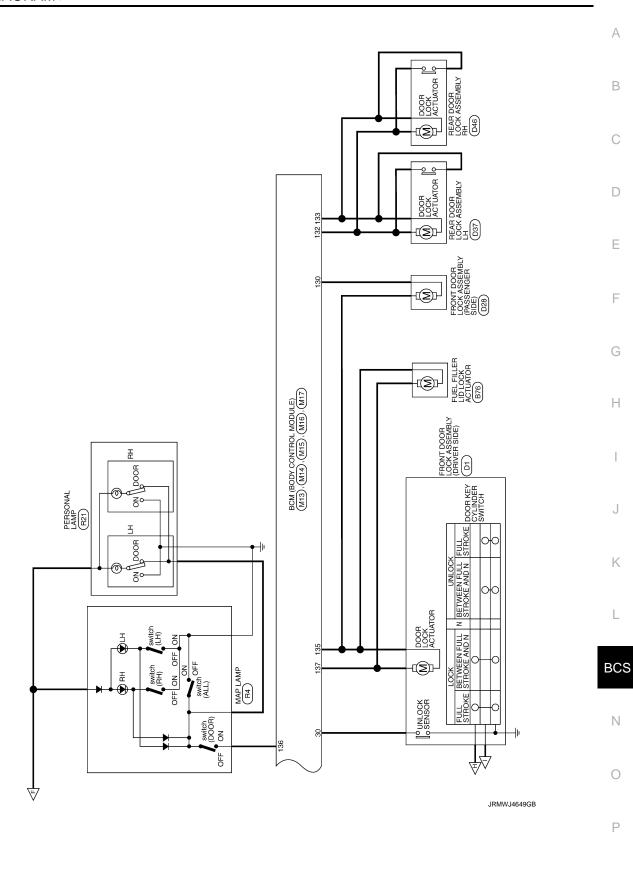
WIRING DIAGRAM Α **BCM** Wiring Diagram INFOID:0000000012792467 В FUSE BLOCK (J/B) (M132),(M133), (E64),(E65) A/T ASSEMBLY (F2):(VR) JOINT CONNECTOR C TCM **F100** INSIDE KEY ANTENNA (INSTRUMENT LOWER) (M109) 10A D 5A *: This connector is not shown in "Harness Layout". 55:<LR> RAIN SENSOR (R5): (LR) $\langle 2L \rangle$: 2.0L Turbo gasoline engine $\langle VR \rangle$: With VR engine ACCESSORY RELAY To accessory power supply Е INSIDE KEY ANTENNA (TRUNK ROOM) (B71) F To ignition L IGNITION RELAY INSIDE KEY ANTENNA (CONSOLE) (M114) G ⟨LR⟩: With rain sensor ⟨OM⟩: Without automatic drive positioner ⟨PM⟩: With automatic drive positioner BCM (BODY CONTROL MODULE) (M13), (M14), (M15), (M16), (M17) Н 15A 15A REMOTE KEYLESS ENTRY RECEIVER (M113) HEAR WINDOW PEFOGGER 10A ⟨CN⟩: For Canada ⟨SR⟩: With sunroof ⟨WT⟩: With telematics J OPTICAL SENSOR (M91) K 10A 22 5A STOP LAMP SWITCH (E57) L 2 2 143 8 BCM (BODY CONTROL MODULE) To automatic air conditioning system BCS BLOWER PELAY Ν -w COMBINATION SWITCH 20 A 0 40A M IGNITION RELAY (B151): <2L BATTERY 2016/02/15 Р 4 40 70 70 لمف

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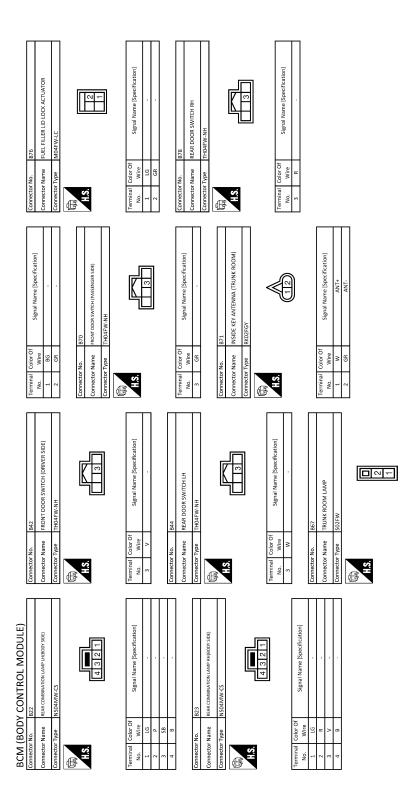








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Connector Type RK02FGY	MS02FL-M2-LC	24 P SLIDE SW (FORWARD)	Connector Type E06FGY-RS
		$\frac{1}{1}$	
		8614	(123456)
Signal Name [Specification] No. V	or Of Signal Name [Specification]	Connector Name POWER SEAT SWITCH Connector Type NS10FW-CS	inal Col
GR ANT- 2 B 3 R			1 P
Connector No. 897 5 LC	. 51	43 33	
PRE-CRASH SEAT BELT CONTROL UNIT (DRIVER SIDE)			
Connector lype NH18FW-C52 Connector Name	DRIVER SEAT CONTROL UNIT	Terminal Color Of Signal Name (Specification)	П
		++	Connector Name DOOR MIRROR (DRIVER SIDE) Connector Type TH24MW-NH
12 14 1617 20	5 6 7 8 9 10 11	35	1
Color Of Sienal Name Isoecification	17.118(1)9(20)21/23/23/23/23/23/23/23	39	121110 7 6 5 3 2 14 14 14 14
Wire OUT_1 Terminal Color Of	or Of Cinnal Mama (Consideration)	41	
R CAN_LO No. Wire		43 -	Tanastral Calas Of
SENS POWER 2			No. Wire Signal Name [Specification]
B OUT_2 3 R	P START SW P PULSE (RECLINER)		2 R
LOCAL_COMM_1 5			Н
engine] 7			- M 9
Ш	V SLIDE SW (BACKWARD)		Н
9 10			11 GR -
Н			Ħ
+			ř
18	LG PULSE (SLIDE SENSOR) W DILLSE (LIETER ERONT)		19 B -

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Connector No. D21 Connector Name (Not Figure 1) Connector Type (NS16FW-C5 (計算)	Terminal Color Of Signal Name [Specification] No. Wire Signal Name [Specification] 3 LG ENCORE ROWER SUPPLY 4 V ENCORE ROWER SUPPLY 8 L REPAIR TOWNER NOWER SUPPLY 9 G ROWER TOWNER SUPPLY 10 Y ROWIND MODING MODERATE SUPPLY 11 NO. ROWIND MODING MODING SOUND 12 NO. ROWIND MODING SUPPLY 13 NO. ROWIND MODING SUPPLY 14 NO. ROWIND MODING SUPPLY 15 NO. ROWIND MODING SUPPLY 16 NO. ROWING SUPPLY 17 NO. ROWIND MODING SUPPLY 18 NO. ROWING SUPPLY 19 NO. ROWING SUPPLY 10 NO. ROWING SUPPLY 10 NO. ROWING SUPPLY 11 NO. ROWING SUPPLY 12 NO. ROWING SUPPLY 13 NO. ROWING SUPPLY 14 NO. ROWING SUPPLY 15 NO. ROWING SUPPLY 16 NO. ROWING SUPPLY 17 NO. ROWING SUPPLY 18 NO. ROWING SUPPLY 18 NO. ROWING SUPPLY 19 NO. ROWING SUPPLY 10 NO.	GR	Terminal Color Of Signal Name (Specification) No. Wire Signal Name (Specification) 2 R
Connector No. 017 Connector Name 0000R MIRROR (PASSENGER SIDE) Connector Type 17424MW-ANH TH2 ANM ANH TE 111 10 7 6 5 9 2 TE 111 10 17 14	Terminal Color Of No. Wire Signal Name [Specification] No. Wire No. No	11 V	Terminal Color Of No. Wire Signal Name (Specification) 1
Connector No. D10 Connector Name moor ok room unicox seron datable (dense sos) Connector Type RHOAFLGY H.S.	Terminal Color Of Signal Name [Specification] No. Write Y		Terminal Color Of Signal Name [Specification] 1 R 2 Y
BCM (BODY CONTROL MODULE) Commetor No. 05 Connector Name Invoir cursis tweet (assess see 1845)	Signal Name [Specification]	D8 POWER WINDOW MAIN SWITCH NS16FW-C5 3 4 5 6 7	Signal Name (Specification) ENCODER POWER SUPPLY IGNITION POWER SUPPLY IGNOT POWER WINDOW MOTOR (DRIVER SUR) UP SIGNAL ROWIT POWER WINDOW SUPPLY ROWIT POWER WINDOW SIRAL LINK BATTERY POWER SUPPLY ENCODER SIGNAL 1 ENCODER SIGNAL 2 ENCODER SIGNAL 3 ENCODER
BCM (BOI Connector No. Connector Type	Terminal Color Of No. Wire 1 V 2 B 3 BR 4 GR	Connector No. Connector Type	Terminal Color Off No. Wire 3 V V 5 C C 6 C C 6 B B 10 B B 11 CR 11 B B 12 B B 13 SB

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Солпессот No. DS6 Connector Name DOOR MIRROR (DRIVER SIDE) Connector Type TH2AMW-AH (12 11 10 9 8 7 6 5 8 2 1 1 2 4 2 3 2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Terminal Color Of Signal Name Specification No. Wire Color Of Signal Name Specification 1	
Connector No. D43 Connector Name REAR POWER WINDOW SWITCH RH Connector Type NS.16FW-CS H.S. R. B. B. 10 11 12 15 16	Terminal Color Of Signal Name Specification No. Wire ENCORTE GABUND 4 SB ENCORTE GABUND 4 SB ENCORTE GABUND 5 SIGNAL 5 SIGNAL	Terminal Color Of No. Signal Name [Specification] No. Wire 1 8R
Connector No. 1033 Connector Name REAR DOWER WINDOW SWITCH LH CONNECTOR Type NS.15FW-CS H.S. 3 4	No. Signal Name (Specification) No. Wire Signal Name (Specification) No. Wire Signal Name (Specification) A 3 BR SEADE POWER SUPPLY Signal Name Signal Name	Terminal Color Of Signal Name Specification No. Wire Signal Name Specification
BCM (BODY CONTROL MODULE) Connector No. D28 Connector Name incorposa Los Assanary presentes sost incorposary presentes incorposary presente	Terminal Color Of Signal Name Specification Wire Wire	

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BCM (BC Connector No.	BCM (BODY CONTROL MODULE) Connector No. D57	Connector No.	E17	Connector No.		[35	Connector No.	E45	
Connector Name	me DOOR MIRROR (PASSENGER SIDE)	Connector Name	FRONT TURN SIGNAL LAMP LH	Connector Name		ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)	Connector Name	E INTELLIGENT KEY WARNING BUZZER	
Connector Type	e TH24MW-NH	Connector Type	RH02FB	Connector Type	П	SAZ30FB-SJZ4-U	Connector Type	RKO3FBR	
H.S.	12 11 10 9 8 7 6 5 3 2 1 2423 22 21 1918 17 1413	H.S.		H.S.		2 (25) (28) (30) (28) (4) (4) (15) (15) (15) (15) (15) (15) (15) (15	H.S.		
Terminal Colc	Color Of Signal Name [Specification]	Terminal Color Of	Df Signal Name [Specification]	Terminal No.	Ferminal Color Of No. Wire	Signal Name [Specification]	Terminal Color Of	Of Signal Name [Specification]	
t	-	╁		1	В	GND	H	(+)BAT	
2		2 B		2	В	GND	3 BG	BUZZER_SIGNAL [With VR30 engine]	
3				9	g	VALVE BATTERY [With VR30 engine]	97 8	BUZZER_SIGNAL [With 2.0L turbo gasoline engine]	
2				3	Ь	VALVE BATTERY [With 2.0L turbo gasoline engine]			
9		Connector No.	E18	4	>	MOTOR BATTERY			
7 E		4	THE GRANT TAINOUS MOUTH TIMOOD	25	91	STOP LAMP SW SIGNAL [With ADAS]	Connector No.	E57	
8	. 91	Connector Name		5	>	STOP LAMP SW SIGNAL [With ASCD]	A section of the sect	TOLING GREET GOLD	
S 6	SB	Connector Type	RH02FB	7	GR	RR LH WHEEL SENSOR SIGNAL	COILLECTO NO.		
10	. 9	ú		8	9	RR LH WHEEL SENSOR POWER SUPPLY	Connector Type	M04FW-LC	
11	۰ .	E		6	BR	FR RH WHEEL SENSOR SIGNAL	[
12		X	E	10	GR	FR RH WHEEL SENSOR POWER SUPPLY	E		
. 13		ė L	4	13	×	VACUUM SENSOR SIGNAL	ŧ		
14			((2 1))	15	Ь	CAN-L [Without Gateway]	Ġ.	3 4	
17 SHI	SHIELD .)	15	×	CAN-L [With gateway]		6	
18 (. 9			17	>	RR RH WHEEL SENSOR SIGNAL			
				18	97	RR RH WHEEL SENSOR POWER SUPPLY [With 2.0], turbo gasoline engine]			
L		Terminal Color Of	JC	18	>	RR RH WHEEL SENSOR POWER SUPPLY [With VR30 engine]			
22 B		No. Wire		19	SB	FR LH WHEEL SENSOR SIGNAL	Terminal Color Of		
L		1		20	98	FR LH WHEEL SENSOR POWER SUPPLY	No. Wire	e olgilal Name (specification)	
24 G	GR -	2 B		25	٦	CAN-H	1 6	- [With ASCD]	
				28	9	VACUUM SENSOR POWER SUPPLY	1	- [With ADAS]	
				30	æ	VDC OFF SW SIGNAL	2 GR	,	
				32	SHIELD	VACUUM SENSOR GROUND	2 LG	. [With ADAS]	
				34	9	IGN	3 BR		
							۸ ۷		

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Control Module Cont	Connector No. F100	
FLUSE BLOCK (L/B) Connector Name E64		
	Color Of	

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см (вору (BCM (BODY CONTROL MODULE)		ſ								
œ ;	IGN [For VR30 engine]	Connector No.		M7	15	0	ONE TOUCH UNLK SENS (DR)	78	> 9	COMBI SW INPUT 2	
>	IGN [For 2.0L turbo gasoline engine]	Connecto	Connector Name	A/T SHIFT SELECTOR	92	o ا	ONE TOUCH UNLK SENS (PASS)	79	9	COMBI SW INPUT 1	
BR	CAMERA SWITCH SIGNAL				17	Ь	RECEIVER/SENSOR GND	80	٦	TR LID OPNR SW	
PI	AIR BAG INDICATOR OFF SIGNAL	Connector Type		TH12FW-NH	18	r	SECURITY IND LAMP CONT				
		(20	В	DETENT SW				
					21	SB	STEP LAMP CONT	Connector No.	r No.	M15	
Connector No. M5	15	\			25	æ	STOP LAMP SW2		N. P. Comp.	CHINGON CONTINCO MOCAL AND A	
Connector Mama	FINE GOSNES SISONOVIC OVER GIV	2	_	10345	56	æ	EXTENDED STORAGE FUSE SW	Connector Name	r Name	BCIMI (BODY CONTROL INIODOLE)	
,,	IN DAG DIAGNOSIS SENSON ON I				27	d	STOP LAMP SW	Connector Type	r Type	TH24FGY-NH	
Connector Type NF	NH28FY-EX			1101697	30	M	DR DOOR UNLK SENS				
					33	>	TR LID OP CANCEL SW	B			
					36	ŋ	HAZARD SW	E		/ / 	
	0 0 7 6 7 3	Terminal	٥	Signal Name (Specification)	39	BR	P/N POSITION	2		92 91 85 83 82	
		No.	Wire							10310210110199 97 96 94 93	
	21 54 23	٠,	28		0	Connector No					
	18 51 20 53 60 59 25 57 1	7 6	5 8		חבר בי	. ON IO	WITH				
		, ,	2 -		Connec	Connector Name	BCM (BODY CONTROL MODULE)	Termina	Color Of		
Color Of	3 3 3	1 5	ی ه		Connec	Connector Type	TH40FB-NH	No.	Wire	Signal Name [Specification]	
Wire	Signal Name [Specification]	7	œ					82	8	REAR LH DOOR SW	
97	IGN	00	۵	- [With VR30 engine]	B			83	7	TR LID OPEN REQ SW	
8	GND	∞	^	- [With 2.0L turbo gasoline engine]	Ě			82	Ь	TR ROOM LAMP CONT	
Y/R	DR1 (+)	6	8		Ĭ	7	80 89 86 54 82	91	GR	TRUNK LID OPEN	
Y/B	DR1 (-)	10	S.				80 73 78 77 78 75 77 70 69 68 67 68 65 64 62 61	95	×	TURN SIG RH OUTPUT (SIDE, REAR)	
>	DR2 (+)	11	œ					93	ŋ	REAR RH DOOR SW	
Y/R	AS1 (+)							94	GR.	PASSENGER DOOR SW	
4/Β	ASI (-)	ļ						96	>	DRIVER DOOR SW	
9/\	AS2 (+)	Connector No.		M13	Terminal	<u> </u>	Signal Name [Specification]	97	~	TR ROOM LAMP SW	
, ,	AS2 (-)	Connecto	Connector Name B	BCM (BODY CONTROL MODULE)	ė s	Wire	CAMPA LILING INCOLUMN LIGHT	99	¥ ;	INSIDE KEY ANT (TRUNK) -	
- 8	5223	Connector Type	Т	104056 NU	ş C	ر ا	POSH-BIN IGN 3W ILL FWA	100	A 10	DEAD DAME ANT	
Na d/v	ACT VENT+		7	D40F0-Nn	25	9 >	COMMA LINE	101	20 0	DEAD BAND ANT -	
1/R	ACT VENT-	1			1 15	- ~	RAIN SENSOR	103	2 >	TURN SIG LH OUTPUT (SIDE.BEAR)	
SHIELD	GND	1			29	d.	CAN-L				
>	AIRBAG W/L	S.	<u></u>		9	_	CAN-H				
9			•	39 37 37 37 37 37 37 37 37 37 37 37 37 37	61	9	REAR WINDOW DEF RLY CONT	Connector No.	r No.	M16	
GR	A/B_OFF_IND				62	В	STARTER RLY CONT	Connector Name	ame N	BCM (BODY CONTROL MODILIE)	
9	SATELLITE RH2 (+)				64	>	I-KEY WARN BUZZER			con (cool control mooder)	
œ	SIDE_SENS_RH2-				9	В	OUTS HD LAMP CONT	Connector Type	r Type	TH24FB-NH	
>	SIDE_SENS_LH2+	Terminal	_	Signal Name [Specification]	99	В	BLOWER FAN RLY CONT [With VR30 engine]	ģ			
_	SIDE_SENS_LH2-	No.	Wire		99	>	BLOWER FAN RLY CONT [With 2:0L turbo gasoline engine]	唐			
91	IVCS	1	œ	PUSH SW	29	M/B	IGN RLYAY (F/B) CONT	ALC:		/	
_	CAN-H	m	>	SENS PWR SPLY	98	æ	DIMMER	5		BOX DOX 1444 044 1405	
۵	CAN-L	4	BG	OPTICAL SENSOR	69	æ	A/T SHIFT SELECT PWR SPLY			20	
		2	91		70	80	IGN RLYAY (IPDM E/R) CONT			128 127 128 124 123 122 121 1119 1117	
		9	>	COMBI SW OUTPUT 5	71	<u>ن</u>	DR DOOR REQ SW				
		=	SB	COMBI SW OUTPUT 4	72	SB	PASS DOOR REQ SW				
		7 5	_,	COMBI SW OUTPUT 3	72	# S	COMBI SW INPUT 5				
		13	، و	COMBI SW OUTPUT 2	76	. g	COMBI SW INPUT 4				
		14	а	COMBI SW OUTPUT 1	77	>	COMBI SW INPUT 3				

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Connector No. Mi38 Connector Name PuSH BUTTON (GNITION SWITCH Connector Type THOSPW.NH Signal Name Specification	
13	
Connector No. M/24	
SECONT Signal Name Specification No. WITE Signal Name Signal Name Specification No. WITE Signal Name Signal Name Signal Name Signal Name Signal Name Signal Name Specification No. WITE Signal Name Specification Signal Name Sp	

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BCM (BCM (BODY CONTROL MODULE)							
Connector No.	. No. M57	Connector No.	M58	Connector No. M84	Conr	Connector No.	M100	
Connector Name	Name COMBINATION METER	Connector Name	e COMBINATION METER	Connector Name TRUNK LID OPENER CANCEL SWITCH		Connector Name	DISPLAY CONTROL UNIT	
Connector Type	Type TH40FW-NH	Connector Type	TH12FW-NH	Connector Type S02FW	Conr	Connector Type	TH24FW-NH	
匮		Œ		<u>e</u>	E .			
E S	1	H.S.	41 42 43 44 45 46 47 48 51 52	<u>2</u>		K. S.	1617 1920 22 28 29 30 31 33 34	
Terminal	Color Of Signal Name [Specification]	Terminal Color Of	r Of Signal Name [Specification]	Terminal Color Of Signal Name (Specification)		Ferminal Color Of	Signal Name (Specification)	
1	т	+	CAN-H	t		+	AV COMM (L)	
9	GR STOP/START OFF SWITCH INDICATOR SIGNAL	42 P		2 B .	1	17 P	CAN-L	
7	G SECURITY SIGNAL	43 B	_			19 R	DIMMER SIGNAL	
00		+	<u>.</u>		[5	+	REVERSE SIGNAL	
11	ALTERNATOR SIGNAL	+	7	Connector No. M91	2	+	GND	
12	LED HEADLAMP (RH) WARNING	4	+	Connector Name OPTICAL SENSOR	2	\dashv	CAMERA SWITCH SIGNAL	
13	LED HEA	+	IGNITI	T	2	28 SB	AV COMM (H)	
14	V ACC POWER SUPPLY	+	1	Connector Type TK03FW	2	4	CAN-H	
16	+	+	4	₫.		+	IGN [For VR30 engine]	
/T	MEIEK	7	FUEL LEV	AHT.	"]	+	IGN [For 2.0L turbo gasoline engine]	
18	SB TRIP/RESET SIGNAL	52 B	GROUND		m c	+	VEHICLE SPEED SIGNAL (8-PULSE)	
77	4				"]	33 SB	ACC [Except for VR3U engine and with ISS]	
22	STEERING SWITCH SIGNAL	-		123	m	33 ^	ACC [For VR30 engine and with ISS]	
57	W/B STEEKING SWITCH SIGNAL B	COLUMN INC.	IMBU		"]	34 Y	BAI	
24	L WASHER LEVEL SWITCH SIGNAL 1.G RRAKE ELLID LEVEL SWITCH SIGNAL	Connector Name	e TRIPLE SWITCH					
26	_	Connector Type	TH12FB-NH	Terminal Color Of	[Connector No.	M109	
27	PASSENGER SEAT BELT WARNIN							
28	SEAT BELT BUCKLE SWITCH SIGNAL (D	Œ		1 Y SENSOR_POWER	Con	Connector Name	INSIDE KEY AN LENNA (INSTRUMENT LOWER)	
30	G MANUAL MODE SIGNAL [With 2.0L turbo gasoline engine]	· ·		2 BG SENSOR_OUTPUT	Conr	Connector Type	RK02FGY	
30	SB MANUAL MODE SIGNAL [With VR30 engine]	Ġ.	7 11 3 6 9	3 P SENSOR_GND	0			
31	G NON-MANUAL MODE SIGNAL [With VR30 engine]		9 0		B	_	•	
31	NON-N		1 7 1 1 6		_	٢	≪	
32	MANUAL MODE SHIFT UP SIG				•	2		
33	GR MANUAL MODE SHIFT DOWN SIGNAL [With VR30 engine]						((1 2))	
33	p waxuul MODE SHIFT DOWN SIGMU, [With 2.0L turbo gasoline engine]	Terminal Color Of	r Of					
34	BG PADDLE SHIFTER UP SWITCH SIGNAL	No. Wire						
35	G PADDLE SHIFTER DOWN SWITCH SIGNAL	1						
36	V ILLUMINATION CONTROL SWITCH SIGNAL (+)	2 W			Tern	Ferminal Color Of	[moitroffices] Comel N cont	
37	GR ILLUMINATION CONTROL SWITCH SIGNAL (-)	3 R			Z	No. Wire	oigha name (opermeation)	
38	R VEHICLE SPEED SIGNAL (8-PULSE)	9 2				1 R	ANT+	
		6 R				2 G	ANT-	
		7 B						
		6						
		11 GR	R INDICATOR-					

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6 L CAN-H 10 R IGN FOR 201 Lutrop gasoline engine] 11 SHIELD IMCROPHONE SIGNAL GND 12 R MCROPHONE SIGNAL 12 SHELD SHIELD SHIELD 13 SHELD AMCROPHONE SIGNAL 13 L MCROPHONE SIGNAL 13 L MCROPHONE SIGNAL 13 L MCROPHONE VCC 25 SB GROUND 27 LLG AV COMM (1) 28 B GROUND 30 SHIELD SHIELD 27 LLG AV COMM (1) 28 B GROUND 30 SHIELD SHIELD 27 LLG AV COMM (1) 28 B GROUND 30 SHIELD 29 B GROUND 31 B SOUND SIGNAL (+) 32 W SOUND SIGNAL (+) 32 W SOUND SIGNAL (+) 31 B SOUND SIGNAL (+) 32 W SOUND SIGNAL (+) 31 B SOUND SIGNAL (+) 32 W SOUND SIGNAL (+) 33 B GROUND 34 SIGNAL SIGNAL (+) 35 W SOUND SIGNAL (+) 37 G SS CALL SWITCH SIGNAL 1 R S SIGNAL NATHE [Specification] 1 R S SIGNAL NATHE [Specification] 1 R S SIGNAL NATHE SIGNAL 2 S SIGNAL NATHE [SPECIFICATION] 3 B S SIGNAL NATHE [SPECIFICATION] 4 S SIGNAL NATHE [SPECIFICATION] 5 SIGNAL NATHE [SPECIFIC	
20C W	
Connector No. M132 Connector Type	
BCM (BODY CONTROL MODULE) Commettor No. M113 Connector Type AACO4F9 Terminal Color Of Signal Name (Specification) Terminal Color Of Signal Name (Specification) Connector Name NS/SE KY ANTENNA (CONSOLE) Connector Name NS/SE KY ANTENNA (CONSOLE) Connector Type RK02F5Y Terminal Color Of Signal Name (Specification) No. Wire Signal Name (Specification) Terminal Color Of Signal Name (Specification) No. Wire ANTE	JRMWJ4659GB

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BCM (BOI	BCM (BODY CONTROL MODULE) Connector No. R5	Connector No. R21	Connector No. R24	Connector No. 153
Connector Name	RAIN SENSOR	Connector Name PERSONAL LAMP	Connector Name VANITY MIRROR LAMP (DRIVER SIDE)	Connector Name TRUNK LID LOCK ASSEMBLY
Connector Type	AAB03FB	Connector Type TH04FW-NH	Connector Type MCA02FW	Connector Type TB03FW-LC
H.S.		H3.	H.S.	H.S.
Terminal No. Wire No. 1 GR 2 R 3 B	of Signal Name [Specificaton]	Terminal Color Of Signal Name (Specification) No. Wire Virginal Name (Specification) 2 0 3 8R - 4 8/W - -	Terminal Color Of Signal Name Specification No. Wire Signal Name Specification	Terminal Color Of Signal Name (Specification) No. Wire Y
Connector No. Connector Type	RIJO SUNROOF MOTOR ASSEMBLY YEALDFGY 1 3 5 5	Connector No. R23 Connector Name VAUNTY MINION LAMP (PASSINGER SIDS) Connector Type MCA02FW MA.S.	Connector No. 747 Connector Name THOLMW-NH THOLMW-NH THOLMW-NH	
Terminal Color Of No. Wire 1 B 3 Y 5 5 P 6 W 6 W		Terminal Color Of Signal Name Specification No. Write Signal Name Specification	Terminal Color Of Signal Name Specification No. Wire No. Wire Specification No. Wire No. Wir	
9 V 10 SB	SUNROOF SLIDE OPEN (INTELLIGENT KEY) TILT UP/SLIDE CLOSE			

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ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

< BASIC INSPECTION >

BASIC INSPECTION

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

Perform the following operations when replacing BCM. (For details, refer to BCS-81, "Work Procedure".)

BEFORE REPLACEMENT

When replacing BCM, save or print current vehicle specification with CONSULT configuration before replacement.

NOTE:

Description

If "Before Replace ECU" of "Read / Write Configuration" cannot be used, use the "Manual Configuration" after replacing BCM.

AFTER REPLACEMENT

CAUTION:

When replacing BCM, always perform "Read / Write Configuration" or "Manual Configuration" with CONSULT. Or not doing so, BCM control function does not operate normally.

- Complete the procedure of "Read / Write Configuration" in order.
- Configuration is different for each vehicle model. Confirm configuration of each vehicle model.
- If you set incorrect "Read / Write Configuration" or "Manual Configuration", incidents might occur. NOTE:

When replacing BCM, perform the system initialization (NATS and TPMS) (if equipped).

Work Procedure INFOID:0000000012792469

1. SAVING VEHICLE SPECIFICATION (BCM)

(P)CONSULT Configuration

Perform "Before Replace ECU" of "Read / Write Configuration" to save or print current vehicle specification. Refer to BCS-83, "Description".

If "Before Replace ECU" of "Read / Write Configuration" cannot be used, use the "Manual Configuration" after replacing BCM.

2.SAVING VEHICLE SPECIFICATION (TPMS) (IF EQUIPPED)

(P)CONSULT Configuration

>> GO TO 2.

Perform "Before Replace ECU" of "Read / Write Configuration" to save or print current vehicle specification. Refer to WT-42, "Work Procedure (Before Replacement)".

If "Before Replace ECU" of "Read / Write Configuration" cannot be used, use the "Manual Configuration" after replacing BCM.

>> GO TO 3.

3.REPLACE BCM

Replace BCM. Refer to BCS-99, "Removal and Installation".

>> GO TO 4.

4.WRITING VEHICLE SPECIFICATION (BCM)

(P)CONSULT Configuration

Perform "After Replace ECU" of "Read / Write Configuration" or "Manual Configuration" to write vehicle specification. Refer to BCS-83, "Description".

BCS-81

>> GO TO 5.

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INFOID:0000000012792468

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ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

< BASIC INSPECTION >

5. INITIALIZE BCM (NATS)

Perform BCM initialization (NATS).

>> GO TO 6.

6.INITIALIZE BCM (TPMS) (IF EQUIPPED)

Perform BCM initialization (TPMS). Refer to WT-42, "Work Procedure (After Replacement)".

>> WORK END

CONFIGURATION (BCM)

< BASIC INSPECTION >

CONFIGURATION (BCM)

Description INFOID:0000000012792470

Vehicle specification needs to be written with CONSULT because it is not written after replacing BCM. Configuration has three functions as follows. (For details, refer to BCS-83, "Work Procedure".)

Functio	n	Description
Read / Write Configuration	Before Replace ECU	 Reads the vehicle configuration of current BCM. Saves the read vehicle configuration.
	After Replace ECU	Writes the vehicle configuration with saved data.
Manual Configuration		Writes the vehicle configuration with manual selection.

NOTE:

Manual setting item: Items which need selection by vehicle specifications

Automatic setting item: Items which are written in automatically (Setting cannot be changed)

For some models and specifications, the automatic setting item may not be displayed.

CAUTION:

When replacing BCM, always perform "Re/programming, Configuration" with CONSULT. Or not doing so, BCM control function does not operate normally.

- Complete the procedure of "Read / Write Configuration" in order.
- Configuration is different for each vehicle model. Confirm configuration of each vehicle model.
- Never perform "Read / Write Configuration" except for new BCM.
- If you set incorrect "Read / Write Configuration", incidents might occur.

Work Procedure INFOID:0000000012792471

1. WRITING MODE SELECTION

(P)CONSULT Configuration

Select "Re/programming, Configuration" of BCM.

When writing saved data>>GO TO 2.

When writing manually>>GO TO 3.

2.PERFORM "AFTER REPLACE ECU" OF "READ / WRITE CONFIGURATION"

(P)CONSULT Configuration

Perform "After Replace ECU" of "Read / Write Configuration".

>> WORK END

3.PERFORM "MANUAL CONFIGURATION"

(P)CONSULT Configuration

- 1. Select "Manual Configuration".
- Identify the correct model and configuration list. Refer to BCS-84, "Configuration list".
- Confirm and/or change setting value for each item.

Thoroughly read and understand the vehicle specification. ECU control may not operate normally if the setting is not correct.

NOTE:

If items are not displayed, touch "Next". Refer to BCS-84, "Configuration list" for written items and setting value.

- Touch "Next".
- 5. Touch "OK".

CAUTION:

Make sure to select "OK" even if the indicated configuration of brand new BCM is same as the desirable configuration. If not, configuration which is set automatically by selecting vehicle model cannot be memorized.

Check that the configuration has been successfully written and touch "End".

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CONFIGURATION (BCM)

< BASIC INSPECTION >

>> GO TO 4.

4. OPERATION CHECK

Confirm that each function controlled by BCM operates normally.

>> WORK END

Configuration list

INFOID:0000000012792472

CAUTION:

- Thoroughly read and understand the vehicle specification. ECU control may not operate normally if the setting is not correct.
- The "setting value" of this vehicle is as follows: Never select any other value than the setting value shown below. (If there is only 1 item in "setting value" that means that item is the only choice for this certain vehicle.)

SETTIN	IG ITEM	NOTE
Items	Setting value	NOTE
FR FOG LAMP	MODE1	MODE1: With front fog lamp
TR CANCEL SW	WITH ⇔ WITHOUT	WITH: Except for Mexico WITHOUT: For Mexico
RAIN SENSOR CONFIG	WITH ⇔ WITHOUT	WITH: With rain sensor WITHOUT: Without rain sensor
DONGLE	WITH ⇔ WITHOUT	WITH: For Canada models WITHOUT: Except for Canada models
CAN ERR DETECT HPCM or VCM	WITHOUT	WITHOUT: Except for hybrid models
CAN ERR DETECT TELEMATICS	WITH ⇔ WITHOUT	WITH: With telematics system WITHOUT: Without telematics system
HBA SYSTEM	WITH ⇔ WITHOUT	WITH: With high beam assist system WITHOUT: Without high beam assist system
KEY FOB FREQUENCY TYPE	MODE2 ⇔ MODE3	MODE2: For Mexico MODE3: Except for Mexico
Key Fob Type	LCK/UNLCK/TRNK/ALRM ⇔ ENST/LCK/UNLCK/TRK/ALRM	LCK/UNLCK/TRNK/ALRM: Without remote engine start function ENST/LCK/UNLCK/TRK/ALRM: With remote engine start function
ONE TOUCH UNLOCK SENSOR	MODE1	MODE1: With one touch unlock function
INTELLIGENT KEY TYPE	MODE2	MODE2: With door request switch
ALT TYPE	GASOLINE	GASOLINE: Gasoline engine models
TRANSMISSION	AT with ABS ⇔ AT (TYPE1)	AT with ABS: Except 2.0L turbo gasoline engine models AT (TYPE1): 2.0L turbo gasoline engine models
AUTO CRANK TIME	MODE1 ⇔ MODE3	MODE1: Except 2.0L turbo gasoline engine models MODE3: 2.0L turbo gasoline engine models

^{⇔:} Items which confirm vehicle specifications

SHIPPING MODE CANCEL OPERATION

< BASIC INSPECTION > SHIPPING MODE CANCEL OPERATION Α Work Procedure INFOID:0000000012792473 1. SHIPPING MODE CANCEL OPERATION В Turn ignition switch OFF. 2. Push in (switch on) the extended storage fuse switch. Refer to PG-254, "How To Check". Turn ignition switch ON. 3. Turn ignition switch OFF and wait at least 2 seconds. >> GO TO 2. D $2.\mathsf{SHIPPING}$ MODE CANCEL CHECK Turn ignition switch ON. Е Check that extended storage fuse warning message is not displayed on information display. 2. >> WORK END F Н K

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DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM

DTC Description

INFOID:0000000012792474

DESCRIPTION

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 unit, 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-line, CAN L-line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only. CAN Communication Signal Chart. Refer to LAN-67, "CAN COMMUNICATION SYSTEM: CAN Communication Signal Chart (2.0L Turbo Gasoline Engine Models)".

DTC DETECTION LOGIC

DTC	CONSULT display description	DTC Detection Condition
U1000	CAN COMM (CAN communication circuit)	When BCM cannot communicate CAN communication signal continuously for 2 seconds or more.

POSSIBLE CAUSE

CAN communication system

FAIL-SAFE

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Diagnosis Procedure

INFOID:0000000012792475

1.PERFORM SELF DIAGNOSTIC

- 1. Turn ignition switch ON and wait for 2 seconds or more.
- 2. Check "Self Diagnostic Result" of BCM.

Is DTC "U1000" displayed?

- YES >> Refer to LAN-41, "Trouble Diagnosis Flow Chart".
- NO-1 >> To check malfunction symptom before repair: Refer to GI-45, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

U1010 CONTROL UNIT (CAN)

DTC Description

DTC DETECTION LOGIC

DTC	CONSULT display description	DTC Detection Condition
U1010	CONTROL UNIT (CAN) [Control unit (CAN)]	BCM detected internal CAN communication circuit malfunction.

POSSIBLE CAUSE

BCM

FAIL-SAFE

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Diagnosis Procedure

INFOID:0000000012792477

1.REPLACE BCM

When DTC "U1010" is detected, replace BCM.

>> Replace BCM. Refer to BCS-99, "Removal and Installation".

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U0415 VEHICLE SPEED

< DTC/CIRCUIT DIAGNOSIS >

U0415 VEHICLE SPEED

DTC Description

DTC DETECTION LOGIC

DTC	CONSULT display description	DTC Detection Condition
U0415	VEHICLE SPEED (Vehicle speed)	When the vehicle speed signal received from the ABS actuator and electric unit (control unit) remains abnormal for 2 seconds or more.

POSSIBLE CAUSE

- · ABS actuator and electric unit (control unit)
- BCM

FAIL-SAFE

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DTC CONFIRMATION PROCEDURE

1.DTC CONFIRMATION

- 1. Erase the DTC.
- Turn ignition switch OFF.
- Perform the "Self Diagnostic Result" of BCM with CONSULT, when passed 2 seconds or more after the ignition switch is turned ON.

Is any DTC detected?

- YES >> Refer to <u>BCS-88, "Diagnosis Procedure"</u>.
- NO-1 >> To check malfunction symptom before repair: Refer to GI-45, "Intermittent Incident".
- NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000012792479

1. ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) SELF-DIAG RESULTS

Perform "Self-Diagnostic Result" of ABS actuator and electric unit (control unit) with CONSULT. Refer to BRC-72, "DTC Index".

Is any DTC detected?

- YES >> Repair or replace the malfunctioning part.
- NO >> Replace BCM. Refer to BCS-99, "Removal and Installation".

B2562 LOW VOLTAGE

< DTC/CIRCUIT DIAGNOSIS >

B2562 LOW VOLTAGE

DTC Description INFOID:0000000012792480

DTC DETECTION LOGIC

DTC	CONSULT display description	DTC Detection Condition
B2562	LOW VOLTAGE (Low voltage)	When the power supply voltage to BCM remains less than 8.8 V for 120 seconds or more

POSSIBLE CAUSE

- · Harness or connector (power supply circuit)
- BCM

FAIL-SAFE

DTC CONFIRMATION PROCEDURE

1. DTC CONFIRMATION

- Erase DTC.
- Turn ignition switch OFF.
- Perform the "Self Diagnostic Result" of BCM with CONSULT, when passed 120 seconds or more after the ignition switch is turned ON.

Is any DTC detected?

>> Refer to BCS-89, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-45, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000012792481

1. CHECK POWER SUPPLY CIRCUIT

Check BCM power supply circuit. Refer to BCS-92, "Diagnosis Procedure".

Is the circuit normal?

>> Replace BCM. Refer to BCS-99, "Removal and Installation". YES

NO >> Repair the malfunctioning part.

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B259A ROOM LAMP FUSE

< DTC/CIRCUIT DIAGNOSIS >

B259A ROOM LAMP FUSE

DTC Description

INFOID:0000000012792482

DTC DETECTION LOGIC

DTC	CONSULT display description	DTC Detection Condition
B259A	ROOM LAMP FUSE BLOWN (Room lamp fuse blown)	When BCM detects that power supply voltage is supplied to fusible link battery power, but not to BCM battery fuse for 2 minutes when ignition switch is ON.

POSSIBLE CAUSE

- Fuse
- Harness or connector (power supply circuit is open or shorted)
- Harness or connector (interior room lamp power supply circuit is shorted)
- BCM

FAIL-SAFE

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DTC CONFIRMATION PROCEDURE

1.DTC CONFIRMATION

- Erase DTC.
- 2. Turn ignition switch OFF.
- Perform the "Self Diagnostic Result" of BCM with CONSULT, after the ignition switch has been turned ON for 2 minutes or more.

Is any DTC detected?

YES >> Refer to BCS-90, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-45, "Intermittent Incident".

NO-2 >> Confirmation after repair: INSPECTION END

Diagnosis Procedure

INFOID:0000000012792483

1. CHECK FUSE

- 1. Turn ignition switch OFF.
- 2. Check that the following fuse is not blown (open).

Signal name	Fuse No.	
Battery power supply	20 (10 A)	

Is the fuse blown (open)?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK BCM FUSE CIRCUIT

- 1. Disconnect BCM connectors.
- Check voltage between BCM harness connector and ground.

	(+)		
В	CM	(–)	Voltage
Connector	Terminal		
M17	131	Ground	9 – 16 V

Is the measurement value normal?

YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident".

NO >> Repair harness or connector.

3.check bcm fuse circuit for short to ground

1. Disconnect BCM connectors.

B259A ROOM LAMP FUSE

< DTC/CIRCUIT DIAGNOSIS >

Check continuity between BCM harness connector and ground.

В	CM		Continuity	
Connector Terminal		Ground	Continuity	
M17	131		Not existed	

Does continuity exist?

YES >> Repair harness or connector.

NO >> GO TO 4.

4. CHECK INTERIOR ROOM LAMP POWER SUPPLY CIRCUIT FOR SHORT TO GROUND

- Disconnect following connectors.
- Map lamp
- Personal lamp
- Vanity mirror lamp (both sides)
- Outside handle lamp (both sides)
- Step lamp (ALL)
- Trunk room lamp
- 2. Check continuity between BCM harness connector and ground.

В	CM		Continuity	
Connector Terminal		Ground	Continuity	
M17	129		Not existed	

Does continuity exist?

YES >> Repair harness or connector.

NO >> Check interior room lamp. If result is normal, replace BCM. Refer to BCS-99, "Removal and Installation".

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POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000012792484

1. CHECK FUSE AND FUSIBLE LINK

Check that the following fuse and fusible link are not blown (open).

Signal name	Fuse and fusible link No.	
Battery power supply	20 (10 A)	
Battery power supply	M (40 A)	

Is the fuse or fusible link blown (open)?

YES >> Replace the blown (open) fuse or fusible link after repairing the affected circuit if a fuse or fusible link is blown.

NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connectors.
- 3. Check voltage between BCM harness connector and ground.

	+) CM	(–)	Voltage	
Connector	Terminal			
M17	131	Ground	9 – 16 V	
M17	139	Ground	9-16 V	

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3. CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

В	CM	Ground	Continuity
Connector	Terminal		Continuity
M17	134	Giodila	Existed
IVI 17	143		EXISTEC

Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector.

COMBINATION SWITCH OUTPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

COMBINATION SWITCH OUTPUT CIRCUIT

Diagnosis Procedure

INFOID:0000000012792485

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1. CHECK OUTPUT 1 - 5 CIRCUIT FOR OPEN

- Turn ignition switch OFF.
- Disconnect BCM and combination switch connectors. 2.
- Check continuity between BCM harness connector and combination switch harness connector.

System	всм		Combination switch		Continuity
System	Connector	Terminal	Connector	Terminal	Continuity
OUTPUT 1		14		12	
OUTPUT 2		13		14	
OUTPUT 3	M13	12	M27	5	Existed
OUTPUT 4		11		2	
OUTPUT 5		10		8	

Does continuity exist?

YES >> GO TO 2.

NO >> Repair harnesses or connectors.

2.CHECK OUTPUT 1 - 5 CIRCUIT FOR SHORT

Check for continuity between BCM harness connector and ground.

Suntom	ВСМ			Combination
System	Connector	Terminal		Continuity
OUTPUT 1		14		
OUTPUT 2		13	Ground	
OUTPUT 3	M13	12	_	Not existed
OUTPUT 4		11		
OUTPUT 5		10		

Does continuity exist?

YES >> Repair harnesses or connectors.

NO >> GO TO 3.

${f 3.}$ check combination switch internal circuit

- Connect BCM connector.
- Turn ON any switch in the system that is malfunctioning.
- Check voltage between BCM harness connector and ground.

NOTE:

Check that the combination switch outputs a signal from combination switch input system.

System	(+) BCM		(–)	Voltage (Approx.)		
	Connector	Terminal		(, pprox.)		
OUTPUT 1		12				
OUTPUT 2		14				
OUTPUT 3	M27	5	Ground	Refer to BCS-36, "Reference Value".		
OUTPUT 4		2				
OUTPUT 5		8				

Is the measurement value normal?

YES >> Replace BCM. Refer to BCS-99, "Removal and Installation".

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COMBINATION SWITCH OUTPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

NO >> Replace combination switch. Refer to <u>BCS-100</u>, "Removal and Installation".

COMBINATION SWITCH INPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

COMBINATION SWITCH INPUT CIRCUIT

Diagnosis Procedure

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1. CHECK INPUT 1 - 5 CIRCUIT FOR OPEN

- Turn ignition switch OFF.
- Disconnect BCM and combination switch connectors. 2.
- Check continuity between BCM harness connector and combination switch harness connector.

System	ВС	CM	Combinati	Continuity	
System	Connector	Terminal	Connector	Terminal	Continuity
INPUT 1		79		11	
INPUT 2		78		9	
INPUT 3	M14	77	M27	7	Existed
INPUT 4		76		10	
INPUT 5		75		13	

Does continuity exist?

YES >> GO TO 2.

NO >> Repair harnesses or connectors.

2.CHECK INPUT 1 - 5 CIRCUIT FOR SHORT

Check for continuity between BCM harness connector and ground.

System	В	CM		Continuity	
System	Connector Terminal			Continuity	
INPUT 1		79			
INPUT 2		78	Ground		
INPUT 3	M14	77		Not existed	
INPUT 4		76			
INPUT 5		75			

Does continuity exist?

YES >> Repair harnesses or connectors.

NO >> GO TO 3.

3. CHECK BCM OUTPUT SIGNAL

- Connect BCM connector.
- Check voltage between BCM harness connector and ground.

System		+) CM	(-)	Voltage (Approx.)	Ν
	Connector	Terminal		(, 41, 2, 2,	
INPUT 1		79			\circ
INPUT 2		78	=		
INPUT 3	M14	77	Ground	Refer to <u>BCS-36, "Refer-</u> ence Value".	
INPUT 4		76		<u>=====================================</u>	Р
INPUT 5		75			

Is the measurement value normal?

Yes >> GO TO 4.

>> Replace BCM. Refer to BCS-99, "Removal and Installation". No

4. CHECK BCM INPUT SIGNAL

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BCS

COMBINATION SWITCH INPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

- Connect combination switch connector.
- Turn ON any switch in the system that is malfunction.
- 3. Check voltage between BCM harness connector and ground.

System	_	+) CM	(-)	Voltage (Approx.)	
	Connector	Terminal			
INPUT 1		79			
INPUT 2		78	Ground	Refer to BCS-36, "Reference Value".	
INPUT 3	M14	77			
INPUT 4		76			
INPUT 5		75			

Is the measurement value normal?

Yes

>> Replace BCM. Refer to <u>BCS-99, "Removal and Installation"</u>. >> Replace combination switch. Refer to <u>BCS-100, "Removal and Installation"</u>. No

COMBINATION SWITCH SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

COMBINATION SWITCH SYSTEM SYMPTOMS

Symptom Table INFOID:0000000012792487

- 1. Perform "Data Monitor" of CONSULT to check for any malfunctioning item.
- 2. Check the malfunction combinations.

Malfunction item: >	Data monitor item													
Malfunction combi- nation	FR FOG SW	AUTO LIGHT SW	PASSING SW	HEAD LAMP SW 2	HEAD LAMP SW 1	HI BEAM SW	TAIL LAMP SW	TURN SIGNAL L	TURN SIGNAL R	INT VOLUME	FR WIPER INT	FR WASHER SW	FR WIPER LOW	FR WIPER HI
А								×	×			×	×	
В			×		×						×			×
С				×		×				×				
D		×					×			×				
E	×									×				
F										×				×
G										×		×		
Н		×									×		×	
I	×		×	×				×						
J					×	×	×		×					
K							tems	All I						
L		(ns A to K	nbinatio	the con	licable to	not app	e item is	ed or the	is detect	ne item i	If only o		
М						nal	are norm	II Items a	А					

Identify the malfunctioning part from the agreed combination and repair or replace the part.

Malfunction combination	Malfunctioning part	Repair or replace				
Α	Combination switch INPUT 1 circuit					
В	Combination switch INPUT 2 circuit					
С	Combination switch INPUT 3 circuit	Inspect the combination switch output circuit applicable to the malfunctior ing part. Refer to <u>BCS-95</u> , " <u>Diagnosis Procedure</u> ".				
D	Combination switch INPUT 4 circuit	ing part. Refer to BCS-95, "Diagnosis Procedure".				
Е	Combination switch INPUT 5 circuit					
F	Combination switch OUTPUT 1 circuit					
G	Combination switch OUTPUT 2 circuit					
Н	Combination switch OUTPUT 3 circuit	Inspect the combination switch input circuit applicable to the malfunctioning part. Refer to BCS-93, "Diagnosis Procedure".				
1	Combination switch OUTPUT 4 circuit	part. Note: to <u>boo 33, Braghosis Frocedure</u> .				
J	Combination switch OUTPUT 5 circuit					
K	ВСМ	Replace BCM. Refer to BCS-99, "Removal and Installation".				
L	Combination switch	Replace combination switch. Refer to BCS-100, "Removal and Installation".				
М	Connector and harness	Check intermittent incident. Refer to GI-45, "Intermittent Incident".				

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Α

D

F

Е

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NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

NORMAL OPERATING CONDITION

Description INFOID:000000012792488

SHIPPING MODE

- Shipping mode inhibits battery power consumption during transportation or storage of the vehicle. Vehicle is set to shipping mode before being shipped from the factory.
- When ignition switch is OFF, BCM operates shipping mode.
- BCM control function is limited in shipping mode. Remote keyless entry function is not operated during the shipping mode.
- For shipping mode cancel operation, refer to <u>BCS-85</u>. "Work Procedure".

NOTE:

Do not cancel shipping mode during storage of the vehicle. Always cancel shipping mode before delivery of the vehicle to customer.

REMOVAL AND INSTALLATION

BCM

Removal and Installation

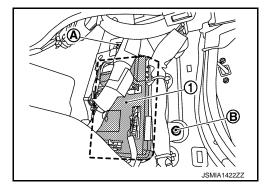
INFOID:0000000012792489

CAUTION:

Before replacing BCM, perform "Before Replace ECU" of "Read / Write Configuration" to save or print current vehicle specification. Refer to BCS-81, "Description".

REMOVAL

- 1. Disconnect the battery cable from the negative terminal.
- Remove the dash side finisher RH. Refer to INT-31, "DASH SIDE FINISHER: Removal and Installation".
- Remove the BCM mounting nut (A) and mounting bolt (B). 3.
- Disconnect the harness connectors from the BCM (1).



INSTALLATION

Install in the reverse order of removal.

CAUTION:

Be sure to perform "After Replace ECU" of "Read / Write Configuration" or "Manual Configuration" when replacing BCM. Refer to BCS-81, "Description".

- Be sure to perform the system initialization (NATS) when replacing BCM.
- Be sure to perform the system initialization (TPMS) when replacing BCM.

BCS

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COMBINATION SWITCH

< REMOVAL AND INSTALLATION >

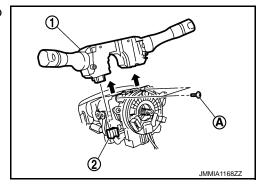
COMBINATION SWITCH

Removal and Installation

INFOID:0000000012792490

REMOVAL

- 1. Remove steering column cover. Refer to IP-13, "Removal and Installation".
- 2. Remove screws (A) and disconnect connector (2) then pull up combination switch (1) to remove it.



INSTALLATION

Install in the reverse order of removal.