

SECTION

BCS

BODY CONTROL SYSTEM

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INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

BASIC INSPECTION

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM)

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM) : Description

INFOID:000000004957841

BEFORE REPLACEMENT

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

NOTE:

If "READ CONFIGURATION" can not be used, use the "WRITE CONFIGURATION - Manual selection" after replacing BCM.

AFTER REPLACEMENT

CAUTION:

- When replacing BCM, you must perform "WRITE CONFIGURATION" with CONSULT-III.
- Complete the procedure of "WRITE CONFIGURATION" in order.
- If you set incorrect "WRITE CONFIGURATION", 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:000000004957842

1. SAVING VEHICLE SPECIFICATION

CONSULT-III Configuration

Perform "READ CONFIGURATION" to save or print current vehicle specification. Refer to [BCS-3, "CONFIGURATION \(BCM\) : Description"](#).

NOTE:

If "READ CONFIGURATION" can not be used, use the "WRITE CONFIGURATION - Manual selection" after replacing BCM.

>> GO TO 2.

2. REPLACE BCM

Replace BCM. Refer to [BCS-94, "Exploded View"](#).

>> GO TO 3.

3. WRITING VEHICLE SPECIFICATION

CONSULT-III Configuration

Perform "WRITE CONFIGURATION - Config file" or "WRITE CONFIGURATION - Manual selection" to write vehicle specification. Refer to [BCS-4, "CONFIGURATION \(BCM\) : Work Procedure"](#).

>> GO TO 4.

4. INITIALIZE BCM (NATS)

Perform BCM initialization. (NATS)

>> WORK END

CONFIGURATION (BCM)

CONFIGURATION (BCM) : Description

INFOID:000000004957843

Vehicle specification needs to be written with CONSULT-III because it is not written after replacing BCM.

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

Configuration has three functions as follows.

Function	Description
READ CONFIGURATION	<ul style="list-style-type: none">• Reads the vehicle configuration of current BCM.• Saves the read vehicle configuration.
WRITE CONFIGURATION - Manual selection	Writes the vehicle configuration with manual selection.
WRITE CONFIGURATION - Config file	Writes the vehicle configuration with saved data.

NOTE:

Manual setting item: Items which need selection by vehicle specifications

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

CAUTION:

- When replacing BCM, you must perform “WRITE CONFIGURATION” with CONSULT-III.
- Complete the procedure of “WRITE CONFIGURATION” in order.
- If you set incorrect “WRITE CONFIGURATION”, incidents might occur.
- Configuration is different for each vehicle model. Confirm configuration of each vehicle model.
- Never perform “WRITE CONFIGURATION” except for new BCM.

CONFIGURATION (BCM) : Work Procedure

INFOID:000000004957844

1. WRITING MODE SELECTION

ⓅCONSULT-III Configuration
Select “CONFIGURATION” of BCM.

When writing saved data>>GO TO 2.

When writing manually>>GO TO 3.

2. PERFORM “WRITE CONFIGURATION - CONFIG FILE”

ⓅCONSULT-III Configuration
Perform “WRITE CONFIGURATION - Config file”.

>> WORK END

3. PERFORM “WRITE CONFIGURATION - MANUAL SELECTION”

- ⓅCONSULT-III Configuration
1. Select “WRITE CONFIGURATION - Manual selection”.
 2. Identify the correct model and configuration list. Refer to [BCS-5, “CONFIGURATION \(BCM\) : Configuration list”](#).
 3. Confirm and/or change setting value for each item.
CAUTION:
Thoroughly read and understand the vehicle specification. Incorrect settings may result in abnormal control of ECU.
 4. Select “SETTING”.
CAUTION:
Make sure to select “SETTING” 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 can not be memorized.
 5. When “COMMAND FINISHED”, select “END”.

>> GO TO 4.

4. OPERATION CHECK

Confirm that each function controlled by BCM operates normally.

>> WORK END

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

CONFIGURATION (BCM) : Configuration list

INFOID:000000004957845

CAUTION:

Thoroughly read and understand the vehicle specification. Incorrect settings may result in abnormal control of ECU.

LHD MODELS (EXCEPT FOR RUSSIA)

Gasoline Engine and A/T Models

MANUAL SETTING ITEM		NOTE
Items	Setting value	
ALT TYPE	GASOLINE	—
HANDLE	LHD	—
DTRL	WITH ⇔ WITHOUT	<ul style="list-style-type: none"> • WITH: With daytime running light system • WITHOUT: Without daytime running light system
ASCD CANCEL SW TYPE	MODE2	—

⇔: Items which confirm vehicle specifications

AUTO SETTING ITEM		NOTE
Items	Setting value	
SUPER LOCK	WITHOUT	—
UNLOCK WITH SHOCK	WITH	—
ROOF FUNCTION	W/O REQ SW	—
ROOM LAMP TIMER	MODE3	—
ROOM LAMP ON TIME	MODE5	—
ROOM LAMP OFF TIME	MODE5	—
Trunk/Glass Hatch select	Glass Hatch	Even on a vehicle without glass hatch. It displays "Glass Hatch".
RAP FUNC SET	MODE1	—
TR OPEN SW (INT)	MODE1	—
H/L BAT SAVER SET	WITH	—
AUTO CRANK TIME	MODE2	—
TRANSMISSION	AT with ABS	—
REAR WIPER	WITH	—
H/L WASHER	MODE3	—
BCM AC CONTROL	MODE1	—
WELCOME LIGHT TIMER2	MODE4	—
DONGLE	WITHOUT	—
TPMS	TPMS SBF	—
H/L BAT SAVER FUNC	WITH	—
RAIN SEN TYPE	MODE3	—
Key Fob Type	MODE6	—
DROP WIP FUNCTION	WITH	—
WELCOME LIGHT OP SET	WITH	—

Diesel Engine and A/T Models

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

MANUAL SETTING ITEM		NOTE
Items	Setting value	
ALT TYPE	DIESEL	—
HANDLE	LHD	—
DTRL	WITH ⇔ WITHOUT	<ul style="list-style-type: none"> • WITH: With daytime running light system • WITHOUT: Without daytime running light system
ASCD CANCEL SW TYPE	MODE2	—

⇔: Items which confirm vehicle specifications

AUTO SETTING ITEM		NOTE
Items	Setting value	
SUPER LOCK	WITHOUT	—
UNLOCK WITH SHOCK	WITH	—
ROOF FUNCTION	W/O REQ SW	—
ROOM LAMP TIMER	MODE2	—
ROOM LAMP ON TIME	MODE5	—
ROOM LAMP OFF TIME	MODE5	—
Trunk/Glass Hatch select	Glass Hatch	Even on a vehicle without glass hatch. It displays “Glass Hatch”.
RAP FUNC SET	MODE1	—
TR OPEN SW (INT)	MODE1	—
H/L BAT SAVER SET	WITH	—
AUTO CRANK TIME	MODE3	—
TRANSMISSION	AT with ABS	—
REAR WIPER	WITH	—
H/L WASHER	MODE3	—
BCM AC CONTROL	MODE1	—
WELCOME LIGHT TIMER2	MODE4	—
DONGLE	WITHOUT	—
TPMS	TPMS SBF	—
H/L BAT SAVER FUNC	WITH	—
RAIN SEN TYPE	MODE3	—
Key Fob Type	MODE6	—
DROP WIP FUNCTION	WITH	—
WELCOME LIGHT OP SET	WITH	—

Diesel Engine and M/T Models

MANUAL SETTING ITEM		NOTE
Items	Setting value	
ALT TYPE	DIESEL	—
HANDLE	LHD	—
DTRL	WITH ⇔ WITHOUT	<ul style="list-style-type: none"> • WITH: With daytime running light system • WITHOUT: Without daytime running light system
ASCD CANCEL SW TYPE	MODE1	—

⇔: Items which confirm vehicle specifications

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

AUTO SETTING ITEM		NOTE
Items	Setting value	
SUPER LOCK	WITHOUT	—
UNLOCK WITH SHOCK	WITH	—
ROOF FUNCTION	W/O REQ SW	—
ROOM LAMP TIMER	MODE2	—
ROOM LAMP ON TIME	MODE5	—
ROOM LAMP OFF TIME	MODE5	—
Trunk/Glass Hatch select	Glass Hatch	Even on a vehicle without glass hatch. It displays "Glass Hatch".
RAP FUNC SET	MODE1	—
TR OPEN SW (INT)	MODE1	—
H/L BAT SAVER SET	WITH	—
AUTO CRANK TIME	MODE3	—
TRANSMISSION	MT with ABS	—
REAR WIPER	WITH	—
H/L WASHER	MODE3	—
BCM AC CONTROL	MODE1	—
WELCOME LIGHT TIMER2	MODE4	—
DONGLE	WITHOUT	—
TPMS	TPMS SBF	—
H/L BAT SAVER FUNC	WITH	—
RAIN SEN TYPE	MODE3	—
Key Fob Type	MODE6	—
DROP WIP FUNCTION	WITH	—
WELCOME LIGHT OP SET	WITH	—

RHD MODELS

Gasoline Engine and A/T Models

MANUAL SETTING ITEM		NOTE
Items	Setting value	
ALT TYPE	GASOLINE	—
HANDLE	RHD	—
DTRL	WITH ⇔ WITHOUT	<ul style="list-style-type: none"> • WITH: With daytime running light system • WITHOUT: Without daytime running light system
ASCD CANCEL SW TYPE	MODE2	—

⇔: Items which confirm vehicle specifications

AUTO SETTING ITEM		NOTE
Items	Setting value	
SUPER LOCK	WITH	—
UNLOCK WITH SHOCK	WITH	—
ROOF FUNCTION	W/O REQ SW	—
ROOM LAMP TIMER	MODE3	—
ROOM LAMP ON TIME	MODE5	—
ROOM LAMP OFF TIME	MODE5	—

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

AUTO SETTING ITEM		NOTE
Items	Setting value	
Trunk/Glass Hatch select	Glass Hatch	Even on a vehicle without glass hatch. It displays "Glass Hatch".
RAP FUNC SET	MODE1	—
TR OPEN SW (INT)	MODE1	—
H/L BAT SAVER SET	WITH	—
AUTO CRANK TIME	MODE2	—
TRANSMISSION	AT with ABS	—
REAR WIPER	WITH	—
H/L WASHER	MODE3	—
BCM AC CONTROL	MODE1	—
WELCOME LIGHT TIMER2	MODE4	—
DONGLE	WITH	—
TPMS	TPMS SBF	—
H/L BAT SAVER FUNC	WITH	—
RAIN SEN TYPE	MODE3	—
Key Fob Type	MODE6	—
DROP WIP FUNCTION	WITH	—
WELCOME LIGHT OP SET	WITH	—

Diesel Engine and A/T Models

MANUAL SETTING ITEM		NOTE
Items	Setting value	
ALT TYPE	DIESEL	—
HANDLE	RHD	—
DTRL	WITH ⇔ WITHOUT	<ul style="list-style-type: none"> • WITH: With daytime running light system • WITHOUT: Without daytime running light system
ASCD CANCEL SW TYPE	MODE2	—

⇔: Items which confirm vehicle specifications

AUTO SETTING ITEM		NOTE
Items	Setting value	
SUPER LOCK	WITH	—
UNLOCK WITH SHOCK	WITH	—
ROOF FUNCTION	W/O REQ SW	—
ROOM LAMP TIMER	MODE2	—
ROOM LAMP ON TIME	MODE5	—
ROOM LAMP OFF TIME	MODE5	—
Trunk/Glass Hatch select	Glass Hatch	Even on a vehicle without glass hatch. It displays "Glass Hatch".
RAP FUNC SET	MODE1	—
TR OPEN SW (INT)	MODE1	—
H/L BAT SAVER SET	WITH	—
AUTO CRANK TIME	MODE3	—
TRANSMISSION	AT with ABS	—
REAR WIPER	WITH	—

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

AUTO SETTING ITEM		NOTE	
Items	Setting value		
H/L WASHER	MODE3	—	A
BCM AC CONTROL	MODE1	—	B
WELCOME LIGHT TIMER2	MODE4	—	
DONGLE	WITH	—	
TPMS	TPMS SBF	—	C
H/L BAT SAVER FUNC	WITH	—	
RAIN SEN TYPE	MODE3	—	D
Key Fob Type	MODE6	—	
DROP WIP FUNCTION	WITH	—	
WELCOME LIGHT OP SET	WITH	—	E

Diesel Engine and M/T Models

MANUAL SETTING ITEM		NOTE	
Items	Setting value		
ALT TYPE	DIESEL	—	F
HANDLE	RHD	—	G
DTRL	WITH ⇔ WITHOUT	<ul style="list-style-type: none"> • WITH: With daytime running light system • WITHOUT: Without daytime running light system 	H
ASCD CANCEL SW TYPE	MODE1	—	

⇔: Items which confirm vehicle specifications

AUTO SETTING ITEM		NOTE	
Items	Setting value		
SUPER LOCK	WITH	—	J
UNLOCK WITH SHOCK	WITH	—	
ROOF FUNCTION	W/O REQ SW	—	K
ROOM LAMP TIMER	MODE2	—	
ROOM LAMP ON TIME	MODE5	—	
ROOM LAMP OFF TIME	MODE5	—	L
Trunk/Glass Hatch select	Glass Hatch	Even on a vehicle without glass hatch. It displays "Glass Hatch".	BCS
RAP FUNC SET	MODE1	—	
TR OPEN SW (INT)	MODE1	—	
H/L BAT SAVER SET	WITH	—	N
AUTO CRANK TIME	MODE3	—	
TRANSMISSION	MT with ABS	—	
REAR WIPER	WITH	—	O
H/L WASHER	MODE3	—	
BCM AC CONTROL	MODE1	—	P
WELCOME LIGHT TIMER2	MODE4	—	
DONGLE	WITH	—	
TPMS	TPMS SBF	—	
H/L BAT SAVER FUNC	WITH	—	
RAIN SEN TYPE	MODE3	—	

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

AUTO SETTING ITEM		NOTE
Items	Setting value	
Key Fob Type	MODE6	—
DROP WIP FUNCTION	WITH	—
WELCOME LIGHT OP SET	WITH	—

FOR RUSSIA

MANUAL SETTING ITEM		NOTE
Items	Setting value	
HANDLE	LHD	—
DTRL	WITHOUT	—

⇔: Items which confirm vehicle specifications

AUTO SETTING ITEM		NOTE
Items	Setting value	
SUPER LOCK	WITHOUT	—
UNLOCK WITH SHOCK	WITH	—
ROOF FUNCTION	W/O REQ SW	—
ROOM LAMP TIMER	MODE3	—
ROOM LAMP ON TIME	MODE5	—
ROOM LAMP OFF TIME	MODE5	—
Trunk/Glass Hatch select	Glass Hatch	Even on a vehicle without glass hatch. It displays “Glass Hatch”.
RAP FUNC SET	MODE1	—
TR OPEN SW (INT)	MODE1	—
H/L BAT SAVER SET	WITH	—
TRANSMISSION	AT with ABS	—
REAR WIPER	WITH	—
H/L WASHER	MODE3	—
LIGHT&RAIN SEN TYPE	MODE3	—
BCM AC CONTROL	MODE1	—
WELCOME LIGHT TIMER2	MODE4	—
DONGLE	WITHOUT	—
TPMS	TPMS SBF	—
H/L BAT SAVER FUNC	WITH	—
RAIN SEN TYPE	MODE3	—
Key Fob Type	MODE6	—
DROP WIP FUNCTION	WITH	—
WELCOME LIGHT OP SET	WITH	—
HLW CYL SW INP NMB	MODE1	—

BODY CONTROL SYSTEM

< SYSTEM DESCRIPTION >

SYSTEM DESCRIPTION

BODY CONTROL SYSTEM

System Description

INFOID:000000004957846

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-III and various settings.

BCM CONTROL FUNCTION LIST

System	Reference
Combination switch reading system	BCS-13, "System Diagram"
Signal buffer system	BCS-17, "System Diagram"
Power consumption control system	BCS-19, "System Diagram"
Auto light system	EXL-17, "EXCEPT FOR RUSSIA : System Diagram"
Turn signal and hazard warning lamp system	EXL-29, "System Diagram"
Headlamp system	EXL-10, "System Diagram"
Parking, license plate and tail lamps system	<ul style="list-style-type: none">• EXL-31, "WITHOUT DAYTIME RUNNING LIGHT SYSTEM : System Diagram" (Without daytime running light)• EXL-33, "WITH DAYTIME RUNNING LIGHT SYSTEM : System Diagram" (With daytime running light)
Front fog lamp system	EXL-26, "System Diagram"
Rear fog lamp system	EXL-36, "System Diagram"
Exterior lamp battery saver system	EXL-38, "System Diagram"
Daytime running light system	EXL-14, "System Diagram"
Interior room lamp control system	INL-6, "System Diagram"
Step lamp system	
Interior room lamp battery saver system	INL-12, "System Diagram"
Front wiper and washer system	WW-6, "System Diagram"
Rear wiper and washer system	WW-11, "System Diagram"
Headlamp washer system	<ul style="list-style-type: none">• WW-15, "FOR EUROPE : System Diagram" (Except for Russia)• WW-17, "FOR RUSSIA : System Diagram" (For Russia)
Warning chime system	WCS-6, "WARNING CHIME SYSTEM : System Diagram"
Door lock system	<ul style="list-style-type: none">• DLK-17, "System Diagram" (With super lock)• DLK-277, "System Diagram" (Without super lock)
Infiniti Vehicle Immobilizer System (IVIS) - NATS	SEC-16, "System Diagram"
Vehicle security system	SEC-20, "System Diagram"
Automatic drive positioner system	ADP-14, "AUTOMATIC DRIVE POSITIONER SYSTEM : System Diagram"
Rear window defogger system	<ul style="list-style-type: none">• DEF-4, "WITHOUT WIPER DEICER : System Diagram" (Without wiper deicer)• DEF-6, "WITH WIPER DEICER : System Diagram" (With wiper deicer)

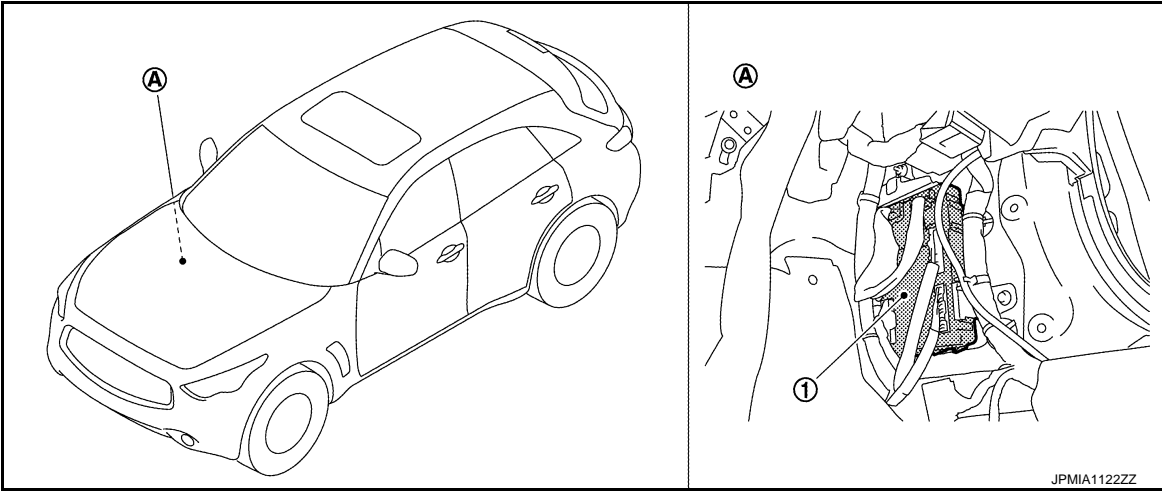
BODY CONTROL SYSTEM

< SYSTEM DESCRIPTION >

System	Reference
Intelligent Key system/engine start system	<ul style="list-style-type: none">• DLK-22, "INTELLIGENT KEY SYSTEM : System Diagram" (With super lock)• DLK-282, "INTELLIGENT KEY SYSTEM : System Diagram" (Without super lock)
Power window system	PWC-8, "System Diagram"
Retained accessory power (RAP) system	PWC-8, "System Description"

Component Parts Location

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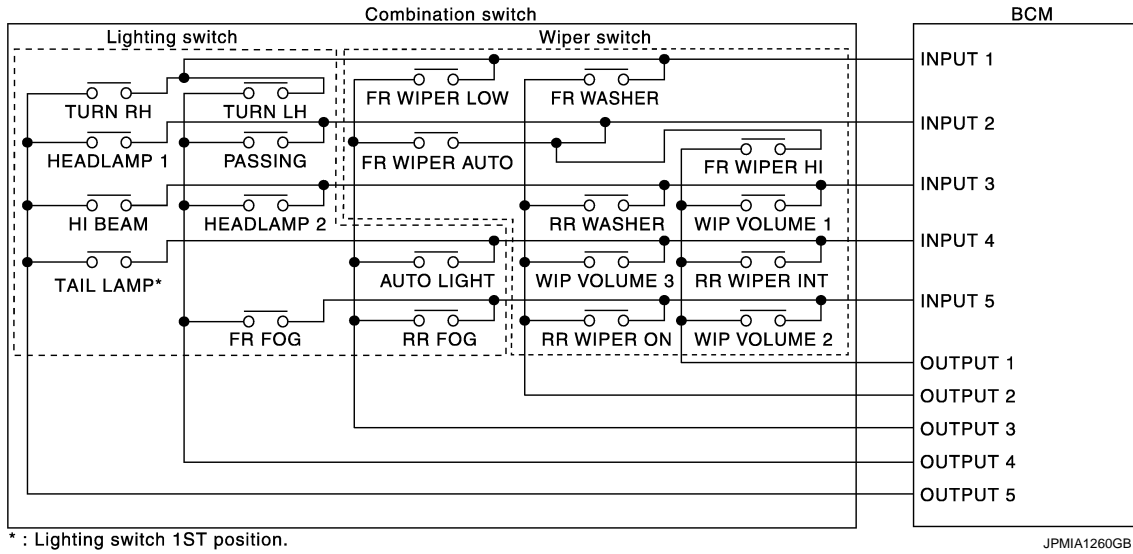
- 1. BCM
- A. Dash side lower (passenger side)

COMBINATION SWITCH READING SYSTEM

< SYSTEM DESCRIPTION >

COMBINATION SWITCH READING SYSTEM

System Diagram



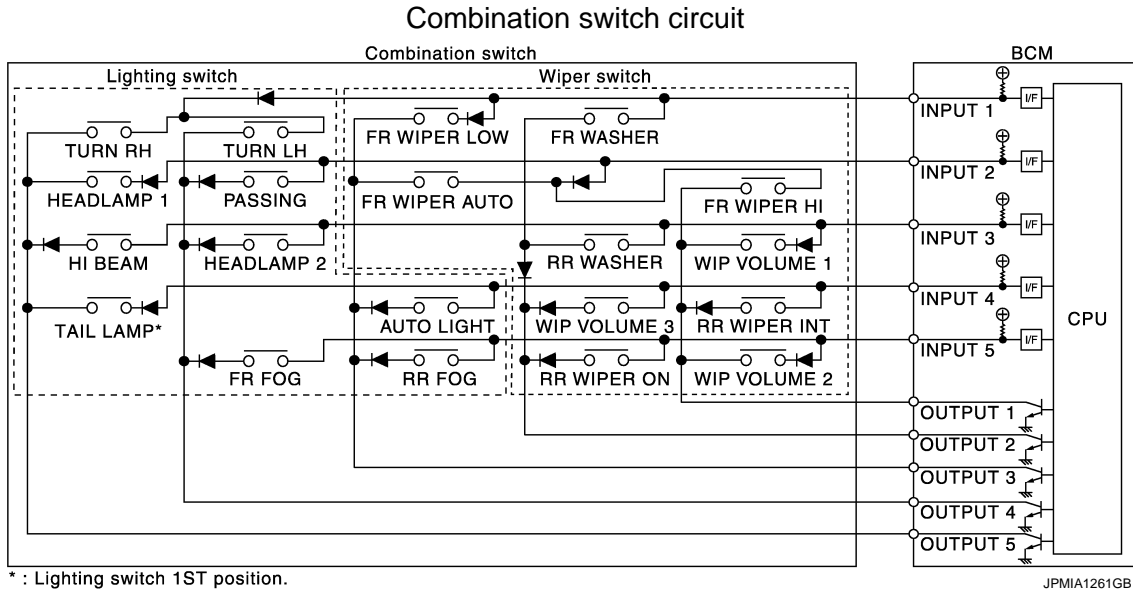
System Description

INFOID:000000004957849

OUTLINE

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

COMBINATION SWITCH MATRIX



Combination switch INPUT-OUTPUT system list

System	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4	OUTPUT 5
INPUT 1	—	FR WASHER	FR WIPER LOW	TURN LH	TURN RH
INPUT 2	FR WIPER HI	—	FR WIPER AUTO	PASSING	HEADLAMP 1
INPUT 3	WIP VOLUME 1	RR WASHER	—	HEADLAMP 2	HI BEAM

COMBINATION SWITCH READING SYSTEM

< SYSTEM DESCRIPTION >

System	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4	OUTPUT 5
INPUT 4	RR WIPER INT	WIP VOLUME 3	AUTO LIGHT	—	TAIL LAMP
INPUT 5	WIP VOLUME 2	RR WIPER ON	RR FOG	FR FOG	—

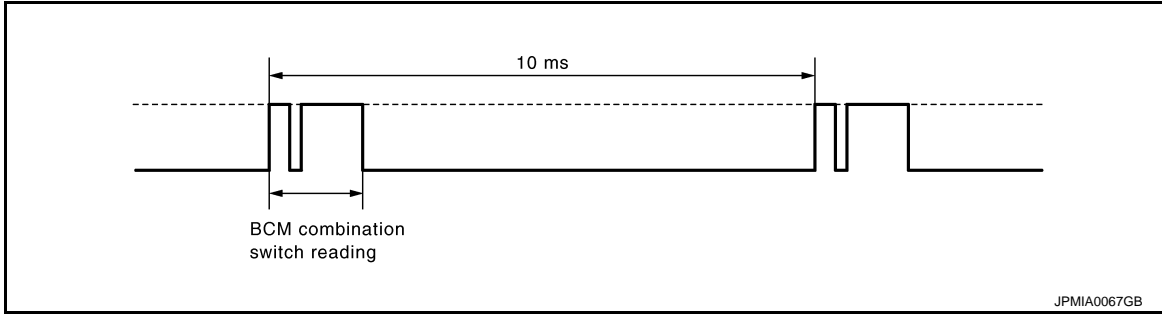
NOTE:

Headlamp has a dual system switch.

COMBINATION SWITCH READING FUNCTION

Description

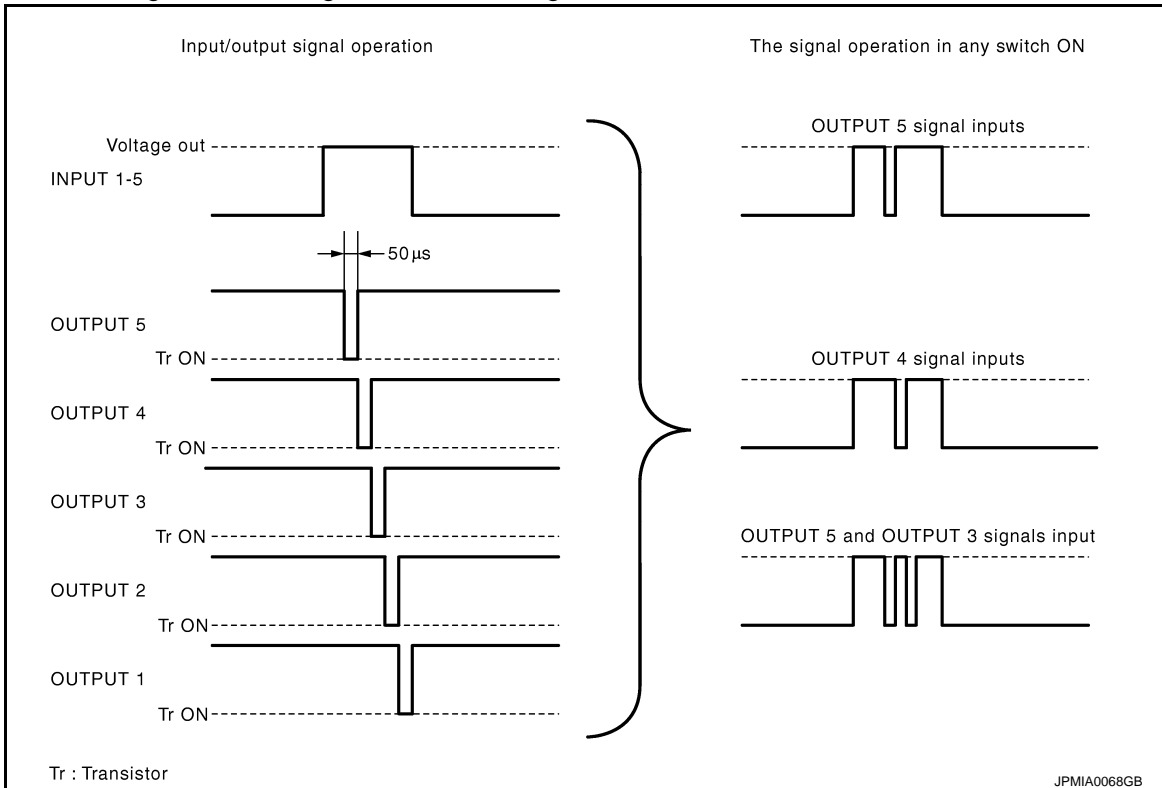
- BCM reads the status of the combination switch at 10 ms interval normally.



NOTE:

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

- BCM operates as follows and judges the status of the combination switch.
- INPUT 1 - 5 outputs the voltage waveforms of 5 systems simultaneously.
- It operates the transistor on OUTPUT side in the following order: OUTPUT 5 → 4 → 3 → 2 → 1.
- The voltage waveform of INPUT corresponding to the formed circuit changes according to the operation of the transistor on OUTPUT side if any (1 or more) switches are ON.
- It reads this change of the voltage as the status signal of the combination switch.



Operation Example

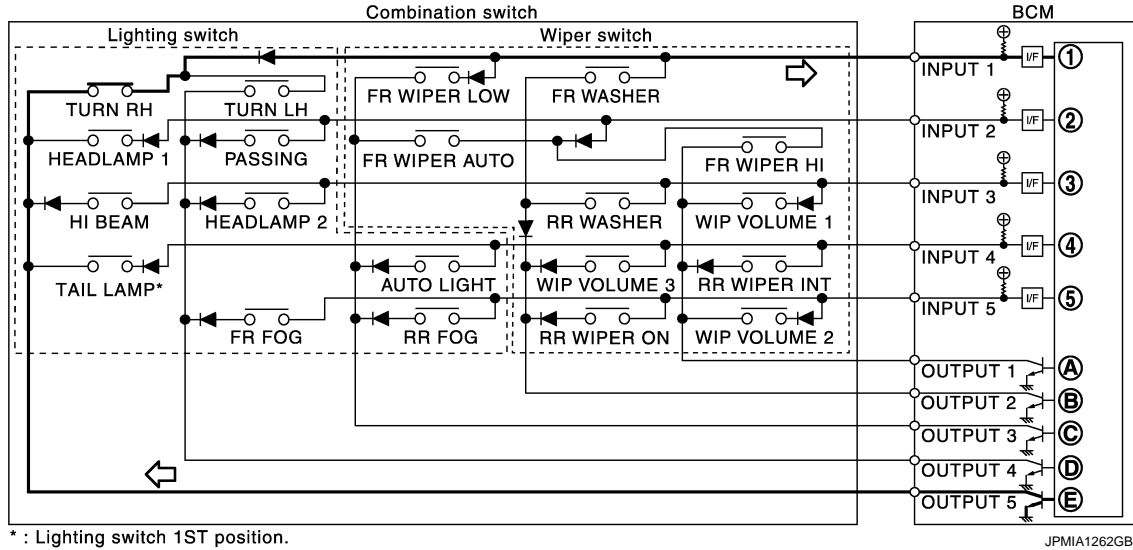
In the following operation example, the combination of the status signals of the combination switch is replaced as follows: INPUT 1 - 5 to "1 - 5" and OUTPUT 1 - 5 to "A - E".

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

COMBINATION SWITCH READING SYSTEM

< SYSTEM DESCRIPTION >

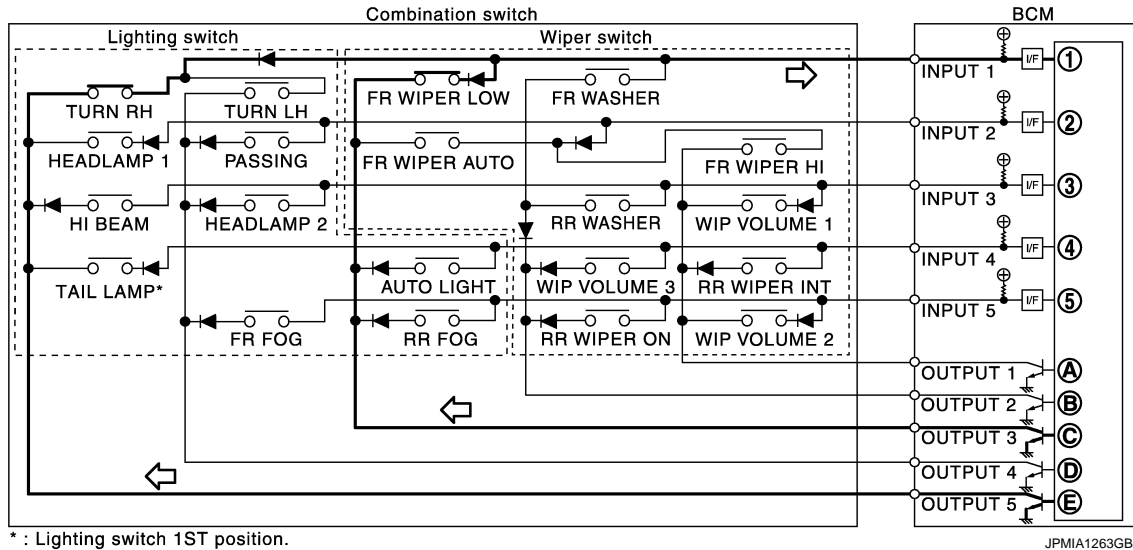
- The circuit between INPUT 1 and OUTPUT 5 is formed when the TURN RH switch is turned ON.



- BCM detects the combination switch status signal “1E” when the signal of OUTPUT 5 is input to INPUT 1.
- BCM judges that the TURN RH switch is ON when the signal “1E” is detected.

Example 2: When some switches (turn RH switch, front wiper LO switch) are turned ON

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



- BCM detects the combination switch status signal “1CE” when the signals of OUTPUT 3 and OUTPUT 5 are input to INPUT 1.
- BCM judges that the TURN RH switch and FR WIPER LOW switch are ON when the signal “1CE” is detected.

WIPER VOLUME DIAL POSITION

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

Wiper volume dial position	Switch status		
	WIP VOLUME 1	WIP VOLUME 2	WIP VOLUME 3
1	ON	ON	ON
2	ON	ON	OFF
3	ON	OFF	OFF
4	OFF	OFF	OFF
5	OFF	OFF	ON

COMBINATION SWITCH READING SYSTEM

< SYSTEM DESCRIPTION >

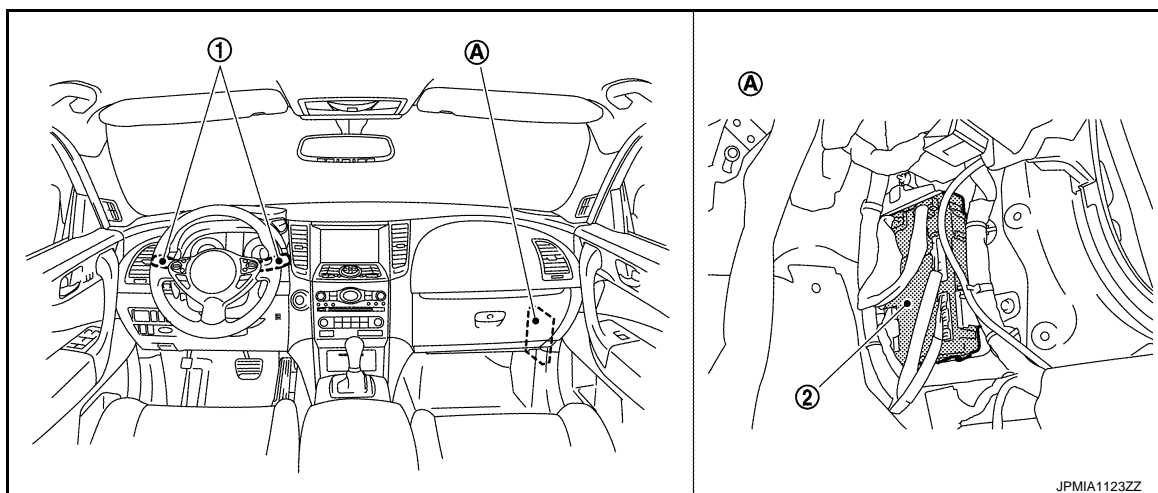
Wiper volume dial position	Switch status		
	WIP VOLUME 1	WIP VOLUME 2	WIP VOLUME 3
6	OFF	ON	ON
7	OFF	ON	OFF

NOTE:

For details of wiper volume dial position, refer to [WW-6. "System Description"](#).

Component Parts Location

INFOID:000000004957850



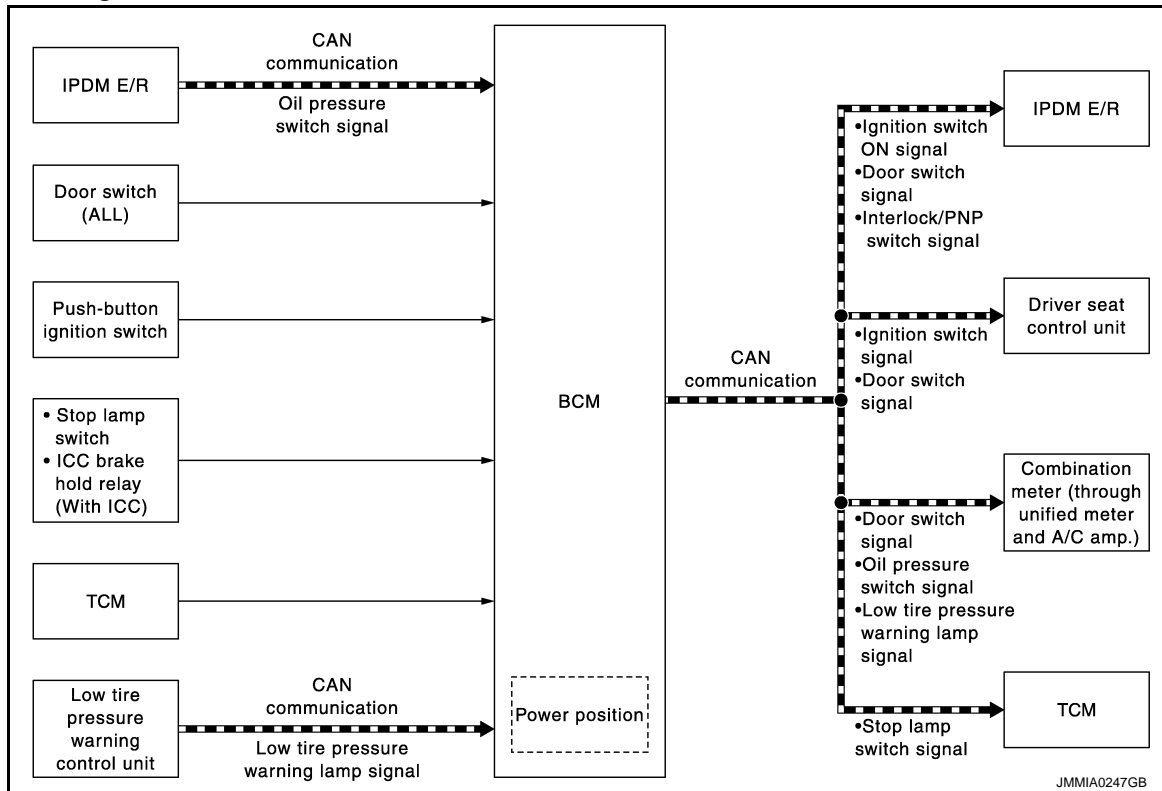
- 1. Combination switch
- 2. BCM
- A. Dash side lower (Passenger side)

SIGNAL BUFFER SYSTEM

< SYSTEM DESCRIPTION >

SIGNAL BUFFER SYSTEM

System Diagram



System Description

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 	Push-button ignition switch (Push switch)	<ul style="list-style-type: none"> IPDM E/R (CAN) Driver seat control unit (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 (through unified meter and A/C amp.) (CAN) IPDM E/R (CAN) Driver seat control unit (CAN) 	Inputs the door switch signal and transmits it via CAN communication.
Oil pressure switch signal	IPDM E/R (CAN)	Combination meter (through unified meter and A/C amp.) (CAN)	Transmits the received oil pressure switch signal via CAN communication.
Stop lamp switch signal	<ul style="list-style-type: none"> Stop lamp switch ICC brake hold relay (With ICC) 	TCM (CAN)	Inputs the stop lamp switch 1 signal and stop lamp switch 2 signal, and transmits it via CAN communication.

SIGNAL BUFFER SYSTEM

< SYSTEM DESCRIPTION >

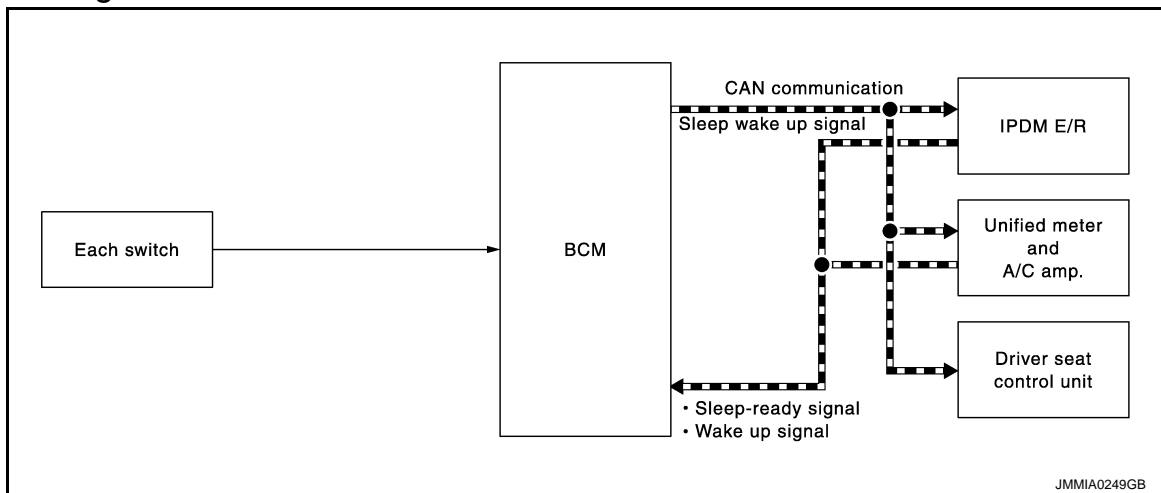
Signal name	Input	Output	Description
Interlock/PNP switch signal	TCM	IPDM E/R	Inputs the selector lever P/N position signal, and transmits the interlock/PNP switch signal via CAN communication.
Low tire pressure warning lamp signal	Low tire pressure warning control unit	Combination meter (through unified meter and A/C amp.) (CAN)	Transmits the received low tire pressure warning signal via CAN communication.

POWER CONSUMPTION CONTROL SYSTEM

< SYSTEM DESCRIPTION >

POWER CONSUMPTION CONTROL SYSTEM

System Diagram



System Description

INFOID:000000004957854

OUTLINE

- BCM incorporates a power saving control function that reduces the power consumption according to the vehicle status.
- BCM switches the status (control mode) by itself with the power saving control function. It performs the sleep request to each unit [IPDM E/R, combination meter (unified meter and A/C amp.) and driver seat control unit] 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 unified meter and A/C amp. via CAN communication.
- BCM transmits the sleep wake up signal (sleep) to each unit when all of the CAN sleep conditions are fulfilled.
- Each unit stops the transmission of CAN communication with the sleep wake up signal. BCM is in CAN communication sleep mode.
- BCM is in the low power consumption mode and perform the low power consumption control when all of the BCM sleep conditions are fulfilled with CAN sleep condition.

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BCS

POWER CONSUMPTION CONTROL SYSTEM

< SYSTEM DESCRIPTION >

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: Not operation • Warning chime: Not operation • Intelligent Key system buzzer: Not operation • Stop lamp switch: OFF • ICC brake hold relay (with ICC): OFF • Key slot (card switch) status: No change • Turn signal indicator lamp: Not operation • Exterior lamp: OFF • Door lock status: No change • CONSULT-III communication status: Not communication • Meter display signal: Non-transmission • Door switch status: No change • Rear window defogger: OFF • Sensor cancel switch status: No change 	<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 illumination: OFF • Infiniti Vehicle Immobilizer System (IVIS) - NATS: Not operation • Remote keyless entry receiver communication status: No communication • LOCK indicator lamp: OFF • ACC indicator lamp: OFF • ON indicator lamp: OFF • Door lock status indicator lamp: OFF

Wake-up operation

- BCM changes from the low power consumption mode to the CAN communication sleep mode when the 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 unified meter and A/C amp. transmits the wake up signal to BCM via CAN communication to report the CAN communication start.

Wake-up condition

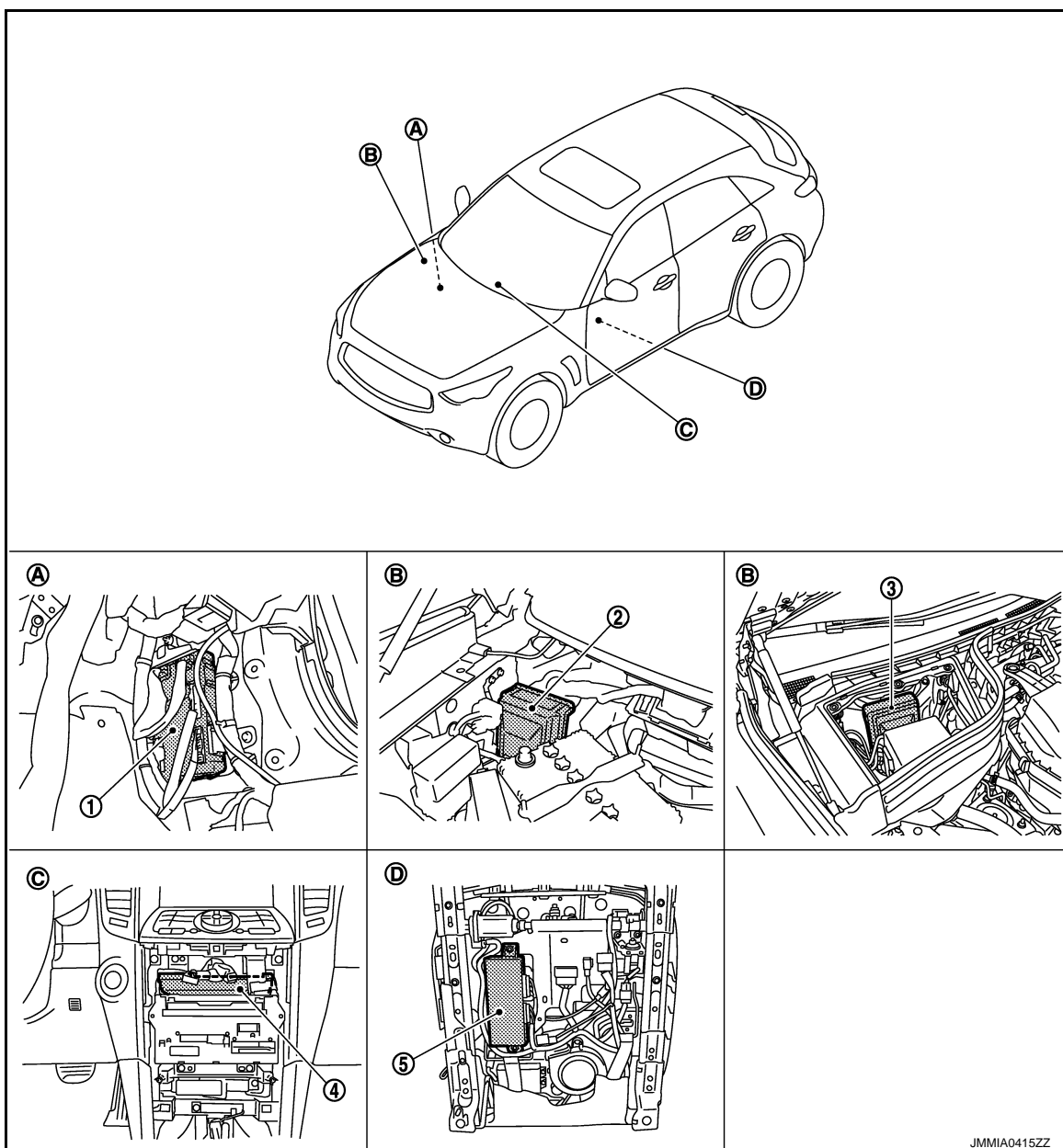
BCM wake-up condition	CAN wake-up condition
<ul style="list-style-type: none"> • Power window switch communication: Receiving • Remote keyless entry receiver: Receiving • Front door lock assembly driver side (unlock sensor): OFF → ON, ON → OFF • Sensor cancel switch: OFF → ON 	<ul style="list-style-type: none"> • Receiving the sleep-ready signal (Not-ready) from any units • Key slot (key switch): OFF → ON, ON → OFF • Push-button ignition switch (push switch): OFF → ON • Hazard switch: OFF → ON • HI BEAM switch: OFF → ON, ON → OFF • PASSING switch: OFF → ON, ON → OFF • HEADLAMP 1 switch: OFF → ON, ON → OFF • HEADLAMP 2 switch: OFF → ON, ON → OFF • TAIL LAMP switch: OFF → ON • FR FOG switch: OFF → ON, ON → OFF • RR FOG switch: OFF → ON • Driver door switch: OFF → ON, ON → OFF • Passenger door switch: OFF → ON, ON → OFF • Rear RH door switch: OFF → ON, ON → OFF • Rear LH door switch: OFF → ON, ON → OFF • Back door switch: OFF → ON, ON → OFF • Driver door request switch: OFF → ON • Passenger door request switch: OFF → ON • Back door opener request switch: OFF → ON • Stop lamp switch: ON • ICC brake hold relay (with ICC): ON • Clutch interlock switch: OFF → ON

POWER CONSUMPTION CONTROL SYSTEM

< SYSTEM DESCRIPTION >

Component Parts Location

INFOID:000000004957855



- | | | |
|---|--------------------------------------|------------------------------------|
| 1. BCM | 2. IPDM E/R (gasoline engine models) | 3. IPDM E/R (diesel engine models) |
| 4. Unified meter and A/C amp. | 5. Driver seat control unit | |
| A. Dash side lower (passenger side) | B. Engine room dash panel (RH) | C. Behind cluster lid C |
| D. Backside of the seat cushion (driver seat) | | |

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM : CONSULT-III Function (BCM - COMMON ITEM)

INFOID:000000004957856

APPLICATION ITEM

CONSULT-III performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
Work Support	Changes the setting for each system function.
Self Diagnostic Result	Displays the diagnosis results judged by BCM.
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from BCM. Refer to CONSULT-III operation manual.
Data Monitor	The BCM input/output signals are displayed.
Active Test	The signals used to activate each device are forcibly supplied from BCM.
Ecu Identification	The BCM part number is displayed.
Configuration	<ul style="list-style-type: none"> Read and save the vehicle specification. Write the vehicle specification when replacing BCM.

SYSTEM APPLICATION

BCM can perform the following functions for each system.

NOTE:

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

×: Applicable item

System	Sub system selection item	Diagnosis mode		
		Work Support	Data Monitor	Active Test
Door lock	DOOR LOCK	×	×	×
Rear window defogger	REAR DEFOGGER		×	×
Warning chime	BUZZER		×	×
Interior room lamp timer	INT LAMP	×	×	×
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER		×	×
Turn signal and hazard warning lamps	FLASHER	×	×	×
—	AIR CONDITONER*			
<ul style="list-style-type: none"> Intelligent Key system Engine start system 	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
Body control system	BCM	×		
IVIS - NATS	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Back door open	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×

NOTE:

*: This item is displayed, but is not used.

FREEZE FRAME DATA (FFD)

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

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

CONSULT screen item	Indication/Unit	Description		
Vehicle Speed	km/h	Vehicle speed of the moment a particular DTC is detected		A
Odo/Trip Meter	km	Total mileage (Odometer value) of the moment a particular DTC is detected		
Vehicle Condition	SLEEP>LOCK	Power position status of the moment a particular DTC is detected	While turning BCM status from low power consumption mode to normal mode (Power supply position is "LOCK".)	B
	SLEEP>OFF		While turning BCM status from low power consumption mode to normal mode (Power supply position is "OFF".)	C
	LOCK>ACC		While turning power supply position from "LOCK" to "ACC"	
	ACC>ON		While turning power supply position from "ACC" to "IGN"	D
	RUN>ACC		While turning power supply position from "RUN" to "ACC" (Vehicle is stopping and selector lever is except P position.)	
	CRANK>RUN		While turning power supply position from "CRANKING" to "RUN" (From cranking up the engine to run it)	E
	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"	F
	OFF>LOCK		While turning power supply position from "OFF" to "LOCK"	
	OFF>ACC		While turning power supply position from "OFF" to "ACC"	G
	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	H
	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 with steering is locked.)	I
	OFF		Power supply position is "OFF" (Ignition switch OFF with steering is unlocked.)	J
	ACC		Power supply position is "ACC" (Ignition switch ACC)	
	ON		Power supply position is "IGN" (Ignition switch ON with engine stopped)	K
	ENGINE RUN		Power supply position is "RUN" (Ignition switch ON with engine running)	
	CRANKING		Power supply position is "CRANKING" (At engine cranking)	L
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 switch OFF → ON. • The number is fixed to 39 until the self-diagnosis results are erased if it is over 39. 		BCS

DOOR LOCK

DOOR LOCK : CONSULT-III Function (BCM - DOOR LOCK)

INFOID:0000000005459723

WORK SUPPORT

Monitor item	Description
DOOR LOCK-UNLOCK SET	Anti-hijack function mode can be changed to operate (ON) or not operate (OFF) with this mode.
AUTOMATIC DOOR LOCK SELECT	Automatic door lock function mode can be selected from the following with this mode. <ul style="list-style-type: none"> • VH SPD: All doors are locked when vehicle speed more than 5 MPH (10 km/h) • P RANGE: All doors are locked when shifting the selector lever from P position to other than the P position

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

Monitor item	Description
AUTOMATIC DOOR UNLOCK SELECT	Automatic door unlock function mode can be selected from the following with this mode. <ul style="list-style-type: none"> • MODE 1: All doors are unlocked when the power supply position is changed from ON to OFF • MODE 2: All doors are unlocked when shifting the selector lever from any position other than the P to P position • MODE 3: Driver side door is unlocked when the power supply position is changed from ON to OFF • MODE 4: Driver side door is unlocked when shifting the selector lever from any position other than the P to P position
AUTOMATIC LOCK/UNLOCK SET	Automatic door lock/unlock function mode can be selected from the following with this mode. <ul style="list-style-type: none"> • Off: non-operational • Unlock Only: door unlock operation only • Lock Only: door lock operation only • Lock/Unlock: lock/unlock operation

DATA MONITOR

Monitor Item	Contents
REQ SW-DR	Indicated [ON/OFF] condition of door request switch (driver side).
REQ SW-AS	Indicated [ON/OFF] condition of door request switch (passenger side).
REQ SW-BD/TR	Indicated [ON/OFF] condition of back door opener request switch.
DOOR SW-DR	Indicated [ON/OFF] condition of front door switch (driver side).
DOOR SW-AS	Indicated [ON/OFF] condition of front door switch (passenger side).
DOOR SW-RR	Indicated [ON/OFF] condition of rear door switch RH.
DOOR SW-RL	Indicated [ON/OFF] condition of rear door switch LH.
DOOR SW-BK	Indicated [ON/OFF] condition of back door switch.
CDL LOCK SW	Indicated [ON/OFF] condition of lock signal from door lock unlock switch.
CDL UNLOCK SW	Indicated [ON/OFF] condition of unlock signal from door lock unlock switch.
KEY CYL LK-SW	NOTE: This item is displayed, but cannot be monitored.
KEY CYL UN-SW	NOTE: This item is displayed, but cannot be monitored.

ACTIVE TEST

Test item	Description
DOOR LOCK	This test is able to check door lock/unlock operation. <ul style="list-style-type: none"> • The all door lock actuators are locked when "ALL LCK" on CONSULT-III screen is touched. • The all door lock actuators are unlocked when "ALL UNLK" on CONSULT-III screen is touched. • The door lock actuator (driver side) is unlocked when "DR UNLK" on CONSULT-III screen is touched. • The door lock actuator (passenger side) is unlocked when "AS UNLK" on CONSULT- III screen is touched. • The door lock actuator (rear LH and RH) is unlocked when "OTR ULK" on CONSULT-III screen is touched.
SUPER LOCK*	This test is able to check super lock actuator operation. <ul style="list-style-type: none"> • The all super lock actuators are set when "LOCK" on CONSULT-III screen is touched. • The all super lock actuators are released when "UNLOCK" on CONSULT-III screen is touched.
DOOR LOCK IND	This test is able to check door lock status indicator operation [ON/OFF].

*: With super lock models

REAR WINDOW DEFOGGER

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

INFOID:000000005459734

Data monitor

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

Monitor Item	Description
REAR DEF SW	This is displayed even when it is not equipped.
PUSH SW	Indicates [ON/OFF] condition of push switch.

ACTIVE TEST

Test Item	Description
REAR DEFOGGER	This test is able to check rear window defogger operation. Rear window defogger operates when "ON" on CONSULT-III screen is touched.

BUZZER

BUZZER : CONSULT-III Function (BCM - BUZZER)

INFOID:000000005459735

CONSULT-III APPLICATION ITEMS

Test item	Diagnosis mode	Description
BUZZER	Data Monitor	Displays BCM input data in real time.
	Active Test	Operation of electrical loads can be checked by sending driving signal to them.

DATA MONITOR

Display item [Unit]	Description
PUSH SW [On/Off]	Status of push button ignition switch judged by BCM.
UNLK SEN-DR [On/Off]	Status of unlock sensor judged by BCM.
VEH SPEED 1 [Km/h or mph]	Value of vehicle speed signal received from ABS actuator and electric unit (control unit) with CAN communication line.
KEY SW-SLOT [On/Off]	Status of key slot judged by BCM.
TAIL LAMP SW [On/Off]	Status of each switch judged by BCM using the combination switch readout function.
FR FOG SW [On/Off]	Status of front fog lamp switch judged by BCM.
DOOR SW-DR [On/Off]	Status of driver side door switch judged by BCM.

ACTIVE TEST

Display item [Unit]	Description
IGN KEY WARN ALM	The key warning chime operation can be checked by operating the relevant function (On/Off).
SEAT BELT WARN TEST	The seat belt warning chime operation can be checked by operating the relevant function (On/Off).
LIGHT WARN ALM	The light warning chime operation can be checked by operating the relevant function (On/Off).

INT LAMP

INT LAMP : CONSULT-III Function (BCM - INT LAMP)

INFOID:000000005459731

WORK SUPPORT

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

Service item	Setting item	Setting	
SET I/L D-UNLCK INTCON	On*	Interior room lamps link with door unlock. (Interior room lamp timer function)	
	Off	Interior room lamps do not link with door unlock.	
ROOM LAMP TIMER SET	MODE 2	7.5 sec.	Interior room lamp ON time after door are unlocked.
	MODE 3*	15 sec.	
	MODE 4	30 sec.	
ROOM LAMP ON TIME SET	MODE 1	NOTE: The item is indicated, but not used.	
	MODE 2		
	MODE 3		
	MODE 4		
	MODE 5*		
ROOM LAMP OFF TIME SET	MODE 1	NOTE: The item is indicated, but not used.	
	MODE 2		
	MODE 3		
	MODE 4		
	MODE 5*		
R LAMP TIMER LOGIC SET	MODE 1*	Interior room lamp timer activates by synchronizing all doors.	
	MODE 2	Interior room lamp timer activates by synchronizing the driver door only.	

*: Factory setting

DATA MONITOR

Monitor item [Unit]	Description
REQ SW-DR [On/Off]	The switch status input from request switch (driver side)
REQ SW-AS [On/Off]	The switch status input from request switch (passenger side)
REQ SW-RR [On/Off]	NOTE: The item is indicated, but not monitored.
REQ SW-RL [On/Off]	
PUSH SW [On/Off]	The switch status input from push-button ignition switch
ACC RLY-F/B [On/Off]	NOTE: The item is indicated, but not monitored.
UNLK SEN-DR [On/Off]	Driver door unlock status input from unlock sensor
KEY SW-SLOT [On/Off]	Key switch status input from key slot
DOOR SW-DR [On/Off]	The switch status input from front door switch (driver side)
DOOR SW-AS [On/Off]	The switch status input from front door switch (passenger side)
DOOR SW-RR [On/Off]	The switch status input from rear door switch (RH)
DOOR SW- RL [On/Off]	The switch status input from rear door switch (LH)

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description
DOOR SW-BK [On/Off]	The switch status input from back door switch
CDL LOCK SW [On/Off]	Lock switch status received from central door lock/unlock switch by power window switch serial link
CDL UNLOCK SW [On/Off]	Unlock switch status received from central door lock/unlock switch by power window switch serial link
KEY CYL LK-SW [On/Off]	NOTE: The item is indicated, but not monitored.
KEY CYL UN-SW [On/Off]	
TRNK/HAT MNTR [On/Off]	The switch status input from trunk room lamp switch
RKE-LOCK [On/Off]	Lock signal status received from remote keyless entry receiver
RKE-UNLOCK [On/Off]	Unlock signal status received from remote keyless entry receiver

ACTIVE TEST

Test item	Operation	Description
INT LAMP	On	Outputs the room lamp timer signal to the total illumination control unit to activate interior room lamps. (Hospitality lighting functioning table "Scene 1")
	Off	Stops the room lamp timer signal.
STEP LAMP TEST	On	Outputs the step lamp control signal to turn step lamp ON.
	Off	Stops the step lamp control signal to turn step lamp OFF.
LUGGAGE LAMP TEST	On	NOTE: The item is indicated, but not used.
	Off	

HEADLAMP

HEADLAMP : CONSULT-III Function (BCM - HEAD LAMP)

INFOID:000000005459729

WORK SUPPORT

Service item	Setting item	Setting
CUSTOM A/LIGHT SETTING	MODE 1*	Normal
	MODE 2	More sensitive setting than normal setting (Turns ON earlier than normal operation.)
	MODE 3	More sensitive setting than MODE 2 (Turns ON earlier than MODE 2.)
	MODE 4	Less sensitive setting than normal setting (Turns ON later than normal operation.)
BATTERY SAVER SET	On*	With the exterior lamp battery saver function
	Off	Without the exterior lamp battery saver function

*: Factory setting

NOTE:

When performed "RESET SETTING VALUE" on "Work Support (BCM - BCM)", set "BATTERY SAVER SET" on "Work Support (BCM - HEADLAMP)" to "On".

DATA MONITOR

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description
PUSH SW [On/Off]	The switch status input from push-button ignition switch
ENGINE STATE [Stop/Stall/Crank/Run]	The engine status received from ECM with CAN communication
VEH SPEED 1 [km/h]	The value of the vehicle speed received from unified meter and A/C amp. with CAN communication
KEY SW-SLOT [On/Off]	Key switch status input from key slot
TURN SIGNAL R [On/Off]	Each switch status that BCM judges from the combination switch reading function
TURN SIGNAL L [On/Off]	
TAIL LAMP SW [On/Off]	
HI BEAM SW [On/Off]	
HEAD LAMP SW1 [On/Off]	
HEAD LAMP SW2 [On/Off]	
PASSING SW [On/Off]	
AUTO LIGHT SW [On/Off]	
FR FOG SW [On/Off]	
RR FOG SW [On/Off]	
DOOR SW-DR [On/Off]	The switch status input from front door switch (driver side)
DOOR SW-AS [On/Off]	The switch status input from front door switch (passenger side)
DOOR SW-RR [On/Off]	The switch status input from rear door switch RH
DOOR SW- RL [On/Off]	The switch status input from rear door switch LH
DOOR SW-BK [On/Off]	NOTE: The item is indicated, but not monitored.
OPTICAL SENSOR [V]	NOTE: The item is indicated, but not monitored.

ACTIVE TEST

Test item	Operation	Description
TAIL LAMP	On	Transmits the position light request signal to IPDM E/R with CAN communication to turn the tail lamp ON.
	Off	Stops the position light request signal transmission.

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

Test item	Operation	Description
HEAD LAMP	Hi	Transmits the high beam request signal with CAN communication to turn the headlamp (HI).
	Low	Transmits the low beam request signal with CAN communication to turn the headlamp (LO).
	Off	Stops the high & low beam request signal transmission.
FR FOG LAMP	On	Transmits the front fog light request signal to IPDM E/R with CAN communication to turn the front fog lamp ON.
	Off	Stops the front fog light request signal transmission.
RR FOG LAMP	On	<ul style="list-style-type: none"> Outputs the voltage to turn the rear fog lamp ON. Transmits the rear fog lamp status signal to the combination meter with CAN communication to turn the rear fog lamp indicator lamp ON.
	Off	<ul style="list-style-type: none"> Stops the voltage to turn the rear fog lamp OFF. Stops the rear fog lamp status signal transmission.
DAYTIME RUNNING LIGHT	On	Transmits the low beam request signal and the daytime running light request signal with CAN communication to turn the headlamp (LO), parking, license plate and tail lamps ON.
	Off	Stops the low beam request signal and the daytime running light request signal transmission.
CORNERING LAMP	RH	NOTE: The item is indicated, but cannot be tested.
	LH	
	Off	
ILL DIM SIGNAL	On	NOTE: The item is indicated, but cannot be tested.
	Off	

WIPER

WIPER : CONSULT-III Function (BCM - WIPER)

INFOID:000000005459733

DATA MONITOR

Monitor Item [Unit]	Description
PUSH SW [Off/On]	The switch status input from push-button ignition switch.
VEHICLE SPEED 1 [km/h]	The value of the vehicle speed signal received from unified meter and A/C amp. with CAN communication.
FR WIPER HI [Off/On]	Each switch status that BCM judges from the combination switch reading function.
FR WIPER LOW [Off/On]	
FR WASHER SW [Off/On]	
FR WIPER INT [Off/On]	
FR WIPER STOP [Off/On]	Front wiper motor (stop position) status received from IPDM E/R with CAN communication.
INT VOLUME [1 - 7]	Each switch status that BCM judges from the combination switch reading function.

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

Monitor Item [Unit]	Description
RR WIPER ON [Off/On]	Each switch status that BCM judges from the combination switch reading function.
RR WIPER INT [Off/On]	
RR WASHER SW [Off/On]	
RR WIPER STOP [Off/On]	Rear wiper motor (stop position) status input from the rear wiper motor.

ACTIVE TEST

Test item	Operation	Description
FR WIPER	Hi	Transmits the front wiper request signal (HI) to IPDM E/R with CAN communication to operate the front wiper HI operation.
	Lo	Transmits the front wiper request signal (LO) to IPDM E/R with CAN communication to operate the front wiper LO operation.
	INT	Transmits the front wiper request signal (INT) to IPDM E/R with CAN communication to operate the front wiper INT operation.
	Off	Stops transmitting the front wiper request signal to stop the front wiper operation.
RR WIPER	On	Outputs the voltage to operate the rear wiper motor.
	Off	Stops the voltage to stop.
HEADLAMP WASHER	On	Transmits the headlamp washer request signal to IPDM E/R with CAN communication to operate the headlamp washer operation.

FLASHER

FLASHER : CONSULT-III Function (BCM - FLASHER)

INFOID:000000005459730

WORK SUPPORT

Service item	Setting item	Setting	
HAZARD ANSWER BACK	Lock/Unlk*	With locking/unlocking	Sets the hazard warning lamp answer back function when the door is lock/unlock with the request switch or the key fob.
	Unlk Only	With unlocking only	
	Lock Only	With locking only	
	Off	Without the function	

*: Factory setting

DATA MONITOR

Monitor item [Unit]	Description
REQ SW-DR [On/Off]	The switch status input from the request switch (driver side)
REQ SW-AS [On/Off]	The switch status input from the request switch (passenger side)
PUSH SW [On/Off]	The switch status input from the push-button ignition switch
TURN SIGNAL R [On/Off]	Each switch condition that BCM judges from the combination switch reading function
TURN SIGNAL L [On/Off]	

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description
HAZARD SW [On/Off]	The switch status input from the hazard switch
RKE-LOCK [On/Off]	Lock signal status received from the remote keyless entry receiver
RKE-UNLOCK [On/Off]	Unlock signal status received from the remote keyless entry receiver
RKE-PANIC [On/Off]	Panic alarm signal status received from the remote keyless entry receiver

ACTIVE TEST

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

INTELLIGENT KEY

INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY)

INFOID:000000005459724

WORK SUPPORT

Monitor item	Description
CONFIRM KEY FOB ID	It can be checked whether Intelligent Key ID code is registered or not in this mode.
AUTO LOCK SET	Auto door lock time can be changed in this mode. <ul style="list-style-type: none"> • MODE 1: 1 minute • MODE 2: 5 minutes • MODE 3: 30 seconds • MODE 4: 2 minutes
WELCOME LIGHT OP SET	Welcome light function mode can be changed to operate (ON) or not operate (OFF) with this mode.
LOCK/UNLOCK BY I-KEY	Door lock/unlock function by door request switch (driver side, passenger side and back door) mode can be changed to operate (ON) or not operate (OFF) in this mode.
ENGINE START BY I-KEY	Engine start function mode can be changed to operate (ON) or not operate (OFF) with this mode.
TRUNK/GLASS HATCH OPEN	NOTE: This item is displayed, but cannot be supported.
PANIC ALARM SET	NOTE: This item is displayed, but cannot be supported.
PW DOWN SET	Unlock button pressing time on Intelligent Key button can be selected from the following with this mode. <ul style="list-style-type: none"> • MODE 1: 3 sec. • MODE 2: Non-operation • MODE 3: 5 sec.
TRUNK OPEN DELAY	NOTE: This item is displayed, but cannot be supported.
LO- BATT OF KEY FOB WARN	Intelligent Key low battery warning mode can be changed to operate (ON) or not operate (OFF) with this mode.
KEYLESS FUNCTION	Intelligent Key/remote keyless function can be changed to operate (ON) or not operate (OFF) with this mode.
ANTI KEY LOCK IN FUNCTI	Key reminder function mode can be changed to operate (ON) or not operate (OFF) with this mode.

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

Monitor item	Description
HAZARD ANSWER BACK	Hazard reminder function mode can be selected from the following with this mode. <ul style="list-style-type: none"> • LOCK ONLY: Door lock operation only • UNLOCK ONLY: Door unlock operation only • LOCK/UNLOCK: Lock/unlock operation • OFF: Non-operation
SHORT CRANKING OUTPUT	Starter motor can operate during the times below. <ul style="list-style-type: none"> • 70 msec. • 100 msec. • 200 msec.
INSIDE ANT DIAGNOSIS	This function allows inside key antenna self-diagnosis.
WELCOME LIGHT SELECT	Welcome light function mode can be selected from the following with this mode. <ul style="list-style-type: none"> • Puddle Lamp • Room Lamp • Head & Tail Lamps (This item is displayed, but can not be supported.) • Outside Handle (This item is displayed, but can not be supported.)

SELF-DIAG RESULT

Refer to [DLK-169, "DTC Index"](#).

DATA MONITOR

Monitor Item	Condition
REQ SW -DR	Indicates [ON/OFF] condition of door request switch (driver side).
REQ SW -AS	Indicates [ON/OFF] condition of door request switch (passenger side).
REQ SW -BD/TR	Indicates [ON/OFF] condition of back door opener request switch.
PUSH SW	Indicates [ON/OFF] condition of push-button ignition switch.
IGN RLY2 -F/B	Indicates [ON/OFF] condition of ignition relay 2.
ACC RLY -F/B	NOTE: This item is displayed, but cannot be monitored.
CLUCH SW	NOTE: This item is displayed, but cannot be monitored.
BRAKE SW 1	Indicates [ON/OFF]* condition of brake switch.
BRAKE SW 2	Indicates [On/Off] condition of brake switch
DETE/CANCL SW	Indicates [ON/OFF] condition of P position.
SFT PN/N SW	Indicates [ON/OFF] condition of P or N position.
S/L -LOCK	Indicates [ON/OFF] condition of steering lock unit (LOCK).
S/L -UNLOCK	Indicates [ON/OFF] condition of steering lock unit (UNLOCK).
S/L RELAY -F/B	Indicates [ON/OFF] condition of ignition switch.
UNLK SEN -DR	Indicates [ON/OFF] condition of driver door UNLOCK status.
PUSH SW -IPDM	Indicates [ON/OFF] condition of push-button ignition switch.
IGN RLY1 -F/B	Indicates [ON/OFF] condition of ignition relay 1.
DETE SW -IPDM	Indicates [ON/OFF] condition of P position.
SFT PN -IPDM	Indicates [ON/OFF] condition of P or N position.
SFT P -MET	Indicates [ON/OFF] condition of P position.
SFT N -MET	Indicates [ON/OFF] condition of N position.
ENGINE STATE	Indicates [STOP/START/CRANK/RUN] condition of engine states.
S/L LOCK-IPDM	Indicates [ON/OFF] condition of steering lock unit (LOCK).
S/L UNLK-IPDM	Indicates [ON/OFF] condition of steering lock unit (UNLOCK).
S/L RELAY-REQ	Indicates [ON/OFF] condition of steering lock relay.
VEH SPEED 1	Display the vehicle speed signal received from unified meter and A/C amp. by numerical value [Km/h].

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

Monitor Item	Condition
VEH SPEED 2	Display the vehicle speed signal received from ABS or VDC by numerical value [Km/h].
DOOR STAT-DR	Indicates [LOCK/READY/UNLOCK] condition of driver side door status.
DOOR STAT-AS	Indicates [LOCK/READY/UNLOCK] condition of passenger side door status.
ID OK FLAG	Indicates [SET/RESET] condition of key ID.
PRMT ENG STRT	Indicates [SET/RESET] condition of engine start possibility.
PRMT RKE STRT	NOTE: This item is displayed, but cannot be monitored.
KEY SW -SLOT	Indicates [ON/OFF] condition of key slot.
TRNK/HAT MNTR	NOTE: This item is displayed, but cannot be monitored.
RKE-LOCK	Indicates [ON/OFF] condition of LOCK signal from Intelligent Key.
RKE-UNLOCK	Indicates [ON/OFF] condition of UNLOCK signal from Intelligent Key.
RKE-TR/BD	NOTE: This item is displayed, but cannot be monitored.
RKE-PANIC	NOTE: This item is displayed, but cannot be monitored.
RKE-P/W OPEN	Indicates [ON/OFF] condition of P/W DOWN signal from Intelligent Key.
RKE-MODE CHG	Indicates [ON/OFF] condition of MODE CHANGE signal from Intelligent Key.
RKE OPE COUN1	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing.
RKE OPE COUN2	NOTE: This item is displayed, but cannot be monitored.
REVERSE SW	NOTE: This item is displayed, but cannot be monitored.

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

ACTIVE TEST

Test item	Description
BATTERY SAVER	This test is able to check interior room lamp operation. The interior room lamp will be activated after "ON" on CONSULT-III screen is touched.
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation. The Intelligent Key warning buzzer will be activated after "ON" on CONSULT-III screen is touched.
INSIDE BUZZER	This test is able to check warning chime in combination meter operation. <ul style="list-style-type: none"> Take away warning chime sounds when "TAKE OUT" on CONSULT-III screen is touched. Key warning chime sounds when "KEY" on CONSULT-III screen is touched. P position warning chime sounds when "KNOB" on CONSULT-III screen is touched.
INDICATOR	This test is able to check warning lamp operation. <ul style="list-style-type: none"> KEY warning lamp illuminates when "KEY ON" on CONSULT-III screen is touched. KEY Warning lamp flashes when "KEY IND" on CONSULT-III screen is touched.
INT LAMP	This test is able to check interior room lamp operation. The interior room lamp will be activated after "ON" on CONSULT-III screen is touched.

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

Test item	Description
LCD	<p>This test is able to check meter display information</p> <ul style="list-style-type: none"> • Engine start information displays when "BP N" on CONSULT-III screen is touched. • Engine start information displays when "BP I" on CONSULT-III screen is touched. • Key ID warning displays when "ID NG" on CONSULT-III screen is touched. • Steering lock information displays when "ROTAT" on CONSULT-III screen is touched. • P position warning displays when "SFT P" on CONSULT-III screen is touched. • Intelligent Key insert information displays when "INSRT" on CONSULT-III screen is touched. • Intelligent Key low battery warning displays when "BATT" on CONSULT-III screen is touched. • Take away warning displays when "NO KY" on CONSULT-III screen is touched. • Key warning displays when "OUTKY" on CONSULT-III screen is touched. • OFF position warning displays when "LK WN" on CONSULT-III screen is touched.
TRUNK/GLASS HATCH	<p>NOTE: This item is displayed, but cannot be monitored.</p>
FLASHER	<p>This test is able to check security hazard lamp operation. The hazard lamps will be activated after "ON" on CONSULT-III screen is touched.</p>
P RANGE	<p>This test is able to check A/T shift selector power supply A/T shift selector power is supplied when "ON" on CONSULT-III screen is touched.</p>
ENGINE SW ILLUMI	<p>This test is able to check push-ignition switch illumination operation. Push-ignition switch illumination illuminates when "ON" on CONSULT-III screen is touched.</p>
LOCK INDICATOR	<p>This test is able to check LOCK indicator (push-ignition switch) operation. Indicator in push-ignition switch illuminates when "ON" on CONSULT-III screen is touched.</p>
ACC INDICATOR	<p>This test is able to check ACC indicator (push-ignition switch) operation. Indicator in push-ignition switch illuminates when "ON" on CONSULT-III screen is touched.</p>
IGNITION ON IND	<p>This test is able to check ON indicator (push-ignition switch) operation. Indicator in push-ignition switch illuminates when "ON" on CONSULT-III screen is touched.</p>
KEY SLOT ILLUMI	<p>This test is able to check key slot illumination operation. Key slot illumination flash when "ON" on CONSULT-III screen is touched.</p>
TRUNK/BACK DOOR	<p>NOTE: This item is displayed, but cannot be monitored.</p>
KEYLESS PW UP/DOWN	<p>This test is able to check power window up/down operation. The power window up/down is activated after "Up/Down" on CONSULT-III screen is touched.</p>

COMB SW

COMB SW : CONSULT-III Function (BCM - COMB SW)

INFOID:000000004957865

DATA MONITOR

Monitor item [UNIT]	Description
FR WIPER HI [Off/On]	Displays the status of the FR WIPER HI switch in combination switch judged by BCM with the combination switch reading function.
FR WIPER LOW [Off/On]	Displays the status of the FR WIPER LOW switch in combination switch judged by BCM with the combination switch reading function.
FR WASHER SW [Off/On]	Displays the status of the FR WASHER switch in combination switch judged by BCM with the combination switch reading function.
FR WIPER INT [Off/On]	Displays the status of the FR WIPER AUTO switch in combination switch judged by BCM with the combination switch reading function.
FR WIPER STOP [Off/On]	Displays the status of the front wiper stop position signal received from IPDM E/R via CAN communication.
INT VOLUME [1 - 7]	Displays the status of wiper volume dial position judged by BCM with the combination switch reading function.
RR WIPER ON [Off/On]	Displays the status of the RR WIPER ON switch in combination switch judged by BCM with the combination switch reading function.
RR WIPER INT [Off/On]	Displays the status of the RR WIPER INT switch in combination switch judged by BCM with the combination switch reading function.

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

Monitor item [UNIT]	Description
RR WASHER SW [Off/On]	Displays the status of the RR WASHER switch in combination switch judged by BCM with the combination switch reading function.
RR WIPER STOP [Off/On]	Displays the status of the rear wiper stop position signal received from rear wiper motor.
TURN SIGNAL R [Off/On]	Displays the status of the TURN RH switch in combination switch judged by BCM with the combination switch reading function.
TURN SIGNAL L [Off/On]	Displays the status of the TURN LH switch in combination switch judged by BCM with the combination switch reading function.
TAIL LAMP SW [Off/On]	Displays the status of the TAIL LAMP switch in combination switch judged by BCM with the combination switch reading function.
HI BEAM SW [Off/On]	Displays the status of the HI BEAM switch in combination switch judged by BCM with the combination switch reading function.
HEAD LAMP SW 1 [Off/On]	Displays the status of the HEADLAMP 1 switch in combination switch judged by BCM with the combination switch reading function.
HEAD LAMP SW 2 [Off/On]	Displays the status of the HEADLAMP 2 switch in combination switch judged by BCM with the combination switch reading function.
PASSING SW [Off/On]	Displays the status of the PASSING switch in combination switch judged by BCM with the combination switch reading function.
AUTO LIGHT SW [Off/On]	Displays the status of the AUTO LIGHT switch in combination switch judged by BCM with the combination switch reading function.
FR FOG SW [Off/On]	Displays the status of the FR FOG switch in combination switch judged by BCM with the combination switch reading function.
RR FOG SW [Off/On]	Displays the status of the RR FOG switch in combination switch judged by BCM with the combination switch reading function.

BCM

BCM : CONSULT-III Function (BCM - BCM)

INFOID:000000004957866

WORK SUPPORT

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

NOTE:

When performed "RESET SETTING VALUE" on "Work Support (BCM - BCM)", set "BATTERY SAVER SET" on "Work Support (BCM - HEAD LAMP)" to "On".

IMMU

IMMU : CONSULT-III Function (BCM - IMMU)

INFOID:0000000005459727

APPLICATION ITEM

CONSULT-III performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
DATA MONITOR	The BCM input/output signals are displayed.
ACTIVE TEST	The signals used to activate each device are forcibly supplied from BCM.

DATA MONITOR

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

Monitor item	Content
CONFIRM ID ALL	Indicates [YET] at all time. Switches to [DONE] when a registered Intelligent Key is inserted into the key slot.
CONFIRM ID4	
CONFIRM ID3	
CONFIRM ID2	
CONFIRM ID1	
TP 4	Indicates the number of IDs that are registered.
TP 3	
TP 2	
TP 1	
PUSH SW	Indicates [ON/OFF] condition of push-button ignition switch.
KEY SW -SLOT	Indicates [ON/OFF] condition of key slot.

ACTIVE TEST

Test item	Description
THEFT IND	This test is able to check security indicator lamp operation. The lamp is turned on when "ON" on CONSULT-III screen touched.

BATTERY SAVER

BATTERY SAVER : CONSULT-III Function (BCM - BATTERY SAVER)

INFOID:000000005459732

WORK SUPPORT

Service item	Setting item	Setting	
ROOM LAMP BAT SAV SET	On*	With the interior room lamp battery saver function	
	Off	Without the interior room lamp battery saver function	
ROOM LAMP TIMER SET	MODE 1*	30 min.	Sets the interior room lamp battery saver timer operating time.
	MODE 2	60 min.	
BATTERY SAVER SET	On*	With the exterior lamp battery saver function	
	Off	Without the exterior lamp battery saver function	

*: Factory setting

DATA MONITOR

Monitor item [Unit]	Description
REQ SW-DR [On/Off]	The switch status input from request switch (driver side)
REQ SW-AS [On/Off]	The switch status input from request switch (passenger side)
REQ SW-RR [On/Off]	NOTE: The item is indicated, but not monitored.
REQ SW-RL [On/Off]	
PUSH SW [On/Off]	The switch status input from push-button ignition switch
ACC RLY -F/B [On/Off]	NOTE: The item is indicated, but not monitored.
UNLK SEN-DR [On/Off]	Driver door unlock status input from unlock sensor

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description
KEY SW-SLOT [On/Off]	Key switch status input from key slot
DOOR SW-DR [On/Off]	The switch status input from front door switch (driver side)
DOOR SW-AS [On/Off]	The switch status input from front door switch (passenger side)
DOOR SW-RR [On/Off]	The switch status input from rear door switch (RH)
DOOR SW- RL [On/Off]	The switch status input from rear door switch (LH)
DOOR SW-BK [On/Off]	The switch status input from back door switch
CDL LOCK SW [On/Off]	Lock switch status received from central door lock/unlock switch by power window switch serial link
CDL UNLOCK SW [On/Off]	Unlock switch status received from central door lock/unlock switch by power window switch serial link
KEY CYL LK-SW [On/Off]	NOTE: The item is indicated, but not monitored.
KEY CYL UN-SW [On/Off]	
TRNK/HAT MNTR [On/Off]	The switch status input from trunk room lamp switch
RKE-LOCK [On/Off]	Lock signal status received from remote keyless entry receiver
RKE-UNLOCK [On/Off]	Unlock signal status received from remote keyless entry receiver

ACTIVE TEST

Test item	Operation	Description
BATTERY SAVER	Off	Cuts the interior room lamp power supply (battery saver signal).
	On	Provides the interior room lamp power supply (battery saver signal).

TRUNK

TRUNK : CONSULT-III Function (BCM - TRUNK)

INFOID:000000005459725

DATA MONITOR

Monitor Item	Contents
PUSH SW	Indicates [ON/OFF] condition of push-button ignition switch.
UNLK SEN -DR	Indicates [On/Off] condition of driver door UNLOCK status
VEH SPEED 1	Indicates [mph] condition of vehicle speed signal from combination meter.
KEY CYL SW-TR	NOTE: This item is displayed, but cannot be monitored.
TR CANCEL SW	NOTE: This item is displayed, but cannot be monitored.
TR/BD OPEN SW	Indicates [ON/OFF] condition of back door opener switch.
TRNK/HAT MNTR	NOTE: This item is displayed, but cannot be monitored.
RKE-TR/BD	NOTE: This item is displayed, but cannot be monitored.

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DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

ACTIVE TEST

Test item	Description
TRUNK/GLASS HATCH	NOTE: This item is displayed, but cannot be monitored.

THEFT ALM

THEFT ALM : CONSULT-III Function (BCM - THEFT)

INFOID:000000005459726

APPLICATION ITEM

CONSULT-III performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
DATA MONITOR	The BCM input/output signals are displayed.
WORK SUPPORT	Changes the setting for each system function.
ACTIVE TEST	The signals used to activate each device are forcibly supplied from BCM.

DATA MONITOR

Monitored Item	Description
REQ SW -DR	Indicates [ON/OFF] condition of door request switch (driver side).
REQ SW -AS	Indicates [ON/OFF] condition of door request switch (passenger side).
REQ SW -RR	NOTE: This is displayed even when it is not equipped.
REQ SW -RL	NOTE: This is displayed even when it is not equipped.
REQ SW -BD/TR	Indicates [ON/OFF] condition of back door request switch.
PUSH SW	Indicates [ON/OFF] condition of push-button ignition switch
UNLK SEN -DR	Indicates [ON/OFF] condition of driver door UNLOCK status.
KEY SW -SLOT	Indicates [ON/OFF] condition of key slot.
DOOR SW-DR	Indicates [ON/OFF] condition of front door switch (driver side).
DOOR SW-AS	Indicates [ON/OFF] condition of front door switch (passenger side).
DOOR SW-RR	Indicates [ON/OFF] condition of rear door switch RH.
DOOR SW-RL	Indicates [ON/OFF] condition of rear door switch LH.
DOOR SW-BK	Indicates [ON/OFF] condition of back door switch.
CDL LOCK SW	Indicates [ON/OFF] condition of lock signal from door lock/unlock switch LH and RH.
CDL UNLOCK SW	Indicates [ON/OFF] condition of unlock signal from door lock/unlock switch LH and RH.
TR/BD OPEN SW	Indicates [ON/OFF] condition of back door opener switch.
TRNK/HAT MNTR	NOTE: This is displayed even when it is not equipped.
RKE-LOCK	Indicates [ON/OFF] condition of LOCK signal from Intelligent Key.
RKE-UNLOCK	Indicates [ON/OFF] condition of UNLOCK signal from Intelligent Key.
RKE-TR/BD	NOTE: This is displayed even when it is not equipped.

WORK SUPPORT

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

Test Item	Description
SIREN SET	Select the siren function ON or OFF, and siren type. <ul style="list-style-type: none"> • MODE 1: Without siren • MODE 2: With siren • MODE 3: With external complete protection (with siren) • MODE 4: Without any external protection (with siren) • MODE 5: Without external tilt protection (with siren) • MODE 5: Without external volumetric protection (with siren)

ACTIVE TEST

Test Item	Description
THEFT IND	This test is able to check security indicator lamp operation. The lamp is turned on when "ON" on CONSULT-III screen is touched.
VEHICLE SECURITY HORN	This test is able to check vehicle security horn operation. The horns are activated for 0.5 seconds after "ON" on CONSULT-III screen is touched.
HEADLAMP(HI)	This test is able to check vehicle security lamp operation. The headlamps are activated for 0.5 seconds after "ON" on CONSULT-III screen is touched.
FLASHER	This test is able to check vehicle security hazard lamp operation. The hazard lamps are activated after "ON" on CONSULT-III screen is touched.
SIREN	Activates the self-diagnosis function for siren control unit.

RETAINED PWR

RETAINED PWR : CONSULT-III Function (BCM - RETAINED PWR)

INFOID:0000000005459728

Data monitor

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

SIGNAL BUFFER

SIGNAL BUFFER : CONSULT-III Function (BCM - SIGNAL BUFFER)

INFOID:0000000004957872

DATA MONITOR

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

ACTIVE TEST

Test item	Operation	Description
OIL PRESSURE SW	Off	OFF
	On	BCM transmits the oil pressure switch signal to the unified meter and A/C amp. via CAN communication, which illuminates the oil pressure warning lamp in the combination meter.

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM

Description

INFOID:000000004957873

CAN (Controller Area Network) is a serial communication line for real time applications. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Modern vehicle is equipped with many electronic control unit, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H-line, CAN L-line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

CAN Communication Signal Chart. Refer to [LAN-39, "CAN Communication Signal Chart"](#).

DTC Logic

INFOID:000000004957874

DTC DETECTION LOGIC

DTC	CONSULT-III display description	DTC Detection Condition	Possible cause
U1000	CAN COMM	When BCM cannot communicate CAN communication signal continuously for 2 seconds or more.	CAN communication system

Diagnosis Procedure

INFOID:000000004957875

1.PERFORM SELF DIAGNOSTIC

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

Is DTC "U1000" displayed?

- YES >> Refer to [LAN-29, "Trouble Diagnosis Flow Chart"](#).
 NO >> Refer to [GI-34, "Intermittent Incident"](#).

U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

U1010 CONTROL UNIT (CAN)

DTC Logic

INFOID:000000004957876

DTC DETECTION LOGIC

DTC	CONSULT-III display description	DTC Detection Condition	Possible cause
U1010	CONTROL UNIT(CAN)	BCM detected internal CAN communication circuit malfunction.	BCM

Diagnosis Procedure

INFOID:000000004957877

1.REPLACE BCM

When DTC "U1010" is detected, replace BCM.

>> Replace BCM. Refer to [BCS-94. "Exploded View"](#).

BCS

U0415 VEHICLE SPEED

< DTC/CIRCUIT DIAGNOSIS >

U0415 VEHICLE SPEED

Description

INFOID:000000004957878

U0415 is displayed if any unusual condition is present in the reception status of the vehicle speed signal from the ABS actuator and electric unit (control unit).

DTC Logic

INFOID:000000004957879

DTC DETECTION LOGIC

DTC	CONSULT-III display description	DTC Detection Condition	Probable cause
U0415	VEHICLE SPEED	When the vehicle speed signal received from the ABS actuator and electric unit (control unit) remains abnormal for 2 seconds or more.	<ul style="list-style-type: none">• ABS actuator and electric unit (control unit)• BCM

DTC CONFIRMATION PROCEDURE

1. DTC CONFIRMATION

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

Is any DTC detected?

- YES >> Refer to [BCS-42, "Diagnosis Procedure"](#).
NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000004957880

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

Perform "Self-Diagnostic Result" of ABS actuator and electric unit (control unit) with CONSULT-III. Refer to [BRC-33, "CONSULT-III Function"](#).

Is any DTC detected?

- YES >> Repair or replace the malfunctioning part.
NO >> Replace BCM. Refer to [BCS-94, "Exploded View"](#).

B2562 LOW VOLTAGE

< DTC/CIRCUIT DIAGNOSIS >

B2562 LOW VOLTAGE

DTC Logic

INFOID:000000004957881

DTC DETECTION LOGIC

DTC	CONSULT-III display description	DTC Detection Condition	Possible cause
B2562	LOW VOLTAGE	When the power supply voltage to BCM remains less than 8.8 V for 120 seconds or more	Harness or connector (power supply circuit)

DTC CONFIRMATION PROCEDURE

1.DTC CONFIRMATION

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

Is any DTC detected?

- YES >> Refer to [BCS-43, "Diagnosis Procedure"](#).
NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000004957882

1.CHECK POWER SUPPLY CIRCUIT

Check BCM power supply circuit. Refer to [BCS-45, "Diagnosis Procedure"](#).

Is the circuit normal?

- YES >> Replace BCM. Refer to [BCS-94, "Exploded View"](#).
NO >> Repair the malfunctioning part.

BCS

B26E7 TPMS CAN COMM

< DTC/CIRCUIT DIAGNOSIS >

B26E7 TPMS CAN COMM

DTC Logic

INFOID:000000004957883

DTC DETECTION LOGIC

DTC	CONSULT-III display description	DTC Detection Condition	Probable cause
B26E7	TPMS CAN COMM	When ignition switch is ON, BCM cannot received CAN communication signal from low tire pressure warning control unit.	<ul style="list-style-type: none">• CAN communication system• Low tire pressure warning control unit• BCM

DTC CONFIRMATION PROCEDURE

1. DTC CONFIRMATION

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

Is any DTC detected?

- YES >> Refer to [BCS-44, "Diagnosis Procedure"](#).
NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000004957884

NOTE:

If DTC "B26E7" detected along with DTC "U1000", first diagnose the DTC "U1000". Refer to [BCS-40, "Diagnosis Procedure"](#).

1. LOW TIRE PRESSURE WARNING CONTROL UNIT SELF DIAGNOSTIC RESULT

Perform "Self Diagnostic Result" of low tire pressure warning control unit with CONSULT-III. Refer to [WT-13, "CONSULT-III Function"](#).

Is any DTC detected?

- YES >> GO TO 2.
NO >> GO TO 4.

2. LOW TIRE PRESSURE WARNING CONTROL UNIT DIAGNOSIS

Perform low tire pressure warning control unit component diagnosis of detected DTC. Refer to [WT-57, "DTC Index"](#).

>> GO TO 3.

3. BCM SELF DIAGNOSTIC RESULT

Erase DTC of BCM, and perform "Self Diagnostic Result" again.

Is DTC "B26E7" detected?

- YES >> Replace BCM. Refer to [BCS-94, "Exploded View"](#).
NO >> INSPECTION END

4. REPLACE LOW TIRE PRESSURE WARNING CONTROL UNIT TEMPORARILY

Remove low tire pressure warning control unit, and install normal low tire pressure warning control unit.

>> GO TO 5.

5. BCM SELF-DIAGNOSTIC RESULT

Erase DTC of BCM, and perform "Self Diagnostic Result" again.

Is DTC "B26E7" detected?

- YES >> Replace BCM. Refer to [BCS-94, "Exploded View"](#).
NO >> Replace low tire pressure warning control unit. Refer to [WT-79, "Exploded View"](#).

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure

INFOID:000000004957885

1.CHECK FUSE AND FUSIBLE LINK

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

Signal name	Fuse and fusible link No.
Battery power supply	L
	10

Is the fuse fusing?

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

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

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

Terminals		Voltage (Approx.)
(+)	(-)	
BCM		Ground Battery voltage
Connector	Terminal	
M118	1	
M119	11	

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3.CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M119	13		Existed

Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector.

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COMBINATION SWITCH INPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

COMBINATION SWITCH INPUT CIRCUIT

Diagnosis Procedure

INFOID:000000004957886

1. CHECK INPUT 1 - 5 SYSTEM CIRCUIT FOR OPEN

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

System	BCM		Combination switch		Continuity
	Connector	Terminal	Connector	Terminal	
INPUT 1	M122	107	M33	11	Existed
INPUT 2		109		9	
INPUT 3		88		7	
INPUT 4		108		10	
INPUT 5		87		13	

Does continuity exist?

YES >> GO TO 2.

NO >> Repair the harnesses or connectors.

2. CHECK INPUT 1 - 5 SYSTEM CIRCUIT FOR SHORT

Check for continuity between BCM harness connector and ground.

System	BCM			Continuity
	Connector	Terminal		
INPUT 1	M122	107	Ground	Not existed
INPUT 2		109		
INPUT 3		88		
INPUT 4		108		
INPUT 5		87		

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> GO TO 3.

3. CHECK BCM OUTPUT VOLTAGE

1. Connect the BCM connector.
2. Check voltage between BCM harness connector and ground.

System	Terminals		Voltage (Approx.)	
	(+) (−)			
	BCM			
	Connector	Terminal		
INPUT 1	M122	107	Ground	Refer to BCS-50, "Reference Value" .
INPUT 2		109		
INPUT 3		88		
INPUT 4		108		
INPUT 5		87		

Is the measurement value normal?

YES >> GO TO 4.

NO >> Replace BCM. Refer to [BCS-94, "Exploded View"](#).

COMBINATION SWITCH INPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

4.CHECK BCM INPUT SIGNAL

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

System	Terminals		Voltage (Approx.)
	(+)		

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

YES >> Replace BCM. Refer to [BCS-94](#), "Exploded View".

NO >> Replace the combination switch.

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COMBINATION SWITCH OUTPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

COMBINATION SWITCH OUTPUT CIRCUIT

Diagnosis Procedure

INFOID:000000004957887

1.CHECK OUTPUT 1 - 5 SYSTEM CIRCUIT FOR OPEN

1. Turn the ignition switch OFF.
2. Disconnect the BCM and combination switch connectors.

NOTE:

BCM connector disconnects M123 only.

3. Check continuity between BCM harness connector and combination switch harness connector.

System	BCM		Combination switch		Continuity
	Connector	Terminal	Connector	Terminal	
OUTPUT 1	M123	143	M33	12	Existed
OUTPUT 2		144		14	
OUTPUT 3		145		5	
OUTPUT 4		146		2	
OUTPUT 5		142		8	

Does continuity exist?

YES >> GO TO 2.

NO >> Repair the harnesses or connectors.

2.CHECK OUTPUT 1 - 5 SYSTEM CIRCUIT FOR SHORT

Check for continuity between BCM harness connector and ground.

System	BCM			Continuity
	Connector	Terminal		
OUTPUT 1	M123	143	Ground	Not existed
OUTPUT 2		144		
OUTPUT 3		145		
OUTPUT 4		146		
OUTPUT 5		142		

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> GO TO 3.

3.CHECK COMBINATION SWITCH INTERNAL CIRCUIT

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

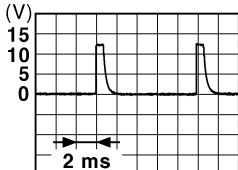
NOTE:

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

COMBINATION SWITCH OUTPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

System	Terminals		Value (Approx.)
	(+)	(-)	
	Combination switch		
	Connector	Terminal	
OUTPUT 1	M33	12	Ground
OUTPUT 2		14	
OUTPUT 3		5	
OUTPUT 4		2	
OUTPUT 5		8	



1.4 V

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

- YES >> Replace BCM. Refer to [BCS-94, "Exploded View"](#).
 NO >> Replace the combination switch.

BCS

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:000000004957888

VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

Monitor Item	Condition	Value/Status
FR WIPER HI	Other than front wiper switch HI	Off
	Front wiper switch HI	On
FR WIPER LOW	Other than front wiper switch LO	Off
	Front wiper switch LO	On
FR WASHER SW	Front washer switch OFF	Off
	Front washer switch ON	On
FR WIPER INT	Other than front wiper switch AUTO	Off
	Front wiper switch AUTO	On
FR WIPER STOP	Front wiper is not in STOP position	Off
	Front wiper is in STOP position	On
INT VOLUME	Wiper volume dial is in a dial position 1 - 7	Wiper volume dial position
RR WIPER ON	Other than rear wiper switch ON	Off
	Rear wiper switch ON	On
RR WIPER INT	Other than rear wiper switch INT	Off
	Rear wiper switch INT	On
RR WASHER SW	Rear washer switch OFF	Off
	Rear washer switch ON	On
RR WIPER STOP	Rear wiper is in STOP position	Off
	Rear wiper is not in STOP position	On
TURN SIGNAL R	Other than turn signal switch RH	Off
	Turn signal switch RH	On
TURN SIGNAL L	Other than turn signal switch LH	Off
	Turn signal switch LH	On
TAIL LAMP SW	Other than lighting switch 1ST and 2ND	Off
	Lighting switch 1ST or 2ND	On
HI BEAM SW	Other than lighting switch HI	Off
	Lighting switch HI	On
HEAD LAMP SW 1	Other than lighting switch 2ND	Off
	Lighting switch 2ND	On
HEAD LAMP SW 2	Other than lighting switch 2ND	Off
	Lighting switch 2ND	On
PASSING SW	Other than lighting switch PASS	Off
	Lighting switch PASS	On
AUTO LIGHT SW	Other than lighting switch AUTO	Off
	Lighting switch AUTO	On
FR FOG SW	Front fog lamp switch OFF	Off
	Front fog lamp switch ON	On

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
RR FOG SW	Rear fog lamp switch OFF	Off
	Rear fog lamp switch ON	On
DOOR SW-DR	Driver door closed	Off
	Driver door opened	On
DOOR SW-AS	Passenger door closed	Off
	Passenger door opened	On
DOOR SW-RR	Rear RH door closed	Off
	Rear RH door opened	On
DOOR SW-RL	Rear LH door closed	Off
	Rear LH door opened	On
DOOR SW-BK	Back door closed	Off
	Back door opened	On
CDL LOCK SW	Other than power door lock switch LOCK	Off
	Power door lock switch LOCK	On
CDL UNLOCK SW	Other than power door lock switch UNLOCK	Off
	Power door lock switch UNLOCK	On
KEY CYL LK-SW	NOTE: The item is indicated, but not monitored.	Off
KEY CYL UN-SW	NOTE: The item is indicated, but not monitored.	Off
KEY CYL SW-TR	NOTE: The item is indicated, but not monitored.	Off
HAZARD SW	Hazard switch is OFF	Off
	Hazard switch is ON	On
REAR DEF SW	NOTE: The item is indicated, but not monitored.	Off
H/L WASH SW NOTE: For models without head- lamp washer switch, this item is not monitored.	Headlamp washer switch is not pressed	Off
	Headlamp washer switch is pressed	On
TR CANCEL SW	NOTE: The item is indicated, but not monitored.	Off
TR/BD OPEN SW	Back door opener switch OFF	Off
	While the back door opener switch is turned ON	On
TRNK/HAT MNTR	NOTE: The item is indicated, but not monitored.	Off
SEN CANCEL SW	Sensor cancel switch is not pressed	Off
	Sensor cancel switch is pressed	On
RKE-LOCK	LOCK button of the Intelligent Key is not pressed	Off
	LOCK button of the Intelligent Key is pressed	On
RKE-UNLOCK	UNLOCK button of the Intelligent Key is not pressed	Off
	UNLOCK button of the Intelligent Key is pressed	On
RKE-TR/BD	NOTE: The item is indicated, but not monitored.	Off
RKE-PANIC	NOTE: The item is indicated, but not monitored.	Off

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
RKE-P/W OPEN	UNLOCK button of the Intelligent Key is not pressed	Off
	UNLOCK button of the Intelligent Key is pressed and held	On
RKE-MODE CHG	LOCK/UNLOCK button of the Intelligent Key is not pressed and held simultaneously	Off
	LOCK/UNLOCK button of the Intelligent Key is pressed and held simultaneously	On
OPTICAL SENSOR NOTE: For models without optical sensor, this item is not monitored.	Bright outside of the vehicle	Close to 5 V
	Dark outside of the vehicle	Close to 0 V
REQ SW -DR	Driver door request switch is not pressed	Off
	Driver door request switch is pressed	On
REQ SW -AS	Passenger door request switch is not pressed	Off
	Passenger door request switch is pressed	On
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off
REQ SW -RL	NOTE: The item is indicated, but not monitored.	Off
REQ SW -BD/TR	Back door opener request switch is not pressed	Off
	Back door opener request switch is pressed	On
PUSH SW	Push-button ignition switch (push switch) is not pressed	Off
	Push-button ignition switch (push switch) is pressed	On
IGN RLY2 -F/B	Ignition switch in OFF or ACC position	Off
	Ignition switch in ON position	On
ACC RLY -F/B	NOTE: The item is indicated, but not monitored.	Off
CLUCH SW	The clutch pedal is not depressed	Off
	The clutch pedal is depressed	On
BRAKE SW 1	Brake pedal is depressed when No. 7 fuse is blown	Off
	Brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal	On
BRAKE SW 2	Brake pedal is not depressed	Off
	Brake pedal is depressed	On
DETE/CANCL SW	Selector lever in P position	Off
	Selector lever in any position other than P	On
SFT PN/N SW	<ul style="list-style-type: none"> Selector lever in any position other than P and N (A/T models) Control lever in any position other than neutral (M/T models) 	Off
	<ul style="list-style-type: none"> Selector lever in P or N position (A/T models) Control lever in neutral position (M/T models) 	On
S/L -LOCK	Steering is unlocked	Off
	Steering is locked	On
S/L -UNLOCK	Steering is locked	Off
	Steering is unlocked	On
S/L RELAY-F/B	Ignition switch in OFF or ACC position	Off
	Ignition switch in ON position	On
UNLK SEN -DR	Driver door is unlocked	Off
	Driver door is locked	On
PUSH SW -IPDM	Push-button ignition switch (push-switch) is not pressed	Off
	Push-button ignition switch (push-switch) is pressed	On

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
IGN RLY1 -F/B	Ignition switch in OFF or ACC position	Off
	Ignition switch in ON position	On
DETE SW -IPDM	Selector lever in any position other than P	Off
	Selector lever in P position	On
SFT PN -IPDM	Selector lever in any position other than P and N	Off
	Selector lever in P or N position	On
SFT P -MET	Selector lever in any position other than P	Off
	Selector lever in P position	On
SFT N -MET	Selector lever in any position other than N	Off
	Selector lever in N position	On
ENGINE STATE	Engine stopped	Stop
	While the engine stalls	Stall
	At engine cranking	Crank
	Engine running	Run
S/L LOCK-IPDM	Steering is unlocked	Off
	Steering is locked	On
S/L UNLK-IPDM	Steering is locked	Off
	Steering is unlocked	On
S/L RELAY-REQ	Steering lock system is not the LOCK condition and the changing condition from LOCK to UNLOCK	Off
	Steering lock system is the LOCK condition or the changing condition from LOCK to UNLOCK	On
VEH SPEED 1	While driving	Equivalent to speedometer reading
VEH SPEED 2	While driving	Equivalent to speedometer reading
DOOR STAT-DR	Driver door is locked	LOCK
	Wait with selective UNLOCK operation (5 seconds)	READY
	Driver door is unlocked	UNLOCK
DOOR STAT-AS	Passenger door is locked	LOCK
	Wait with selective UNLOCK operation (5 seconds)	READY
	Passenger door is unlocked	UNLOCK
ID OK FLAG	Steering is locked	Reset
	Steering is unlocked	Set
PRMT ENG STRT	The engine start is prohibited	Reset
	The engine start is permitted	Set
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset
KEY SW -SLOT	The Intelligent Key is not inserted into key slot	Off
	The Intelligent Key is inserted into key slot	On
RKE OPE COUN1	During the operation of the Intelligent Key	Operation frequency of the Intelligent Key
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	—
REVERSE SW NOTE: For A/T models, this item is not monitored.	Control lever in any position other than reverse position	Off
	Control lever in reverse position	On

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BCM (BODY CONTROL MODULE)

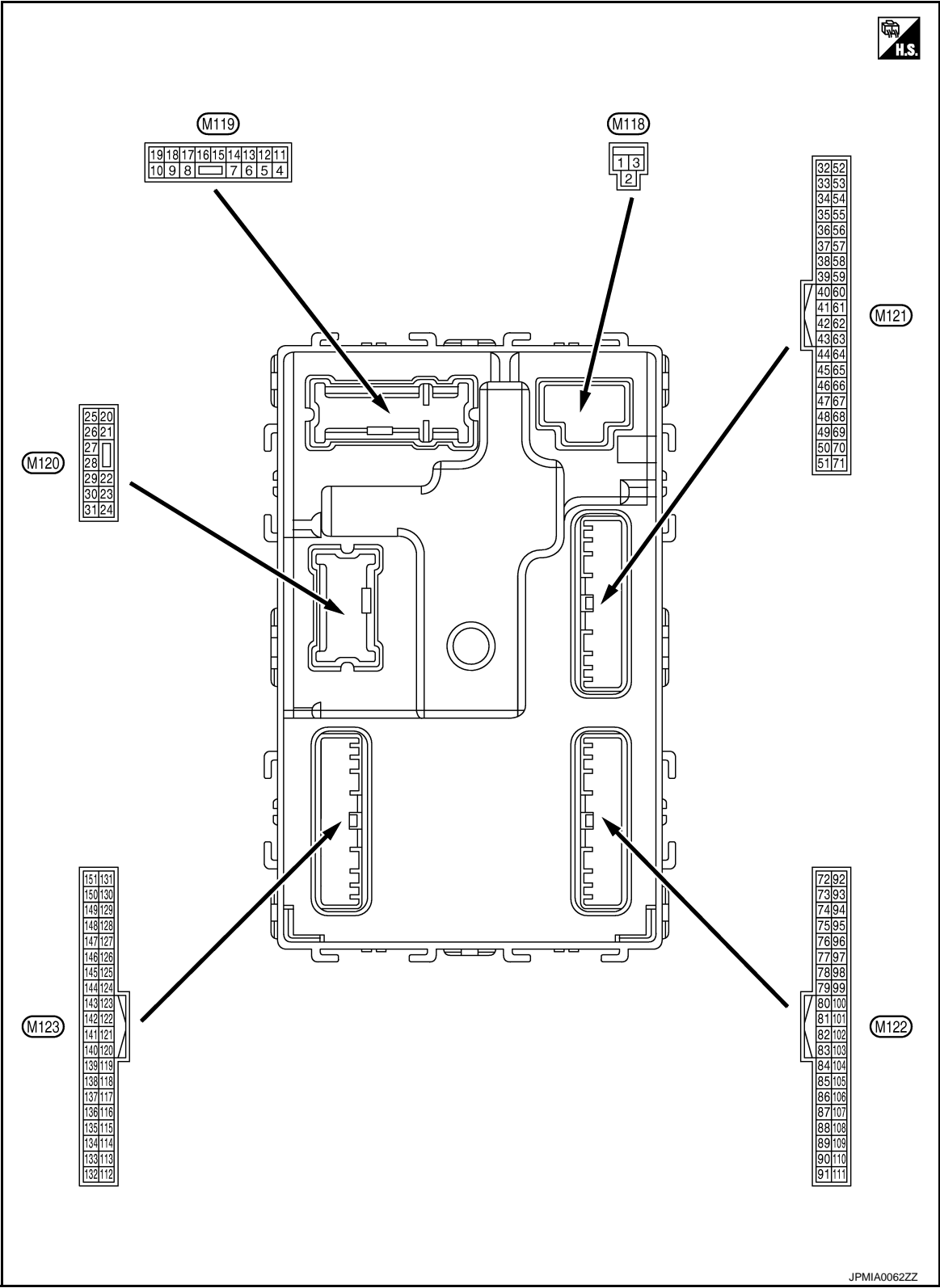
< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
CONFIRM ID ALL	The key ID that the key slot receives is not recognized by any key ID registered to BCM.	Yet
	The key ID that the key slot receives accords with any key ID registered to BCM.	Done
CONFIRM ID4	The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the fourth key ID registered to BCM.	Done
CONFIRM ID3	The key ID that the key slot receives is not recognized by the third key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the third key ID registered to BCM.	Done
CONFIRM ID2	The key ID that the key slot receives is not recognized by the second key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the second key ID registered to BCM.	Done
CONFIRM ID1	The key ID that the key slot receives is not recognized by the first key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the first key ID registered to BCM.	Done
TP 4	The ID of fourth Intelligent Key is not registered to BCM	Yet
	The ID of fourth Intelligent Key is registered to BCM	Done
TP 3	The ID of third Intelligent Key is not registered to BCM	Yet
	The ID of third Intelligent Key is registered to BCM	Done
TP 2	The ID of second Intelligent Key is not registered to BCM	Yet
	The ID of second Intelligent Key is registered to BCM	Done
TP 1	The ID of first Intelligent Key is not registered to BCM	Yet
	The ID of first Intelligent Key is registered to BCM	Done

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

TERMINAL LAYOUT

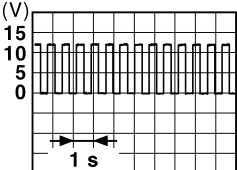


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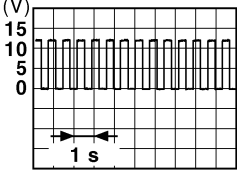
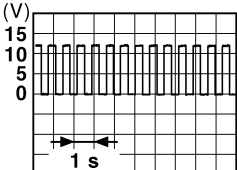
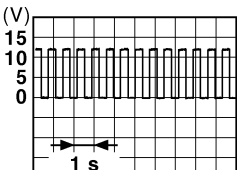
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
1 (W)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
3 (O)*2 (Y)*3	Ground	P/W power supply (RAP)	Output	Ignition switch ON		12 V
4 (P)	Ground	Interior room lamp power supply (Battery saver signal)	Output	Interior room lamp battery saver is activated. (Cuts the interior room lamp power supply)		0 V
				Interior room lamp battery saver is not activated. (Outputs the interior room lamp power supply)		12 V
5*1 (G)	Ground	Super lock	Output	Super lock actuator	Actuator is activated	12 V
					Actuator is not activated	0 V
7 (Y)	Ground	Step lamp	Output	Step lamp	ON	0 V
					OFF	12 V
8 (V)	Ground	All doors, fuel lid LOCK	Output	All doors, fuel lid	LOCK (Actuator is activated)	12 V
					Other than LOCK (Actuator is not activated)	0 V
9 (G)	Ground	Driver door, fuel lid UNLOCK	Output	Driver door, fuel lid	UNLOCK (Actuator is activated)	12 V
					Other than UNLOCK (Actuator is not activated)	0 V
10 (BR)	Ground	Passenger door, rear RH door and rear LH door UNLOCK	Output	Passenger door, rear RH door and rear LH door	UNLOCK (Actuator is activated)	12 V
					Other than UNLOCK (Actuator is not activated)	0 V
11 (R)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
13 (B)	Ground	Ground	—	Ignition switch ON		0 V
15 (Y)	Ground	ACC indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
					ACC or ON	0 V
17 (W)	Ground	Turn signal RH (Front and side)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
18 (O)	Ground	Turn signal LH (Front and side)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	 6.5 V
19 (R)* ⁴ (SB)* ⁵	Ground	Room lamp timer	Output	Other than under condition		5.0 V
				<ul style="list-style-type: none"> Interior room lamp timer is activated. (Door is unlocked. etc...) Welcome light function is activated. 		0 V
20 (V)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	 6.5 V
24 (R)	Ground	Rear fog lamp	Output	Rear fog lamp	OFF	0 V
					ON	12 V
25 (G)* ⁶ (BR)* ⁷	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	 6.5 V
26 (P)* ² (G)* ³	Ground	Rear wiper	Output	Rear wiper	OFF (Stopped)	0 V
					ON (Operated)	12 V

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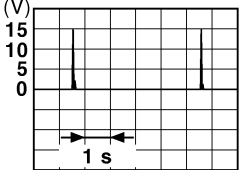
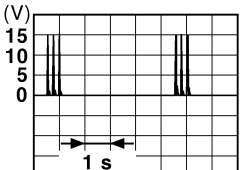
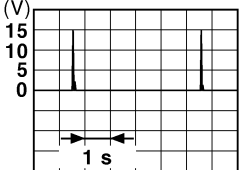
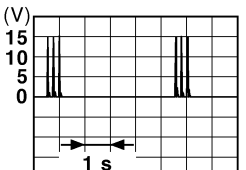
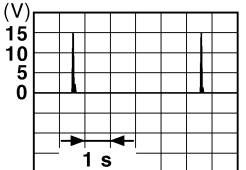
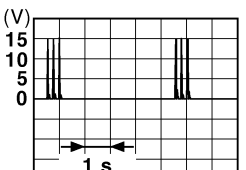
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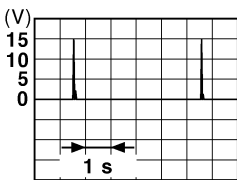
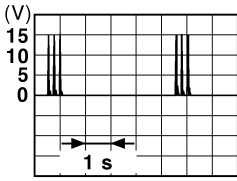
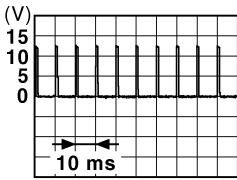
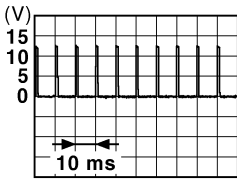
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
34 (SB)	Ground	Luggage room antenna (-)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
35 (V)	Ground	Luggage room antenna (+)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
38 (B)	Ground	Back door antenna (-)	Output	When the back door opener re- quest switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detec- tion area	 JMKIA0063GB

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
39 (W)	Ground	Back door antenna (+)	Output	When the back door opener re- quest switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detec- tion area	 JMKIA0063GB
47 (Y)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC	12 V
					ON	0 V
48 (W)	Ground	Back door opener switch operation	Output	Back door open- er switch	Not pressed	12 V
					Pressed	0 V
52 (LG)	Ground	Starter relay control	Output	Ignition switch ON (A/T mod- els)	When selector lever is in P or N position	12 V
					When selector lever is not in P or N position	0 V
				Ignition switch ON (M/T models)		Battery voltage
61 (W)	Ground	Back door opener re- quest switch	Input	Back door open- er request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 JPMIA0016GB
64 (V)*4 (L)*5	Ground	Intelligent Key warn- ing buzzer	Output	Intelligent Key warning buzzer	Sounding	0 V
					Not sounding	12 V
65 (O)	Ground	Rear wiper stop posi- tion	Input	Rear wiper	In stop position	 JPMIA0016GB
					Not in stop position	0 V
66 (LG)	Ground	Back door switch	Input	Back door switch	OFF (Door close)	12 V
					ON (Door open)	0 V

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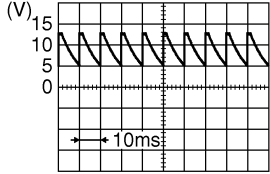
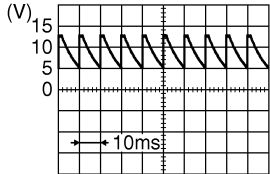
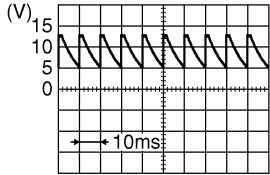
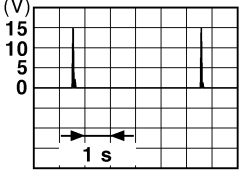
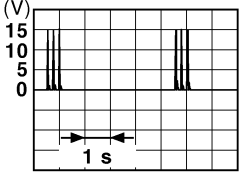
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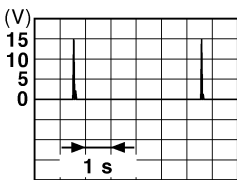
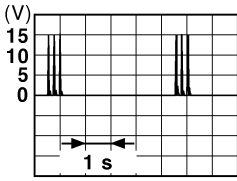
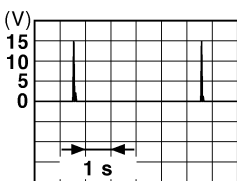
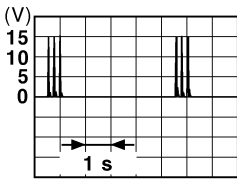
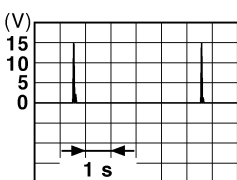
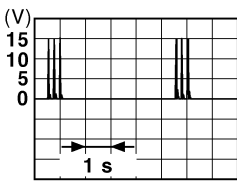
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
67 (P)	Ground	Back door opener switch	Input	Back door open- er switch	Pressed	0 V
					Not pressed	 <p>JPMIA0594GB</p> <p>8.5 - 9.0 V</p>
68 (BR)*6 (W)*7	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (Door close)	 <p>JPMIA0594GB</p> <p>8.5 - 9.0 V</p>
					ON (Door open)	0 V
69 (R)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (Door close)	 <p>JPMIA0594GB</p> <p>8.5 - 9.0 V</p>
					ON (Door open)	0 V
72 (R)	Ground	Room antenna 2 (-) (Center console)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	 <p>JMKIA0062GB</p>
					When Intelligent Key is not in the passenger compartment	 <p>JMKIA0063GB</p>

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
73 (G)	Ground	Room antenna 2 (+) (Center console)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
74 (SB)	Ground	Passenger door an- tenna (-)	Output	When the pas- senger door re- quest switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detec- tion area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detec- tion area	 JMKIA0063GB
75 (BR)	Ground	Passenger door an- tenna (+)	Output	When the pas- senger door re- quest switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detec- tion area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detec- tion area	 JMKIA0063GB

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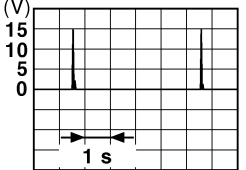
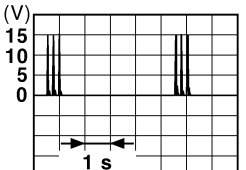
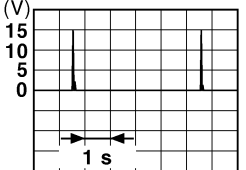
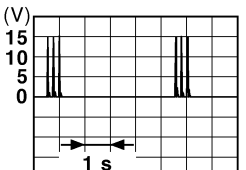
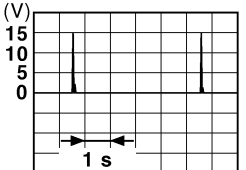
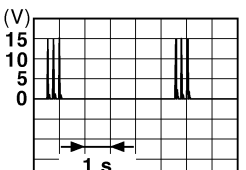
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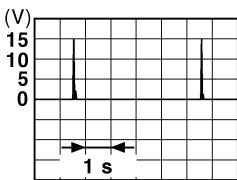
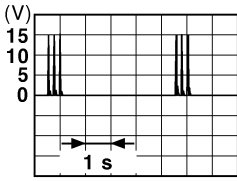
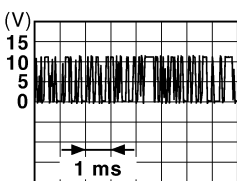
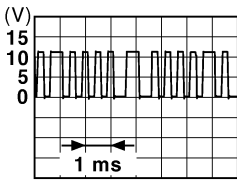
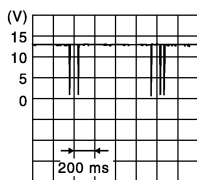
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
76 (V)	Ground	Driver door antenna (-)	Output	When the driver door request switch is operat- ed with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detec- tion area	 JMKIA0063GB
77 (LG)	Ground	Driver door antenna (+)	Output	When the driver door request switch is operat- ed with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detec- tion area	 JMKIA0063GB
78 (Y)	Ground	Room antenna 1 (-) (Instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
79 (BR)	Ground	Room antenna 1 (+) (Instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
80 (GR)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
81 (W)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
82 (P)*2 (R)*3	Ground	Ignition relay [Fuse block (J/B)] control	Output	Ignition switch	OFF or ACC	0 V
					ON	12 V
83 (GR)*2 (Y)*3	Ground	Remote keyless en- try receiver commu- nication	Input/ Output		During waiting	 JMKIA0064GB
					When operating either button on the Intelli- gent Key	 JMKIA0065GB
85 (G)	Ground	Alarm link	Input/ Output	Vehicle security system	Disarmed phase	12 V
					Pre-armed phase or armed phase	 NNKIA0175ZZ

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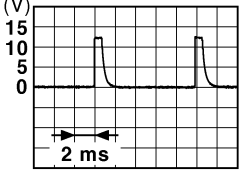

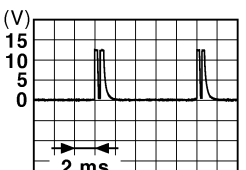

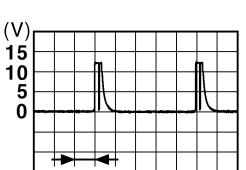
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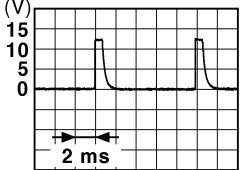

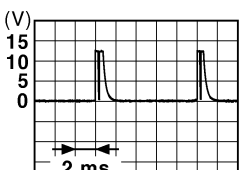
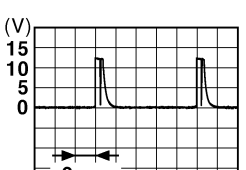

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
86*1 (O)	Ground	Dongle link	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
87 (BR)*6 (W)*7	Ground	Combination switch INPUT 5	Input	Combination switch	All switches OFF (Wiper volume dial 4)	 1.4 V
					Front fog lamp switch ON (Wiper volume dial 4)	 1.3 V
					Rear fog lamp switch ON (Wiper volume dial 4)	 1.2 V
					Rear wiper switch ON (Wiper volume dial 4)	 1.3 V
					Any of the conditions below with all switches OFF <ul style="list-style-type: none"> • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 6 • Wiper volume dial 7 	 1.3 V

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
88 (V)	Ground	Combination switch INPUT 3	Input	Combination switch	All switches OFF (Wiper volume dial 4)  1.4 V
					Lighting switch HI (Wiper volume dial 4)  1.3 V
					Lighting switch 2ND (Wiper volume dial 4)  1.3 V
					Rear washer switch ON (Wiper volume dial 4)  1.3 V
					Any of the conditions be- low with all switches OFF <ul style="list-style-type: none"> • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 3  1.3 V
89 (SB)* ² (L)* ⁴ (BR)* ⁷	Ground	Push-button ignition switch (Push switch)	Input	Push-button ig- nition switch (push switch)	Pressed 0 V Not pressed 12 V
				—	—
90 (P)	Ground	CAN-L	Input/ Output	—	—
91 (L)	Ground	CAN-H	Input/ Output	—	—

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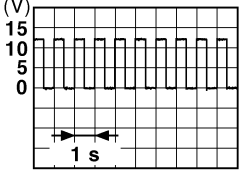
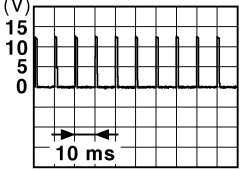
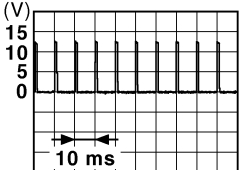
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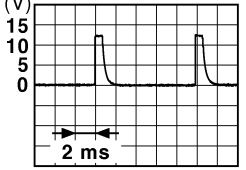

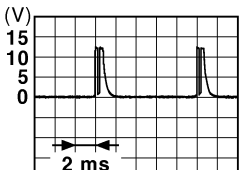
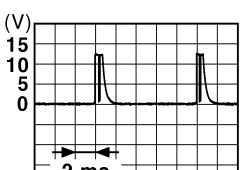
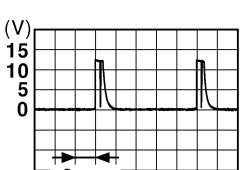
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
92 (LG)	Ground	Key slot illumination	Output	Key slot illumination	OFF	12 V
					Blinking	 JPMIA0015GB 6.5 V
					ON	0 V
93 (V)	Ground	ON indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
					ON or ACC	0 V
95 (O)	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
					ACC or ON	12 V
96 (GR)	Ground	A/T shift selector (Detention switch) power supply	Output	—	—	12 V
97 (L)	Ground	Steering lock condition No. 1	Input	Steering lock	LOCK status	0 V
					UNLOCK status	12 V
98 (P)	Ground	Steering lock condition No. 2	Input	Steering lock	LOCK status	12 V
					UNLOCK status	0 V
99 (GR)*8 (R)*9	Ground	Selector lever P position switch	Input	Selector lever	P position	0 V
					Any position other than P	12 V
100 (G)*6 (P)*7	Ground	Passenger door request switch	Input	Passenger door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 JPMIA0016GB 1.0 V
101 (SB)	Ground	Driver door request switch	Input	Driver door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 JPMIA0016GB 1.0 V
102 (O)	Ground	Blower fan motor relay control	Output	Ignition switch	OFF or ACC	0 V
					ON	12 V
103 (BR)*2 (LG)*3	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OFF		12 V

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
105 (R)	Ground	Door lock status indicator lamp	Output	Door lock status indicator lamp	OFF	12 V
					ON	0 V
106 (W)	Ground	Steering lock unit power supply	Output	Ignition switch	OFF or ACC	12 V
					ON	0 V
107 (LG)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper volume dial 4)	All switches OFF	 1.4 V
					Turn signal switch LH	 1.3 V
					Turn signal switch RH	 1.3 V
					Front wiper switch LO	 1.3 V
					Front washer switch ON	 1.3 V

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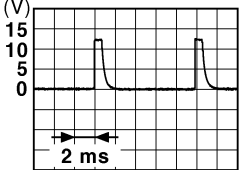

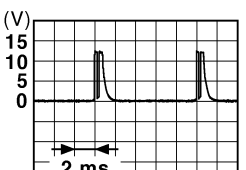

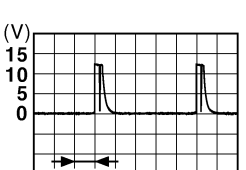
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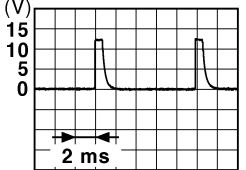

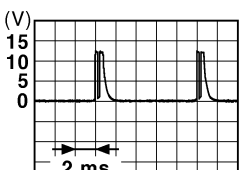


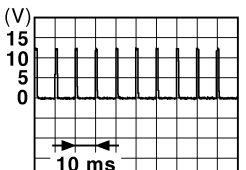
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
108 (R)	Ground	Combination switch INPUT 4	Input	Combination switch	<p>All switches OFF (Wiper volume dial 4)</p>  <p>JPMIA0041GB</p> <p>1.4 V</p>
					<p>Lighting switch AUTO (Wiper volume dial 4)</p>  <p>JPMIA0038GB</p> <p>1.3 V</p>
					<p>Lighting switch 1ST (Wiper volume dial 4)</p>  <p>JPMIA0036GB</p> <p>1.3 V</p>
					<p>Rear wiper switch INT (Wiper volume dial 4)</p>  <p>JPMIA0040GB</p> <p>1.3 V</p>
					<p>Any of the conditions be- low with all switches OFF</p> <ul style="list-style-type: none"> • Wiper volume dial 1 • Wiper volume dial 5 • Wiper volume dial 6  <p>JPMIA0039GB</p> <p>1.3 V</p>

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
109 (GR)*4 (Y)*5	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper volume dial 4)	All switches OFF  1.4 V
					Lighting switch PASS  1.3 V
					Lighting switch 2ND  1.3 V
					Front wiper switch AUTO  1.3 V
					Front wiper switch HI  1.3 V
110 (G)	Ground	Hazard switch	Input	Hazard switch	ON 0 V
				OFF	 1.1 V

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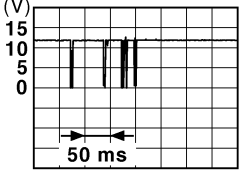
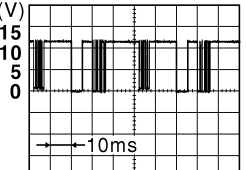
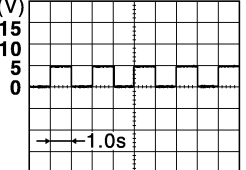
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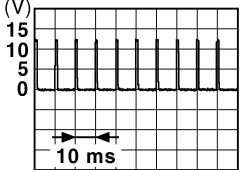
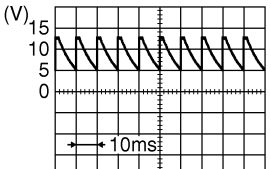
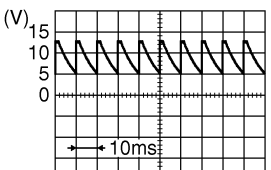
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
111 (GR)*2 (Y)*3	Ground	Steering lock unit communication	Input/ Output	Steering lock	LOCK status	12 V
					LOCK or UNLOCK	 JMKIA0066GB
					For 15 seconds after UN- LOCK	12 V
					15 seconds or later after UNLOCK	0 V
112 (R)*10 (GR)*11	Ground	Light and rain sensor serial link	Input/ Output	Ignition switch ON		 JPMIA0156GB 8.7 V
113*12 (P)	Ground	Optical sensor	Input	Ignition switch ON	When bright outside of the vehicle	Close to 5 V
					When dark outside of the vehicle	Close to 0 V
114*13 (GR)	Ground	Clutch interlock switch	Input	Clutch interlock switch	OFF (Clutch pedal is not depressed)	0 V
					ON (Clutch pedal is de- pressed)	Battery voltage
115 (O)	Ground	Air bag signal	Input	Ignition switch	OFF	0 V
					ACC	5.0 V
					ON	 JPMIA1034GB 2.5 V
116 (BR)*2 (LG)*4 (SB)*7	Ground	Stop lamp switch 1	Input	—		Battery voltage

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

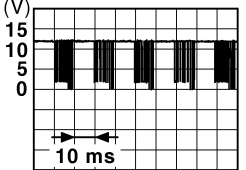
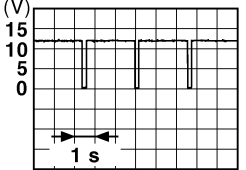
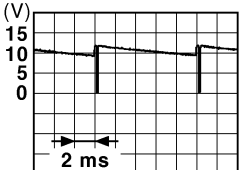
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
117 (Y)	Ground	Sensor cancel switch	Input	Sensor cancel switch	OFF (Not pressed)	 JPMIA0012GB 11.8 V
					ON (Pressed)	0 V
118 (SB)*4 (P)*5	Ground	Stop lamp switch 2 (Without ICC)	Input	Stop lamp switch	OFF (Brake pedal is not depressed)	0 V
					ON (Brake pedal is depressed)	Battery voltage
		Stop lamp switch 2 (With ICC)	Input	Stop lamp switch OFF (Brake pedal is not depressed) and ICC brake hold relay OFF		0 V
				Stop lamp switch ON (Brake pedal is depressed) or ICC brake hold relay ON		Battery voltage
119 (SB)*6 (L)*7	Ground	Front door lock assembly driver side (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	 JPMIA0594GB 8.5 - 9.0 V
					UNLOCK status (Unlock switch sensor ON)	0 V
120*13 (O)	Ground	Back-up lamp switch	Input	Ignition switch	Control lever in reverse position	Battery voltage
					Control lever in any position other than reverse	0 V
121 (BR)*2 (R)*4 (LG)*7	Ground	Key slot switch	Input	When the Intelligent Key is inserted into key slot		12 V
				When the Intelligent Key is not inserted into key slot		0 V
123 (W)	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage
124 (LG)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	 JPMIA0594GB 8.5 - 9.0 V
					ON (Door open)	0 V

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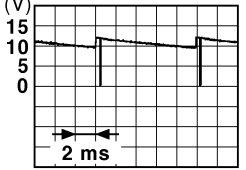
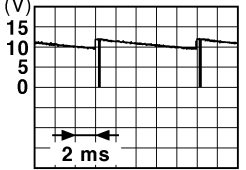

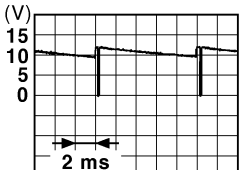
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
132 (BR)	Ground	Power window switch communication	Input/ Output	Ignition switch ON		 JPMIA0013GB 10.2 V
				Ignition switch OFF or ACC		12 V
134 (V)*4 (GR)*5	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	OFF	Battery voltage
					ON	0 V
137 (B)*2 (BR)*4 (G)*7	Ground	Receiver and sensor ground	Input	Ignition switch ON		0 V
138*12 (Y)	Ground	Sensor power supply	Output	Ignition switch	OFF	0 V
					ACC or ON	5 V
140 (BR)*13 (R)*14 (G)*15 (GR)*16	Ground	Selector lever P/N position (A/T models)	Input	Selector lever	P or N position	12 V
					Except P and N positions	0 V
		Park/neutral position switch (M/T models)	Input	Ignition switch ON	Control lever in neutral position	Battery voltage
					Control lever in any posi- tion other than neutral	0 V
141 (G)	Ground	Security indicator lamp	Output	Security indica- tor lamp	ON	0 V
					Blinking	 JPMIA0014GB 11.3 V
					OFF	12 V
142 (O)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper volume dial 4)	All switches OFF	0 V
					Lighting switch 1ST	 JPMIA0031GB 10.7 V
					Lighting switch HI	
					Lighting switch 2ND	
					Turn signal switch RH	

BCM (BODY CONTROL MODULE)

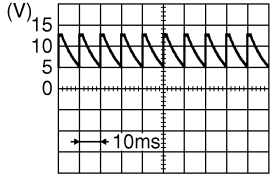
< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
143 (P)	Ground	Combination switch OUTPUT 1	Output	Combination switch	All switches OFF (Wiper volume dial 4)	0 V
					Front wiper switch HI (Wiper volume dial 4)	
					Rear wiper switch INT (Wiper volume dial 4)	
					Any of the conditions below with all switches OFF <ul style="list-style-type: none"> • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 3 • Wiper volume dial 6 • Wiper volume dial 7 	
						10.7 V
144 (G)	Ground	Combination switch OUTPUT 2	Output	Combination switch	All switches OFF (Wiper volume dial 4)	0 V
					Front washer switch ON (Wiper volume dial 4)	
					Rear wiper switch ON (Wiper volume dial 4)	
					Rear washer switch ON (Wiper volume dial 4)	
					Any of the conditions below with all switches OFF <ul style="list-style-type: none"> • Wiper volume dial 1 • Wiper volume dial 5 • Wiper volume dial 6 	
145 (L)	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper volume dial 4)	All switches OFF	0 V
					Front wiper switch AUTO	
					Front wiper switch LO	
					Lighting switch AUTO	
					Rear fog lamp switch ON	
146 (SB)	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper volume dial 4)	All switches OFF	0 V
					Front fog lamp switch ON	
					Lighting switch 2ND	
					Lighting switch PASS	
					Turn signal switch LH	

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BCM (BODY CONTROL MODULE)

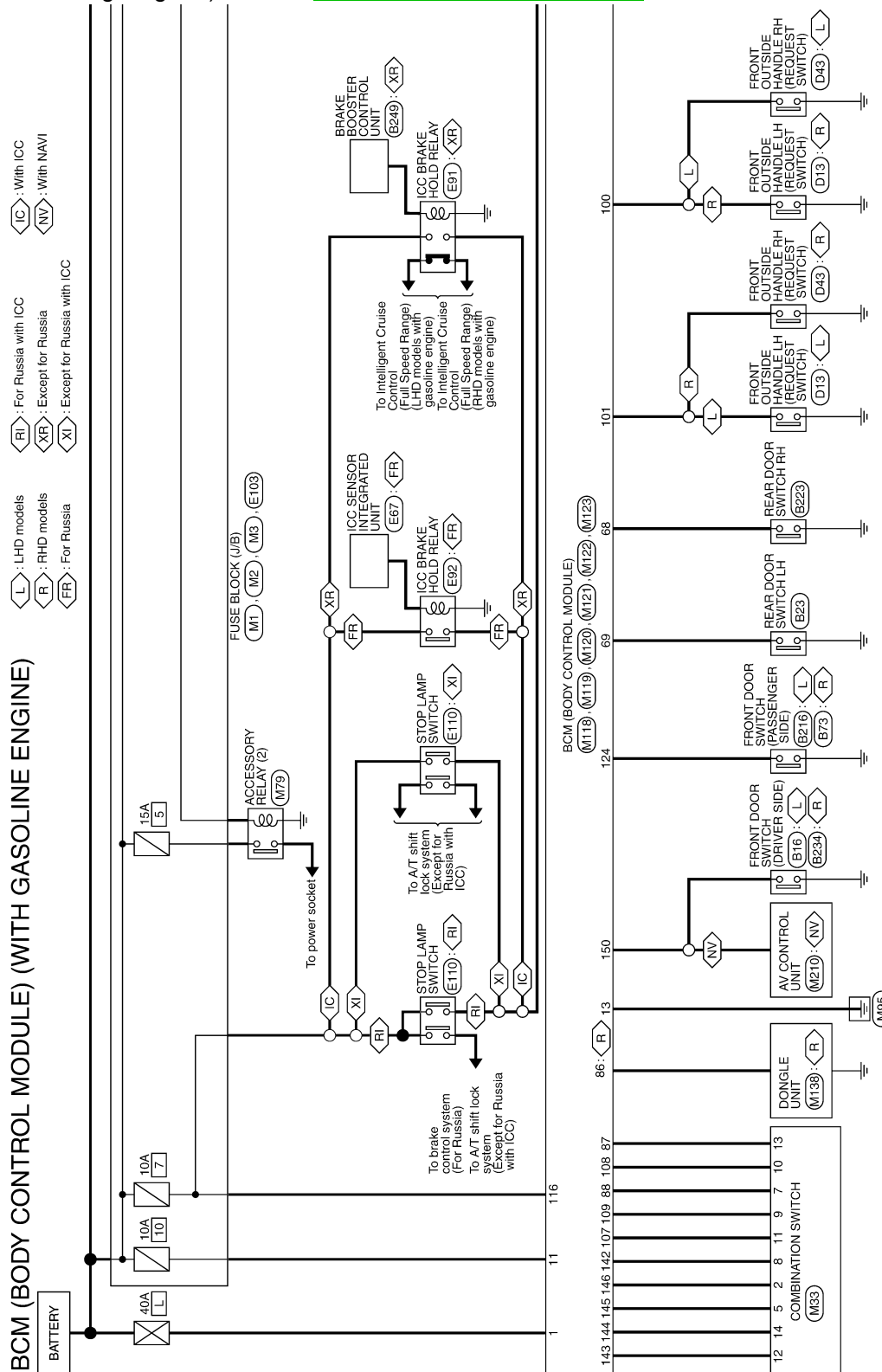
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Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
150 (GR)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	 <p>JPMIA0594GB</p> <p>8.5 - 9.0 V</p>
					ON (Door open)	0 V
151 (G)	Ground	Rear window defogger relay control	Output	Rear window defogger	Active	0 V
					Not activated	Battery voltage

- *1: Only RHD models
- *2: LHD gasoline engine models
- *3: Except LHD gasoline engine models
- *4: LHD diesel engine modelss
- *5: Except LHD diesel engine models
- *6: LHD models
- *7: RHD models
- *8: RHD gasoline engine models
- *9: Except RHD gasoline engine models
- *10: RHD diesel engine modelss
- *11: Except RHD diesel engine models
- *12: For Russia
- *13: M/T models
- *14: LHD A/T gasoline engine models
- *15: LHD A/T diesel engine modelss
- *16: RHD A/T models

INFOID:0000000004957889

For connector terminal arrangements, harness layouts, and alphabets in a (option abbreviation; if not described in wiring diagram), refer to [GI-12, "Connector Information"](#).



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

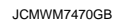
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JCMWM7468GB

< ECU DIAGNOSIS INFORMATION >



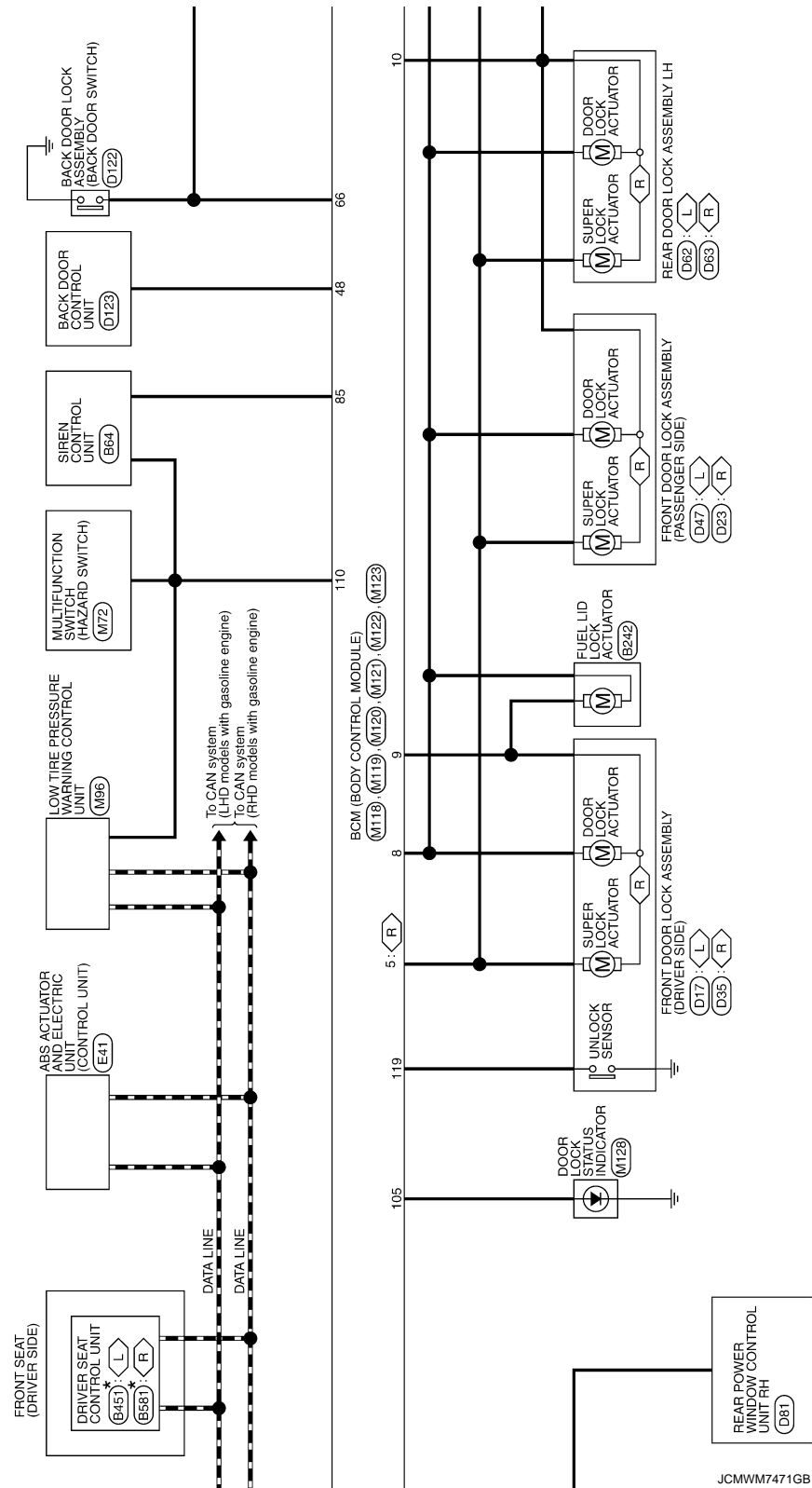
< ECU DIAGNOSIS INFORMATION >



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BCM (BODY CONTROL MODULE)

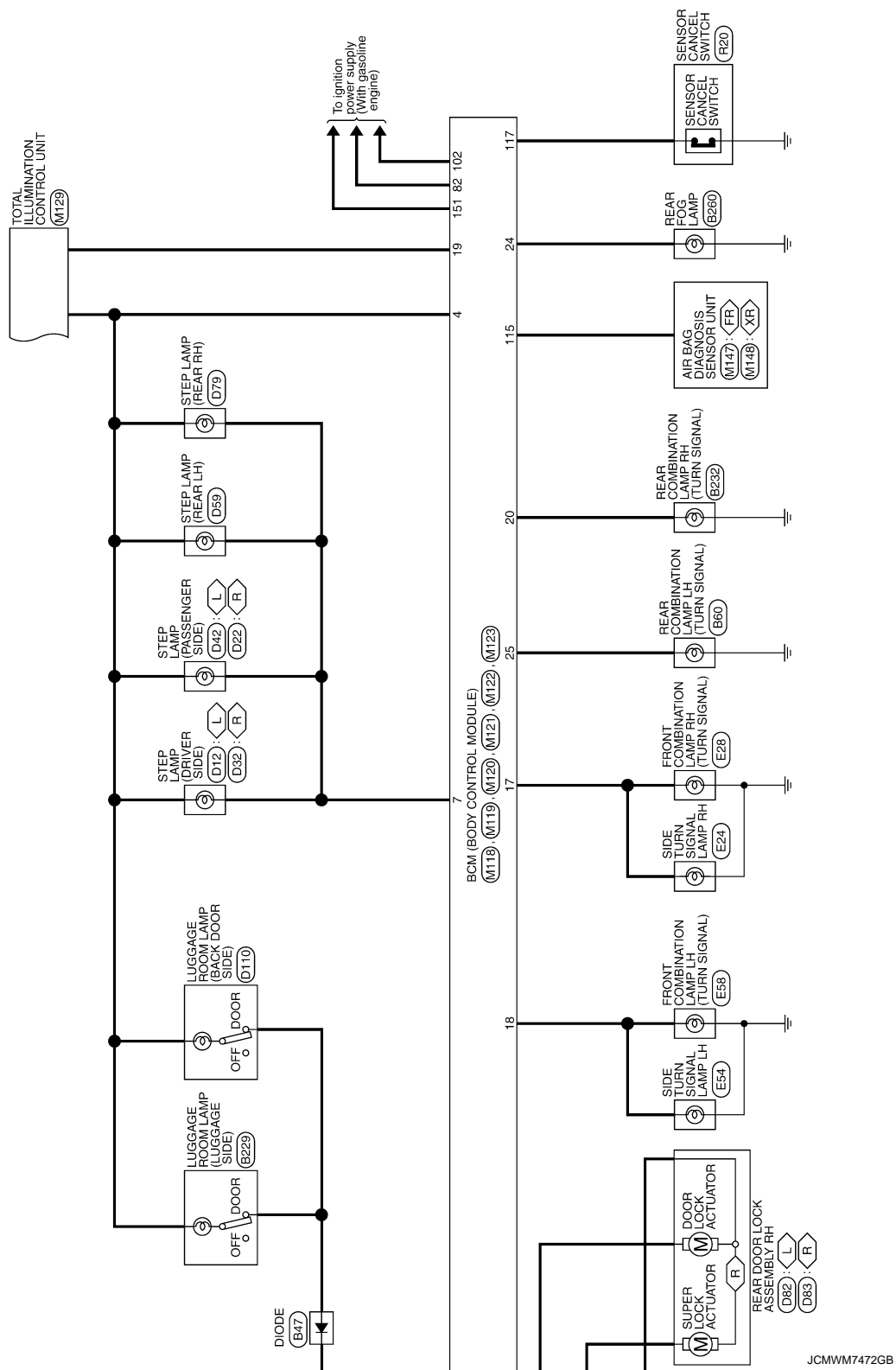
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JCMWM7471GB

BCM (BODY CONTROL MODULE)

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
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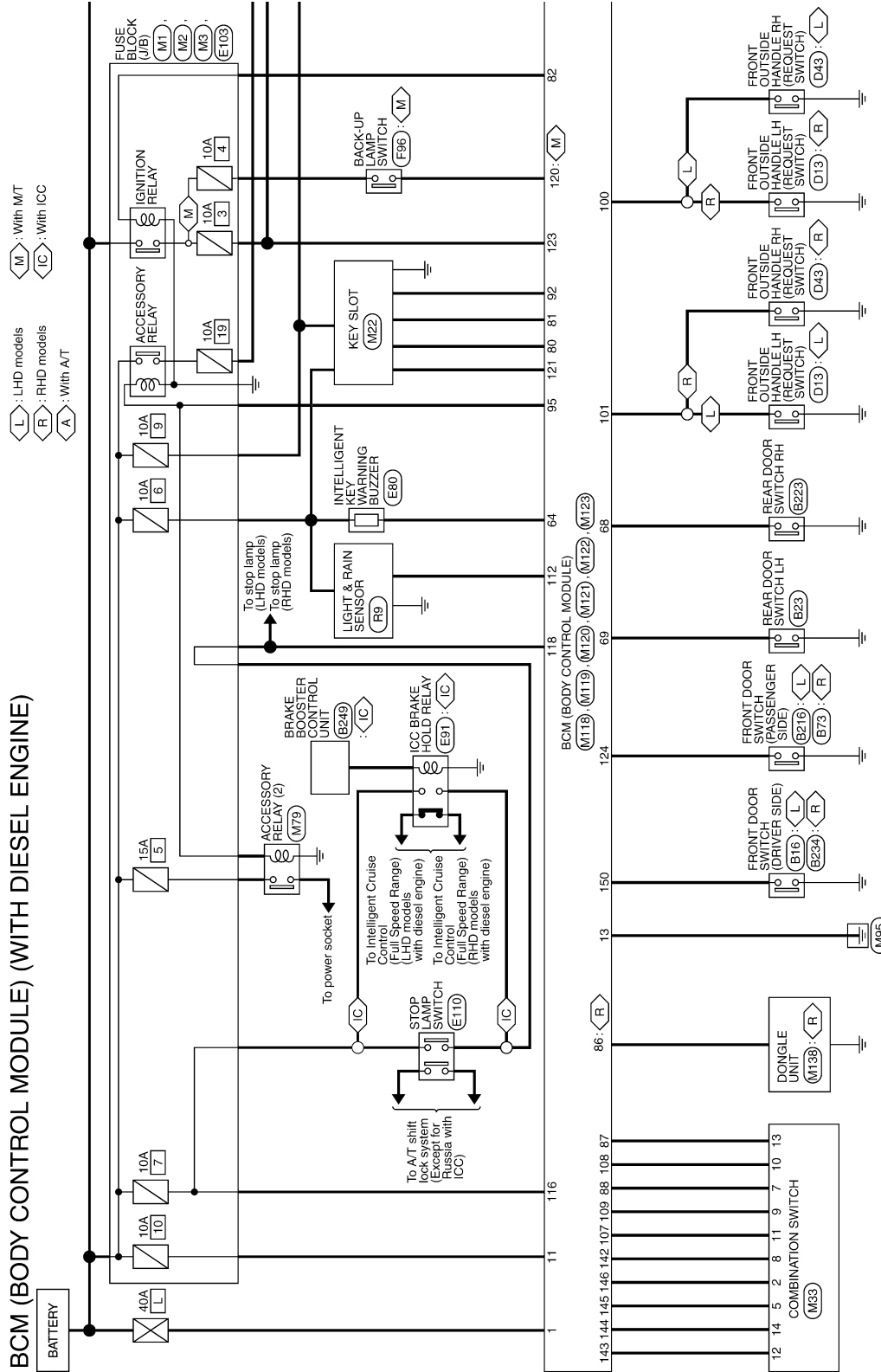
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Wiring Diagram - BCM (Diesel Engine Models) -

INFOID:000000006090882

For connector terminal arrangements, harness layouts, and alphabets in a  (option abbreviation; if not described in wiring diagram), refer to [GI-12, "Connector Information"](#).



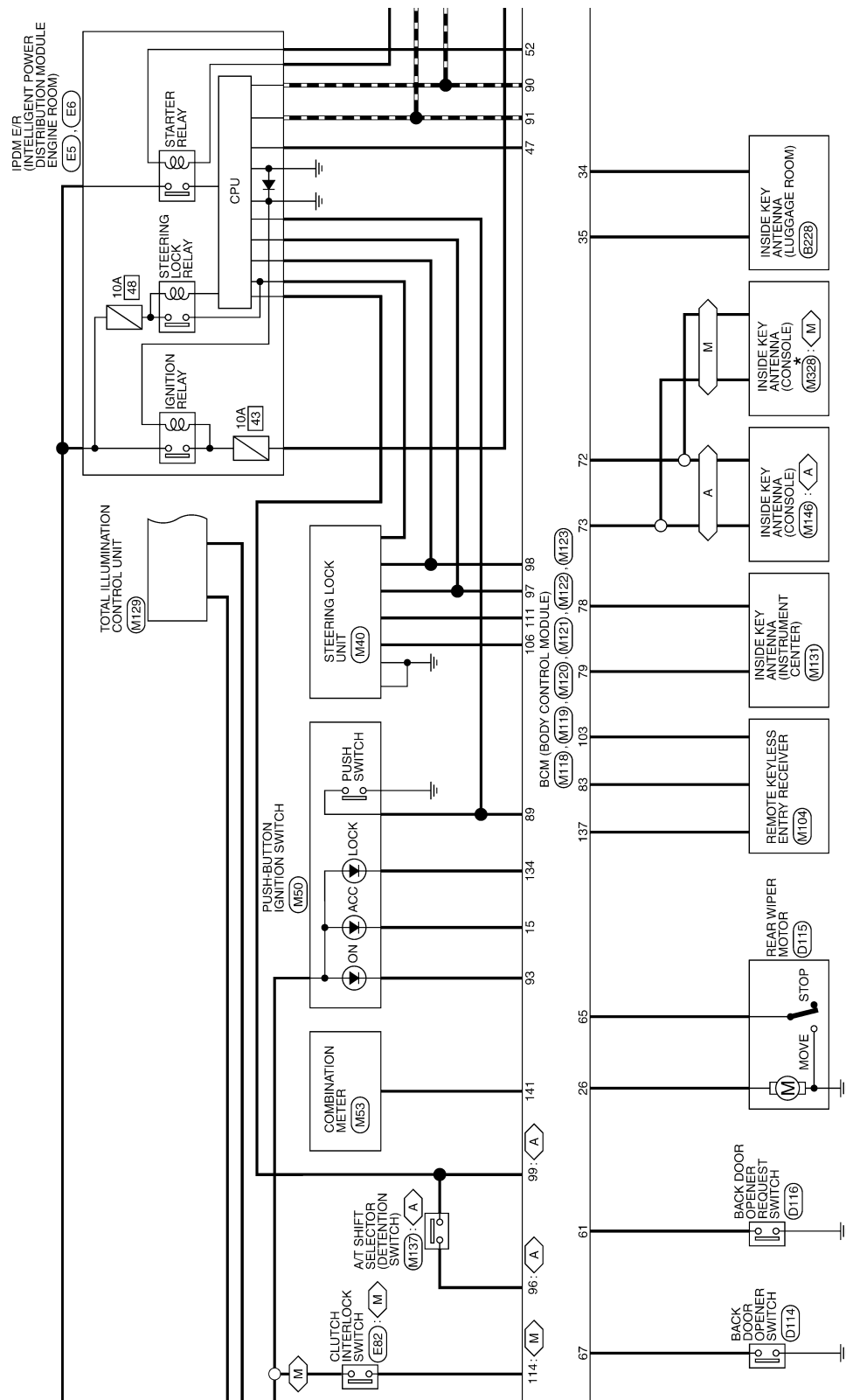
*: This connector is not shown in "Harness Layout".

2010/01/25

JCMWM7473GB

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

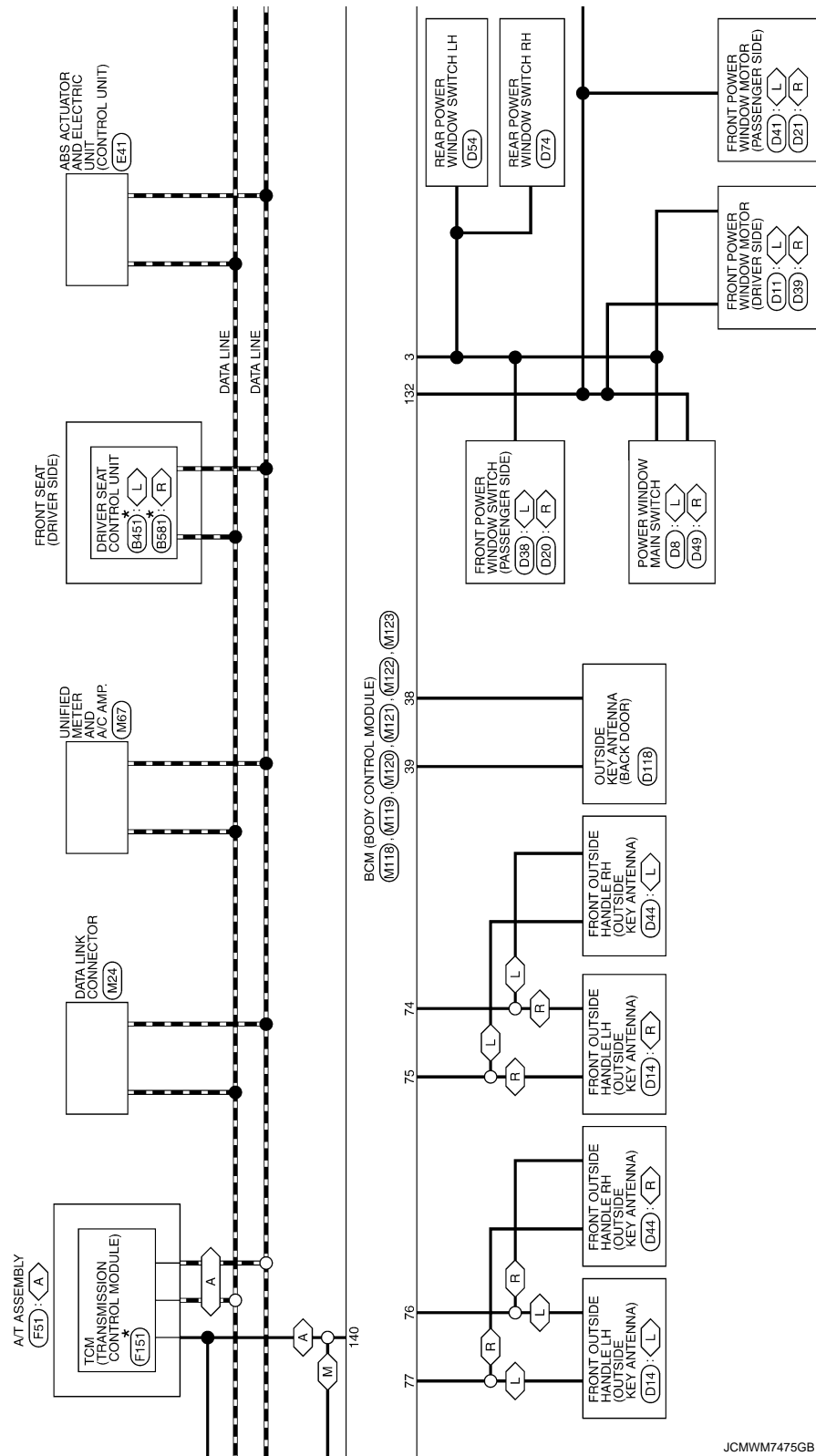


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BCS

BCM (BODY CONTROL MODULE)

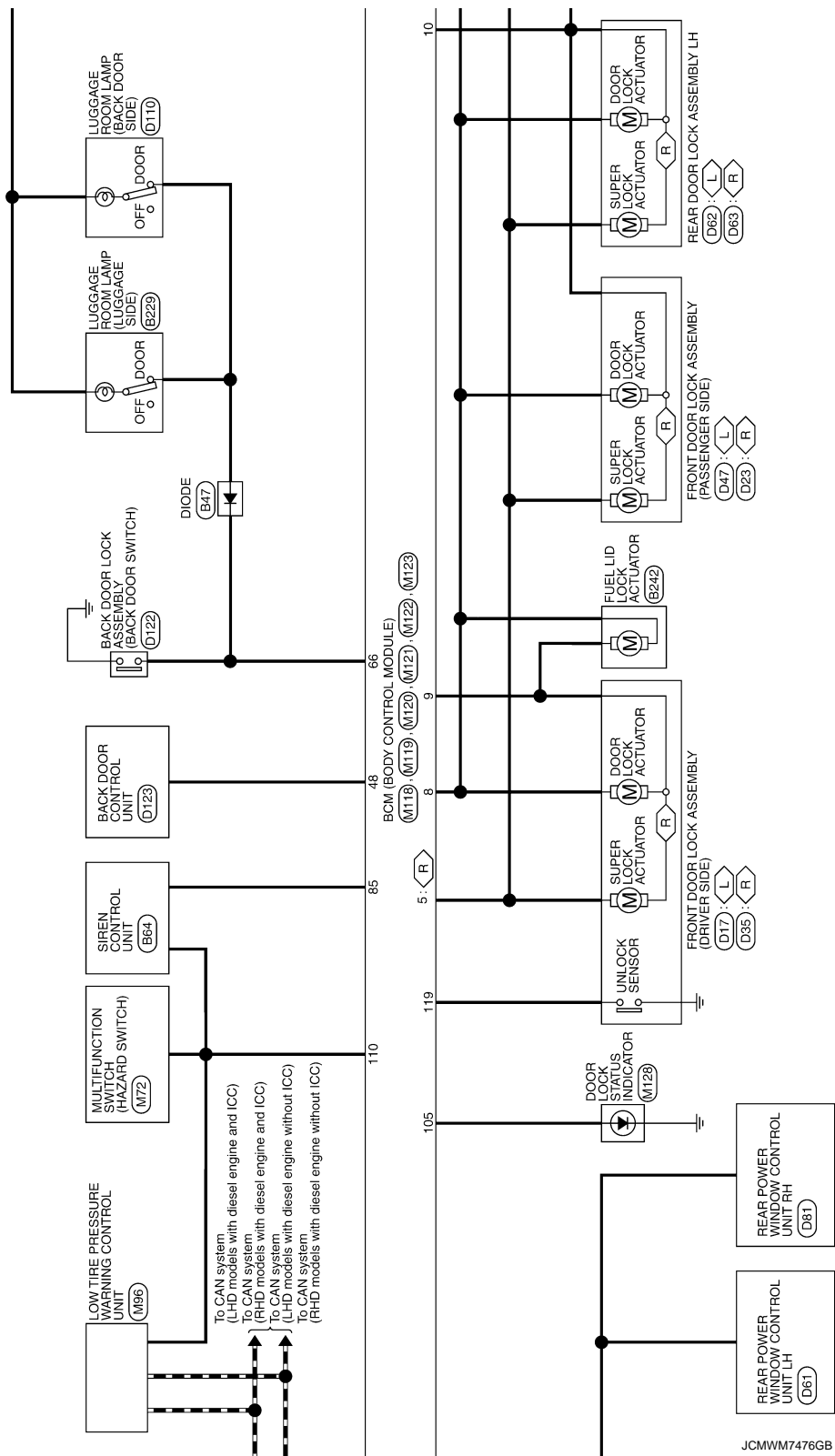
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JCMWM7475GB

BCM (BODY CONTROL MODULE)

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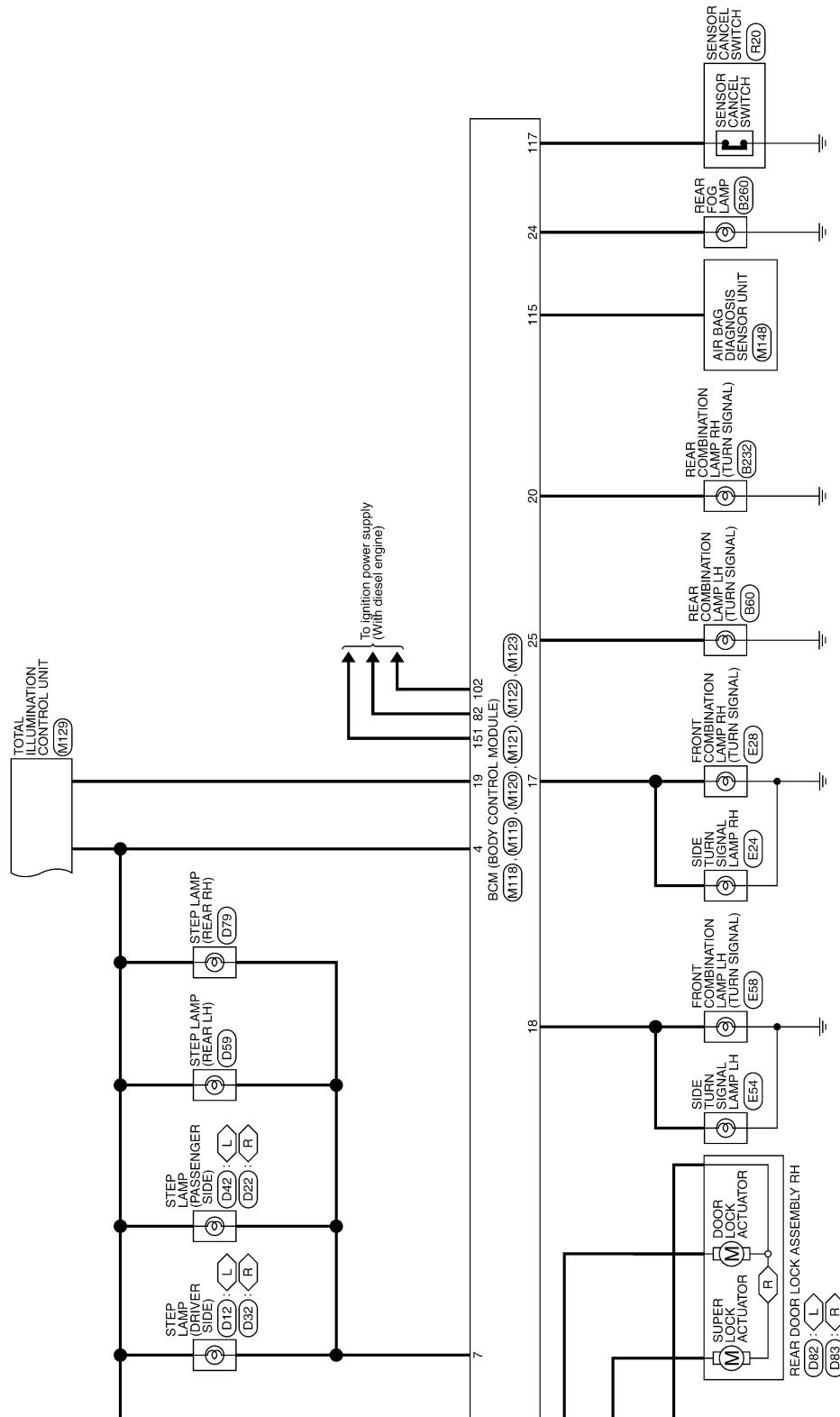


JCMWM7476GB

BCS

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >



JCMWM7477GB

Fail-safe

INFOID:000000004957890

FAIL-SAFE CONTROL BY DTC

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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Display contents of CONSULT	Fail-safe	Cancellation
B2013: ID DISCORD BCM-S/L	Inhibit engine cranking	Erase DTC
B2014: CHAIN OF S/L-BCM	Inhibit engine cranking	Erase DTC
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC
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	Ignition switch ON → OFF
B2196: DONGLE NG	Inhibit engine cranking	Erase DTC
B2557: VEHICLE SPEED	Inhibit steering lock	When normal vehicle speed signals are received from ABS actuator and electric unit (control unit) for 500 ms
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent <ul style="list-style-type: none"> • Starter control relay signal • Starter relay status signal
B2601: SHIFT POSITION	Inhibit steering lock	500 ms after the following signal reception status becomes consistent <ul style="list-style-type: none"> • Selector lever P position switch signal • P range signal (CAN)
B2602: SHIFT POSITION	Inhibit steering lock	5 seconds after the following BCM recognition conditions are fulfilled <ul style="list-style-type: none"> • Ignition switch is in the ON position • Selector lever P position switch signal: Except P position (12 V) • Vehicle speed: 4 km/h (2.5 MPH) or more
B2603: SHIFT POSI STATUS	Inhibit steering lock	500 ms after the following BCM recognition conditions are fulfilled <ul style="list-style-type: none"> • Ignition switch is in the ON position • Selector lever P position switch signal: Except P position (12 V) • Selector lever P/N position signal: Except P and N positions (0 V)
B2604: PNP/CLUTCH SW	Inhibit steering lock	500 ms after any of the following BCM recognition conditions are fulfilled <ul style="list-style-type: none"> • Status 1 <ul style="list-style-type: none"> - Ignition switch is in the ON position - Selector lever P/N position signal: P and N position (12 V) - P range signal or N range signal (CAN): ON • Status 2 <ul style="list-style-type: none"> - Ignition switch is in the ON position - Selector lever P/N position signal: Except P and N positions (0 V) - P range signal and N range signal (CAN): OFF
B2605: PNP/CLUTCH SW	Inhibit steering lock	500 ms after any of the following BCM recognition conditions are fulfilled <ul style="list-style-type: none"> • Ignition switch is in the ON position - Power position: IGN - Selector lever P/N position signal: Except P and N positions (0 V) - Interlock/PNP switch signal (CAN): OFF • Status 2 <ul style="list-style-type: none"> - Ignition switch is in the ON position - Selector lever P/N position signal: P or N position (12 V) - Interlock/PNP switch signal (CAN): ON
B2606: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent <ul style="list-style-type: none"> • Steering lock relay signal (Request signal) • Steering lock relay signal (Condition signal)
B2607: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent <ul style="list-style-type: none"> • Steering lock relay signal (Request signal) • Steering lock relay signal (Condition signal)

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BCM (BODY CONTROL MODULE)

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Display contents of CONSULT	Fail-safe	Cancellation
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)
B2609: S/L STATUS	<ul style="list-style-type: none"> Inhibit engine cranking Inhibit steering lock 	When the following steering lock conditions agree <ul style="list-style-type: none"> BCM steering lock control status Steering lock condition No. 1 signal status Steering lock condition No. 2 signal status
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 (12 V) 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 are fulfilled <ul style="list-style-type: none"> Power position changes to ACC Receives engine status signal (CAN)
B2612: S/L STATUS	<ul style="list-style-type: none"> Inhibit engine cranking Inhibit steering lock 	When any of the following conditions are fulfilled <ul style="list-style-type: none"> Steering lock unit status signal (CAN) is received normally The BCM steering lock control status matches the steering lock status recognized by the steering lock unit status signal (CAN from IPDM E/R)
B2617: BCM	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
B2619: BCM	Inhibit engine cranking	1 second after the steering lock unit power supply output control inside BCM becomes normal
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization
B261F: ASCD CNCL/CLTCH SW	Inhibit steering lock	When any of the following conditions are fulfilled <ul style="list-style-type: none"> Power supply position: ON Receives clutch switch signal (CAN from ECM): OFF
B2620: NEUTRAL SW	Inhibit engine cranking (Only when try to start the engine while depressing brake pedal and shifting to the neutral position)	When any of the following BCM recognition conditions are fulfilled <ul style="list-style-type: none"> Status 1 <ul style="list-style-type: none"> Back up lamp switch signal: ON (Battery voltage) Park/neutral position switch signal: OFF (0 V) Status 2 <ul style="list-style-type: none"> Back-up lamp switch signal: OFF (0 V) Park/neutral position switch signal: ON (Battery voltage) Status 3 <ul style="list-style-type: none"> Back-up lamp switch signal: OFF (0 V) Park/neutral position switch signal: OFF (0 V)
B26E8: CLUTCH SW	Inhibit engine cranking	When any of the following BCM recognition conditions are fulfilled <ul style="list-style-type: none"> Status 1 <ul style="list-style-type: none"> ASCD clutch switch signal (CAN from ECM): ON Clutch interlock switch signal: OFF (0 V) Status 2 <ul style="list-style-type: none"> ASCD clutch switch signal (CAN from ECM): OFF Clutch interlock switch signal: ON (Battery voltage)
B26E9: S/L STATUS	<ul style="list-style-type: none"> Inhibit engine cranking Inhibit steering lock 	When BCM transmits the LOCK request signal to steering lock unit, and receives LOCK response signal from steering lock unit, the following conditions are fulfilled <ul style="list-style-type: none"> Steering condition No. 1 signal: LOCK (0V) Steering condition No. 2 signal: LOCK (12 V)

FAIL-SAFE CONTROL BY LIGHT AND RAIN SENSOR MALFUNCTION

BCM detects the light and rain sensor serial link error and the light and rain sensor malfunction.
BCM controls the following fail-safe when light and rain sensor has a malfunction.

Fail-safe Control

- Auto light control: Headlamp low beam, parking lamp, license plate lamp and tail lamp are turned ON.

BCM (BODY CONTROL MODULE)

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

REAR WIPER MOTOR PROTECTION

BCM detects the rear wiper stopping position according to the rear wiper stop position signal.

When the rear wiper stop position signal does not change for more than 5 seconds while driving the rear wiper, BCM stops power supply to protect the rear wiper motor.

Condition of cancellation

1. More than 1 minute is passed after the rear wiper stop.
2. Turn rear wiper switch OFF.
3. Operate the rear wiper switch or rear washer switch.

DTC Inspection Priority Chart

INFOID:000000004957891

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

Priority	DTC
1	B2562: LOW VOLTAGE
2	<ul style="list-style-type: none">• U1000: CAN COMM• U1010: CONTROL UNIT(CAN)
3	<ul style="list-style-type: none">• B2190: NATS ANTENNA AMP• B2191: DIFFERENCE OF KEY• B2192: ID DISCORD BCM-ECM• B2193: CHAIN OF BCM-ECM• B2195: ANTI SCANNING• B2196: DONGLE NG

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Priority	DTC
4	<ul style="list-style-type: none"> • B2013: ID DISCORD BCM-S/L • B2014: CHAIN OF S/L-BCM • B2553: IGNITION RELAY • 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/CLUTCH SW • B2605: PNP/CLUTCH SW • B2606: S/L RELAY • B2607: S/L RELAY • B2608: STARTER RELAY • B2609: S/L STATUS • B260A: IGNITION RELAY • B260B: STEERING LOCK UNIT • B260C: STEERING LOCK UNIT • B260D: STEERING LOCK UNIT • B260F: ENG STATE SIG LOST • B2612: S/L STATUS • B2614: BCM • B2615: BCM • B2616: BCM • B2617: BCM • B2618: BCM • B2619: BCM • B261A: PUSH-BTN IGN SW • B261E: VEHICLE TYPE • B261F: ASCD CNCL/CLTCH SW • B2620: NEUTRAL SW • B26E8: CLUTCH SW • B26E9: S/L STATUS • B26EA: KEY REGISTRATION • U0415: VEHICLE SPEED
5	<ul style="list-style-type: none"> • B2621: INSIDE ANTENNA • B2622: INSIDE ANTENNA • B2623: INSIDE ANTENNA
6	B26E7: TPMS CAN COMM

DTC Index

INFOID:000000004957892

NOTE:

The details of time display are as follows.

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

IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data, refer to [BCS-22, "COMMON ITEM : CONSULT-III Function \(BCM - COMMON ITEM\)"](#).

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warn- ing lamp ON	Reference page
No DTC is detected. Further testing may be required.	—	—	—	—
U1000: CAN COMM	—	—	—	BCS-40
U1010: CONTROL UNIT(CAN)	—	—	—	BCS-41
U0415: VEHICLE SPEED	—	—	—	BCS-42
B2013: ID DISCORD BCM-S/L	×	×	—	SEC-56

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warn- ing lamp ON	Reference page
B2014: CHAIN OF S/L-BCM	×	×	—	SEC-57
B2190: NATS ANTENNA AMP	×	—	—	SEC-47
B2191: DIFFERENCE OF KEY	×	—	—	SEC-50
B2192: ID DISCORD BCM-ECM	×	—	—	SEC-51
B2193: CHAIN OF BCM-ECM	×	—	—	SEC-52
B2195: ANTI SCANNING	×	—	—	SEC-53
B2196: DONGLE NG	×	—	—	SEC-54
B2553: IGNITION RELAY	—	×	—	PCS-55
B2555: STOP LAMP	—	×	—	SEC-60
B2556: PUSH-BTN IGN SW	—	×	×	SEC-62
B2557: VEHICLE SPEED	×	×	×	SEC-64
B2560: STARTER CONT RELAY	×	×	×	SEC-65
B2562: LOW VOLTAGE	—	×	—	BCS-43
B2601: SHIFT POSITION	×	×	×	SEC-66
B2602: SHIFT POSITION	×	×	×	SEC-69
B2603: SHIFT POSI STATUS	×	×	×	SEC-71
B2604: PNP/CLUTCH SW	×	×	×	SEC-74
B2605: PNP/CLUTCH SW	×	×	×	SEC-76
B2606: S/L RELAY	×	×	×	SEC-78
B2607: S/L RELAY	×	×	×	SEC-79
B2608: STARTER RELAY	×	×	×	SEC-81
B2609: S/L STATUS	×	×	×	SEC-83
B260A: IGNITION RELAY	×	×	×	PCS-57
B260B: STEERING LOCK UNIT	—	×	×	SEC-87
B260C: STEERING LOCK UNIT	—	×	×	SEC-88
B260D: STEERING LOCK UNIT	—	×	×	SEC-89
B260F: ENG STATE SIG LOST	×	×	×	SEC-90
B2612: S/L STATUS	×	×	×	SEC-91
B2614: BCM	—	×	×	PCS-59
B2615: BCM	—	×	×	PCS-61
B2616: BCM	—	×	×	PCS-63
B2617: BCM	×	×	×	SEC-95
B2618: BCM	×	×	×	PCS-65
B2619: BCM	×	×	×	SEC-97
B261A: PUSH-BTN IGN SW	—	×	×	PCS-66
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	SEC-98
B261F: ASCD CNCL/CLTCH SW	×	×	×	SEC-99
B2620: NEUTRAL SW	×	×	×	SEC-101
B2621: INSIDE ANTENNA	—	×	—	DLK-68 *1 DLK-326 *2
B2622: INSIDE ANTENNA	—	×	—	DLK-70 *1 DLK-328 *2

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warn- ing lamp ON	Reference page
B2623: INSIDE ANTENNA	—	×	—	DLK-72 ^{*1} DLK-330 ^{*2}
B26E7: TPMS CAN COMM	—	—	—	BCS-44
B26E8: CLUTCH SW	×	×	×	SEC-104
B26E9: S/L STATUS	×	×	× (Turn ON for 15 seconds)	SEC-106
B26EA: KEY REGISTRATION	—	×	× (Turn ON for 15 seconds)	SEC-107

- *1: With super lock
- *2: Without super lock

COMBINATION SWITCH SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

COMBINATION SWITCH SYSTEM SYMPTOMS

Symptom Table

INFOID:000000004957893

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

Malfunction item: x

Malfunction combination	Data monitor item																	
	FR WIPER HI	FR WIPER LOW	FR WASHER SW	FR WIPER INT	RR WIPER ON	RR WIPER INT	RR WASHER SW	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	RR FOG SW
A		x	x						x	x								
B	x			x									x		x			
C							x	x				x		x				
D						x		x			x					x		
E					x			x									x	x
F	x					x		x										
G			x		x		x	x										
H		x		x												x		x
I										x				x	x		x	
J									x		x	x	x					
K	All Items																	
L	If only one item is detected or the item is not applicable to the combinations A to K																	

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-46, "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-48, "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-94, "Exploded View" .
L	Combination switch	Replace the combination switch.

PRECAUTIONS

< PRECAUTION >

PRECAUTION

PRECAUTIONS FOR RUSSIA

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

INFOID:000000006109642

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

Information necessary to service the system safely is included in the "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the "SRS AIR BAG".
- 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 Air Bag Diagnosis Sensor Unit or other Air Bag 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 3 minutes before performing any service.

EXCEPT FOR RUSSIA

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

INFOID:000000006109645

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 "SRS AIR BAG" and "SEAT BELT" 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 "SRS AIR BAG".
- 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 Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s)

PRECAUTIONS

< PRECAUTION >

- with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

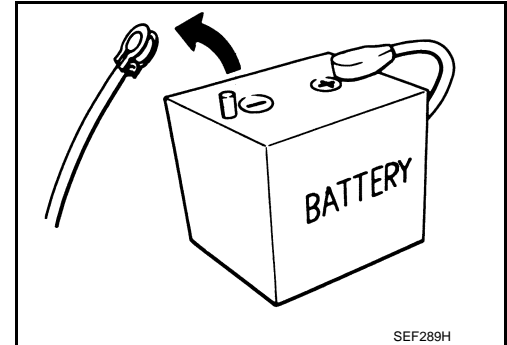
EXCEPT FOR RUSSIA : Precaution for Battery Service (for V9X Models) INFOID:000000006109652

When disconnect the battery cable, pay attention to the following.

- Always use a 12 volt battery as power source.
- Do not attempt to disconnect battery cables while engine is running.
- **Before disconnecting battery cables, turn ignition switch OFF and wait at least 4 minutes.**
- **After high-load driving, turn the ignition switch OFF and wait for at least 15 minutes to remove the battery cable.**

NOTE:

Turbocharger cooling pump may operate in a few minutes after the ignition switch is turned OFF.



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BCS

BCM (BODY CONTROL MODULE)

< REMOVAL AND INSTALLATION >

REMOVAL AND INSTALLATION

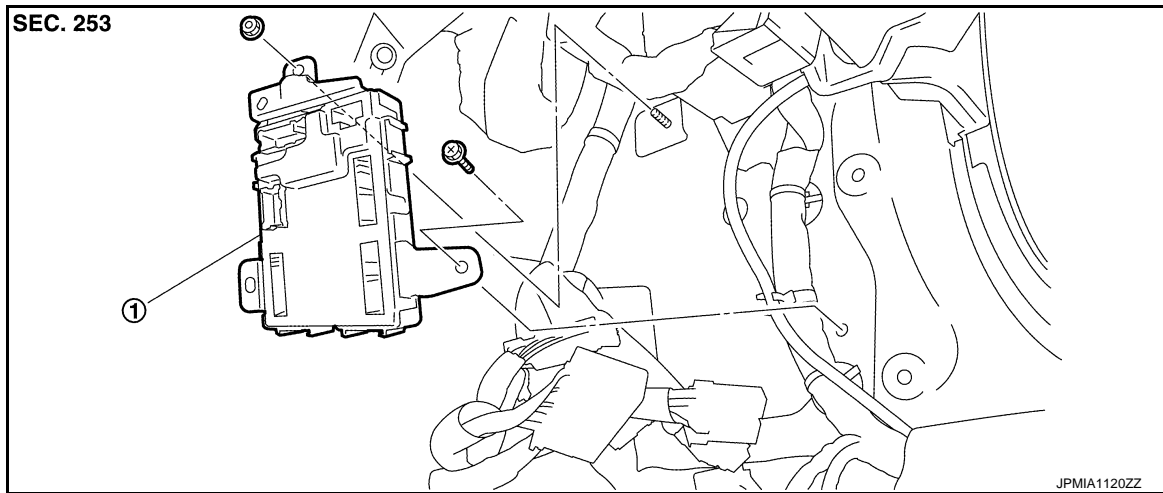
BCM (BODY CONTROL MODULE)

Exploded View

INFOID:000000004957895

CAUTION:

Before replacing BCM, perform "READ CONFIGURATION" to save or print current vehicle specification. Refer to [BCS-3, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT \(BCM\) : Description"](#).



1. BCM

Removal and Installation

INFOID:000000004957896

CAUTION:

Before replacing BCM, perform "READ CONFIGURATION" to save or print current vehicle specification. Refer to [BCS-3, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT \(BCM\) : Description"](#).

REMOVAL

1. Remove dash side finisher (passenger side). Refer to [INT-19, "Exploded View"](#).
2. Remove bolt and nut.
3. Remove BCM and disconnect the connector.

INSTALLATION

Install in the reverse order of removal.

CAUTION:

- Be sure to perform "WRITE CONFIGURATION" when replacing BCM.
- Be sure to perform the system initialization (NATS) when replacing BCM. Refer to [BCS-3, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT \(BCM\) : Work Procedure"](#).

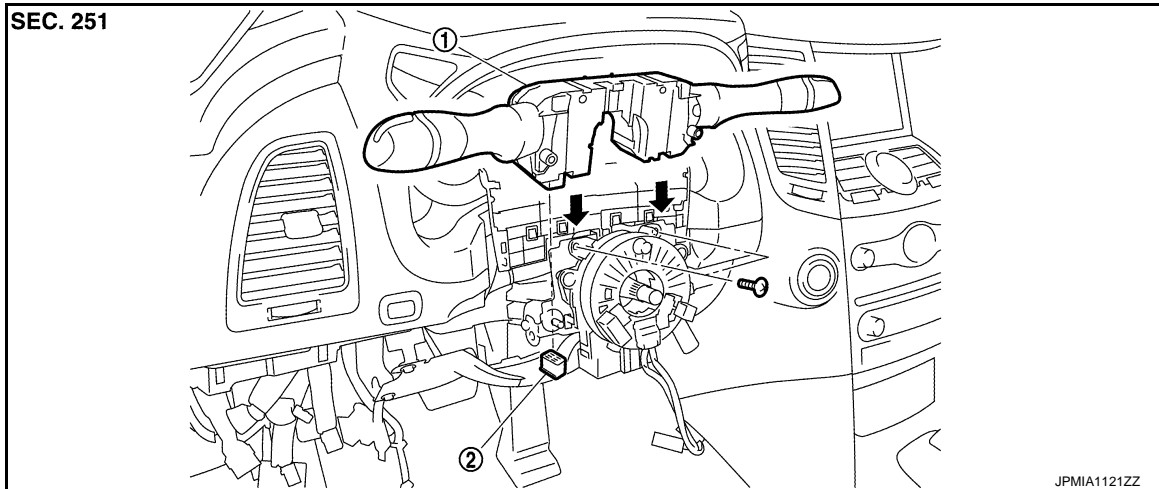
COMBINATION SWITCH

< REMOVAL AND INSTALLATION >

COMBINATION SWITCH

Exploded View

INFOID:000000004957897



1. Combination switch

2. Combination switch connector

Removal and Installation

INFOID:000000004957898

REMOVAL

1. Remove steering column cover. Refer to [IP-14, "A/T MODELS : Exploded View"](#).
2. Remove screws.
3. Disconnect the connector.
4. Pull up the combination switch to remove it.

INSTALLATION

Install in the reverse order of removal.

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BCS