

SECTION **BCS**

BODY CONTROL SYSTEM

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PRECAUTION

PRECAUTIONS

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

INFOID:000000012196388

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. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.
- Do not 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:

- When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery and wait at least three minutes before performing any service.

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< PREPARATION >


PREPARATION

PREPARATION

Special Service Tool

INFOID:000000012196396

The actual shape of the tools may differ from those illustrated here.

Tool number (TechMate No.) Tool name	Description
— (J-50190) Signal Tech II <div style="text-align: center;">  <p>ALEIA0131ZZ</p> </div>	<ul style="list-style-type: none"> • Activate and display TPMS transmitter IDs • Display tire pressure reported by the TPMS transmitter • Read TPMS DTCs • Register TPMS transmitter IDs • Test remote keyless entry keyfob relative to signal strength • Check Intelligent Key relative signal strength • Confirm vehicle Intelligent Key antenna signal strength • Compatible with future sensors • Equipped with a display

< SYSTEM DESCRIPTION >

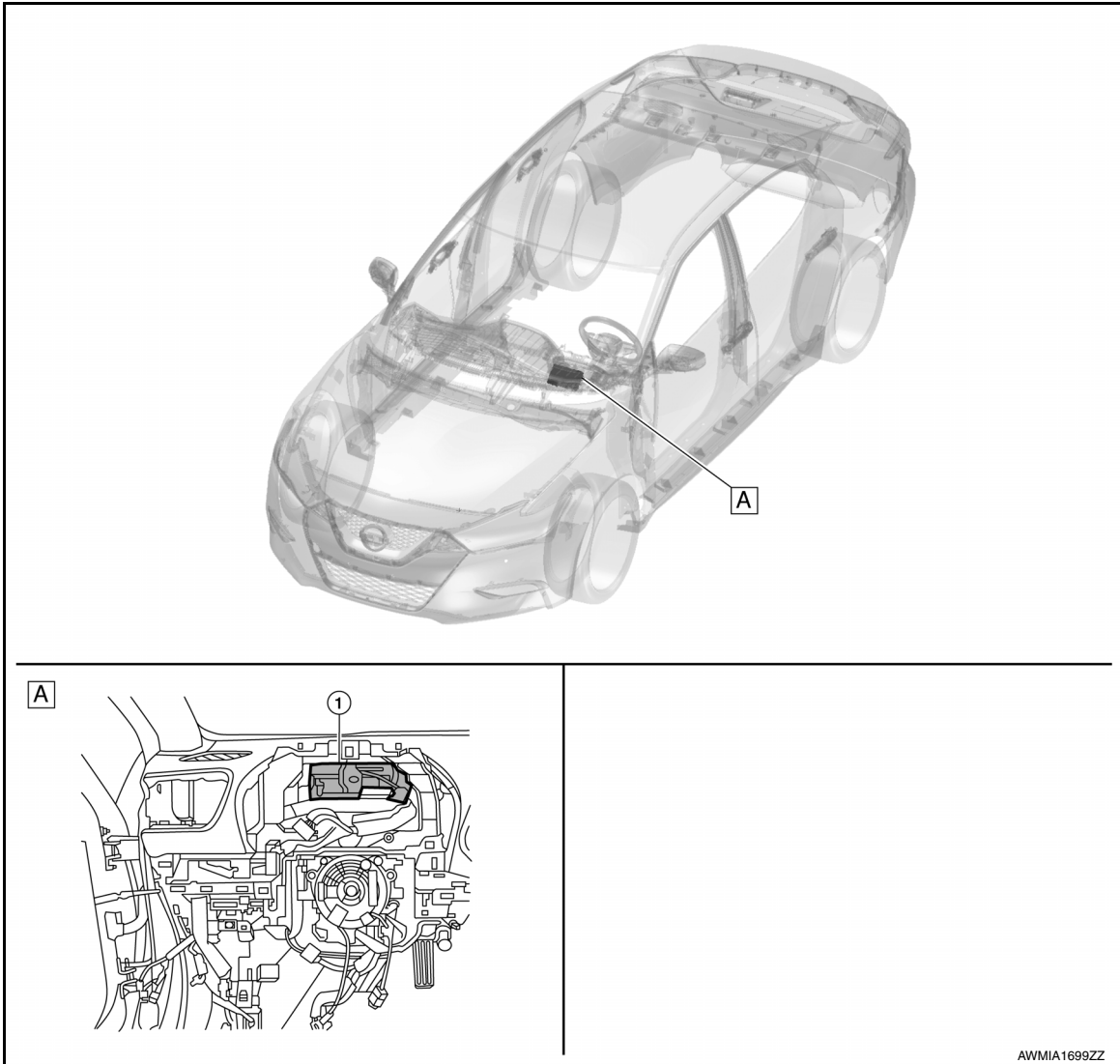
SYSTEM DESCRIPTION

COMPONENT PARTS

BODY CONTROL SYSTEM

BODY CONTROL SYSTEM : Component Parts Location

INFOID:000000011934009



- A. LH side of dash (view with instrument panel removed)
- 1. BCM

POWER CONSUMPTION CONTROL SYSTEM

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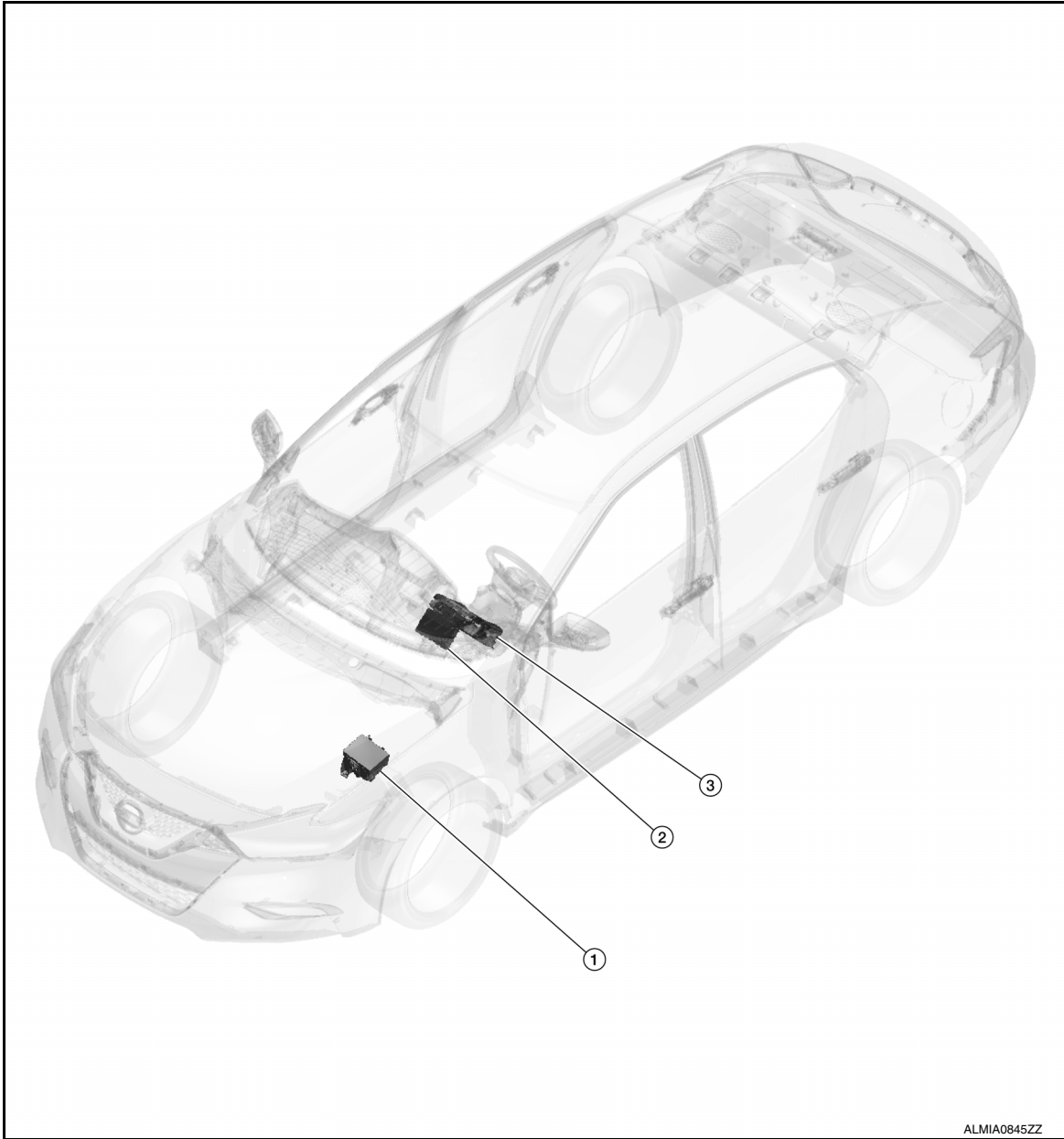
COMPONENT PARTS

< SYSTEM DESCRIPTION >

[BCM]

POWER CONSUMPTION CONTROL SYSTEM : Component Parts Location

INFOID:000000011934016



1. IPDM E/R

2. BCM

3. Combination meter

SYSTEM

BODY CONTROL SYSTEM

BODY CONTROL SYSTEM : System Description

INFOID:000000011934008

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.

CAN communication control

In CAN communication, control units are connected with 2 communication lines (CAN-, CAN high) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives the data but selectively reads required information only.

CAN communication signal

Refer to the [LAN-32, "CAN COMMUNICATION SYSTEM : CAN Communication Signal Chart"](#).

BCM FUNCTION LIST

System	Refer to
Combination switch reading system	BCS-9, "COMBINATION SWITCH READING SYSTEM : System Description"
Signal buffer system	BCS-13, "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"
Auto light system	EXL-12, "AUTO LIGHT SYSTEM : System Description" (LED type headlamp) EXL-135, "AUTO LIGHT SYSTEM : System Description" (Halogen type headlamp)
Turn signal and hazard warning lamp system	EXL-14, "TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM : System Description" (LED type headlamp) EXL-137, "TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM : System Description" (Halogen type headlamp)
Headlamp system	EXL-11, "HEADLAMP SYSTEM : System Description" (LED type headlamp) EXL-134, "HEADLAMP SYSTEM : System Description" (Halogen type headlamp)
Front fog lamp system	EXL-16, "FRONT FOG LAMP SYSTEM : System Description" (LED type headlamp) EXL-139, "FRONT FOG LAMP SYSTEM : System Description" (Halogen type headlamp)
Exterior lamp battery saver system	EXL-17, "EXTERIOR LAMP BATTERY SAVER SYSTEM : System Description" (LED type headlamp) EXL-140, "EXTERIOR LAMP BATTERY SAVER SYSTEM : System Description" (Halogen type headlamp)
Daytime running light system	EXL-13, "DAYTIME RUNNING LIGHT SYSTEM : System Description" (LED type headlamp) EXL-136, "DAYTIME RUNNING LIGHT SYSTEM : System Description" (Halogen type headlamp)

SYSTEM

[BCM]

< SYSTEM DESCRIPTION >

System	Refer to	
Back-up lamp system	EXL-16, "BACK-UP LAMP SYSTEM : System Description" (LED type headlamp) EXL-139, "BACK-UP LAMP SYSTEM : System Description" (Halogen type headlamp)	
Parking, license plate, side marker and tail lamp system	EXL-15, "PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMP SYSTEM : System Description" (LED type headlamp) EXL-137, "PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMP SYSTEM : System Description" (Halogen type headlamp)	
Interior room lamp control system	INL-7, "INTERIOR ROOM LAMP CONTROL SYSTEM : System Description"	
Interior room lamp battery saver system	INL-7, "INTERIOR ROOM LAMP CONTROL SYSTEM : System Description"	
Illumination control system	INL-8, "ILLUMINATION CONTROL SYSTEM : System Description"	
Front wiper and washer system	WW-9, "FRONT WIPER AND WASHER SYSTEM : System Description"	
Warning chime system	WCS-5, "WARNING CHIME SYSTEM : System Description"	
Door lock system	DLK-19, "System Description"	
Trunk open system	DLK-34, "System Description"	
Nissan vehicle immobilizer system	SEC-12, "NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS : System Description"	
Vehicle security system	SEC-14, "VEHICLE SECURITY SYSTEM : System Description"	
Panic alarm		
Rear window defogger system	DEF-6, "System Description"	
Intelligent Key system/engine start system	Door lock function	<ul style="list-style-type: none"> • DLK-22, "DOOR LOCK FUNCTION : System Description" (door request switch) • DLK-21, "INTELLIGENT KEY SYSTEM : System Description" (Intelligent Key)
	Trunk open function	<ul style="list-style-type: none"> • DLK-34, "System Description" (trunk request switch) • DLK-21, "INTELLIGENT KEY SYSTEM : System Description" (Intelligent Key)
	Warning function	DLK-26, "WARNING FUNCTION : System Description"
	Key reminder function	DLK-29, "KEY REMINDER FUNCTION : System Description"
	Engine start function	DLK-30, "REMOTE ENGINE START FUNCTION : System Description"
Power window system	PWC-8, "System Description"	
RAP (retained accessory power) system	BCS-29, "RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)"	
TPMS (tire pressure monitor system)	WT-9, "System Description"	

BODY CONTROL SYSTEM : Fail Safe

INFOID:000000012338816

FAIL-SAFE CONTROL BY DTC

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

Display contents of CONSULT	Fail-safe	Cancellation
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI-SCANNING	Inhibit engine cranking	Erase DTC

SYSTEM

[BCM]

< SYSTEM DESCRIPTION >

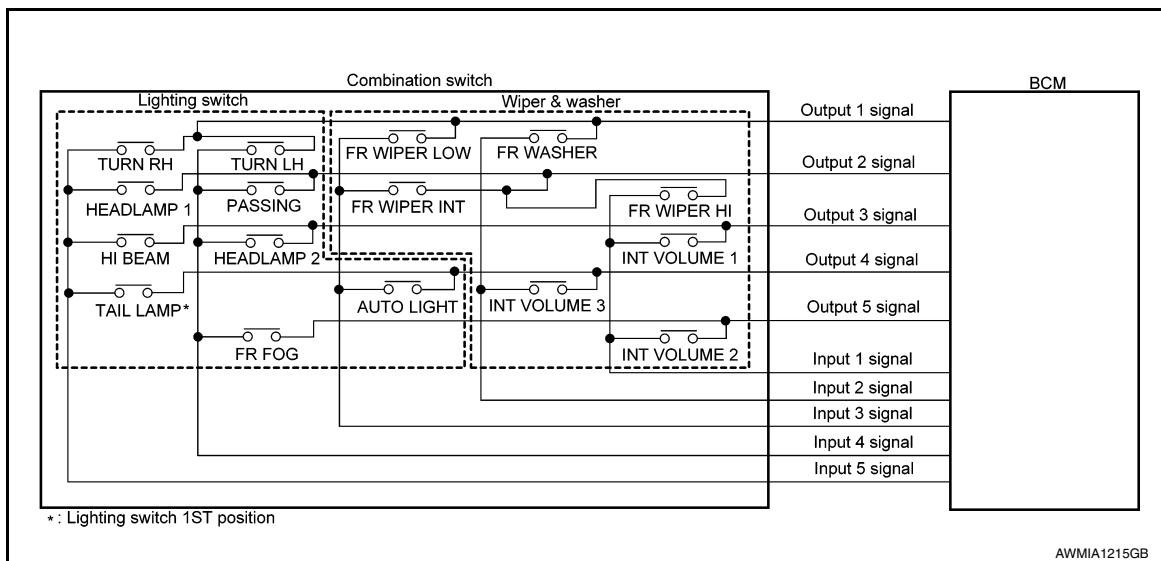
Display contents of CONSULT	Fail-safe	Cancellation
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has become consistent <ul style="list-style-type: none"> Starter control relay signal Starter relay status signal
B2562: LO VOLTAGE	Inhibit engine cranking	100 ms after the power supply voltage increases to more than 8.8 V
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent <ul style="list-style-type: none"> Starter motor relay control signal Starter relay status signal (CAN)
B260A: IGNITION RELAY	Inhibit engine cranking	500 ms after the following conditions are fulfilled <ul style="list-style-type: none"> IGN relay (IPDM E/R) control signal: OFF (Battery voltage) Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions is fulfilled <ul style="list-style-type: none"> Power position changes to ACC Receives engine status signal (CAN)
B2617: STARTER RELAY CIRC	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal
B26E1: ENG STATE NO RECIV	Inhibit engine cranking	When any of the following conditions are fulfilled <ul style="list-style-type: none"> Power position changes to ACC Receives engine status signal (CAN)

COMBINATION SWITCH READING SYSTEM

COMBINATION SWITCH READING SYSTEM : System Description

INFOID:000000011934011

SYSTEM DIAGRAM



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) and reads a maximum of 20 switch states.

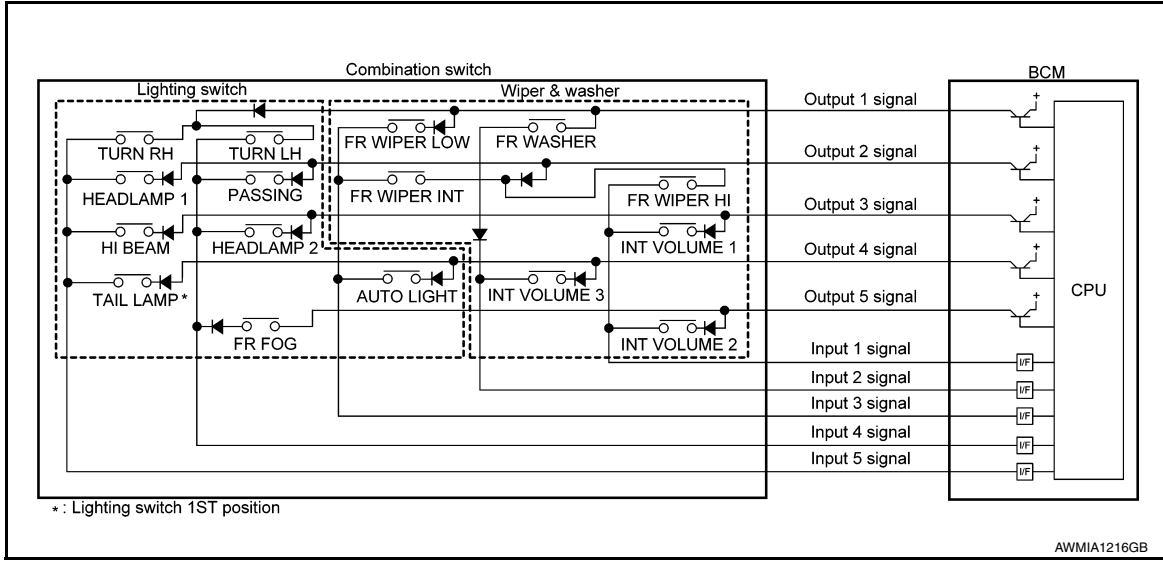
COMBINATION SWITCH MATRIX

SYSTEM

[BCM]

< SYSTEM DESCRIPTION >

Combination switch circuit



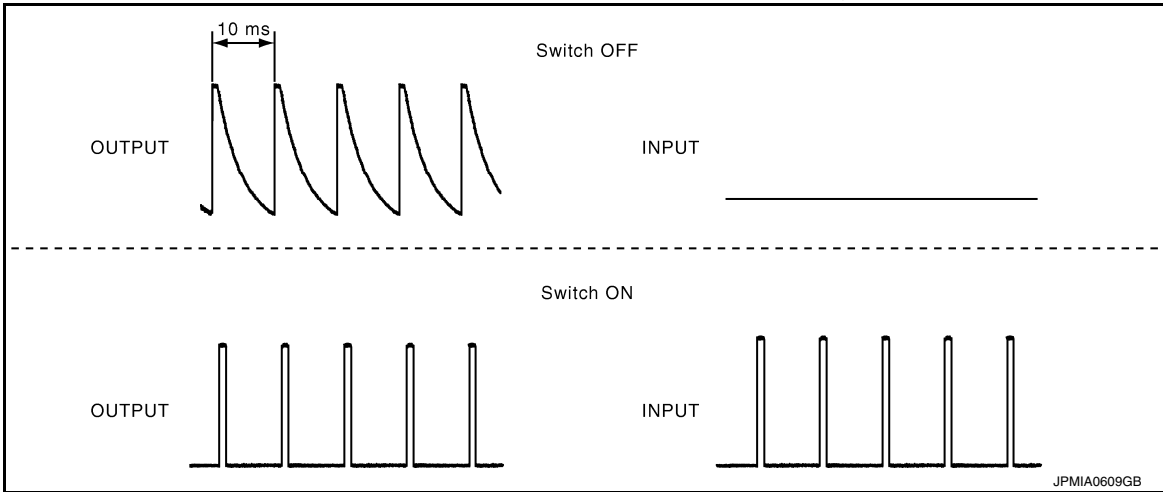
Combination switch INPUT-OUTPUT system list

System	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5
OUTPUT 1	—	FR WASH	FR WIPER LOW	TURN LH	TURN RH
OUTPUT 2	FR WIPER HI	—	FR WIPER INT	PASSING	HEADLAMP 1
OUTPUT 3	INT VOLUME 1	—	—	HEADLAMP 2	HI BEAM
OUTPUT 4	—	INT VOLUME 3	AUTO LIGHT	—	TAIL LAMP
OUTPUT 5	INT VOLUME 2	—	—	FR FOG	—

COMBINATION SWITCH READING FUNCTION

Description

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



NOTE:

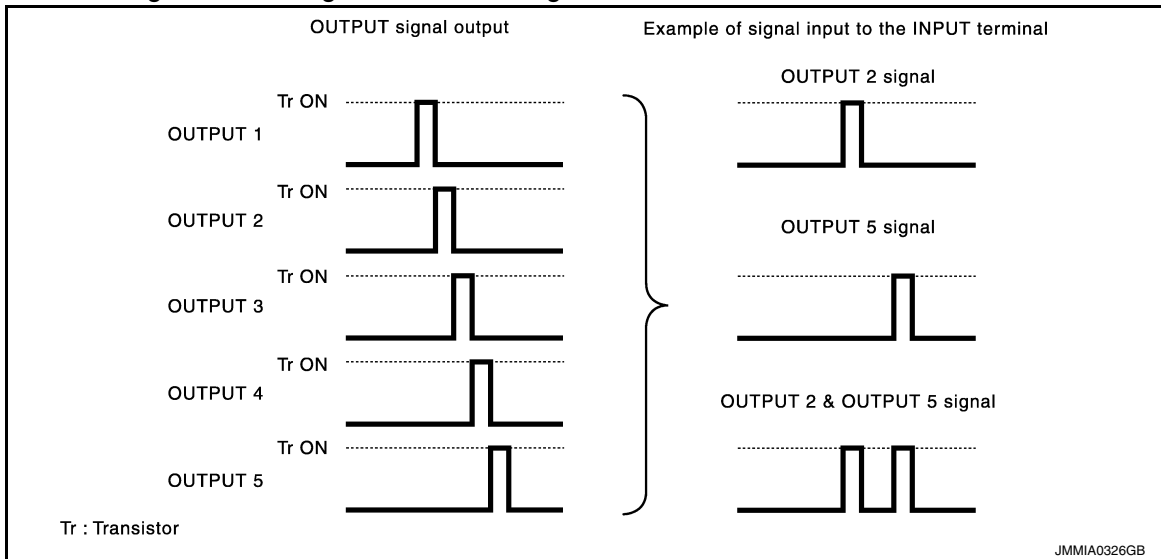
- BCM reads the status of the combination switch at 60ms intervals when BCM is controlled at low power consumption mode.
- BCM operates as follows and judges the status of the combination switch.
 - It operates the transistor on OUTPUT side in the following order: OUTPUT 1 → 2 → 3 → 4 → 5 and outputs 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.

SYSTEM

[BCM]

< SYSTEM DESCRIPTION >

- It reads this change of the voltage as the status signal of the combination switch.

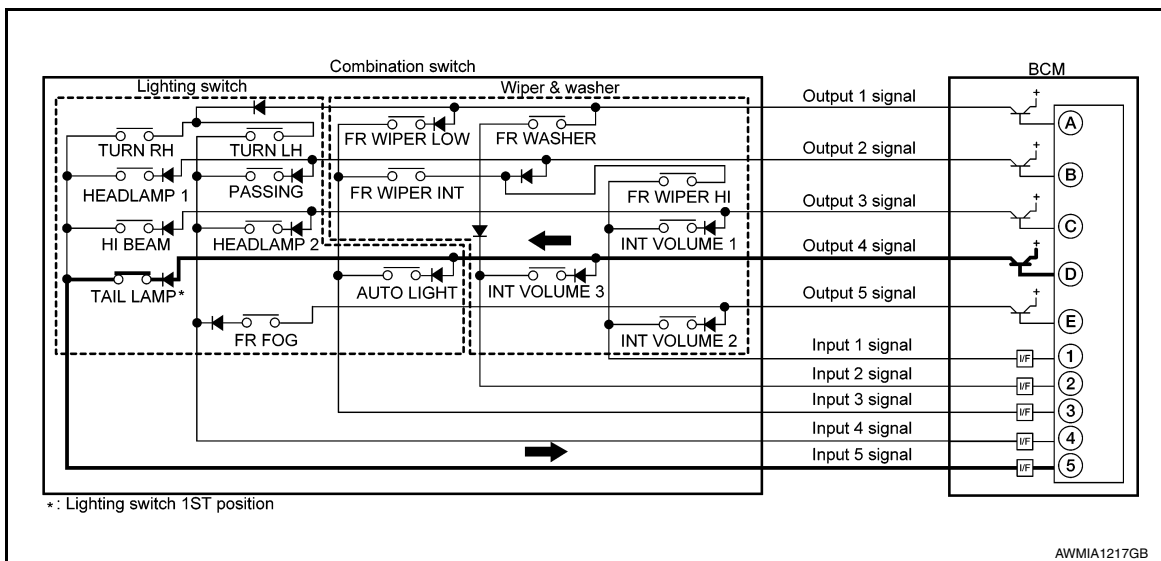


Operation Example

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 (TAIL LAMP) is turned ON

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



- BCM detects the combination switch status signal "5D" when the signal of OUTPUT 4 is input to INPUT 5.
- BCM judges that the TAIL LAMP switch is ON when the signal "5D" is detected.

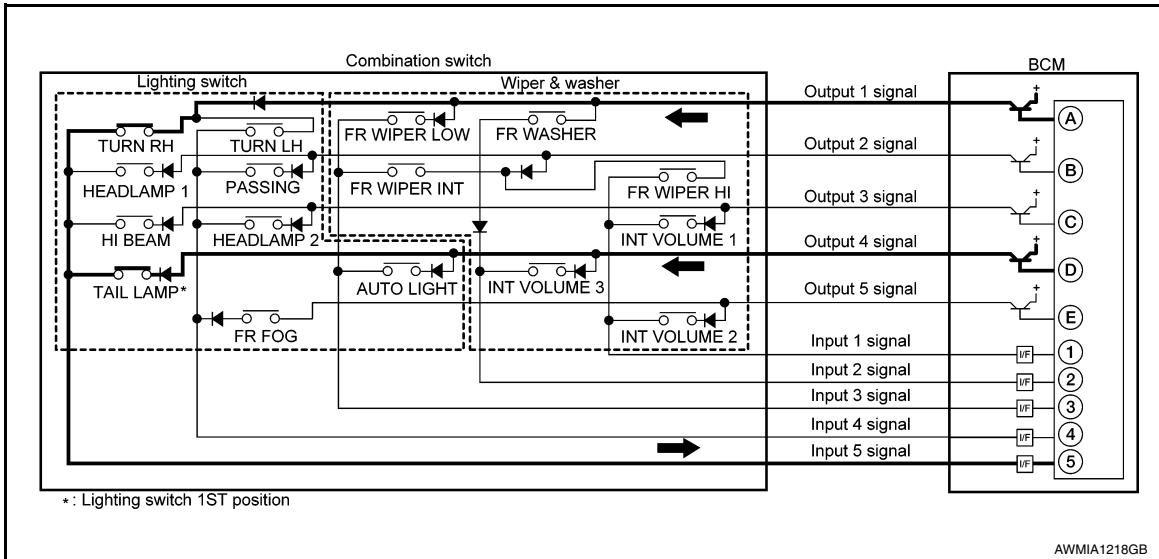
Example 2: When some switches (TRUN RH, TAIL LAMP) are turned ON

SYSTEM

[BCM]

< SYSTEM DESCRIPTION >

- The circuits between OUTPUT 1 and INPUT 5 and between OUTPUT 4 and INPUT 5 are formed when the TURN RH switch and TAIL LAMP switch are turned ON.



- BCM detects the combination switch status signal "5AD" when the signals of OUTPUT 1 and OUTPUT 4 are input to INPUT 5.
- BCM judges that the TURN RH switch and TAIL LAMP switch are ON when the signal "5AD" is detected.

WIPER INTERMITTENT DIAL POSITION SETTING (FRONT WIPER INTERMITTENT OPERATION)

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

Wiper intermittent dial position	Intermittent operation delay interval	INT VOLUME switch ON/OFF status		
		INT VOLUME 1 switch	INT VOLUME 2 switch	INT VOLUME 3 switch
1	Short ↑	ON	ON	ON
2		ON	ON	OFF
3		ON	OFF	OFF
4	↓ Long	OFF	OFF	OFF
5		OFF	OFF	ON
6		OFF	ON	ON
7		OFF	ON	OFF

SIGNAL BUFFER SYSTEM

SYSTEM

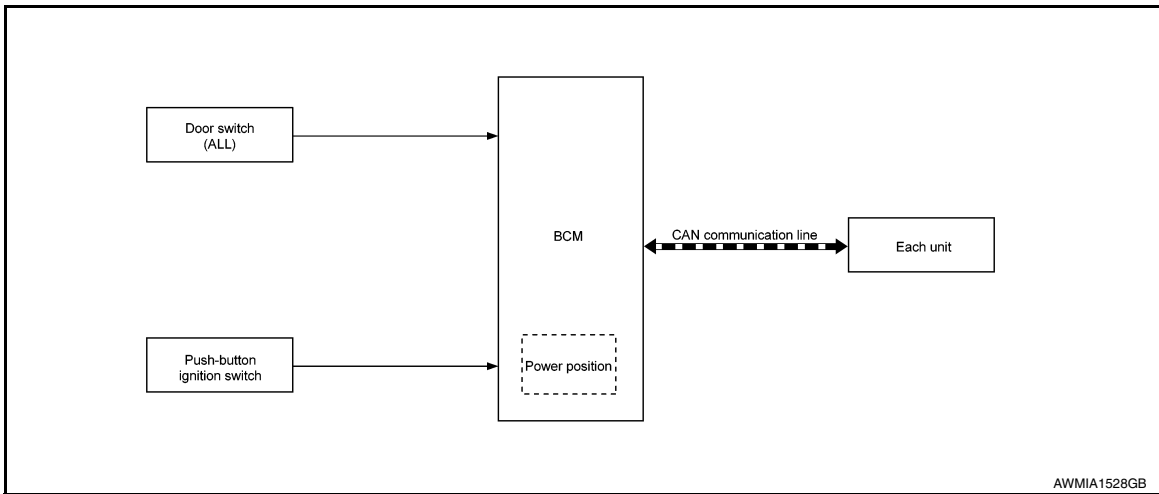
< SYSTEM DESCRIPTION >

[BCM]

SIGNAL BUFFER SYSTEM : System Description

INFOID:0000000112262296

SYSTEM DIAGRAM



OUTLINE

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

Signal transmission function list

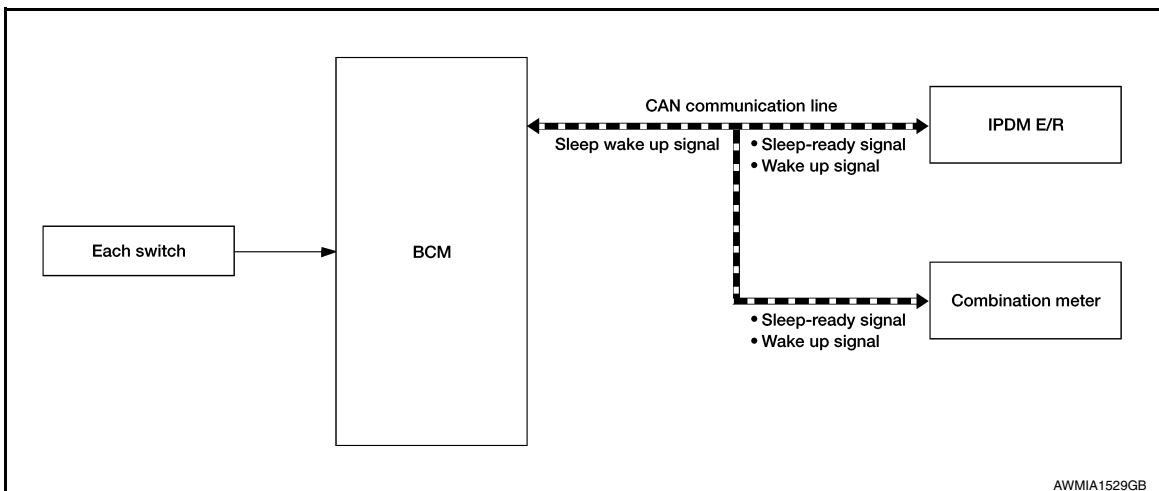
Signal name	Input	Output	Description
<ul style="list-style-type: none"> Ignition switch ON signal Ignition switch signal 	Engine switch (push switch)	IPDM E/R (CAN)	Inputs the push-button ignition switch (push switch) signal and transmits the ignition switch status judged with BCM via CAN communication.
Door switch signal	Any door switch	<ul style="list-style-type: none"> Combination meter (CAN) IPDM E/R (CAN) 	Inputs the door switch signal and transmits it via CAN communication.

POWER CONSUMPTION CONTROL SYSTEM

POWER CONSUMPTION CONTROL SYSTEM : System Description

INFOID:000000011934015

SYSTEM DIAGRAM



OUTLINE

- BCM incorporates a power saving control function that reduces the power consumption according to the vehicle status.

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SYSTEM

[BCM]

< SYSTEM DESCRIPTION >

- 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 and combination meter) 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 combination meter 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 wakeup 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
<ul style="list-style-type: none"> • Receiving the sleep-ready signal (ready) from all units • Ignition switch: OFF • Vehicle security system alarm and panic alarm: No operation • Warning lamp: No operation • Intelligent Key system buzzer: No operation • Trunk room lamp switch status: No change • Brake switch: OFF • Turn signal indicator lamp: No operation • Exterior lamp: OFF • Door lock status: No change • CONSULT communication status: No communication • Meter display signal: Non-transmission • Door switch status: No change • Rear window defogger: OFF 	<ul style="list-style-type: none"> • Interior room lamp battery saver: Time out • RAP system: OFF • Power window switch communication: No transmission • Push-button ignition switch (push switch) illumination: OFF • NATS: No operation • Remote keyless entry receiver communication status: No communication • Tire pressure monitor system: Stop

Wake-up operation

- BCM changes from the low power consumption mode to the CAN communication sleep mode when any of the BCM wake-up conditions is fulfilled. Only the control with BCM is activated.
- BCM transmits the sleep wake up signal (wake up) to each unit when any of the CAN wake-up conditions is fulfilled. It changes from the low power consumption mode or the CAN communication sleep mode to the normal mode.
- Each unit starts the transmission of CAN communication with the sleep wake up signal. In addition, the combination meter transmits the wake up signal to BCM via CAN communication to report the CAN communication start.

SYSTEM

[BCM]

< SYSTEM DESCRIPTION >

Wake-up condition

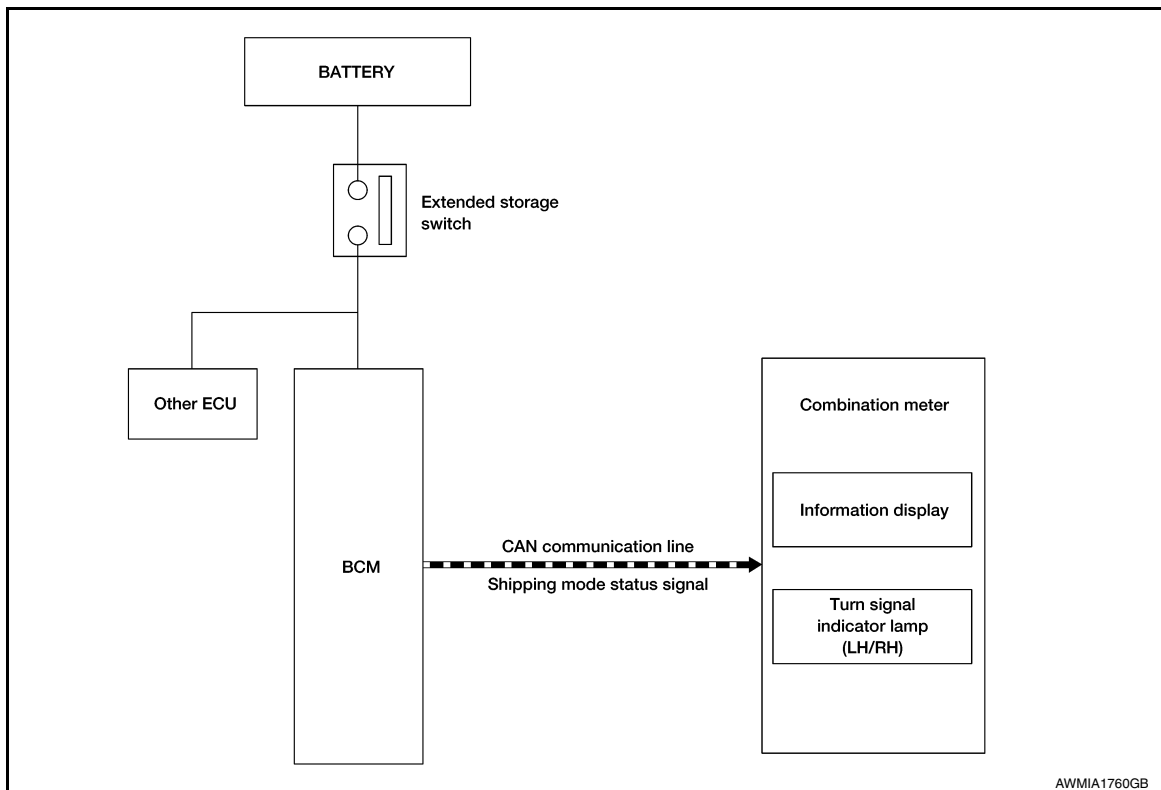
BCM wake-up condition	CAN wake-up condition
<ul style="list-style-type: none"> Door unlock sensor: OFF→ON, ON→OFF Front door lock assembly LH (key cylinder switch): Lock or unlock Door lock switch: OFF→ON Door unlock switch: OFF→ON Trunk lid opener switch: OFF→ON Power window serial link communication: Receiving Remote keyless entry receiver: Receiving valid key fob 	<ul style="list-style-type: none"> Receiving the sleep-ready signal (Not-ready) from any units Push-button ignition switch (push switch): OFF→ON Hazard switch: OFF→ON PASSING switch: OFF→ON, ON→OFF TAIL LAMP switch: OFF→ON Front door switch LH: OFF→ON, ON→OFF Front door switch RH: OFF → ON, ON → OFF Trunk room lamp switch: OFF→ON, ON→OFF Front door request switch LH: OFF→ON Front door request switch RH: OFF→ON Trunk opener request switch: OFF→ON Stop lamp switch 2 signal: ON Remote keyless entry receiver: Receiving valid key fob

SHIPPING MODE CONTROL SYSTEM

SHIPPING MODE CONTROL SYSTEM : System Description

INFOID:000000012248914

SYSTEM DIAGRAM



DESCRIPTION

- The BCM switches the status (shipping mode or normal mode) by itself according to the extended storage switch condition, and transmits the shipping mode status signal to the combination meter and each unit via CAN communication.
- When the shipping mode function is activated, the control units will not detect DTCs.
- BCM control functions are limited in shipping mode. Refer to [BCS-81, "Description"](#).
- When the BCM is in shipping mode, a message may be shown in the combination meter or display.
- For shipping mode cancel operation refer to [BCS-66, "Work Procedure"](#).

DIAGNOSIS SYSTEM (BCM)

[BCM]

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM) COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:000000011934017

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Direct Diagnostic Mode	Description
ECU Identification	The BCM part number is displayed.
Self Diagnostic Result	The BCM self diagnostic results are displayed.
Data Monitor	The BCM input/output data is displayed in real time.
Active Test	The BCM activates outputs to test components.
Work support	The settings for BCM functions can be changed.
Configuration	<ul style="list-style-type: none"> • The vehicle specification can be read and saved. • The vehicle specification can be written when replacing BCM.
CAN Diag Support Mntr	The result of transmit/receive diagnosis of CAN communication is displayed.

SYSTEM APPLICATION

BCM can perform the following functions:

System	Sub System	Direct Diagnostic Mode						
		ECU Identification	Self Diagnostic Result	Data Monitor	Active Test	Work support	Configuration	CAN Diag Support Mntr
Door lock	DOOR LOCK		×	×	×	×		
Rear window defogger	REAR DEFOGGER			×	×	×		
Warning chime	BUZZER			×	×			
Interior room lamp timer	INT LAMP			×	×	×		
Exterior lamp	HEADLAMP			×	×	×		
Wiper and washer	WIPER			×	×	×		
Turn signal and hazard warning lamps	FLASHER			×	×	×		
Air conditioner	AIR CONDITIONER			×				
Intelligent Key system	INTELLIGENT KEY		×	×	×	×		
Combination switch	COMB SW			×				
BCM	BCM	×	×			×	×	×
Immobilizer	IMMU		×	×	×			
Interior room lamp battery saver	BATTERY SAVER			×	×			
Trunk	TRUNK			×				
Vehicle security system	THEFT ALM			×	×	×		
RAP system	RETAINED PWR			×				
Signal buffer system	SIGNAL BUFFER			×	×			
TPMS	AIR PRESSURE MONITOR		×	×	×			

FREEZE FRAME DATA (FFD)

DIAGNOSIS SYSTEM (BCM)

[BCM]

< SYSTEM DESCRIPTION >

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

CONSULT screen item	Indication/Unit	Description
Vehicle Speed	km/h	Vehicle speed at the moment a particular DTC is detected
Odo/Trip Meter	km	Total mileage (Odometer value) at the moment a particular DTC is detected
Vehicle Condition	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 stopped and selector lever is in 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	While turning power supply position from "ACC" to "OFF"
	OFF>LOCK	While turning power supply position from "OFF" to "LOCK"*
	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 of times that ignition switch is turned ON after DTC is detected <ul style="list-style-type: none"> • The number is 0 when a malfunction is detected now. • The number increases like 1 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition is switched OFF → ON. • The number is fixed to 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:0000000011934018

SELF DIAGNOSTIC RESULT

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

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[BCM]

DATA MONITOR

Monitor Item [Unit]	Description
REQ SW-DR [On/Off]	Indicates condition of door request switch LH
REQ SW-AS [On/Off]	Indicates condition of door request switch RH
REQ SW-BD/TR [On/Off]	Indicates condition of trunk opener request switch
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH
DOOR SW-RR [On/Off]	Indicates condition of rear door switch RH
DOOR SW-RL [On/Off]	Indicates condition of rear door switch LH
DOOR SW-BK [On/Off]	Indicates condition of trunk switch
CDL LOCK SW [On/Off]	Indicates condition of lock signal from door lock and unlock switch
CDL UNLOCK SW [On/Off]	Indicates condition of unlock signal from door lock and unlock switch
KEY CYL LK-SW [On/Off]	Indicates condition of lock signal from door key cylinder switch
KEY CYL UN-SW [On/Off]	Indicates condition of unlock signal from door key cylinder switch

ACTIVE TEST

Test Item	Description
DOOR LOCK	This test is able to check door lock operation [OTR ULK/AS UNLK/DR UNLK/ALL UNLK/ALL LCK].

WORK SUPPORT

Support Item	Setting	Description
DOOR LOCK-UNLOCK SET	On*	Automatic door locks function ON.
	Off	Automatic door locks function OFF.
AUTO UNLOCK TYPE	MODE2	Driver door only unlocks automatically.
	MODE1*	All doors unlock automatically.
AUTO LOCK FUNCTION	MODE3	This mode is not used.
	MODE2	Doors lock automatically when shifted out of P (park).
	MODE1*	Doors lock automatically when vehicle speed reaches 24 km/h (15 mph).
AUTO UNLOCK FUNCTION	Off	—
	MODE3	This mode is not used.
	MODE2	Doors unlock automatically when shifted into P (park).
	MODE1*	Doors unlock automatically when ignition is switched from ON to OFF.
SIGNATURE LIGHT SETTING	Off	—
	On*	Signature light setting ON.
	Off	Signature light setting OFF.

* : Initial setting

REAR DEFOGGER

REAR DEFOGGER : CONSULT Function (BCM - REAR DEFOGGER)

INFOID:0000000011934019

DATA MONITOR

Monitor Item [Unit]	Description
PUSH SW [On/Off]	Indicates condition of push button ignition switch
REAR DEF SW [On/Off]	Indicates condition of rear window defogger switch

DIAGNOSIS SYSTEM (BCM)

[BCM]

< SYSTEM DESCRIPTION >

ACTIVE TEST

Test Item	Description
REAR DEFOGGER	This test is able to check rear window defogger operation [Off/On].

WORK SUPPORT

Support Item	Setting	Description
SET R-DEF TIMER	MODE3	Rear defogger turns OFF after 1 minute.
	MODE2	Rear defogger remains ON until turned OFF.
	MODE1*	Rear defogger turns OFF after 15 minutes.

* : Initial setting

BUZZER

BUZZER : CONSULT Function (BCM - BUZZER)

INFOID:0000000011934020

DATA MONITOR

Monitor Item [Unit]	Description
PUSH -SW [On/Off]	Indicates condition of push button ignition switch.
UNLK SEN -DR [On/Off]	Indicates condition of door unlock sensor.
VEH SPEED 1 [km/h]	Indicates vehicle speed signal received from ABS on CAN communication line.
TAIL LAMP SW [On/Off]	Indicates condition of combination switch.
FR FOG SW [On/Off]	Indicates condition of front fog lamp switch.
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.
CDL LOCK SW [On/Off]	Indicates condition of lock signal from door lock and unlock switch.

ACTIVE TEST

Test Item	Description
SEAT BELT WARN TEST	This test is able to check seat belt warning chime operation [On/Off].
LIGHT WARN ALM	This test is able to check light warning chime operation [On/Off].
REVERSE WARNING	This test is able to check reverse warning chime operation [On/Off].

INT LAMP

INT LAMP : CONSULT Function (BCM - INT LAMP)

INFOID:0000000011934021

DATA MONITOR

Monitor Item [Unit]	Description
REQ SW -DR [On/Off]	Indicates condition of door request switch LH
REQ SW -AS [On/Off]	Indicates condition of door request switch RH
PUSH -SW [On/Off]	Indicates condition of push button ignition switch
UNLK SEN -DR [On/Off]	Indicates condition of door unlock sensor
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH
DOOR SW-RR [On/Off]	Indicates condition of rear door switch RH
DOOR SW-RL [On/Off]	Indicates condition of rear door switch LH
DOOR SW-BK [On/Off]	Indicates condition of trunk switch
CDL LOCK SW [On/Off]	Indicates condition of lock signal from door lock and unlock switch

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DIAGNOSIS SYSTEM (BCM)

[BCM]

< SYSTEM DESCRIPTION >

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

ACTIVE TEST

Test Item	Description
INT LAMP	This test is able to check interior room lamp operation [On/Off].
STEP LAMP TEST	This test is able to check step lamp operation [On/Off].
CARGO LAMP TEST	This test is able to check cargo lamp operation [On/Off].

WORK SUPPORT

NOTE:

The items listed below are the only applicable Work Support items for this vehicle. If other items are displayed on CONSULT, do not use or change the setting for these other items.

Support Item	Setting	Description
SCENARIO LIGHTING SETTING	On	NOTE: Do not use this function since interior room lamp control is changed.
	Off*	
SET I/L D-UNLCK INTCON	On*	Interior room lamp timer function ON.
	Off	Interior room lamp timer function OFF.
FOG LAMP OVERRIDE	On*	Fog lamp override function ON.
	Off	Fog lamp override function OFF.

* : Initial setting

HEAD LAMP

HEAD LAMP : CONSULT Function (BCM - HEAD LAMP)

INFOID:000000011934022

DATA MONITOR

Monitor Item [Unit]	Description
PUSH SW [On/Off]	Indicates condition of push button ignition switch
ENGINE STATE [Stop/Stall/Crank/Run]	Indicates engine status received from ECM on CAN communication line
VEH SPEED 1 [km/h]	Indicates vehicle speed signal received from ABS on CAN communication line
TURN SIGNAL R [On/Off]	Indicates condition of combination switch
TURN SIGNAL L [On/Off]	
TAIL LAMP SW [On/Off]	
HI BEAM SW [On/Off]	
HEAD LAMP SW 1 [On/Off]	
HEAD LAMP SW 2 [On/Off]	
PASSING SW [On/Off]	
AUTO LIGHT SW [On/Off]	
FR FOG SW [On/Off]	
DOOR SW-DR [On/Off]	
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH

DIAGNOSIS SYSTEM (BCM)

[BCM]

< SYSTEM DESCRIPTION >

Monitor Item [Unit]	Description
DOOR SW-RR [On/Off]	Indicates condition of rear door switch RH
DOOR SW-RL [On/Off]	Indicates condition of rear door switch LH
DOOR SW-BK [On/Off]	Indicates condition of trunk switch
OPTI SEN (DTCT) [V]	Indicates voltage signal from optical sensor
OPTI SEN (FILT) [V]	Indicates voltage signal from optical sensor
OPTICAL SENSOR [On/Off]	Indicates condition of optical sensor

ACTIVE TEST

Test Item	Description
FR FOG LAMP	This test is able to check front fog lamp operation [On/Off].
DAYTIME RUNNING LIGHT	This test is able to check daytime running light operation [LH/RH/Off].
ILL DIM SIGNAL	This test is able to check head lamp illumination dimming operation [On/Off].

WORK SUPPORT

Support Item	Setting	Description
TWILIGHT ON	MODE2*	Auto lamp function ON.
	MODE1	Auto lamp function OFF.
WIPER LINK	MODE4	This mode is not used.
	MODE3*	Wiper link function operates in INT, LOW and HI.
	MODE2	Wiper link function operates in LOW and HI.
	MODE1	Wiper link function OFF.
CUSTOM A/LIGHT SETTING	MODE4	Less sensitive than normal setting (turns ON later).
	MODE3	More sensitive than MODE2.
	MODE2	More sensitive than normal setting (turns ON earlier).
	MODE1*	Normal setting.
ILL DELAY SET	MODE 8	Auto lamp delay timer.
	MODE 7	
	MODE 6	
	MODE 4	
	MODE 5	
	MODE 3	
	MODE 2	
	MODE 1*	

* : Initial setting

WIPER

WIPER : CONSULT Function (BCM - WIPER)

INFOID:0000000011934023

DATA MONITOR

Monitor Item [Unit]	Description
PUSH SW [On/Off]	Indicates condition of push button ignition switch
VEH SPEED 1 [km/h]	Indicates vehicle speed signal received from ABS on CAN communication line

DIAGNOSIS SYSTEM (BCM)

[BCM]

< SYSTEM DESCRIPTION >

Monitor Item [Unit]	Description
FR WIPER HI [On/Off]	Indicates condition of wiper operation of combination switch
FR WIPER LOW [On/Off]	
FR WASHER SW [On/Off]	
FR WIPER INT [On/Off]	
FR WIPER STOP [On/Off]	Indicates front wiper auto stop signal received from IPDM E/R on CAN communication line
INT VOLUME [1 - 7]	Indicates condition of intermittent wiper operation of combination switch
RAIN SENSOR [On/Off]	Indicates condition of rain sensor.

ACTIVE TEST

Test Item	Description
FR WIPER	This test is able to check front wiper operation [INT/Lo/Hi/Off].

WORK SUPPORT

Support Item	Setting	Description
RAIN SENSOR	On*	Rain sensor function ON.
	Off	Rain sensor function OFF
WIPER SPEED SETTING	On*	Wiper speed setting function ON.
	Off	Wiper speed setting function OFF.

* : Initial setting

FLASHER

FLASHER : CONSULT Function (BCM - FLASHER)

INFOID:000000011934024

DATA MONITOR

Monitor Item [Unit]	Description
REQ SW -DR [On/Off]	Indicates condition of door request switch LH
REQ SW -AS [On/Off]	Indicates condition of door request switch RH
PUSH SW [On/Off]	Indicates condition of push button ignition switch
TURN SIGNAL R [On/Off]	Indicates condition of turn signal function of combination switch
TURN SIGNAL L [On/Off]	
HAZARD SW [On/Off]	Indicates condition of hazard switch
RKE-LOCK [On/Off]	Indicates condition of lock signal from Intelligent Key
RKE-UNLOCK [On/Off]	Indicates condition of unlock signal from Intelligent Key
RKE-PANIC [On/Off]	Indicates condition of panic alarm signal from Intelligent Key

ACTIVE TEST

Test Item	Description
FLASHER	This test is able to check turn signal lamp operation [Off/LH/RH].

WORK SUPPORT

Support item	Setting	Description
3-TIME FLASHER SETTING	ON*	3-Time flasher setting ON.
	OFF	3-Time flasher setting OFF.

* : Initial setting

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[BCM]

AIR CONDITIONER

AIR CONDITIONER : CONSULT Function (BCM - AIR CONDITIONER)

INFOID:0000000112227398

DATA MONITOR

Monitor Item [Unit]	Description
FAN ON SIG [On/Off]	Indicates condition of fan switch.
AIR COND SW [On/Off]	Indicates condition of A/C switch.
THERMO AMP [On/Off]	Indicates condition of thermo amp.

INTELLIGENT KEY

INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)

INFOID:000000011934025

DATA MONITOR

Monitor Item [Unit]	Main	Description
REQ SW -DR [On/Off]	×	Indicates condition of door request switch LH
REQ SW -AS [On/Off]	×	Indicates condition of door request switch RH
REQ SW -BD/TR [On/Off]	×	Indicates condition of trunk opener request switch
PUSH SW [On/Off]		Indicates condition of push button ignition switch
SHFTLCK SLNID PWR SPLY [On/Off]		Indicates condition of shiftlock solenoid power supply
BRAKE SW 1 [On/Off]	×	Indicates condition of brake switch
BRAKE SW 2 [On/Off]		Indicates condition of brake switch
DETE/CANCL SW [On/Off]	×	Indicates condition of P position
SFT PN/N SW [On/Off]	×	Indicates condition of P or N position
UNLK SEN -DR [On/Off]	×	Indicates condition of door unlock sensor
PUSH SW -IPDM [On/Off]		Indicates condition of push button ignition switch received from IPDM E/R on CAN communication line
IGN RLY1 -F/B [On/Off]		Indicates condition of ignition relay 1 received from IPDM E/R on CAN communication line
DETE SW -IPDM [On/Off]		Indicates condition of detent switch received from TCM on CAN communication line
SFT PN -IPDM [On/Off]		Indicates condition of P or N position from TCM on CAN communication line
SFT P -MET [On/Off]		Indicates condition of P position from TCM on CAN communication line
SFT N -MET [On/Off]		Indicates condition of N position from IPDM E/R on CAN communication line
ENGINE STATE [Stop/Start/Crank/Run]	×	Indicates condition of engine state from ECM on CAN communication line
VEH SPEED 1 [mph/km/h]	×	Indicates condition of vehicle speed signal received from ABS on CAN communication line
VEH SPEED 2 [mph/km/h]	×	Indicates condition of vehicle speed signal received from combination meter on CAN communication line
DOOR STAT -DR [LOCK/READY/UNLK]	×	Indicates condition of driver side door status.
DOOR STAT -AS [LOCK/READY/UNLK]	×	Indicates condition of passenger side door status.
DOOR STAT -RR [LOCK/READY/UNLK]	×	Indicates condition of rear right side door status.
DOOR STAT -RL [LOCK/READY/UNLK]	×	Indicates condition of rear left side door status.
ID OK FLAG [Set/Reset]		Indicates condition of intelligent key ID
PRMT ENG START [Set/Reset]		Indicates condition of engine start possibility from intelligent key
I-KEY OK FLAG [Set/Reset]		Indicates condition of Intelligent Key ID.

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[BCM]

Monitor Item [Unit]	Main	Description
ID AUTHENT CANCEL TIMER [under a stop]		Indicates condition of Intelligent Key ID authentication.
ACC BATTERY SAVER [under a stop]		Indicates condition of battery saver.
CRNK PRBT TMR [On/Off]		Indicates condition of crank prohibit timer.
AUT CRNK TMR [On/Off]		Indicates condition of automatic engine crank timer from Intelligent Key.
CRANKING TME [sec]		Indicates condition of engine cranking time from Intelligent Key.
SHORT CRANK		Indicates condition of condition of short crank from intelligent key
ST RLY -REQ		Indicates condition of starter relay.
IGN RLY 1 -REQ		Indicates condition of ignition 1 relay.
IGN RLY 2 -REQ		Indicates condition of ignition 2 relay.
DETE SW PWR [On/Off]		Indicates condition of park position switch voltage.
IGN RLY 3 -REQ		Indicates condition of ignition 3 relay.
ACC RLY -REQ		Indicates condition of ACC relay.
PRBT ENG STRT [Set/Reset]		Indicates condition of engine start possibility.
PRMT RKE STRT [Set/Reset]		Indicates condition of engine start possibility from Intelligent Key.
TRNK/HAT MNTR [On/Off]		Indicates condition of trunk lid.
RKE-LOCK [On/Off]		Indicates condition of lock signal from Intelligent Key.
RKE-UNLOCK [On/Off]		Indicates condition of unlock signal from Intelligent Key.
RKE-TR/BD [On/Off]		Indicates condition of trunk open signal from Intelligent Key.
RKE-PANIC [On/Off]		Indicates condition of panic signal from Intelligent Key.
RKE-MODE CHG [On/Off]		Indicates condition of mode change signal from Intelligent Key.
RKE PBD		Indicates condition of trunk signal from Intelligent Key.
RKE OPE COUN1 [0-19]	×	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing.
RKE OPE COUN2 [0-19]	×	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing.

ACTIVE TEST

Test Item	Description
INTELLIGENT KEY LINK (CAN)	This test is able to check Intelligent Key identification number [Off/ID No1/ID No2/ID No3/ID No4/ID No5].
INT LAMP	This test is able to check interior room lamp operation [On/Off].
FLASHER	This test is able to check hazard lamp operation [LH/RH/Off].
HORN	This test is able to check horn operation [On].
BATTERY SAVER	This test is able to check battery saver operation [On/Off].
TRUNK/BACK DOOR	This test is able to check trunk actuator operation [Open].
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation [On/Off].
INSIDE BUZZER	This test is able to check combination meter warning chime operation [Take Out/Knob/Key/Off].
INDICATOR	This test is able to check combination meter warning lamp operation [KEY ON/KEY IND/Off].
IGN CONT2	This test is able to check ignition relay-2 control operation [On/Off].
ENGINE SW ILLUMI	This test is able to check push-button ignition switch START indicator operation [On/Off].
PUSH SWITCH INDICATOR	This test is able to check push-button ignition switch indicator operation [On/Off].
ACC CONT	This test is able to check accessory relay control operation [On/Off].
IGN CONT1	This test is able to check ignition relay-1 control operation [On/Off].
ST CONT LOW	This test is able to check starter control relay operation [On/Off].

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[BCM]

Test Item	Description
IGNITION RELAY	This test is able to check ignition relay operation [On/Off].
REVERSE LAMP TEST	This test is able to check reverse lamp illumination operation [On/Off].
DOOR HANDLE LAMP TEST	This test is able to check door handle lamp illumination operation [On/Off].
DR SEAT LAMP TEST	This test is able to check driver seat lamp operation [On/Off].
AS SEAT LAMP TEST	This test is able to check passenger seat lamp operation [On/Off].
SHIFT SPOT LAMP TEST	This test is able to check shift spot lamp operation [On/Off].
TRUNK/LUGGAGE LAMP TEST	This test is able to check cargo lamp illumination operation [On/Off].
KEYFOB PW TEST	This test is able to check power window operation using the Intelligent Key [P/W up/down OFF/Send P/W down ON/Send P/W up ON].
SHIFTLOCK SOLENOID TEST	This test is able to check shift lock solenoid operation [On/Off].

WORK SUPPORT

Support Item	Setting	Description	
IGN/ACC BATTERY SAVER	On*	Battery saver function ON.	
	Off	Battery saver function OFF.	
REMOTE ENGINE STARTER	On*	Remote engine start function ON.	
	Off	Remote engine start function OFF.	
ANSWERBACK I-KEY LOCK UNLOCK	BUZZER*	Buzzer reminder function by door lock/unlock request switch ON.	
	HORN	Horn chirp reminder function by door lock request switch ON.	
	Off	No reminder function by door lock/unlock request switch.	
	INVALID	This mode is not used.	
ANSWERBACK KEYLESS LOCK UNLOCK	On*	Buzzer or horn chirp reminder when doors are locked/unlocked with Intelligent Key.	
	Off	No buzzer or horn chirp reminder when doors are locked/unlocked with Intelligent Key.	
ANSWER BACK	On*	Horn chirp reminder when doors are locked with Intelligent Key.	
	Off	No horn chirp reminder when doors are locked with Intelligent Key.	
RETRACTABLE MIRROR SET	On	Retractable mirror set ON.	
	Off*	Retractable mirror set OFF.	
LOCK/UNLOCK BY I-KEY	On*	Door lock/unlock function from Intelligent Key ON.	
	Off	Door lock/unlock function from Intelligent Key OFF.	
ENGINE START BY I-KEY	On*	Engine start function from Intelligent Key ON.	
	Off	Engine start function from Intelligent Key OFF.	
TRUNK/GLASS HATCH OPEN	On*	Buzzer reminder function by trunk request switch ON.	
	Off	Buzzer reminder function by trunk request switch OFF.	
CONFIRM KEY FOB ID	—	Intelligent Key ID code can be checked.	
SHORT CRANKING OUTPUT	Start	70 msec	Starter motor operation duration times.
		100 msec	
		200 msec	
	End	—	
INSIDE ANT DIAGNOSIS	—	This function allows inside key antenna self-diagnosis.	

DIAGNOSIS SYSTEM (BCM)

[BCM]

< SYSTEM DESCRIPTION >

Support Item	Setting		Description
AUTO LOCK SET	MODE7	5 min	Auto door lock time can be set in this mode.
	MODE6	4 min	
	MODE5	3 min	
	MODE4	2 min	
	MODE3*	1 min	
	MODE2	30 sec	
	MODE1	Off	

*: Initial Setting

COMB SW

COMB SW : CONSULT Function (BCM-COMB SW)

INFOID:000000011934026

DATA MONITOR

Monitor Item [Unit]	Description
FR WIPER HI [On/Off]	Indicates condition of wiper operation of combination switch
FR WIPER LOW [On/Off]	
FR WASHER SW [On/Off]	
FR WIPER INT [On/Off]	
INT VOLUME [1 - 7]	Indicates condition of intermittent wiper operation of combination switch
TURN SIGNAL R [On/Off]	Indicates condition of right turn signal operation of combination switch
TURN SIGNAL L [On/Off]	Indicates condition of left turn signal operation of combination switch
TAIL LAMP SW [On/Off]	Indicates condition of tail lamp switch operation of combination switch
HI BEAM SW [On/Off]	Indicates condition of Hi beam switch operation of combination switch
HEAD LAMP SW 1 [On/Off]	Indicates condition of head lamp switch 1 operation of combination switch
HEAD LAMP SW 2 [On/Off]	Indicates condition of head lamp switch 2 operation of combination switch
PASSING SW [On/Off]	Indicates condition of passing switch operation of combination switch
AUTO LIGHT SW [On/Off]	Indicates condition of auto light switch operation of combination switch
FR FOG SW [On/Off]	Indicates condition of front fog lamp switch operation of combination switch

BCM

BCM : CONSULT Function (BCM - BCM)

INFOID:000000011934027

ECU IDENTIFICATION

The BCM part number is displayed.

SELF DIAGNOSTIC RESULT

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

WORK SUPPORT

Support Item	Setting	Description
RESET SETTING VALUE	Reset	Returns BCM to initial value in factory shipment.
	Cancel	Cancels the reset function.

CONFIGURATION

Refer to [BCS-64. "CONFIGURATION \(BCM\) : Description"](#).

CAN DIAG SUPPORT MNTR

Refer to [LAN-14. "CAN Diagnostic Support Monitor"](#).

IMMU

DIAGNOSIS SYSTEM (BCM)

[BCM]

< SYSTEM DESCRIPTION >

IMMU : CONSULT Function (BCM - IMMU)

INFOID:000000011934028

SELF DIAGNOSTIC RESULT

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

DATA MONITOR

Monitor Item [Unit]	Description
CONFIRM ID ALL [Yet/DONE]	Switches to DONE when a registered Intelligent Key is inserted into the key slot.
CONFIRM ID4 [Yet/DONE]	
CONFIRM ID3 [Yet/DONE]	
CONFIRM ID2 [Yet/DONE]	
CONFIRM ID1 [Yet/DONE]	
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 [Yet/DONE]	DONE indicates the number of Intelligent Key ID which has been registered.
TP 3 [Yet/DONE]	
TP 2 [Yet/DONE]	
TP 1 [Yet/DONE]	
PUSH SW [On/Off]	Indicates condition of push button ignition switch
TCU ID [Yet/DONE]	Indicates condition of telematics control unit

ACTIVE TEST

Test Item	Description
THEFT IND	This test is able to check security indicator operation [On/Off].

BATTERY SAVER

BATTERY SAVER : CONSULT Function (BCM - BATTERY SAVER)

INFOID:000000011934029

DATA MONITOR

Monitor Item [Unit]	Description
REQ SW -DR [On/Off]	Indicates condition of door request switch LH
REQ SW -AS [On/Off]	Indicates condition of door request switch RH
PUSH SW [On/Off]	Indicates condition push button ignition switch
UNLK SEN -DR [On/Off]	Indicates condition of door unlock sensor
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH
DOOR SW-RR [On/Off]	Indicates condition of rear door switch RH
DOOR SW-RL [On/Off]	Indicates condition of rear door switch LH
DOOR SW-BK [On/Off]	Indicates condition of trunk switch
CDL LOCK SW [On/Off]	Indicates condition of lock signal from door lock and unlock switch
CDL UNLOCK SW [On/Off]	Indicates condition of unlock signal from door lock and unlock switch
KEY CYL LK-SW [On/Off]	Indicates condition of lock signal from door key cylinder switch
KEY CYL UN-SW [On/Off]	Indicates condition of unlock signal from door key cylinder switch
TRNK/HAT MNTR [On/Off]	Indicates condition of trunk room lamp switch
RKE-LOCK [On/Off]	Indicates condition of lock signal from Intelligent Key
RKE-UNLOCK [On/Off]	Indicates condition of unlock signal from Intelligent Key

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DIAGNOSIS SYSTEM (BCM)

[BCM]

< SYSTEM DESCRIPTION >

ACTIVE TEST

Test item	Description
BATTERY SAVER	This test is able to check battery saver operation [On/Off].

TRUNK

TRUNK : CONSULT Function (BCM - TRUNK)

INFOID:000000011934030

DATA MONITOR

Monitor Item [Unit]	Description
PUSH SW [On/Off]	Indicates condition of push button ignition switch
UNLK SEN -DR [On/Off]	Indicates condition of door unlock sensor
VEH SPEED 1 [km/h]	Indicates vehicle speed signal received from ABS on CAN communication line
TR CANCEL SW [On/Off]	Indicates condition of trunk lid opener cancel switch
TR/BD OPEN SW [On/Off]	Indicates condition of trunk lid opener switch
TRNK/HAT MNTR [On/Off]	Indicates condition of trunk room lamp switch
RKE-TR/BD [On/Off]	Indicates condition of trunk open signal from Intelligent Key

THEFT ALM

THEFT ALM : CONSULT Function (BCM - THEFT ALM)

INFOID:000000011934031

DATA MONITOR

Monitored Item	Description
REQ SW -DR [On/Off]	Indicates condition of door request switch LH
REQ SW -AS [On/Off]	Indicates condition of door request switch RH
REQ SW -BD/TR [On/Off]	Indicates condition of trunk opener request switch
PUSH SW [On/Off]	Indicates condition of push button ignition switch
UNLK SEN -DR [On/Off]	Indicates condition of door unlock sensor
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH
DOOR SW-RR [On/Off]	Indicates condition of rear door switch RH
DOOR SW-RL [On/Off]	Indicates condition of rear door switch LH
DOOR SW-BK [On/Off]	Indicates condition of trunk switch
CDL LOCK SW [On/Off]	Indicates condition of lock signal from door lock and unlock switch
CDL UNLOCK SW [On/Off]	Indicates condition of unlock signal from door lock and unlock switch
KEY CYL LK-SW [On/Off]	Indicates condition of lock signal from door key cylinder switch
KEY CYL UN-SW [On/Off]	Indicates condition of unlock signal from door key cylinder switch
TR/BD OPEN SW [On/Off]	Indicates condition of trunk lid opener switch
TRNK/HAT MNTR [On/Off]	Indicates condition of trunk room lamp switch
RKE-LOCK [On/Off]	Indicates condition of lock signal from Intelligent Key
RKE-UNLOCK [On/Off]	Indicates condition of unlock signal from Intelligent Key
RKE-TR/BD [On/Off]	Indicates condition of trunk open signal from Intelligent Key

ACTIVE TEST

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[BCM]

Test Item	Description
THEFT IND	This test is able to check security indicator lamp operation [On/Off].
VEHICLE SECURITY HORN	This test is able to check vehicle security horn operation [On].
HEADLAMP(HI)	This test is able to check vehicle security lamp operation [On].
FLASHER	This test is able to check turn signal lamp operation [Off/LH/RH].

WORK SUPPORT

Support Item	Setting	Description
SECURITY ALARM SET	On	Security alarm ON
	Off	Security alarm OFF

RETAINED PWR

RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)

INFOID:0000000011934032

DATA MONITOR

Monitor Item [Unit]	Description
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH

SIGNAL BUFFER

SIGNAL BUFFER : CONSULT Function (BCM - SIGNAL BUFFER)

INFOID:0000000011934033

DATA MONITOR

Monitor Item [Unit]	Description
PUSH SW [On/Off]	Indicates condition of the push button ignition switch

ACTIVE TEST

Test Item	Description
OIL PRESSURE SW	This test is able to check the oil pressure warning lamp operation [On/Off].
BRAKE SWITCH	This test is able to check the brake switch operation [On/Off].

AIR PRESSURE MONITOR

AIR PRESSURE MONITOR : CONSULT Function (BCM - AIR PRESSURE MONITOR)

INFOID:0000000011934034

NOTE:

The Signal Tech II Tool [– (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.

- Activate and display TPMS transmitter IDs
- Display tire pressure reported by the TPMS transmitter
- Read TPMS DTCs
- Register TPMS transmitter IDs

SELF DIAGNOSTIC RESULT

NOTE:

Before performing Self Diagnostic Result, be sure to register the ID, or else the actual malfunction may be different from that displayed on CONSULT.

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

DATA MONITOR

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DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[BCM]

Monitor Item	Condition	Specification
AIR PRESS FL	<ul style="list-style-type: none"> • Drive vehicle for a few minutes. <li style="text-align: center;">or • Ignition switch ON and activation tool is transmitting activation signals. 	Tire pressure (kPa, kg/cm ² or Psi)
AIR PRESS FR		
AIR PRESS RR		
AIR PRESS RL		
ID REGST FL1	Ignition switch ON	Registration ID: Green No registration: Red
ID REGST FR1		
ID REGST RR1		
ID REGST RL1		
WARNING LAMP	Ignition switch ON	Low tire pressure warning lamp on: ON Low tire pressure warning lamp off: OFF
BUZZER	Ignition switch ON	Buzzer in combination meter on: ON Buzzer in combination meter off: OFF

ACTIVE TEST

Test Item	Description
FLASHER	This test is able to check turn signal lamp operation [Off/LH/RH].
HORN	This test is able to check horn operation [On].

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[BCM]

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:0000000012248916

NOTE:

The Signal Tech II Tool [— (J-50190)] can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.

- Activate and display TPMS transmitter IDs
- Display tire pressure reported by the TPMS transmitter
- Read TPMS DTCs
- Register TPMS transmitter IDs
- Check Intelligent Key relative signal strength
- Confirm vehicle Intelligent Key antenna signal strength

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
ACC BATTERY SAVER	When battery saver is OFF	Under a stop
ACC RLY -REQ	When BCM is not requesting accessory relay activation.	Off
	When BCM is requesting accessory relay activation.	On
AIR COND SW	A/C switch OFF	Off
	A/C switch ON	On
AIR PRESS FL	Front left tire air pressure value	kPa, kg/cm ² , psi
AIR PRESS FR	Front right tire air pressure value	kPa, kg/cm ² , psi
AIR PRESS RL	Rear left tire air pressure value	kPa, kg/cm ² , psi
AIR PRESS RR	Rear right tire air pressure value	kPa, kg/cm ² , psi
AS SEAT LAMP TEST	Passenger seat lamp ON	On
	Passenger seat lamp OFF	Off
AUTO CRNK TMR	When the remote engine start timer is OFF.	Off
	When the remote engine start timer is ON.	On
AUTO LIGHT SW	Lighting switch OFF	Off
	Lighting switch AUTO	On
BRAKE SW 1	When the brake pedal is released	On
	When the brake pedal is depressed	Off
BRAKE SW 2	Brake pedal released	Off
	Brake pedal depressed	On
BUZZER	Buzzer in combination meter OFF	Off
	Buzzer in combination meter ON	On
CDL LOCK SW	Door lock/unlock switch does not operate	Off
	Press door lock/unlock switch to the LOCK side	On
CDL UNLOCK SW	Door lock/unlock switch does not operate	Off
	Press door lock/unlock switch to the UNLOCK side	On
CONFIRM ID ALL	The key ID does not match any key ID registered to BCM.	Yet
	The key ID matches any key ID registered to BCM.	DONE
CONFIRM ID4	The key ID does not match the fourth key ID registered to BCM.	Yet
	The key ID matches the fourth key ID registered to BCM.	DONE

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[BCM]

Monitor Item	Condition	Value/Status
CONFIRM ID3	The key ID does not match the third key ID registered to BCM.	Yet
	The key ID matches the third key ID registered to BCM.	DONE
CONFIRM ID2	The key ID does not match the second key ID registered to BCM.	Yet
	The key ID matches the second key ID registered to BCM.	DONE
CONFIRM ID1	The key ID does not match the first key ID registered to BCM.	Yet
	The key ID matches the first key ID registered to BCM.	DONE
CRANKING TME	Engine start timer duration.	sec
CRNK PRBT TME	Engine start prohibit timer duration.	sec
CRNK PRBT TMR	When the engine start prohibit timer is OFF.	Off
	When the engine start prohibit timer is ON.	On
DETE SW -IPDM	When selector lever is in P position	Off
	When selector lever is in any position other than P	On
DETE SW PWR	When BCM is not supplying power to park position switch.	Off
	When BCM is supplying power to park position switch.	On
DETE/CANCL SW	When selector lever is in P position	Off
	When selector lever is in any position other than P	On
DOOR STAT-AS	Passenger door LOCK status	LOCK
	Passenger door UNLOCK status	UNLK
	Wait with selective UNLOCK operation (5 seconds)	READY
DOOR STAT-DR	Driver door LOCK status	LOCK
	Driver door UNLOCK status	UNLK
	Wait with selective UNLOCK operation (5 seconds)	READY
DOOR STAT-RL	Rear left door LOCK status	LOCK
	Rear left door UNLOCK status	UNLK
	Wait with selective UNLOCK operation (5 seconds)	READY
DOOR STAT-RR	Rear right door LOCK status	LOCK
	Rear right door UNLOCK status	UNLK
	Wait with selective UNLOCK operation (5 seconds)	READY
DOOR SW-AS	Front door RH closed	Off
	Front door RH opened	On
DOOR SW-BK	Trunk closed	Off
	Trunk opened	On
DOOR SW-DR	Front door LH closed	Off
	Front door LH opened	On
DOOR SW-RL	Rear door LH closed	Off
	Rear door LH opened	On
DOOR SW-RR	Rear door RH closed	Off
	Rear door RH opened	On
DR SEAT LAMP TEST	Driver seat lamp ON	On
	Driver seat lamp OFF	Off
ENGINE STATE	Engine stopped	Stop
	While the engine stalls	Stall
	At engine cranking	Crank
	Engine running	Run

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[BCM]

Monitor Item	Condition	Value/Status	
FAN ON SIG	Blower motor fan switch OFF	Off	A
	Blower motor fan switch ON	On	
FR FOG SW	Front fog lamp switch OFF	Off	B
	Front fog lamp switch ON	On	
FR WASHER SW	Front washer switch OFF	Off	C
	Front washer switch ON	On	
FR WIPER LOW	Front wiper switch OFF	Off	D
	Front wiper switch LO	On	
FR WIPER HI	Front wiper switch OFF	Off	E
	Front wiper switch HI	On	
FR WIPER INT	Front wiper switch OFF	Off	F
	Front wiper switch INT	On	
FR WIPER STOP	Any position other than front wiper stop position	Off	G
	Front wiper stop position	On	
HAZARD SW	When hazard switch is not pressed	Off	H
	When hazard switch is pressed	On	
HEAD LAMP SW 1	Headlamp switch OFF	Off	I
	Headlamp switch 1st	On	
HEAD LAMP SW 2	Headlamp switch OFF	Off	J
	Headlamp switch 1st	On	
HI BEAM SW	High beam switch OFF	Off	K
	High beam switch HI	On	
ID AUTHENT CANCEL TIMER	When I-Key authentication is OFF.	Under a stop	L
ID OK FLAG	Ignition switch ACC or ON	Reset	M
	Ignition switch OFF	Set	
ID REGST FL1	ID registration of front left tire incomplete	YET	N
	ID registration of front left tire complete	DONE	
ID REGST FR1	ID registration of front right tire incomplete	YET	O
	ID registration of front right tire complete	DONE	
ID REGST RL1	ID registration of rear left tire incomplete	YET	P
	ID registration of rear left tire complete	DONE	
ID REGST RR1	ID registration of rear right tire incomplete	YET	Q
	ID registration of rear right tire complete	DONE	
IGN RLY1 F/B	Ignition switch OFF or ACC	Off	R
	Ignition switch ON	On	
IGN RLY 1 -REQ	Ignition switch OFF or ACC	Off	S
	Ignition switch ON	On	
IGN RLY 2 -REQ	Ignition switch OFF or ACC	Off	T
	Ignition switch ON	On	
IGN RLY 3--REQ	Ignition switch OFF or ACC	Off	U
	Ignition switch ON	On	
INT VOLUME	Wiper intermittent dial is in dial position 1 - 7	1 - 7	V
I-KEY OK FLAG	I-Key OFF	Key OFF	W
	I-Key ON	Key ON	

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[BCM]

Monitor Item	Condition	Value/Status
KEY CYL LK-SW	Door key cylinder LOCK position	Off
	Door key cylinder other than LOCK position	On
KEY CYL UN-SW	Door key cylinder UNLOCK position	Off
	Door key cylinder other than UNLOCK position	On
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
OPTI SEN (DTCT)	Bright outside the vehicle	Close to 5V
	Dark outside the vehicle	Close to 0V
OPTI SEN (FILT)	Bright outside the vehicle	Close to 5V
	Dark outside the vehicle	Close to 0V
OPTICAL SENSOR	Optical sensor ON	On
	Optical sensor OFF	Off
PASSING SW	Other than lighting switch PASS	Off
	Lighting switch PASS	On
PRBT ENG STRT	When the engine start is prohibited	Reset
	When the engine start is permitted	Set
PRMT ENG STRT	When the engine start is prohibited	Reset
	When the engine start is permitted	Set
PRMT RKE STRT	When the engine start is prohibited	Reset
	When the engine start is permitted	Set
PUSH SW	Return ignition switch to LOCK position	Off
	Press ignition switch	On
PUSH SW-IPDM	When engine switch (push switch) is not pressed	Off
	When engine switch (push switch) is pressed	On
RAIN SENSOR	Rain sensor OFF	Off
	Rain sensor ON	On
REAR DEF SW	Rear window defogger switch OFF	Off
	Rear window defogger switch ON	On
REQ SW-AS	When passenger door request switch is not pressed	Off
	When passenger door request switch is pressed	On
REQ SW-BD/TR	When trunk request switch is not pressed	Off
	When trunk request switch is pressed	On
REQ SW-DR	When driver door request switch is not pressed	Off
	When driver door request switch is pressed	On
REQ SW -RL	When rear door request switch LH is not pressed	Off
	When rear door request switch LH is pressed	On
REQ SW -RR	When rear door request switch RH is not pressed	Off
	When rear door request switch RH is pressed	On
RKE-LOCK	When LOCK button of Intelligent Key is not pressed	Off
	When LOCK button of Intelligent Key is pressed	On
RKE-MODE CHG	When LOCK/UNLOCK button of Intelligent Key is not pressed and held simultaneously	Off
	When LOCK/UNLOCK button of Intelligent Key is pressed and held simultaneously	On

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[BCM]

Monitor Item	Condition	Value/Status	
RKE OPE COUN1	Operation frequency of Intelligent Key	0-19	A
RKE OPE COUN2	Operation frequency of Intelligent Key	0-19	
RKE-PANIC	When PANIC button of Intelligent Key is not pressed	Off	B
	When PANIC button of Intelligent Key is pressed	On	
RKE PBD	When TRUNK OPEN button of Intelligent Key is not pressed	Off	C
	When TRUNK OPEN button of Intelligent Key is pressed	On	
RKE-TR/BD	When TRUNK OPEN button of Intelligent Key is not pressed	Off	D
	When TRUNK OPEN button of Intelligent Key is pressed	On	
RKE-UNLOCK	When UNLOCK button of Intelligent Key is not pressed	Off	E
	When UNLOCK button of Intelligent Key is pressed	On	
SFT N-MET	When selector lever is in any position other than N	Off	F
	When selector lever is in N position	On	
SFT P-MET	When selector lever is in any position other than P	Off	G
	When selector lever is in P position	On	
SFT PN -IPDM	When selector lever is in any position other than P or N	Off	H
	When selector lever is in P or N position	On	
SFT PN/N SW	When selector lever is in any position other than P or N	Off	I
	When selector lever is in P or N position	On	
SHFTLCK SLNID PWR SPLY	When BCM is not supplying power to shift lock.	Off	J
	When BCM is supplying power to shift lock.	On	
SHIFT SPOT LAMP TEST	Shift spot lamp ON	On	K
	Shift spot lamp OFF	Off	
SHORT CRANK	Engine start short crank signal from intelligent key	OK	L
ST RLY -REQ	Ignition switch OFF or ACC	Off	
	Ignition switch ON	On	
TAIL LAMP SW	Other than lighting switch 1ST and 2ND	Off	
	Lighting switch 1ST or 2ND	On	
THERMO AMP	Thermo amp is OFF	Off	
	Thermo amp is ON	On	
TCU ID	The ID of the TCU is not registered to BCM	Yet	
	The ID of the TCU is registered to BCM	DONE	BCS
TP 4	The ID of fourth key is not registered to BCM	Yet	
	The ID of fourth key is registered to BCM	DONE	
TP 3	The ID of third key is not registered to BCM	Yet	N
	The ID of third key is registered to BCM	DONE	
TP 2	The ID of second key is not registered to BCM	Yet	O
	The ID of second key is registered to BCM	DONE	
TP 1	The ID of first key is not registered to BCM	Yet	P
	The ID of first key is registered to BCM	DONE	
TRNK/HAT MNTR	Trunk closed	Off	
	Trunk opened	On	
TR/BD OPEN SW	Trunk opener switch OFF	Off	
	While the trunk opener switch is turned ON	On	

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[BCM]

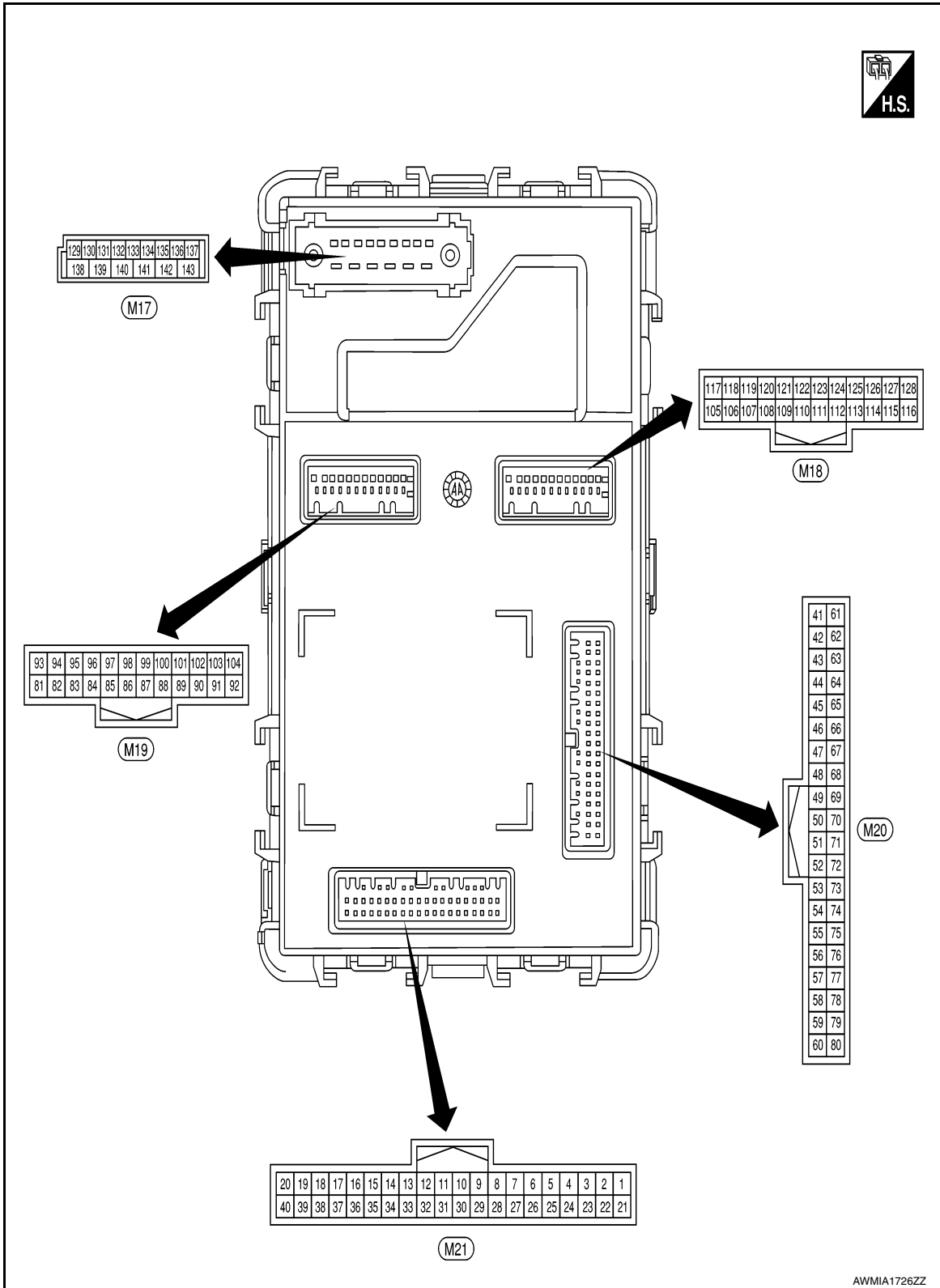
Monitor Item	Condition	Value/Status
TR CANCEL SW	When trunk cancel switch is pressed	On
	When trunk cancel switch is not pressed	Off
TURN SIGNAL L	Turn signal switch OFF	Off
	Turn signal switch LH	On
TURN SIGNAL R	Turn signal switch OFF	Off
	Turn signal switch RH	On
UNLK SEN-DR	Driver door UNLOCK status	Off
	Driver door LOCK status	On
VEH SPEED 1	While driving, equivalent to speedometer reading	mph, km/h
VEH SPEED 2	While driving, equivalent to speedometer reading	mph, km/h
WARNING LAMP	Low tire pressure warning lamp in combination meter OFF	Off
	Low tire pressure warning lamp in combination meter ON	On

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[BCM]

TERMINAL LAYOUT



PHYSICAL VALUES

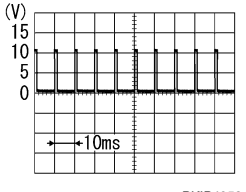
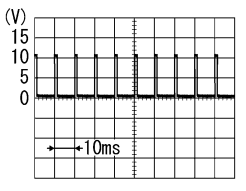
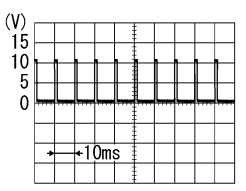
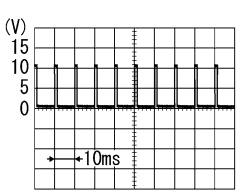
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BCM (BODY CONTROL MODULE)

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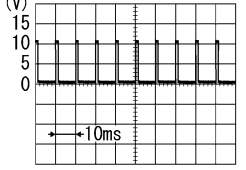
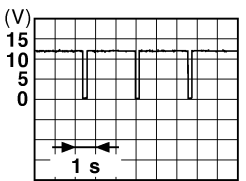
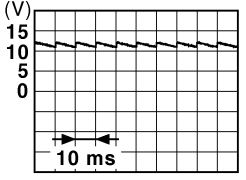
[BCM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
(+)	(-)					
1 (R)	Ground	Engine start switch	Input	Push-button ignition switch	Pressed	0V
					Not pressed	Battery voltage
3 (BR)	Ground	Auto light power supply 5V	Output	Push-button ignition switch	OFF	0V
					ACC or ON	5V
4 (Y)	Ground	Auto light signal	Input	Push-button ignition switch ON	When outside of the vehicle is bright	Close to 5V
					When outside of the vehicle is dark	Close to 0V
10 (W)	Ground	Combination switch input 5	Input	Combination switch (Wiper intermittent dial 4)	OFF	
					TURN RH	
					HEADLAMP 1	
					HI BEAM	
					TAIL LAMP	
11 (BG)	Ground	Combination switch input 4	Input	Combination switch (Wiper intermittent dial 4)	OFF TURN LH PASSING HEADLAMP 2 FR FOG	
12 (R)	Ground	Combination switch input 3	Input	Combination switch (Wiper intermittent dial 4)	OFF FR WIPER LOW FR WIPER INT/AUTO AUTO LIGHT	
13 (G)	Ground	Combination switch input 2	Input	Combination switch (Wiper intermittent dial 4)	OFF FR WASHER RR WASHER INT VOLUME 3 RR WIPER ON	

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[BCM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
(+)	(-)	Signal name	Input/ Output			
14 (P)	Ground	Combination switch input 1	Input	Combination switch (Wiper intermit- tent dial 4)	OFF	0V
				FR WIPER HI		
				INT VOLUME 1		
				RR WIPER INT		
				INT VOLUME 2		
17 (B)	Ground	Auto light reference ground	Input	Push-button ignition switch ON	0V	
18 (G)	Ground	Security indicator	Output	Security indicator	ON	0V
				Blinking		
20 (W)	Ground	Shift P	Input	Selector lever		OFF
				P position	0V	
21 (W)	Ground	Step lamp control	Output	Step lamp	Any position other than P	Battery voltage
					ON	0V
25 (BG)	Ground	Brake switch fuse	Input	—	OFF	Battery voltage
					ON	Battery voltage
26 (Y)	Ground	Shorting input	Input	Push-button ignition switch OFF	Battery voltage	
27 (G)	Ground	Brake switch lamp	Input	Stop lamp switch	OFF (brake pedal is not depressed)	0V
				ON (brake pedal is de- pressed)	Battery voltage	
30 (P)	Ground	Driver door lock sta- tus	Input	Front door LH	LOCK status	
				UNLOCK status	0V	
32 (LG)	Ground	Rear window defog- ger ON signal	Input	Rear window de- fogger switch	OFF	5V
					ON	0V
33 (W)	Ground	Trunk cancel switch	Input	Trunk cancel switch	ON	0V
					OFF	Battery voltage

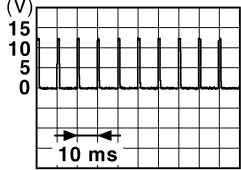
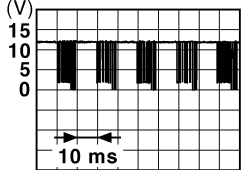
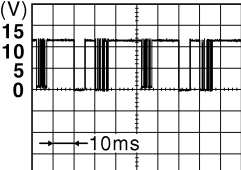
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

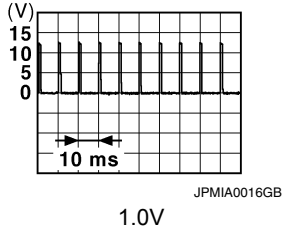
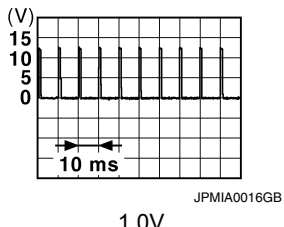
[BCM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
(+)	(-)					
36 (Y)	Ground	Hazard switch	Input	Hazard switch	Pressed	0 V
					Not pressed	 <p style="text-align: right; font-size: small;">JPMIA0012GB</p>
39 (L)	Ground	Shift N/P	Input	Selector lever	P or N position	Battery voltage
					Except P and N positions	0V
48 (SB)	Ground	High side start switch LED	Output	Push-button ignition switch illumination	ON	5.5V
					OFF	0V
52 (G)	Ground	Audio dongle	Input/ Output	Push-button ignition switch OFF		5V
54 (P)	Ground	Power window link	Input/ Output	Push-button ignition switch	ON	 <p style="text-align: right; font-size: small;">JPMIA0013GB</p>
					OFF or ACC	0V
55 (BR)	Ground	Shift N/P	Input/ Output	Ignition switch OFF	Battery voltage	
				Ignition switch ON	 <p style="text-align: right; font-size: small;">JPMIA0156GB</p>	
59 (P)	Ground	CAN low	Input/ Output	—		—
60 (L)	Ground	CAN high	Input/ Output	—		—
61 (Y)	Ground	Rear defogger relay output	Output	Rear window defogger	Active	Battery voltage
					Not activated	0V
62 (V)	Ground	Starter relay output	Output	Push-button ignition switch ON	When selector lever is in P or N position and the brake is depressed	Battery voltage
					When selector lever is in P or N position and the brake is not depressed	0V
64 (P)	Ground	Buzzer output	Output	Outside warning buzzer	Sounding	0V
					Not sounding	Battery voltage

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[BCM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
(+)	(-)					
66 (R)	Ground	Blower fan relay out- put	Output	Push-button igni- tion switch	OFF or ACC	0V
					ON	Battery voltage
67 (W)	Ground	Ignition electrical re- lay output 2	Output	Push-button igni- tion switch	OFF or ACC	0V
					ON	Battery voltage
68 (P)	Ground	Dimmer signal output	Output	Push-button igni- tion switch ON	Either of the following con- ditions: • Lighting switch OFF • The area around the vehi- cle is bright (Shine a light on the optical sen- sor)	0V
					The area around the vehi- cle is dark (Block the light from the optical sensor)	Battery voltage
69 (L)	Ground	CVT device output	Output	—	—	Battery voltage
70 (G)	Ground	IPDM E/R ignition output 1	Output	Push-button igni- tion switch	OFF or ACC	Battery voltage
					ON	0V
71 (V)	Ground	Front door request switch LH	Input	Front door LH re- quest switch	ON (pressed)	0V
					OFF (not pressed)	
72 (Y)	Ground	Front door request switch RH	Input	Front door RH re- quest switch	ON (pressed)	0V
					OFF (not pressed)	

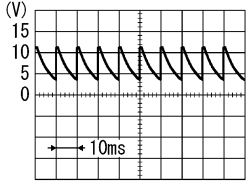
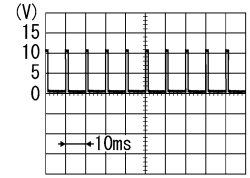
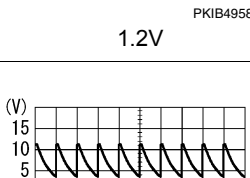
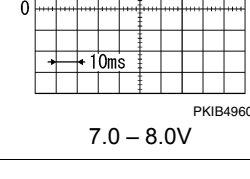
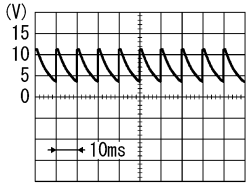
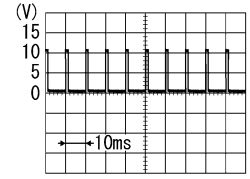
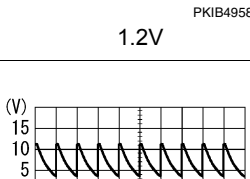
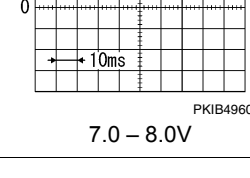
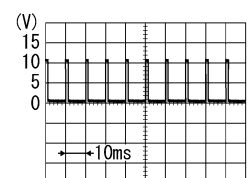
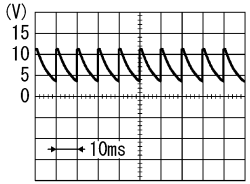
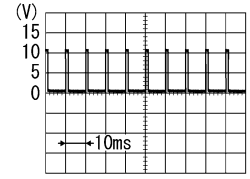
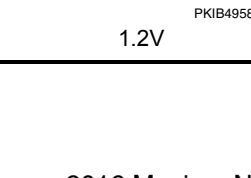
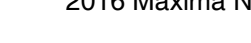
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BCM (BODY CONTROL MODULE)

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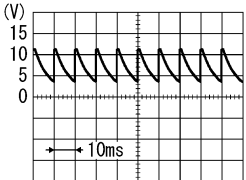
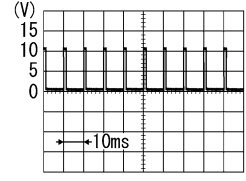
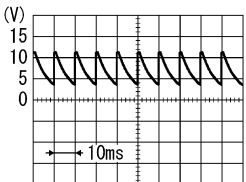
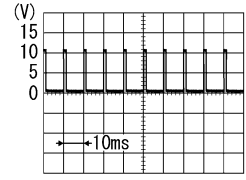
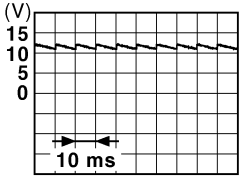
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Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
		Signal name	Input/ Output			
(+)	(-)					
75 (BG)	Ground	Combination switch output 5	Output	Combination switch (Wiper intermit- tent dial 4)	OFF	 <p style="text-align: right; font-size: small;">PKIB4960J</p>
					INT VOLUME 2	 <p style="text-align: right; font-size: small;">PKIB4958J</p>
					RR WIPER ON	 <p style="text-align: right; font-size: small;">PKIB4958J</p>
					FR FOG	 <p style="text-align: right; font-size: small;">PKIB4958J</p>
76 (W)	Ground	Combination switch output 4	Output	Combination switch (Wiper intermit- tent dial 4)	OFF	 <p style="text-align: right; font-size: small;">PKIB4960J</p>
					RR WIPER INT	 <p style="text-align: right; font-size: small;">PKIB4958J</p>
					INT VOLUME 3	 <p style="text-align: right; font-size: small;">PKIB4958J</p>
					AUTO LIGHT	 <p style="text-align: right; font-size: small;">PKIB4958J</p>
					TAIL LAMP	 <p style="text-align: right; font-size: small;">PKIB4958J</p>
77 (R)	Ground	Combination switch output 3	Output	Combination switch (Wiper intermit- tent dial 4)	OFF	 <p style="text-align: right; font-size: small;">PKIB4960J</p>
					INT VOLUME 1	 <p style="text-align: right; font-size: small;">PKIB4958J</p>
					RR WASHER	 <p style="text-align: right; font-size: small;">PKIB4958J</p>
					HEADLAMP 2	 <p style="text-align: right; font-size: small;">PKIB4958J</p>
					HI BEAM	<p style="text-align: right; font-size: small;">PKIB4958J</p>

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[BCM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
(+)	(-)	Signal name	Input/ Output			
78 (P)	Ground	Combination switch output 2	Output	Combination switch (Wiper intermit- tent dial 4)	OFF	 <p style="text-align: right; font-size: small;">PKIB4960J</p> <p style="text-align: center;">7.0 – 8.0V</p>
					FR WIPER HI	 <p style="text-align: right; font-size: small;">PKIB4958J</p> <p style="text-align: center;">1.2V</p>
					FR WIPER INT/AUTO	
					PASSING	
HEADLAMP 1						
79 (G)	Ground	Combination switch output 1	Output	Combination switch (Wiper intermit- tent dial 4)	OFF	 <p style="text-align: right; font-size: small;">PKIB4960J</p> <p style="text-align: center;">7.0 – 8.0V</p>
					FR WASHER	 <p style="text-align: right; font-size: small;">PKIB4958J</p> <p style="text-align: center;">1.2V</p>
					FR WIPER LOW	
					TURN LH	
TURN RH						
80 (BR)	Ground	Trunk/back door open switch	Output	Trunk switch	Open (trunk actuator is ac- tivated)	Battery voltage
					Close (trunk actuator is not activated)	0V
82 (Y)	Ground	Left rear door switch	Input	Rear door LH switch	OFF (when rear door LH closes)	 <p style="text-align: right; font-size: small;">JPMIA0011GB</p> <p style="text-align: center;">11.8V</p>
					ON (when rear door LH opens)	0V
83 (SB)	Ground	Trunk/back door re- quest switch	Input	Trunk request switch	ON (pressed)	0V
					OFF (not pressed)	Battery voltage
85 (BG)	Ground	Luggage room lamp	Output	Luggage room lamp	ON	0V
					OFF	Battery voltage

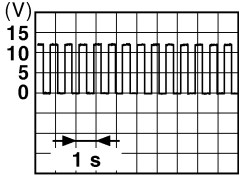
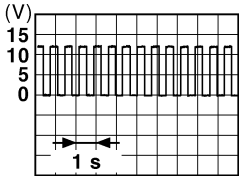
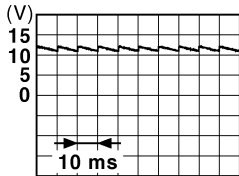
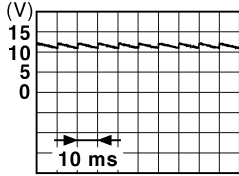
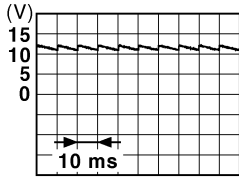
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

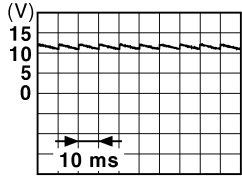
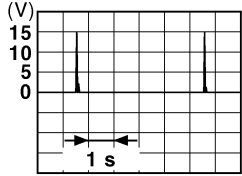
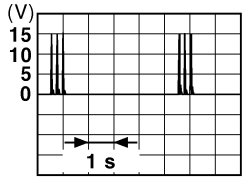
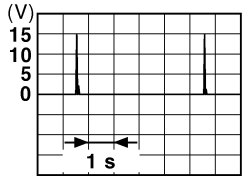
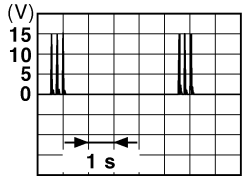
[BCM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
(+)	(-)	Signal name	Input/ Output			
89 (BR)	Ground	Reverse lamp output	Output	Push-button ignition switch ON	R position	 6.5V
				Any position other than R	0V	
91 (V)	Ground	Trunk/back door open signal	Output	Trunk open switch	OFF	0V
				ON	Battery voltage	
92 (LG)	Ground	Right rear flasher	Output	Push-button ignition switch ON	Turn signal switch OFF	0V
				Turn signal switch RH	 6.5V	
93 (V)	Ground	Right rear door switch	Input	Rear door RH switch	OFF (when rear door RH closes)	 11.8V
				ON (when rear door RH opens)	0V	
94 (W)	Ground	Front door switch RH	Input	Front door RH switch	OFF (when front door RH closes)	 11.8V
				ON (when front door RH opens)	0V	
96 (P)	Ground	Front door switch LH	Input	Front door LH switch	OFF (front door LH CLOSE)	 11.8V
				ON (front door LH OPEN)	0V	

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[BCM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
(+)	(-)	Signal name	Input/ Output			
97 (L)	Ground	Trunk/back door switch	Input	Trunk switch	OFF (trunk is closed)	 <p style="text-align: right; font-size: small;">JPMIA0011GB</p>
				Trunk switch	ON (trunk is open)	0V
99 (G)	Ground	Inside key antenna (luggage room) B	Output	Push-button igni- tion switch OFF	When Intelligent Key is in the passenger compart- ment	 <p style="text-align: right; font-size: small;">JMKIA0062GB</p>
				Push-button igni- tion switch OFF	When Intelligent Key is not in the passenger compart- ment	 <p style="text-align: right; font-size: small;">JMKIA0063GB</p>
100 (R)	Ground	Inside key antenna (luggage room) A	Output	Push-button igni- tion switch OFF	When Intelligent Key is in the passenger compart- ment	 <p style="text-align: right; font-size: small;">JMKIA0062GB</p>
				Push-button igni- tion switch OFF	When Intelligent Key is not in the passenger compart- ment	 <p style="text-align: right; font-size: small;">JMKIA0063GB</p>

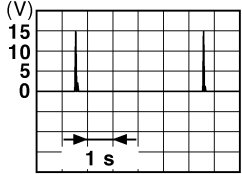
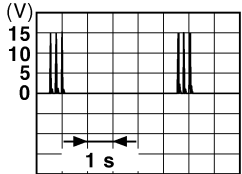
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BCM (BODY CONTROL MODULE)

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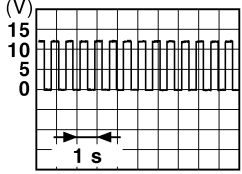
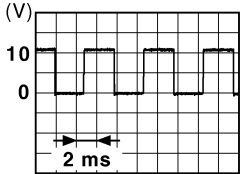
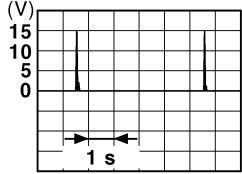
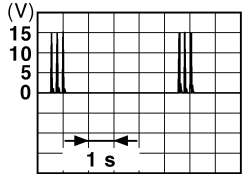
[BCM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
(+)	(-)	Signal name	Input/ Output		
101 (G)	Ground	Outside key antenna (rear bumper) B	Output	When the trunk request switch is operated with push-button ignition switch OFF	When Intelligent Key is in the antenna detection area
				When Intelligent Key is not in the antenna detection area	 <p style="text-align: right; font-size: small;">JMKIA0062GB</p>
102 (W)	Ground	Outside key antenna (rear bumper) A	Output	When the trunk request switch is operated with push-button ignition switch OFF	When Intelligent Key is in the antenna detection area
				When Intelligent Key is not in the antenna detection area	 <p style="text-align: right; font-size: small;">JMKIA0063GB</p>
103 (Y)	Ground	Left rear flasher	Output	Push-button ignition switch ON	Turn signal switch OFF
					Turn signal switch LH
105 (Y)	Ground	Right front flasher	Output	Push-button ignition switch ON	Turn signal switch OFF
					Turn signal switch RH

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< ECU DIAGNOSIS INFORMATION >

[BCM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
		Signal name	Input/ Output		
(+)	(-)				
106 (LG)	Ground	Door mirror RH turn signal	Output	Push-button igni- tion switch OFF	0V
				Push-button igni- tion switch ON	 6.5V
107 (W)	Ground	Low side start switch LED	Output	Push-button igni- tion switch	 10V
				NOTE: When the illumination brightening/dimming level is in the neutral position ON	
108 (BG)	Ground	Shift lock solenoid output	Input	Selector lever	
				P position	0V
109 (G)	Ground	Reverse signal	Output	Any position other than P	Battery voltage
				R position	Battery voltage
111 (Y)	Ground	ACC LED	Output	Any position other than R	0V
				Push-button igni- tion switch	OFF
113 (BR)	Ground	ACC relay output	Output	ACC or ON	0V
				Push-button igni- tion switch	OFF
114 (P)	Ground	Outside key antenna (passenger side) A	Output	ACC or ON	Battery voltage
				When the front door RH request switch is operat- ed with push-but- ton ignition switch OFF	 15V
				When Intelligent Key is in the antenna detection area	
				When Intelligent Key is not in the antenna detection area	 15V

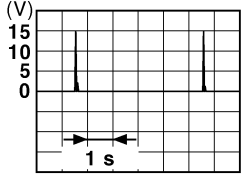
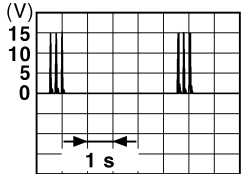
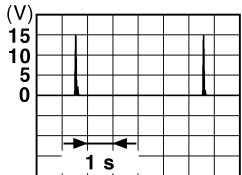
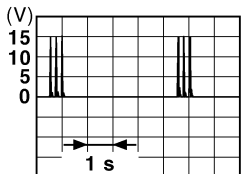
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[BCM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
(+)	(-)	Signal name	Input/ Output		
115 (R)	Ground	Outside key antenna (passenger side) B	Output		
				When Intelligent Key is not in the antenna detection area	 <p style="text-align: right; font-size: small;">JMKIA0062GB</p>
116 (W)	Ground	Inside key antenna (console) A	Output	Push-button ignition switch OFF	When Intelligent Key is in the passenger compartment
				When Intelligent Key is not in the passenger compartment	 <p style="text-align: right; font-size: small;">JMKIA0063GB</p>
117 (V)	Ground	Left front flasher	Output	Push-button ignition switch ON	Turn signal switch OFF
				Turn signal switch LH	 <p style="text-align: right; font-size: small;">PKID0926E</p> <p style="text-align: center;">6.5V</p>
118 (SB)	Ground	Door mirror LH turn signal	Output	Push-button ignition switch ON	Turn signal switch OFF
				Turn signal switch ON	 <p style="text-align: right; font-size: small;">PKID0926E</p> <p style="text-align: center;">6.5V</p>

BCM (BODY CONTROL MODULE)

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[BCM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
		Signal name	Input/ Output		
(+)	(-)				
119 (G)	Ground	Remote keyless entry receiver signal	Input/ Output	Push-button ignition switch ON	<p style="text-align: right; font-size: small;">OCC3881D</p>
				When receiving the signal from the transmitter	<p style="text-align: right; font-size: small;">OCC3880D</p>
121 (R)	Ground	Outside key antenna (driver side) B	Output	When the front door LH request switch is operated with push-button ignition switch OFF	<p style="text-align: right; font-size: small;">JMKIA0062GB</p>
				When Intelligent Key is not in the antenna detection area	<p style="text-align: right; font-size: small;">JMKIA0063GB</p>
122 (P)	Ground	Outside key antenna (driver side) A	Output	When the front door LH request switch is operated with push-button ignition switch OFF	<p style="text-align: right; font-size: small;">JMKIA0062GB</p>
				When Intelligent Key is not in the antenna detection area	<p style="text-align: right; font-size: small;">JMKIA0063GB</p>

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[BCM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
(+)	(-)					
126 (G)	Ground	NATS antenna amp. B	Input/ Output	During waiting	Intelligent Key backside is contacted to push-button ignition switch, turn ignition switch ON.	Just after pressing push-button ignition switch, pointer of analog volt meter should move.
127 (W)	Ground	NATS antenna amp. A	Input/ Output	During waiting	Intelligent Key backside is contacted to push-button ignition switch, turn ignition switch ON.	Just after pressing push-button ignition switch pointer of analog volt meter should move.
128 (BG)	Ground	Inside key antenna (console) B	Output	Push-button ignition switch OFF	When Intelligent Key is in the passenger compartment	<p style="text-align: right; font-size: small;">JMKIA0062GB</p>
					When Intelligent Key is not in the passenger compartment	<p style="text-align: right; font-size: small;">JMKIA0063GB</p>
129 (V)	Ground	Driver and passenger door unlock	Output	Front door LH	UNLOCK (actuator is activated)	Battery voltage
130 (P)	Ground	Room lamp control	Output	Interior room lamp	OFF	Battery voltage
					ON	0V
					Other than UNLOCK (actuator is not activated)	0V
131 (BR)	Ground	Driver and passenger door lock	Output	All doors	LOCK (actuator is activated)	Battery voltage
					Other than LOCK (actuator is not activated)	0V
132 (B)	Ground	Ground 2	—	Push-button ignition switch ON		0V
133 (Y)	Ground	Rear door unlock	Output	Rear door RH and rear door LH	UNLOCK (actuator is activated)	Battery voltage
					Other than UNLOCK (actuator is not activated)	0V
134 (L)	Ground	Rear door lock	Output	All doors	LOCK (actuator is activated)	Battery voltage
					Other than LOCK (actuator is not activated)	0V
135 (LG)	Ground	BCM battery fuse	Input	Push-button ignition switch OFF		Battery voltage
136 (SB)	Ground	Passenger door unlock	Output	Front door RH	UNLOCK (actuator is activated)	Battery voltage
					Other than UNLOCK (actuator is not activated)	0V

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[BCM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
(+)	(-)	Signal name	Input/ Output		
137 (G)	Ground	Battery saver output	Output	After passing the interior room lamp battery saver operation time	0V
				Any other time after passing the interior room lamp battery saver operation time	Battery voltage
138 (B)	Ground	Ground 1	—	Push-button ignition switch ON	0V
139 (SB)	Ground	Front door battery	Input	Push-button ignition switch OFF	Battery voltage
140 (V)	Ground	Power window battery power supply	Output	Push-button ignition switch OFF	Battery voltage
141 (LG)	Ground	Power window ignition power supply	Output	Push-button ignition switch ON	Battery voltage
142 (W)	Ground	Fusible link battery power	Input	Push-button ignition switch OFF	Battery voltage
143 (V)	Ground	Rear door battery	Input	Push-button ignition switch OFF	Battery voltage

Fail Safe

INFOID:000000011934055

FAIL-SAFE CONTROL BY DTC

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

Display contents of CONSULT	Fail-safe	Cancellation
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI-SCANNING	Inhibit engine cranking	Erase DTC
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has become consistent <ul style="list-style-type: none"> Starter control relay signal Starter relay status signal
B2562: LO VOLTAGE	Inhibit engine cranking	100 ms after the power supply voltage increases to more than 8.8 V
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent <ul style="list-style-type: none"> Starter motor relay control signal Starter relay status signal (CAN)
B260A: IGNITION RELAY	Inhibit engine cranking	500 ms after the following conditions are fulfilled <ul style="list-style-type: none"> IGN relay (IPDM E/R) control signal: OFF (Battery voltage) Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions is fulfilled <ul style="list-style-type: none"> Power position changes to ACC Receives engine status signal (CAN)
B2617: STARTER RELAY CIRC	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal
B26E1: ENG STATE NO RECIV	Inhibit engine cranking	When any of the following conditions are fulfilled <ul style="list-style-type: none"> Power position changes to ACC Receives engine status signal (CAN)

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[BCM]

DTC Inspection Priority Chart

INFOID:000000012343303

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

Priority	DTC
1	<ul style="list-style-type: none">• B2562: LOW VOLTAGE
2	<ul style="list-style-type: none">• U1000: CAN COMM CIRCUIT• U1010: CONTROL UNIT (CAN)
3	<ul style="list-style-type: none">• B219B: SVT ID ERROR• B2192: ID DISCORD BCM-ECM• B2193: CHAIN OF BCM-ECM• B2195: ANTI SCANNING• B2196: DONGLE UNIT• B2198: NATS ANTENNA AMP
4	<ul style="list-style-type: none">• B2555: STOP LAMP• B2556: PUSH-BTN IGN SW• B2557: VEHICLE SPEED• B2560: STARTER CONT RELAY• B2601: SHIFT POSITION• B2602: SHIFT POSITION• B2603: SHIFT POSI STATUS• B2604: PNP SW• B2605: PNP SW• B2608: STARTER RELAY• B260A: IGNITION RELAY• B2614: ACC RELAY CICRC• B2615: BLOWER RELAY CICRC• B2616: IGN RELAY CICRC• B2618: BCM• B260F: ENG STATE SIG LOST• B261A: PUSH-BTN IGN SW• B261B: RES ENG RUN• B261E: VEHICLE TYPE• B26F1: IGNITION RELAY• B26F2: IGNITION RELAY• B26F3: STARTER CONTROL RELAY• B26F4: STARTER CONTROL RELAY• B26F6: BCM• B26F7: BCM• B26FC: KEY REGISTRATION• B26FD: SHIFT LOCK SOLENOID• B26FE: HOOD SWITCH• B26FF: INTELLIGENT TUNER• C1729: VHCL SPEED SIG ERR• U0415: VEHICLE SPEED SIG

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[BCM]

Priority	DTC	
5	• C1704: LOW PRESSURE FL	A
	• C1705: LOW PRESSURE FR	
	• C1706: LOW PRESSURE RR	
	• C1707: LOW PRESSURE RL	B
	• C1708: [NO DATA] FL	
	• C1709: [NO DATA] FR	
	• C1710: [NO DATA] RR	
	• C1711: [NO DATA] RL	C
	• C1716: [PRESSDATA ERR] FL	
	• C1717: [PRESSDATA ERR] FR	
	• C1718: [PRESSDATA ERR] RR	
	• C1719: [PRESSDATA ERR] RL	D
	• C1730: FLAT TIRE FL	
	• C1731: FLAT TIRE FR	
	• C1732: FLAT TIRE RR	
	• C1733: FLAT TIRE RL	E
	• C1734: CONTROL UNIT	
	• C1735: IGNITION SIGNAL	
	• C1761: TEMPERATURE DATA FL	
	• C1762: TEMPERATURE DATA FR	F
• C1763: TEMPERATURE DATA RR		
• C1764: TEMPERATURE DATA RL		
• C1769: CONFIG SETTING		
• C1770: G SENSOR FL		
• C1771: G SENSOR FR		
• C1772: G SENSOR RL		
• C1773: G SENSOR RR	H	
6	• B2622: INSIDE ANTENNA	
	• B2623: INSIDE ANTENNA	
	• B2626: OUTSIDE ANTENNA	
	• B2627: OUTSIDE ANTENNA	I
	• B2628: OUTSIDE ANTENNA	
7	B259A: ROOM LAMP FUSE	J

DTC Index

INFOID:000000012343304

NOTE:

- Details of time display
- CRNT: Displays when there is a malfunction now or after returning to the normal condition until turning ignition switch OFF → ON again.
- 1 - 39: Displayed if any previous malfunction is present when current condition is normal. It increases like 1 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition is switched OFF → ON. The counter remains at 39 even if the number of cycles exceeds it. It is counted from 1 again when turning ignition switch OFF → ON after returning to the normal condition if the malfunction is detected again.

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
No DTC is detected. Further testing may be required.	—	—	—	—
U1000: CAN COMM CIRCUIT	—	—	—	BCS-67, "DTC Description"
U1010: CONTROL UNIT (CAN)	—	—	—	BCS-68, "DTC Description"
U0415: VEHICLE SPEED SIG	—	—	—	BCS-69, "DTC Description"
B219B: SVT ID ERROR	—	—	—	BCS-70, "DTC Description"
B2192: ID DISCORD BCM-ECM	×	—	—	SEC-65, "DTC Description"
B2193: CHAIN OF BCM-ECM	×	—	—	SEC-67, "DTC Description"
B2195: ANTI SCANNING	×	—	—	SEC-69, "DTC Description"
B2196: DONGLE UNIT	—	—	—	SEC-71, "DTC Description"

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[BCM]

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
B2198: NATS ANTENNA AMP.	—	—	—	SEC-73, "DTC Description"
B2555: STOP LAMP	—	—	—	SEC-75, "DTC Description"
B2556: PUSH-BTN IGN SW	—	×	—	SEC-79, "DTC Description"
B2557: VEHICLE SPEED	—	×	—	SEC-82, "DTC Description"
B2560: STARTER CONT RELAY	×	×	—	SEC-84, "DTC Description"
B2562: LOW VOLTAGE	×	—	—	BCS-72, "DTC Description"
B259A: ROOM LAMP FUSE	—	—	—	BCS-73, "DTC Description"
B2601: SHIFT POSITION	—	×	—	SEC-86, "DTC Description"
B2602: SHIFT POSITION	—	×	—	SEC-89, "DTC Description"
B2603: SHIFT POSI STATUS	—	×	—	SEC-92, "DTC Description"
B2604: PNP SW	—	×	—	SEC-96, "DTC Description"
B2605: PNP SW	—	×	—	SEC-99, "DTC Description"
B2608: STARTER RELAY	×	×	—	SEC-102, "DTC Description"
B260A: IGNITION RELAY	×	×	—	PCS-62, "DTC Description"
B2614: ACC RELAY CIRC	—	×	—	PCS-64, "DTC Description"
B2615: BLOWER RELAY CIRC	—	×	—	PCS-67, "DTC Description"
B2616: IGN RELAY CIRC	—	×	—	PCS-70, "DTC Description"
B2618: BCM	×	×	—	PCS-73, "DTC Description"
B260F: ENG STATE SIG LOST	×	×	—	SEC-110, "DTC Description"
B261A: PUSH-BTN IGN SW	—	×	—	PCS-74, "DTC Description"
B261B: RES ENG RUN	—	—	—	DLK-74, "DTC Description"
B261E: VEHICLE TYPE	×	× (Turn ON for 15 seconds)	—	SEC-104, "DTC Description"
B2622: INSIDE ANTENNA	—	—	—	DLK-75, "DTC Description"
B2623: INSIDE ANTENNA	—	—	—	DLK-78, "DTC Description"
B2626: OUTSIDE ANTENNA	—	—	—	DLK-89, "DTC Description"
B2627: OUTSIDE ANTENNA	—	—	—	DLK-92, "DTC Description"
B2628: OUTSIDE ANTENNA	—	—	—	DLK-95, "DTC Description"
B26F1: IGNITION RELAY	—	—	—	PCS-77, "DTC Description"
B26F2: IGNITION RELAY	—	—	—	PCS-79, "DTC Description"
B26F3: STARTER CONTROL RELAY	—	—	—	SEC-106, "DTC Description"
B26F4: STARTER CONTROL RELAY	—	—	—	SEC-107, "DTC Description"
B26F6: BCM	—	—	—	PCS-81, "DTC Description"
B26F7: BCM	—	—	—	SEC-109, "DTC Description"
B26FC: KEY REGISTRATION	—	—	—	SEC-108, "DTC Description"
B26FD: SHIFT LOCK SOLENOID	—	—	—	DLK-81, "DTC Description"
B26FE: HOOD SWITCH	—	—	—	DLK-83, "DTC Description"
B26FF: REMOTE KEYLESS ENTRY RECEIVER	—	—	—	DLK-85, "DTC Description"
C1704: LOW PRESSURE FL	—	—	×	WT-29, "DTC Description"
C1705: LOW PRESSURE FR	—	—	×	
C1706: LOW PRESSURE RR	—	—	×	
C1707: LOW PRESSURE RL	—	—	×	

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[BCM]

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page	
C1708: [NO DATA] FL	—	—	×	WT-31. "DTC Description"	A
C1709: [NO DATA] FR	—	—	×		B
C1710: [NO DATA] RR	—	—	×		
C1711: [NO DATA] RL	—	—	×		C
C1716: [PRESSDATA ERR] FL	—	—	×	WT-35. "DTC Description"	
C1717: [PRESSDATA ERR] FR	—	—	×		D
C1718: [PRESSDATA ERR] RR	—	—	×		
C1719: [PRESSDATA ERR] RL	—	—	×		E
C1729: VHCL SPEED SIG ERR	—	—	×	WT-37. "DTC Description"	
C1730: FLAT TIRE FL	—	—	×	WT-39. "DTC Description"	F
C1731: FLAT TIRE FR	—	—	×		
C1732: FLAT TIRE RR	—	—	×		G
C1733: FLAT TIRE RL	—	—	×		
C1734: CONTROL UNIT	—	—	×	WT-41. "DTC Description"	
C1735: IGNITION SIGNAL	—	—	—	WT-43. "DTC Logic"	H
C1761: TEMPERATURE DATA FL	—	—	—	WT-45. "DTC Description"	
C1762: TEMPERATURE DATA FR	—	—	—		I
C1763: TEMPERATURE DATA RL	—	—	—		
C1764: TEMPERATURE DATA RR	—	—	—		J
C1769: CONFIG SETTING	—	—	—	WT-47. "DTC Description"	
C1770: G SENSOR FAIL FL	—	—	—	WT-49. "DTC Description"	K
C1771: G SENSOR FAIL FR	—	—	—		
C1772: G SENSOR FAIL RR	—	—	—		L
C1773: G SENSOR FAIL RL	—	—	—		

BCS

BCM (BODY CONTROL MODULE)

[BCM]

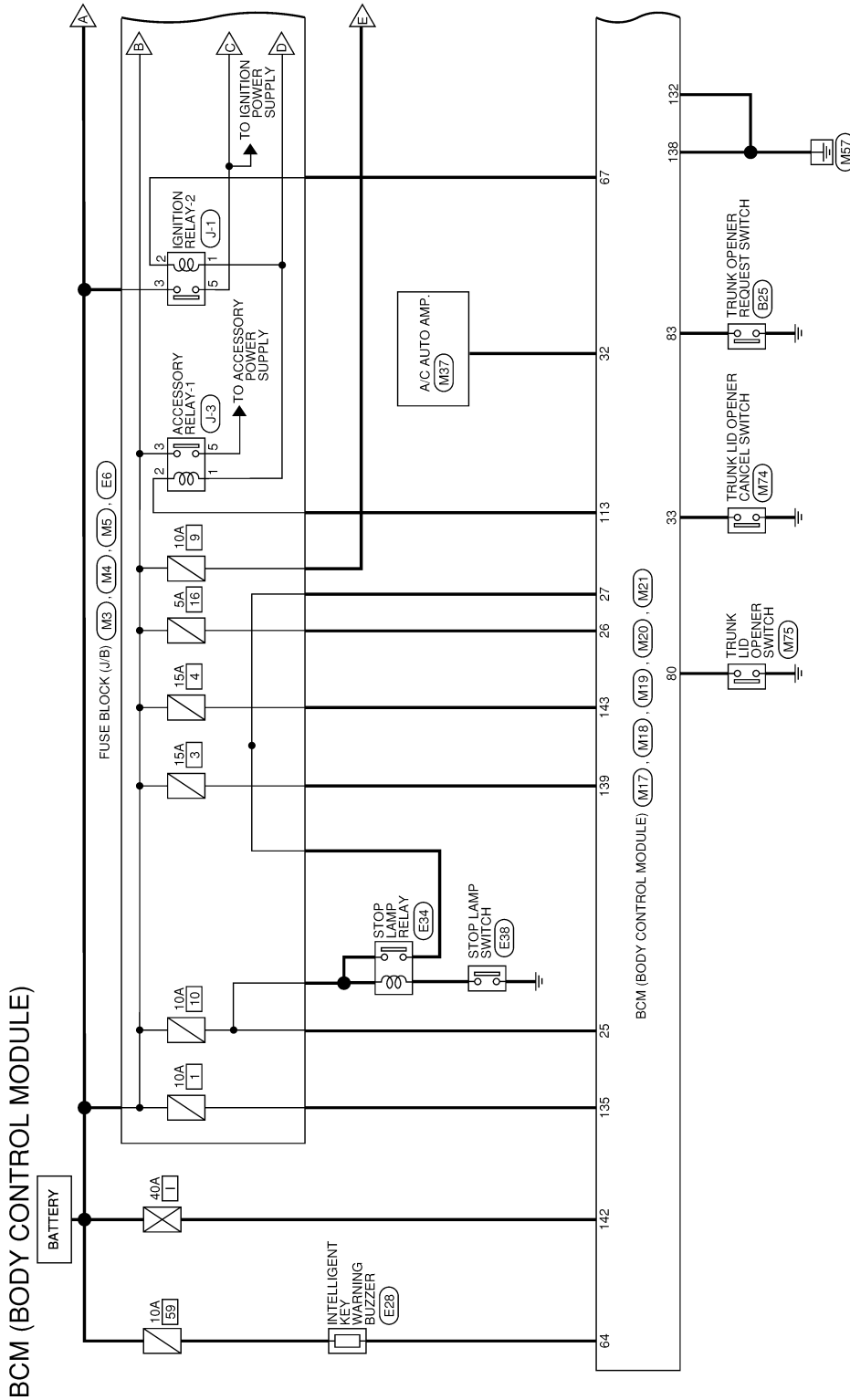
< WIRING DIAGRAM >

WIRING DIAGRAM

BCM (BODY CONTROL MODULE)

Wiring Diagram

INFOID:000000011934058

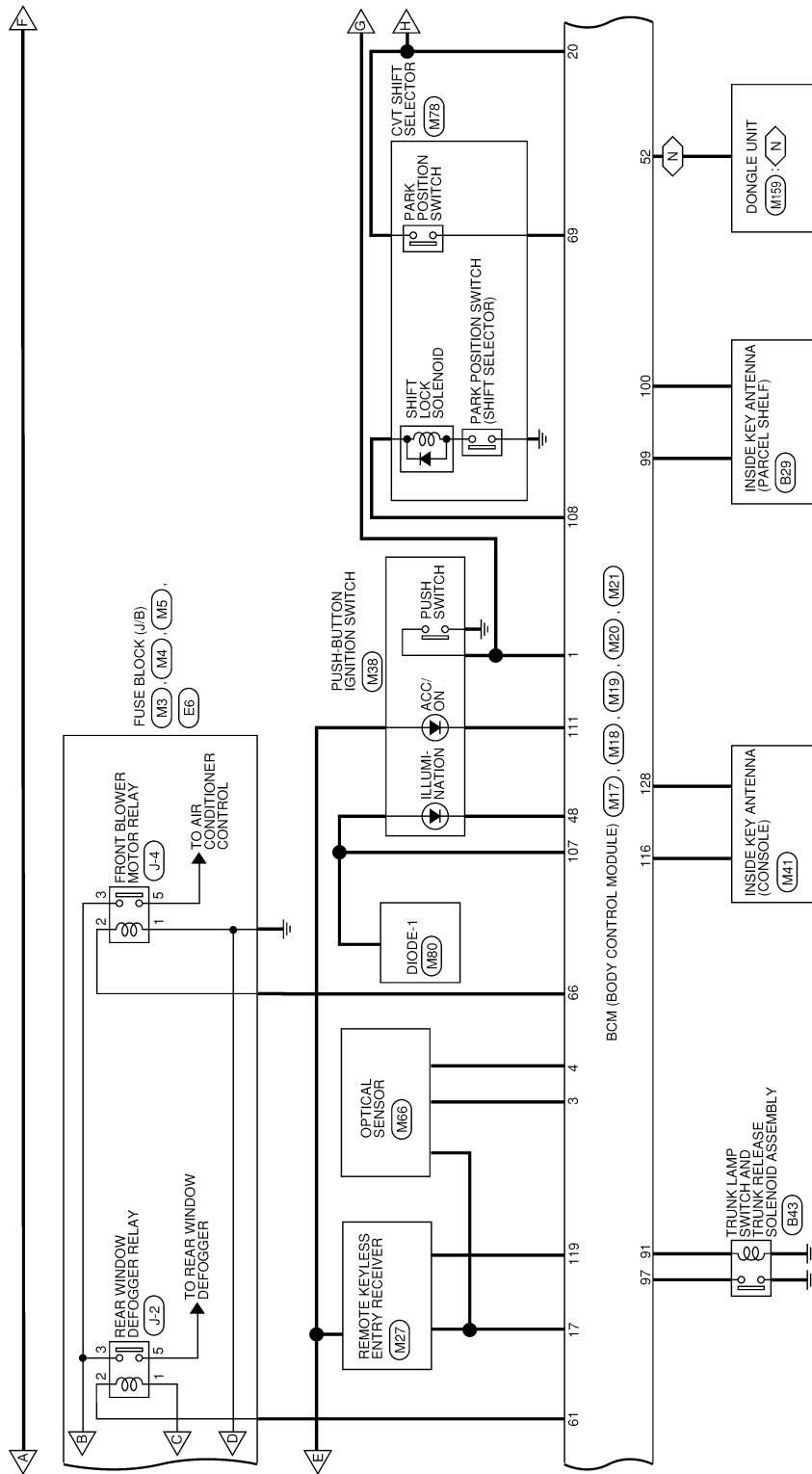


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BCM (BODY CONTROL MODULE)

< WIRING DIAGRAM >

[BCM]



AAMWA1768GB

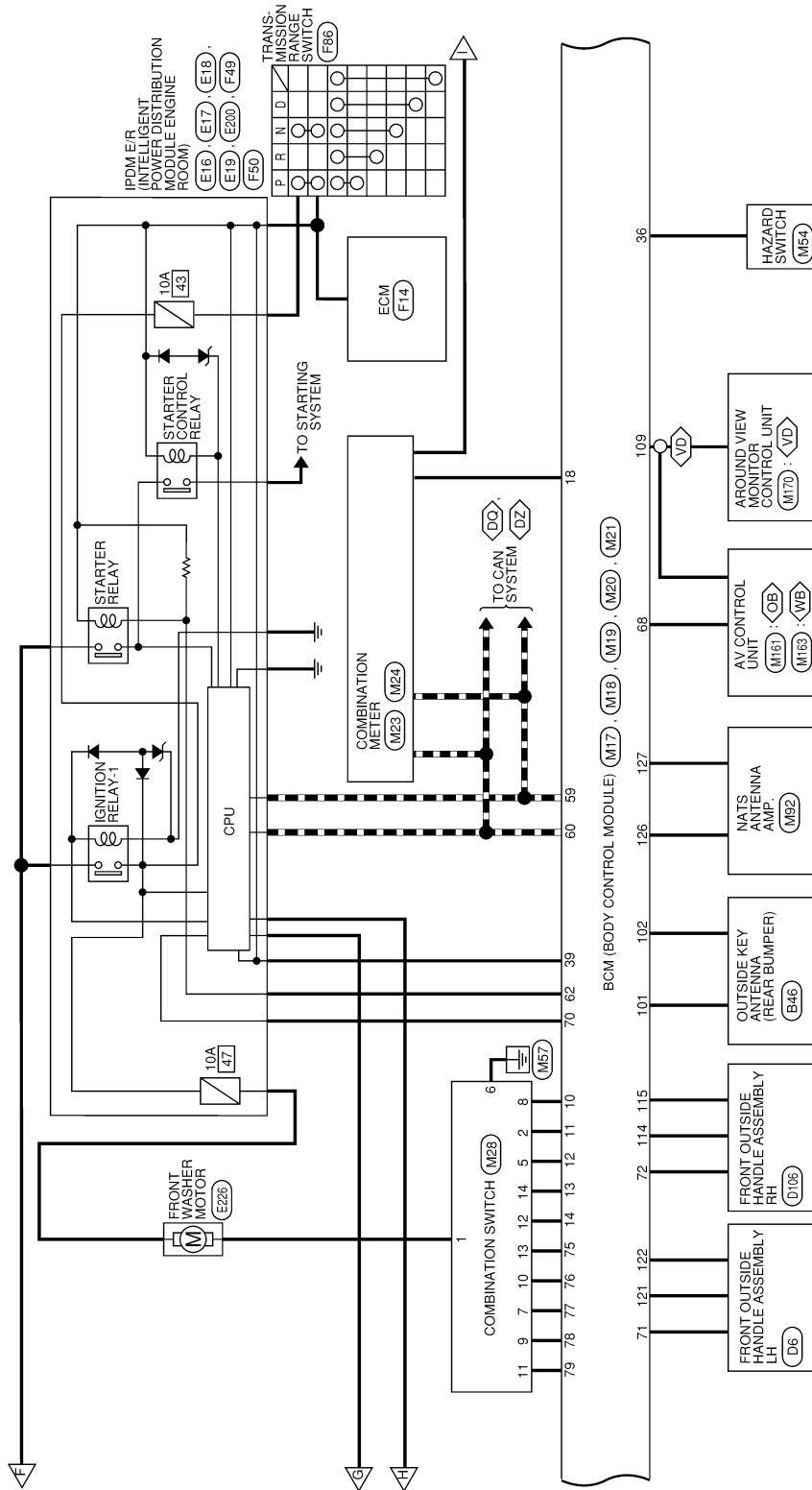
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BCS

BCM (BODY CONTROL MODULE)

< WIRING DIAGRAM >

[BCM]

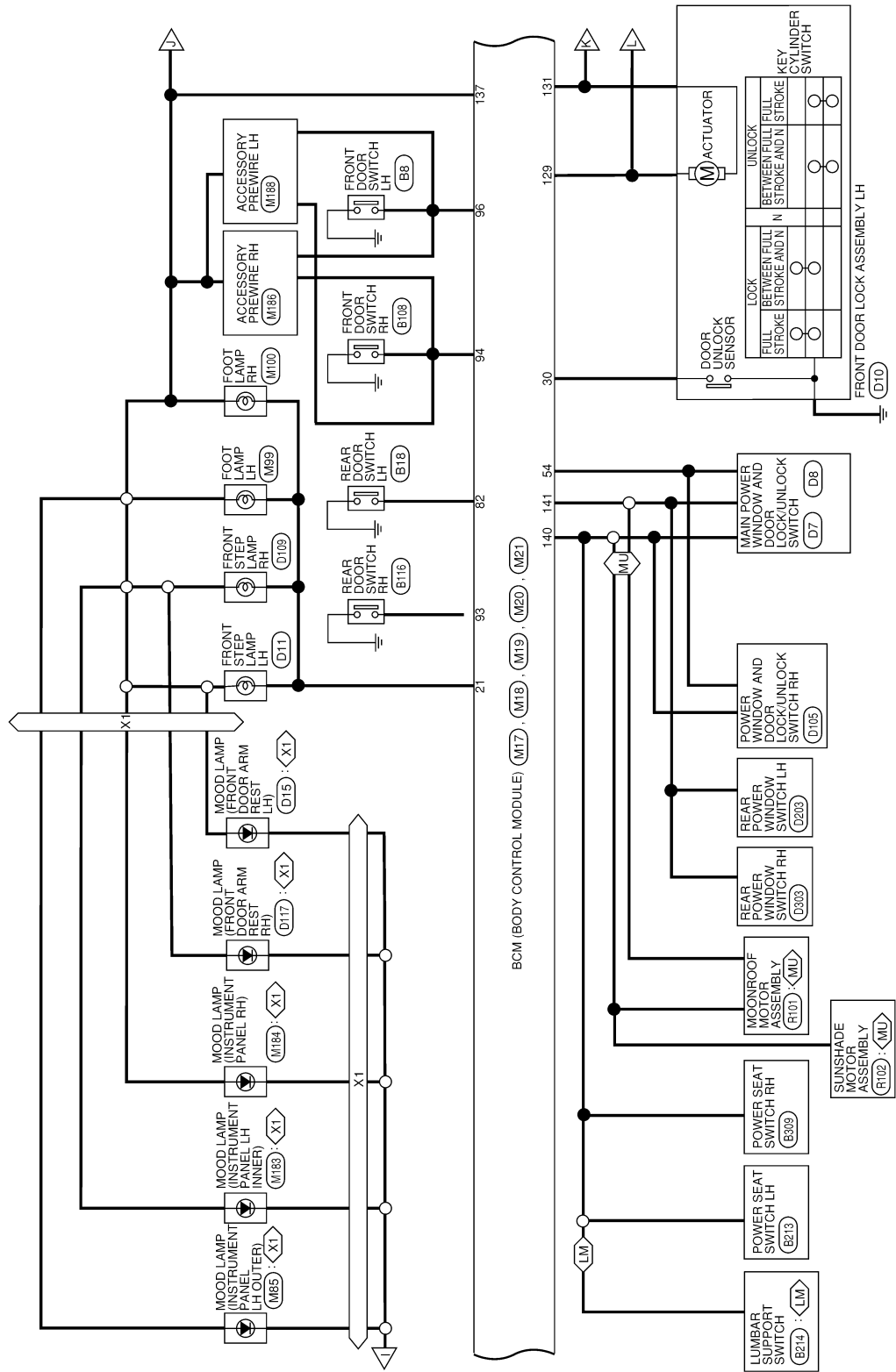


AAMWA1769GB

BCM (BODY CONTROL MODULE)

< WIRING DIAGRAM >

[BCM]



AAMWA1770GB

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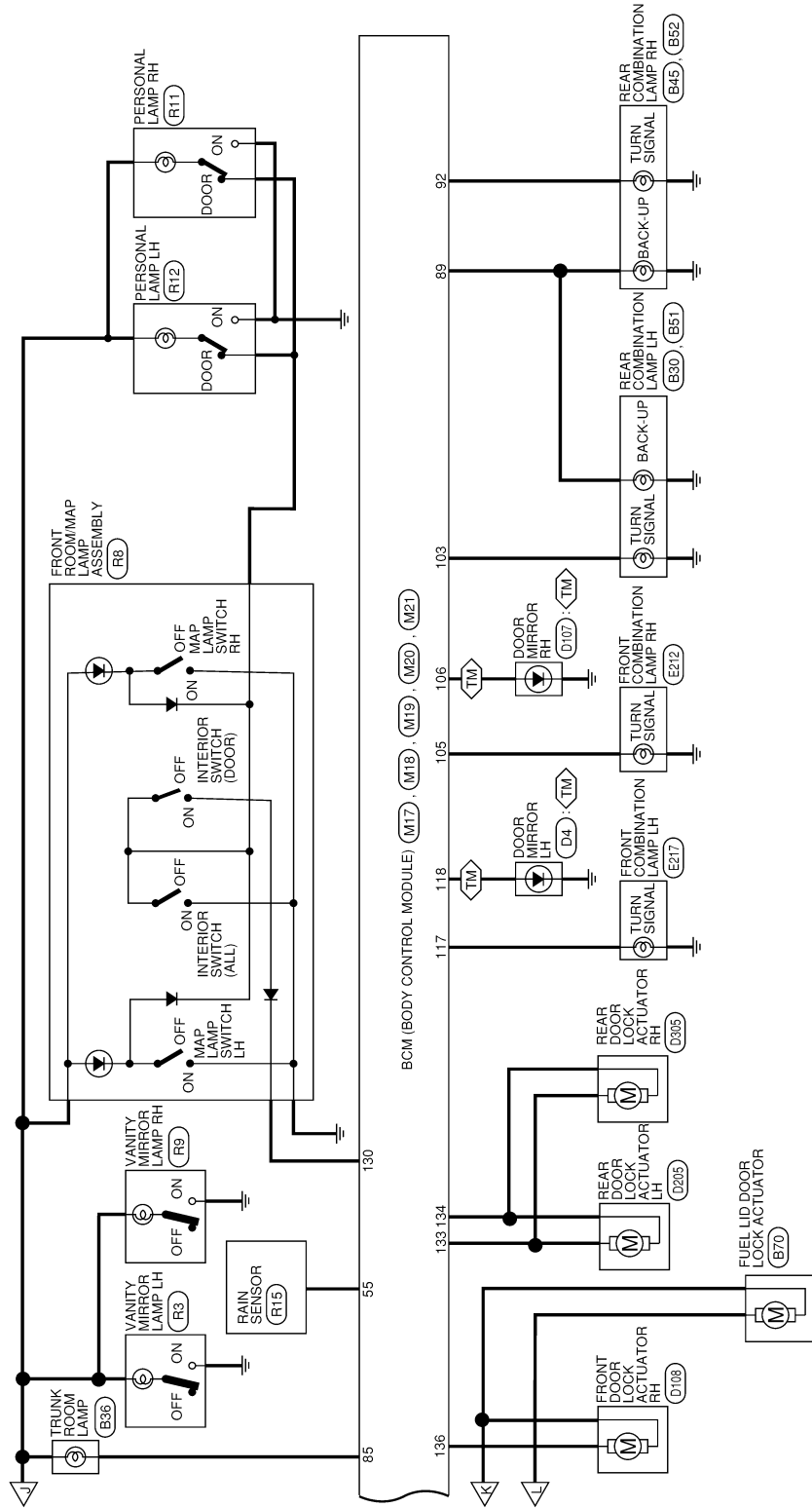
BCS

BCM (BODY CONTROL MODULE)

[BCM]

< WIRING DIAGRAM >

- ◀LM▶ : WITH POWER LUMBAR SUPPORT
- ◀WL▶ : WITH MOONROOF
- ◀N▶ : FOR CANADA
- ◀OB▶ : WITHOUT BOSE AUDIO SYSTEM
- ◀TM▶ : WITH TURN SIGNAL IN MIRROR
- ◀VD▶ : WITH AROUND VIEW MONITOR
- ◀WB▶ : WITH BOSE AUDIO SYSTEM
- ◀X1▶ : WITH AMBIENT LIGHTING



AAMWA1771GB

BCM (BODY CONTROL MODULE)

< WIRING DIAGRAM >

[BCM]

BCM (BODY CONTROL MODULE) CONNECTORS

Connector No.	M17
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA09FW-FHA6-SA
Connector Color	WHITE



129	130	131	132	133	134	135	136	137
138	139	140	141	142	143			

Terminal No.	Color of Wire	Signal Name
129	V	DOOR UNLOCK DRA/AS/FL
130	P	ROOM LAMP CONT
131	BR	DOOR LOCK DRA/AS/FL
132	B	GND2
133	Y	DOOR UNLOCK AS/RR/RL
134	L	DOOR LOCK AS/RR/RL
135	LG	BAT BCM FUSE
136	SB	DOOR UNLOCK AS
137	G	BATTERY SAWER OUT
138	B	GND1
139	SB	BAT FRONT DOOR
140	V	P/W POWER SUPPLY BAT
141	LG	P/W POWER SUPPLY IGN
142	W	BAT-POWER FL
143	V	BAT REAR DOOR



116	115	114	113	112	111	110	109	108	107	106	105
128	127	126	125	124	123	122	121	120	119	118	117

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH24FB-NH
Connector Color	BLACK

112	-	-
113	BR	ACC RELAY OUT
114	P	AS DOOR ANT A
115	R	AS DOOR ANT B
116	W	ROOM ANT 2 A
117	V	FL SL FLASHER
118	SB	FL SL FLASHER 2
119	G	RF NIMCCO
120	-	-
121	R	DR DOOR ANT B
122	P	DR DOOR ANT A
123	-	-
124	-	-
125	-	-
126	G	IMMO ANT B
127	W	IMMO ANT A
128	BG	ROOM ANT 2 B

Connector No.	M19
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH24FGY-NH
Connector Color	GRAY



92	91	90	89	88	87	86	85	84	83	82	81
104	103	102	101	100	99	98	97	96	95	94	93

Terminal No.	Color of Wire	Signal Name
81	-	-
82	Y	RL DOOR SW
83	SB	TRUNK REQUEST SW
84	-	-
85	BG	TRUNK LAMP CONT
86	-	-
87	-	-
88	-	-
89	BR	REVERSE LAMP OUT
90	-	-
91	V	TRUNK OPEN OUT
92	LG	RR FLASHER
93	V	RR DOOR SW
94	W	AS DOOR SW
95	-	-
96	P	DR DOOR SW
97	L	TRUNK SW
98	-	-
99	G	ROOM ANT 3 B
100	R	ROOM ANT 3 A
101	G	TRUNK ANT B

102	W	TRUNK ANT A
103	Y	RL FLASHER
104	-	-

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BCS

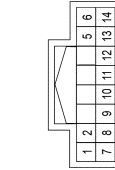
BCM (BODY CONTROL MODULE)

< WIRING DIAGRAM >

[BCM]

38	-	-
39	L	SHIFT N/P
40	-	-

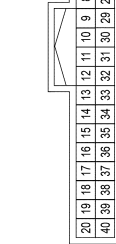
Connector No.	M28
Connector Name	COMBINATION SWITCH (LIGHTING AND TURN SIGNAL SWITCH)
Connector Type	TH16FW-NH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	LG	-
2	BG	-
5	R	-
6	B	-
7	R	-
8	W	-
9	P	-
10	W	-
11	G	-
12	P	-
13	BG	-
14	G	-

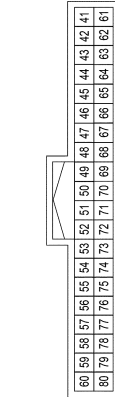
80	BR	TRUNK OPEN SW
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Connector No.	M21
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH
Connector Color	GREEN



Terminal No.	Color of Wire	Signal Name
1	R	ENG START SW NO ESCL
2	-	-
3	BR	A/L POWER SUPPLY 5V
4	Y	A/L SIGNAL
5	-	-
6	-	-
7	-	-
8	-	-
9	-	-
10	W	COMBI SW IN 5
11	BG	COMBI SW IN 4
12	R	COMBI SW IN 3
13	G	COMBI SW IN 2
14	P	COMBI SW IN 1
15	-	-
16	-	-
17	B	GND RF A/L
18	G	SECURITY INDICATOR
19	-	-
20	W	SHIFT P
21	W	STEP LAMP CONT
22	-	-
23	-	-
24	-	-
25	BG	BRAKE SW FUSE
26	Y	SHORTING INPUT
27	G	BRAKE SW LAMP
28	-	-
29	-	-
30	P	DR DOOR LOCK STATUS
31	-	-
32	LG	REAR DEFOGGER SW
33	W	TRUNK CANCEL SW
34	-	-
35	-	-
36	Y	HAZARD SW
37	-	-

Connector No.	M20
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
41	-	-
42	-	-
43	-	-
44	-	-
45	-	-
46	-	-
47	-	-
48	SB	HIGH SIDE START SW LED
49	-	-
50	-	-
51	-	-
52	G	AUDIO DONGLE(OR CANADA)
53	-	-
54	P	PW LIN
55	BR	L&R SENSOR K-LINE
56	-	-
57	-	-
58	-	-
59	P	CAN-L
60	L	CAN-H
61	Y	REAR DEFOGGER RELAY OUT
62	V	STARTER RELAY OUT
63	-	-
64	P	BUZZER OUT
65	-	-
66	R	BLOWER FAN RELAY OUT
67	W	IGN ELEC RELAY OUT 2
68	P	MR OUTPUT
69	L	AT DEVICE OUT
70	G	IGN USM OUT 1
71	V	DR REQUEST SW
72	Y	AS REQUEST SW
73	-	-
74	-	-
75	BG	COMBI SW OUT 5
76	W	COMBI SW OUT 4
77	R	COMBI SW OUT 3
78	P	COMBI SW OUT 2
79	G	COMBI SW OUT 1

AAMIA3509GB

BASIC INSPECTION

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM)

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM) : Description

INFOID:000000012250200

BEFORE REPLACEMENT

When replacing BCM, save or print current vehicle specification with CONSULT configuration before replacement. Refer to [BCS-63, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT \(BCM\) : Work Procedure"](#).

NOTE:

If "Before Replace ECU" cannot be used, use the "After Replace ECU" or "Manual Configuration" after replacing BCM.

AFTER REPLACEMENT

CAUTION:

- When replacing BCM, you must perform "After Replace ECU" with CONSULT.
- Complete the procedure of "After Replace ECU" in order.
- If you set incorrect "After Replace ECU", incidents might occur.
- Configuration is different for each vehicle model. Confirm configuration of each vehicle model.
- When replacing BCM, perform the system initialization (NATS).

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM) : Work Procedure

INFOID:000000012250201

1. SAVING VEHICLE SPECIFICATION

CONSULT

Enter "Re/Programming, Configuration" and perform "Before Replace ECU" to save or print current vehicle specification.

NOTE:

If "Before Replace ECU" cannot be used, use the "After Replace ECU" or "Manual Configuration" after replacing BCM.

>> GO TO 2.

2. REPLACE BCM

Replace BCM. Refer to [BCS-82, "Removal and Installation"](#).

>> GO TO 3.

3. WRITING VEHICLE SPECIFICATION

CONSULT

1. Enter "Re/Programming, Configuration".
2. If "Before Replace ECU" operation was performed, automatically an "Operation Log Selection" screen will be displayed. Select the applicable file from the "Saved Data List" and press "Confirm" to write vehicle specification. Refer to [BCS-64, "CONFIGURATION \(BCM\) : Work Procedure"](#).
3. If "Before Replace ECU" operation was not performed, select "After Replace ECU" or "Manual Configuration" to write vehicle specification. Refer to [BCS-64, "CONFIGURATION \(BCM\) : Work Procedure"](#).

>> GO TO 4.

4. REGISTER INTELLIGENT KEYS

For initialization and registration of Intelligent Keys, refer to CONSULT Immobilizer mode and follow the on-screen instructions.

< BASIC INSPECTION >

>> GO TO 5.

5. INITIALIZE TPMS

Perform TPMS initialization. Refer to [WT-25, "Work Procedure"](#).

>> Work End.

CONFIGURATION (BCM)

CONFIGURATION (BCM) : Description

INFOID:000000012250202

Vehicle specification needs to be written with CONSULT because it is not written after replacing BCM. Configuration has three functions as follows:

Function	Description
"Before Replace ECU"	<ul style="list-style-type: none"> • Reads the vehicle configuration of current BCM. • Saves the read vehicle configuration.
"After Replace ECU"	Writes the vehicle configuration with manual selection.
"Select Saved Data List"	Writes the vehicle configuration with saved data.

CAUTION:

- When replacing BCM, you must perform "Select Saved Data List" or "After Replace ECU" with CONSULT.
- Complete the procedure of "Select Saved Data List" or "After Replace ECU" in order.
- If you set incorrect "Select Saved Data List" or "After Replace ECU", incidents might occur.
- Configuration is different for each vehicle model. Confirm configuration of each vehicle model.
- Never perform "Select Saved Data List" or "After Replace ECU" except for new BCM.

CONFIGURATION (BCM) : Work Procedure

INFOID:000000012250203

1. WRITING MODE SELECTION

CONSULT

Select "Reprogramming, Configuration" of BCM.

When writing saved data >> GO TO 2.

When writing manually >> GO TO 3.

2. PERFORM "SAVED DATA LIST"

CONSULT

Automatically "Operation Log Selection" window will display if "Before Replace ECU" was performed. Select applicable file from the "Save Data List" and press "Confirm".

>> Work End.

3. PERFORM "AFTER REPLACE ECU" OR "MANUAL CONFIGURATION"

CONSULT

1. Select "After Replace ECU" or "Manual Configuration".
2. Identify the correct model and configuration list.
3. Confirm and/or change setting value for each item.

CAUTION:

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

4. Select "Next".

CAUTION:

Make sure to select "Next", confirm each setting value and press "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.

5. When "Completed", select "End".

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[BCM]

>> GO TO 4.

4. OPERATION CHECK

Confirm that each function controlled by BCM operates normally.

>> Work End.

CONFIGURATION (BCM) : Configuration List

INFOID:0000000012837091

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.)

BCM

SETTING ITEM		NOTE
Items	Setting value	
RAIN SENSOR CONFIG	WITH ⇔ WITHOUT	<ul style="list-style-type: none"> • WITH: With rain detecting wipers • WITHOUT: Without rain detecting wipers
CAN ERR DETECT TELEMATICS	WITH ⇔ WITHOUT	<ul style="list-style-type: none"> • WITH: With telematics • WITHOUT: Without telematics
DONGLE	WITH ⇔ WITHOUT	<ul style="list-style-type: none"> • WITH: With dongle (Canada) • WITHOUT: Without dongle (USA)

INTELLIGENT KEY

SETTING ITEM		NOTE
Items	Setting value	
Key Fob Type	LCK/UNLCK/TRNK ⇔ ENST/LCK/UNLCK/TRK/ALR	<ul style="list-style-type: none"> • LCK/UNLCK/TRK: Without remote engine start • ENST/LCK/UNLCK/TRK/ALRM: With remote engine start
ANSWER BACK I-KEY LOCK UNLOCK	BUZZER ⇔ OFF	<ul style="list-style-type: none"> • BUZZER: With answer back lock/unlock feature • OFF: Without answer back lock/unlock feature

BCS

SHIPPING MODE CANCEL OPERATION

< BASIC INSPECTION >

[BCM]

SHIPPING MODE CANCEL OPERATION

Work Procedure

INFOID:000000012250205

1. SHIPPING MODE CANCEL OPERATION

1. Turn ignition switch OFF.
2. Press in (turn on) the extended storage switch. Refer to [PG-96. "How To Check"](#).
3. Turn ignition switch ON.
4. Turn ignition switch OFF and wait at least 2 seconds.

NOTE:

Pressing in the extended storage switch moves the mode from Shipping to Normal.

>> GO TO 2.

2. SHIPPING MODE CANCEL CHECK

1. Turn ignition switch ON.
2. Check that extended storage warning message is not displayed in combination meter or display.

>> Work End.

U1000 CAN COMM CIRCUIT

[BCM]

< DTC/CIRCUIT DIAGNOSIS >

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM CIRCUIT

DTC Description

INFOID:0000000012250279

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 high line, CAN low 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-32, "CAN COMMUNICATION SYSTEM : CAN Communication Signal Chart"](#).

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
U1000	CAN COMM CIRCUIT (CAN communication circuit)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	—
		Diagnosis delay time	2 seconds or more

POSSIBLE CAUSE

CAN communication system

FAIL-SAFE

—

Diagnosis Procedure

INFOID:0000000012250280

1. SELF DIAGNOSTIC RESULT

CONSULT

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

Is DTC "U1000" displayed?

- YES >> Refer to [LAN-17, "Trouble Diagnosis Flow Chart"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-41, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: Inspection End.

BCS

U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

[BCM]

U1010 CONTROL UNIT (CAN)

DTC Description

INFOID:000000012250281

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
		Diagnosis condition	When ignition switch is ON.
U1010	CONTROL UNIT (Control unit)	Signal (terminal)	—
		Threshold	—
		Diagnosis delay time	2 seconds or more

POSSIBLE CAUSE

BCM

FAIL-SAFE

—

Diagnosis Procedure

INFOID:000000012250282

1. REPLACE BCM

When DTC U1010 is detected, replace BCM.

>> Replace BCM. Refer to [BCS-82. "Removal and Installation"](#).

U0415 VEHICLE SPEED SIG

[BCM]

< DTC/CIRCUIT DIAGNOSIS >

U0415 VEHICLE SPEED SIG

DTC Description

INFOID:000000012250283

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
		Diagnosis condition	When ignition switch is ON.
U1000	VEHICLE SPEED (Vehicle speed)	Signal (terminal)	—
		Threshold	—
		Diagnosis delay time	2 seconds or more

POSSIBLE CAUSE

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

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1. DTC CONFIRMATION PROCEDURE

ⓂCONSULT

1. Erase the DTC.
2. Turn ignition switch OFF.
3. Perform "Self Diagnostic Result" mode of "BCM", after the ignition switch has been turned ON for 2 seconds or more.

Is any DTC detected?

- YES >> Refer to [BCS-69, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-41, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:000000012250284

1.SELF DIAGNOSTIC RESULT

ⓂCONSULT

1. Turn ignition switch ON.
2. Select "Self Diagnostic Result" mode of "ABS".
3. Check DTC.

Is any DTC detected?

- YES >> Repair or replace the malfunctioning part.
- NO >> Replace BCM. Refer to [BCS-82, "Removal and Installation"](#).

BCS

B219B SVT ID ERROR

[BCM]

< DTC/CIRCUIT DIAGNOSIS >

B219B SVT ID ERROR

DTC Description

INFOID:0000000013015150

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B219B	SVT ID ERROR (Identification discord body control module - telematics communication unit)	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	The ID verification results between BCM and TCU are not matching
		Diagnosis delay time	—

POSSIBLE CAUSE

- TCU is not registered/paired correctly with the BCM
- Harness or connector
- BCM
- TCU

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

ⓐCONSULT

1. Turn ignition switch ON.
2. Check DTC in “Self Diagnostic Result” mode of “BCM”.

Is DTC B219B detected?

- YES >> Refer to [BCS-70, "Diagnosis Procedure"](#).
NO-1 >> To check malfunction symptom before repair: Refer to [GI-41, "Intermittent Incident"](#).
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:0000000013015151

1. TCU ACTIVATION OPERATION

ⓐCONSULT

Register the TCU. Refer to [AV-91, "Work Procedure"](#).

Does telematics system operate?

- YES >> Inspection End.
NO >> GO TO 2.

2. CHECK SELF-DIAGNOSIS RESULT

ⓐCONSULT

1. Select “Self Diagnostic Result” mode of “BCM”.
2. Erase DTC.
3. Perform DTC CONFIRMATION PROCEDURE for DTC B219B. Refer to [BCS-70, "DTC Description"](#).

Is DTC B219B detected?

- YES >> GO TO 3.
NO >> Inspection End.

3. REPLACE TCU

1. Replace TCU. Refer to [AV-201, "Removal and Installation"](#).
2. Perform DTC CONFIRMATION PROCEDURE for DTC B219B. Refer to [BCS-70, "DTC Description"](#).

Is DTC B219B detected?

- YES >> GO TO 4.

B219B SVT ID ERROR

< DTC/CIRCUIT DIAGNOSIS >

[BCM]

NO >> Inspection End.

4.REPLACE BCM

Replace BCM. Refer to [BCS-82. "Removal and Installation"](#).

>> Inspection End.

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B2562 LOW VOLTAGE

[BCM]

< DTC/CIRCUIT DIAGNOSIS >

B2562 LOW VOLTAGE

DTC Description

INFOID:000000012250285

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
		Diagnosis condition	When ignition switch is ON.
B2562	LOW VOLTAGE (Low voltage)	Signal (terminal)	BCM power circuit (terminal 135 and 142)
		Threshold	Less than 8.8V
		Diagnosis delay time	120 seconds or more

POSSIBLE CAUSE

- Harness or connector (power supply circuit)
- BCM

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1. DTC CONFIRMATION PROCEDURE

ⓐ CONSULT

1. Erase DTC.
2. Turn ignition switch OFF.
3. Perform the "Self Diagnostic Result" mode of "BCM", after the ignition switch is turned ON for 120 seconds or more.

Is any DTC detected?

- YES >> Refer to [BCS-72, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-41, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:000000012250286

1. CHECK POWER SUPPLY CIRCUIT

Check BCM power supply circuit. Refer to [BCS-75, "Diagnosis Procedure"](#).

Is the circuit normal?

- YES >> Replace BCM. Refer to [BCS-82, "Removal and Installation"](#).
- NO >> Repair the malfunctioning part.

B259A ROOM LAMP FUSE

< DTC/CIRCUIT DIAGNOSIS >

[BCM]

B259A ROOM LAMP FUSE

DTC Description

INFOID:000000012250287

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
		Diagnosis condition	When ignition switch is ON.
B259A	ROOM LAMP FUSE BLOWN (Room lamp fuse blown)	Signal (terminal)	BCM power circuit (terminal 135)
		Threshold	Approx. 0V
		Diagnosis delay time	120 seconds or more

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

—

DTC CONFIRMATION PROCEDURE

1. DTC CONFIRMATION PROCEDURE

ⓂCONSULT

1. Erase DTC.
2. Turn ignition switch OFF.
3. Perform the "Self Diagnostic Result" mode of "BCM", after the ignition switch has been turned ON for 120 seconds or more.

Is any DTC detected?

- YES >> Refer to [BCS-73, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-41, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

INFOID:000000012250288

Regarding Wiring Diagram information, refer to [BCS-56, "Wiring Diagram"](#).

1. CHECK FUSE

Check that the following fuse is not blown.

Terminal No.	Signal name	Fuse No.
135	BCM battery fuse	1 (10A)

Is the fuse or fusible link blown?

- YES >> Replace the blown fuse after repairing the affected circuit.
- NO >> GO TO 2.

2. CHECK BAT BCM FUSE CIRCUIT

1. Disconnect BCM connector M17.
2. Check voltage between BCM connector M17 terminal 135 and ground.

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BCS

B259A ROOM LAMP FUSE

< DTC/CIRCUIT DIAGNOSIS >

[BCM]

BCM		Ground	Voltage (Approx.)
Connector	Terminal		
M17	135	—	Battery voltage

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-82. "Removal and Installation"](#).

NO >> Repair or replace harness or connectors. GO TO 3.

3. CHECK BATTERY SAVER OUTPUT CIRCUIT FOR SHORT TO GROUND

1. Turn ignition OFF.
2. Check continuity between BCM connector M17 terminal 137 and ground.

BCM		Ground	Continuity
Connector	Terminal		
M17	137	—	No

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-82. "Removal and Installation"](#).

NO >> Repair or replace harness or connectors.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[BCM]

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000011934046

Regarding Wiring Diagram information, refer to [BCS-56. "Wiring Diagram"](#).

1. CHECK FUSE AND FUSIBLE LINK

Check if the following BCM fuses or fusible link are blown.

Signal name	Fuse and fusible link No.
Fusible link battery power	I (40A)
BCM battery fuse	1 (10A)

Is the fuse or fusible link blown?

- YES >> Replace the blown fuse or fusible link after repairing the affected circuit.
NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector M17.
3. Check voltage between BCM harness connector M17 and ground.

Terminals		Voltage (Approx.)
(+)	(-)	
BCM		Battery voltage
Connector	Terminal	
M17	135 142	

Is the measurement normal?

- YES >> GO TO 3.
NO >> Repair or replace harness.

3. CHECK GROUND CIRCUIT

Check continuity between BCM harness connector M17 and ground.

BCM		Ground	Continuity
Connector	Terminal		
M17	138		Yes
	132		

Is the inspection result normal?

- YES >> Inspection End.
NO >> Repair or replace harness.

Special Repair Requirement

INFOID:0000000011934047

1. REQUIRED WORK WHEN REPLACING BCM

Initialize control unit. Refer to [BCS-63. "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT \(BCM\) : Work Procedure"](#).

>> Work End.

COMBINATION SWITCH INPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[BCM]

COMBINATION SWITCH INPUT CIRCUIT

Diagnosis Procedure

INFOID:000000011934048

Regarding Wiring Diagram information, refer to [BCS-56. "Wiring Diagram"](#).

1. CHECK INPUT 1 - 5 SYSTEM CIRCUIT FOR OPEN

1. Turn the ignition switch OFF.
2. Disconnect BCM connector M20 and combination switch connector M28.
3. Check continuity between BCM harness connector M20 and combination switch harness connector M28.

Combination switch signal	BCM		Combination switch		Continuity
	Connector	Terminal	Connector	Terminal	
INPUT 1	M20	79	M28	11	Yes
INPUT 2		78		9	
INPUT 3		77		7	
INPUT 4		76		10	
INPUT 5		75		13	

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

2. CHECK INPUT 1 - 5 SYSTEM CIRCUIT FOR SHORT

Check for continuity between BCM harness connector M20 and ground.

Combination switch signal	BCM		Ground	Continuity
	Connector	Terminal		
INPUT 1	M20	79		No
INPUT 2		78		
INPUT 3		77		
INPUT 4		76		
INPUT 5		75		

Is the inspection result normal?

YES >> Repair or replace harness.

NO >> GO TO 3.

3. CHECK BCM OUTPUT SIGNAL

1. Connect BCM connector M20 and combination switch connector M28.
2. Turn ON any switch in the system that is malfunctioning.
3. Check voltage between BCM harness connector M20 and ground.

Combination switch signal	Terminals		Voltage (Approx.)	
	(+)			(-)
	BCM			
	Connector	Terminal		

COMBINATION SWITCH INPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[BCM]

INPUT 1	M20	79	—	Refer to BCS-31, "Reference Value" .
INPUT 2		78		
INPUT 3		77		
INPUT 4		76		
INPUT 5		75		

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B

Is the measurement normal when any of the switches is turned ON?

C

YES >> Replace combination switch. Refer to [BCS-83, "Removal and Installation"](#).

NO >> Replace BCM. Refer to [BCS-82, "Removal and Installation"](#).

Special Repair Requirement

INFOID:0000000011934049

D

1. REQUIRED WORK WHEN REPLACING BCM

Initialize control unit. Refer to [BCS-63, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT \(BCM\) : Description"](#).

E

>> Work end.

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COMBINATION SWITCH OUTPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[BCM]

COMBINATION SWITCH OUTPUT CIRCUIT

Diagnosis Procedure

INFOID:000000011934050

Regarding Wiring Diagram information, refer to [BCS-56. "Wiring Diagram"](#).

1. CHECK OUTPUT 1 - 5 SYSTEM CIRCUIT FOR OPEN

1. Turn the ignition switch OFF.
2. Disconnect BCM connector M21 and combination switch connector M28.
3. Check continuity between BCM harness connector M21 and combination switch harness connector M28.

Combination switch signal	BCM		Combination switch		Continuity
	Connector	Terminal	Connector	Terminal	
OUTPUT 1	M21	14	M28	12	Yes
OUTPUT 2		13		14	
OUTPUT 3		12		5	
OUTPUT 4		11		2	
OUTPUT 5		10		8	

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

2. CHECK OUTPUT 1 - 5 SYSTEM CIRCUIT FOR SHORT

Check for continuity between BCM harness connector M21 and ground.

Combination switch signal	BCM		Ground	Continuity
	Connector	Terminal		
OUTPUT 1	M21	14		No
OUTPUT 2		13		
OUTPUT 3		12		
OUTPUT 4		11		
OUTPUT 5		10		

Is the inspection result normal?

YES >> Repair or replace harness.

NO >> GO TO 3.

3. CHECK BCM INPUT VOLTAGE

1. Connect BCM connector M21 and combination switch connector M28.
2. Turn ignition switch ON.
3. Check voltage between BCM harness connector M21 and ground.

COMBINATION SWITCH OUTPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[BCM]

Combination switch signal	Terminals		Voltage (Approx.)	
	(+)			(-)
	BCM			
	Connector	Terminal		
OUTPUT 1	M21	14	Ground	
OUTPUT 2		13		
OUTPUT 3		12		
OUTPUT 4		11		
OUTPUT 5		10		

Refer to [BCS-31. "Reference Value"](#).

Is the measurement normal?

YES >> Replace BCM. Refer to [BCS-82. "Removal and Installation"](#).

NO >> Replace the combination switch. Refer to [BCS-83. "Removal and Installation"](#).

Special Repair Requirement

INFOID:000000011934051

1. REQUIRED WORK WHEN REPLACING BCM

Initialize control unit. Refer to [BCS-63. "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT \(BCM\) : Description"](#).

>> Work end.

BCS

COMBINATION SWITCH SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[BCM]

SYMPTOM DIAGNOSIS

COMBINATION SWITCH SYSTEM SYMPTOMS

Symptom Table

INFOID:000000011934059

1. Perform the data monitor of CONSULT to check for any malfunctioning item.
2. Check the malfunction combinations.

Malfunction item: ×

Malfunction combination	Data monitor item													
	FR WIPER HI	FR WIPER LOW	FR WASHER SW	FR WIPER INT	INT VOLUME	TURN SIGNAL R	TURN SIGNAL L	TAIL LAMP SW	HI BEAM SW	HEAD LAMP SW 1	HEAD LAMP SW 2	PASSING SW	AUTO LIGHT SW	FR FOG SW
A		×	×			×	×							
B	×			×						×		×		
C					×				×		×			
D					×			×					×	
E					×									×
F	×				×									
G			×		×									
H		×		×									×	
I							×				×	×		×
J						×		×	×	×				
K	All Items													
L	If only one item is detected or the item is not applicable to the combinations A to J													

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

Malfunction combination	Malfunctioning part	Repair or replace
A	Combination switch INPUT 1 circuit	Inspect the combination switch input circuit applicable to the malfunctioning part. Refer to BCS-76, "Diagnosis Procedure" .
B	Combination switch INPUT 2 circuit	
C	Combination switch INPUT 3 circuit	
D	Combination switch INPUT 4 circuit	
E	Combination switch INPUT 5 circuit	
F	Combination switch OUTPUT 1 circuit	Inspect the combination switch output circuit applicable to the malfunctioning part. Refer to BCS-78, "Diagnosis Procedure" .
G	Combination switch OUTPUT 2 circuit	
H	Combination switch OUTPUT 3 circuit	
I	Combination switch OUTPUT 4 circuit	
J	Combination switch OUTPUT 5 circuit	
K	BCM	Replace BCM. Refer to BCS-82, "Removal and Installation" .
L	Combination switch	Replace the combination switch. Refer to BCS-83, "Removal and Installation" .

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[BCM]

NORMAL OPERATING CONDITION

Description

INFOID:000000012504132

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 does not operate in shipping mode.
- For shipping mode cancel operation, refer to [BCS-66. "Work Procedure"](#).

NOTE:

Do not cancel shipping mode during storage of the vehicle. Shipping mode should not be canceled until just prior to customer delivery.

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BCS

REMOVAL AND INSTALLATION

BCM (BODY CONTROL MODULE)

Removal and Installation

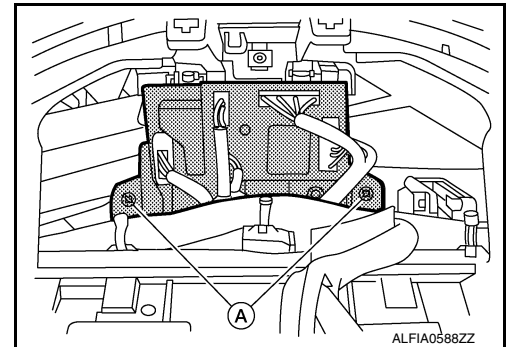
INFOID:000000011934062

REMOVAL

NOTE:

Before replacing BCM, perform "Before Replace ECU" of "Read/Write Configuration" to save or print current vehicle specification. Refer to [BCS-63, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT \(BCM\) : Description"](#).

1. Disconnect negative battery terminal. Refer to [PG-101, "Exploded View"](#).
2. Remove combination meter. Refer to [MWI-68, "Removal and Installation"](#).
3. Remove screws (A) using a suitable tool.



4. Disconnect harness connectors from the BCM and remove.

INSTALLATION

Installation is 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-63, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT \(BCM\) : Description"](#).

NOTE:

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

COMBINATION SWITCH

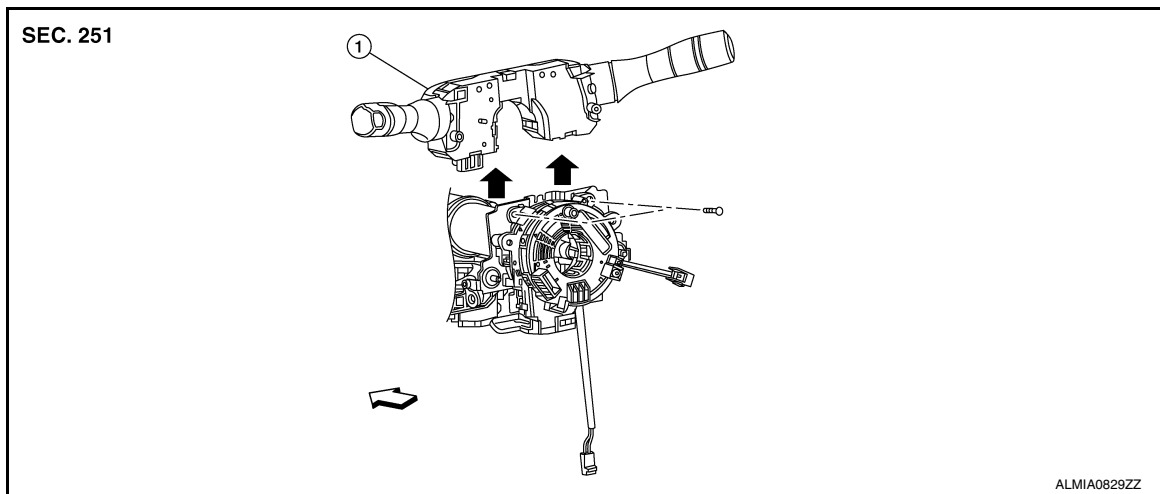
< REMOVAL AND INSTALLATION >

[BCM]

COMBINATION SWITCH

Exploded View

INFOID:000000012193927



1. Combination switch ⇐ Front

NOTE:

Shown with the steering wheel removed for clarity only.

Removal and Installation

INFOID:000000012193928

REMOVAL

CAUTION:

- Before servicing, turn the ignition switch OFF, disconnect both battery terminals and wait at least three minutes.
 - Do not use air tools or electric tools for servicing.
1. Disconnect both the negative and positive battery terminals, then wait at least three minutes. Refer to [PG-101, "Exploded View"](#).
 2. Remove steering column covers. Refer to [IP-18, "Removal and Installation - Electric steering column without paddle shifter"](#) (Electronic steering column without paddle shifter) [IP-18, "Removal and Installation - Mechanical steering column with paddle shifter"](#) (Mechanical steering column with paddle shifter) [IP-19, "Removal and Installation - Mechanical steering column without paddle shifter"](#) (Mechanical steering column without paddle shifter).
 3. Rotate steering wheel clockwise to access first combination switch bolt and remove.
 4. Rotate steering wheel counterclockwise to access second combination switch bolt and remove.
 5. Disconnect harness connector from combination switch and remove.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- After the work is completed, make sure no system malfunction is detected by air bag warning lamp.
- In case a malfunction is detected by the air bag warning lamp, reset with the self-diagnosis function and delete the memory with CONSULT.
- If a malfunction is still detected after the above operation, perform self-diagnosis to repair malfunctions. Refer to [SRC-16, "SRS Final Check"](#).