

SECTION BCS

BODY CONTROL SYSTEM

CONTENTS

BASIC INSPECTION	3	COMMON ITEM	20
INSPECTION AND ADJUSTMENT	3	COMMON ITEM : CONSULT Function (BCM -	
ADDITIONAL SERVICE WHEN REPLACING		COMMON ITEM)	20
CONTROL UNIT (BCM)	3	DOOR LOCK	21
ADDITIONAL SERVICE WHEN REPLACING		DOOR LOCK : CONSULT Function (BCM -	
CONTROL UNIT (BCM) : Description	3	DOOR LOCK)	21
ADDITIONAL SERVICE WHEN REPLACING		REAR WINDOW DEFOGGER	23
CONTROL UNIT (BCM) : Work Procedure	3	REAR WINDOW DEFOGGER : CONSULT Func-	
CONFIGURATION (BCM)	3	tion (BCM - REAR DEFOGGER)	23
CONFIGURATION (BCM) : Description	4	BUZZER	23
CONFIGURATION (BCM) : Work Procedure	4	BUZZER : CONSULT Function (BCM - BUZZER)...	23
CONFIGURATION (BCM) : Configuration list	5	INT LAMP	24
TRANSIT MODE CANCEL OPERATION	8	INT LAMP : CONSULT Function (BCM - INT	
Description	8	LAMP)	24
Work Procedure	8	HEADLAMP	25
SYSTEM DESCRIPTION	9	HEADLAMP : CONSULT Function (BCM - HEAD	
BODY CONTROL SYSTEM	9	LAMP)	26
System Description	9	WIPER	28
Component Parts Location	10	WIPER : CONSULT Function (BCM - WIPER)	28
COMBINATION SWITCH READING SYSTEM		FLASHER	29
.....	11	FLASHER : CONSULT Function (BCM - FLASH-	
System Diagram	11	ER)	29
System Description	11	INTELLIGENT KEY	30
SIGNAL BUFFER SYSTEM	15	INTELLIGENT KEY : CONSULT Function (BCM -	
System Diagram	15	INTELLIGENT KEY)	30
System Description	15	COMB SW	33
POWER CONSUMPTION CONTROL SYS-		COMB SW : CONSULT Function (BCM - COMB	
TEM	17	SW)	33
System Diagram	17	BCM	34
System Description	17	BCM : CONSULT Function (BCM - BCM)	34
Component Parts Location	19	IMMU	34
DIAGNOSIS SYSTEM (BCM)	20	IMMU : CONSULT Function (BCM - IMMU)	34

BATTERY SAVER	35	Diagnosis Procedure	44
BATTERY SAVER : CONSULT Function (BCM - BATTERY SAVER)	35	COMBINATION SWITCH INPUT CIRCUIT	45
TRUNK	36	Diagnosis Procedure	45
TRUNK : CONSULT Function (BCM - TRUNK)	36	COMBINATION SWITCH OUTPUT CIRCUIT ...	47
THEFT ALM	36	Diagnosis Procedure	47
THEFT ALM : CONSULT Function (BCM - THEFT ALM)	37	ECU DIAGNOSIS INFORMATION	49
RETAIND PWR	38	BCM (BODY CONTROL MODULE)	49
RETAIND PWR : CONSULT Function (BCM - RE- TAINED PWR)	38	Reference Value	49
SIGNAL BUFFER	38	Wiring Diagram - BCM -	71
SIGNAL BUFFER : CONSULT Function (BCM - SIGNAL BUFFER)	38	Fail-safe	86
DTC/CIRCUIT DIAGNOSIS	39	DTC Inspection Priority Chart	87
U1000 CAN COMM	39	DTC Index	88
Description	39	SYMPTOM DIAGNOSIS	90
DTC Logic	39	COMBINATION SWITCH SYSTEM SYMP- TOMS	90
Diagnosis Procedure	39	Symptom Table	90
U1010 CONTROL UNIT (CAN)	40	NORMAL OPERATING CONDITION	91
DTC Logic	40	Description	91
Diagnosis Procedure	40	PRECAUTION	92
U0415 VEHICLE SPEED SIG	41	PRECAUTIONS	92
Description	41	Precautions for Removing Battery Terminal	92
DTC Logic	41	Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TEN- SIONER"	92
Diagnosis Procedure	41	REMOVAL AND INSTALLATION	93
B2562 LOW VOLTAGE	42	BCM (BODY CONTROL MODULE)	93
DTC Logic	42	Exploded View	93
Diagnosis Procedure	42	Removal and Installation	93
B26E7 TPMS CAN COMM	43	COMBINATION SWITCH	94
DTC Logic	43	Exploded View	94
Diagnosis Procedure	43	Removal and Installation	94
POWER SUPPLY AND GROUND CIRCUIT	44		

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:0000000010576856

Perform the following operations when replacing BCM. [For details, refer to [BCS-3. "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT \(BCM\) : Work Procedure"](#).]

BEFORE REPLACEMENT

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

NOTE:

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

AFTER REPLACEMENT

CAUTION:

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

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

NOTE:

When replacing BCM, perform the system initialization (NATS).

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

INFOID:0000000010576857

1. SAVING VEHICLE SPECIFICATION

ⓈCONSULT Configuration

Perform "Before Replace ECU" of "Read / Write Configuration" to save or print current vehicle specification. Refer to [BCS-4. "CONFIGURATION \(BCM\) : Description"](#).

NOTE:

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

>> GO TO 2.

2. REPLACE BCM

Replace BCM. Refer to [BCS-93. "Removal and Installation"](#).

>> GO TO 3.

3. WRITING VEHICLE SPECIFICATION

ⓈCONSULT Configuration

Perform "After Replace ECU" of "Read / Write Configuration" or "Manual Configuration" 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)

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

CONFIGURATION (BCM) : Description

INFOID:000000010576858

Vehicle specification needs to be written with CONSULT because it is not written after replacing BCM. Configuration has three functions as follows. [For details, refer to [BCS-4. "CONFIGURATION \(BCM\) : Work Procedure"](#).]

Function		Description
Read / Write Configuration	Before Replace ECU	<ul style="list-style-type: none">• Reads the vehicle configuration of current BCM.• Saves the read vehicle configuration.
	After Replace ECU	Writes the vehicle configuration with saved data.
Manual Configuration		Writes the vehicle configuration with manual selection.

NOTE:

Manual setting item: Items which need selection by vehicle specifications

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

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

CAUTION:

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

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

CONFIGURATION (BCM) : Work Procedure

INFOID:000000010576859

1. WRITING MODE SELECTION

ⓅCONSULT 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 Configuration
Perform "WRITE CONFIGURATION - Config file".

>> WORK END

3. PERFORM "WRITE CONFIGURATION - MANUAL SELECTION"

- ⓅCONSULT 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. ECU control may not operate normally if the setting is not correct.
NOTE:
If items are not displayed, touch "SETTING". Refer to [BCS-5. "CONFIGURATION \(BCM\) : Configuration list"](#) for written items and setting value.
 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".

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

>> GO TO 4.

4. OPERATION CHECK

Confirm that each function controlled by BCM operates normally.

>> WORK END

CONFIGURATION (BCM) : Configuration list

INFOID:0000000010576860

CAUTION:

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

NOTE:

Check the vehicle type according to the CONSULT display items.

TYPE A

MANUAL SETTING ITEM		NOTE
Items	Setting value	
BATTERY SAVER FUNCTION	MODE1	MODE1: With Intelligent Key system
ACC BAT SAVE FUNC	MODE1	MODE1: With Intelligent Key system
DTRL	WITH ⇔ WITHOUT	<ul style="list-style-type: none"> • WITH: With daytime running light system • WITHOUT: Without daytime running light system
RAIN SENSOR CONFIG	WITH ⇔ WITHOUT	<ul style="list-style-type: none"> • WITH: With rain sensor • WITHOUT: Without rain sensor

⇔: Items which confirm vehicle specifications

AUTO SETTING ITEM		NOTE
Items	Setting value	
UNLOCK WITH SHOCK	WITHOUT	—
AUTO DOOR LOCK SPEED	MODE2	—
P-POS WARN	MODE1	—
ROOF FUNCTION	W/O REQ SW	—
ROOM LAMP ON TIME	MODE5	—
ROOM LAMP OFF TIME	MODE5	—
AV C/U	WITH	—
AUTO BACK DOOR	WITH	—
Trunk/Glass Hatch select	Glass Hatch	Even on a vehicle without glass hatch. It displays “Glass Hatch”.
TRANSIT MODE	WITH	—
TR OPEN SW (INT)	MODE1	—
DI LMP VARIAT	MODE2	—
LIGHT RECOG	MODE4	—
TRANSMISSION	AT with ABS	—
REAR WIPER	WITH	—
TR CANCEL SW	WITHOUT	—
BCM AC CONTROL	MODE1	—
WELCOME LIGHT TIMER2	MODE4	—
TPMS	TPMS SBF	—

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

AUTO SETTING ITEM		NOTE
Items	Setting value	
RAIN SEN TYPE	MODE3	—
Key Fob Type	MODE7	—
WELCOME LIGHT OP SET	WITH	—

TYPE B

MANUAL SETTING ITEM		NOTE
Items	Setting value	
DTRL	WITH ⇔ WITHOUT	<ul style="list-style-type: none"> • WITH: With daytime running light system • WITHOUT: Without daytime running light system
RAIN SENSOR CONFIG	WITH ⇔ WITHOUT	<ul style="list-style-type: none"> • WITH: With rain sensor • WITHOUT: Without rain sensor

⇔: Items which confirm vehicle specifications

AUTO SETTING ITEM		NOTE
Items	Setting value	
UNLOCK WITH SHOCK	WITHOUT	—
P-POS WARN	MODE1	—
ROOF FUNCTION	W/O REQ SW	—
ACC BATTERY SAVER	MODE1	—
IGN BATTERY SAVER	MODE2	—
BATTERY SAVER FUNCTION	MODE3	—
ROOM LAMP ON TIME	MODE5	—
ROOM LAMP OFF TIME	MODE5	—
AV C/U	WITH	—
Trunk/Glass Hatch select	Glass Hatch	Even on a vehicle without glass hatch. It displays "Glass Hatch".
PANIC ALM TYPE	MODE1	—
TRANSIT MODE	WITH	—
SHIPPING MODE	MODE2	—
TR OPEN SW (INT)	MODE1	—
DI LMP VARIAT	MODE2	—
LIGHT RECOG	MODE4	—
TRANSMISSION	AT with ABS	—
REAR WIPER	WITH	—
THEFT ALM AREA	MODE2	—
H/L WASHER	MODE1	—
TR CANCEL SW	WITHOUT	—
BCM AC CONTROL	MODE1	—
WELCOME LIGHT TIMER2	MODE4	—
TPMS	TPMS SBF	—
FR FOG LOGIC	MODE1	—
AUTO LOCK&UNLOCK FUNC	WITH	—
AUTO DOOR LOCK SELECT	WITH	—
AUTO DOOR UNLOCK SELECT	WITH	—
RAIN SEN TYPE	MODE3	—

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

AUTO SETTING ITEM		NOTE
Items	Setting value	
Key Fob Type	MODE7	—
WELCOME LIGHT OP SET	WITH	—

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TRANSIT MODE CANCEL OPERATION

< BASIC INSPECTION >

TRANSIT MODE CANCEL OPERATION

Description

INFOID:0000000010576861

- BCM is in transit mode if turn signal indicator on combination meter turns ON for 1 minute when ignition switch is turned from OFF to ON.
- In this case, cancel operation must be performed.

NOTE:

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

Work Procedure

INFOID:0000000010576862

1. TRANSIT MODE CANCEL OPERATION

1. Turn ignition switch OFF.
2. Turn and hold front wiper switch to HI, and then operate turn signal switch to RH or LH.

>> GO TO 2.

2. TRANSIT MODE CANCEL CHECK

1. Turn front wiper switch and turn signal switch OFF.
2. Turn ignition switch ON.
3. Check that turn signal indicator on combination meter does not turn ON.

>> WORK END

BODY CONTROL SYSTEM

< SYSTEM DESCRIPTION >

SYSTEM DESCRIPTION

BODY CONTROL SYSTEM

System Description

INFOID:0000000010576863

OUTLINE

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

BCM CONTROL FUNCTION LIST

System	Reference
Combination switch reading system	BCS-11, "System Diagram"
Signal buffer system	BCS-15, "System Diagram"
Power consumption control system	BCS-17, "System Diagram"
Auto light system	EXL-13, "System Diagram"
Turn signal and hazard warning lamp system	EXL-26, "System Diagram"
Headlamp system	EXL-9, "System Diagram"
Parking, license plate and tail lamps system	EXL-28, "System Diagram"
Front fog lamp system	EXL-23, "System Diagram"
Exterior lamp battery saver system	EXL-31, "System Diagram"
Daytime running light system	EXL-16, "System Diagram"
Interior room lamp control system	INL-7, "System Diagram"
Step lamp system	
Interior room lamp battery saver system	
Front wiper and washer system	<ul style="list-style-type: none">• WW-6, "WITH RAIN SENSOR : System Diagram" (With rain sensor)• WW-10, "WITHOUT RAIN SENSOR : System Diagram" (Without rain sensor)
Rear wiper and washer system	WW-15, "System Diagram"
Warning chime system	WCS-5, "WARNING CHIME SYSTEM : System Diagram"
Door lock system	DLK-15, "System Diagram"
Automatic back door system	DLK-49, "System Diagram"
Infiniti Vehicle Immobilizer System (IVIS) - NATS	SEC-15, "System Diagram"
Vehicle security system	SEC-19, "System Diagram"
Panic alarm	
Automatic drive positioner system	ADP-13, "AUTOMATIC DRIVE POSITIONER SYSTEM : System Diagram"
Rear window defogger system	DEF-4, "System Diagram"

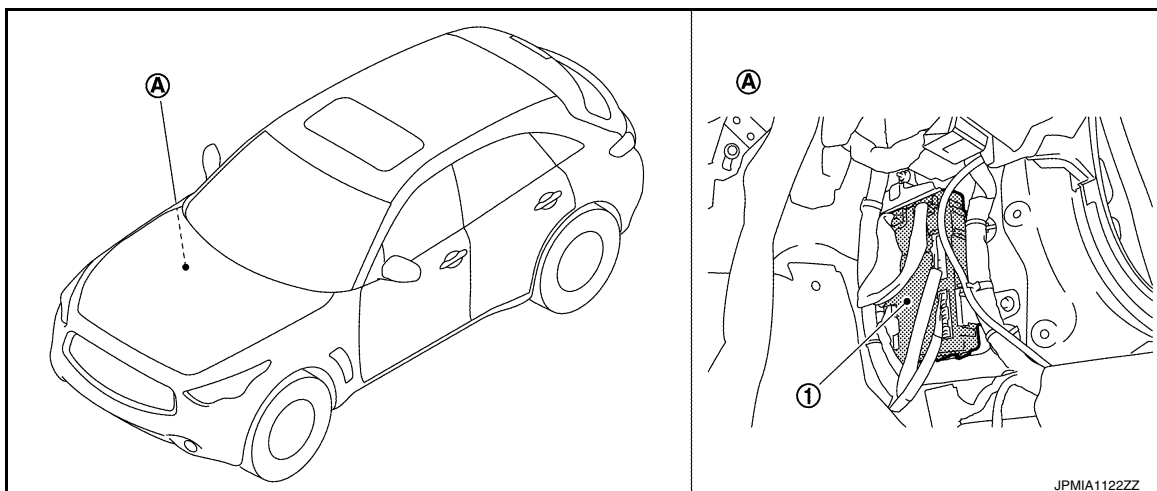
BODY CONTROL SYSTEM

< SYSTEM DESCRIPTION >

System		Reference
Intelligent Key system/engine start system	Door lock unlock function	DLK-19, "INTELLIGENT KEY SYSTEM : System Diagram"
	Remote keyless function	
	Back door open function	
	Warning function	
	Key reminder function	
	Engine start function	
Power window system		PWC-7, "System Diagram"
Retained accessory power (RAP) system		PWC-7, "System Description"

Component Parts Location

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

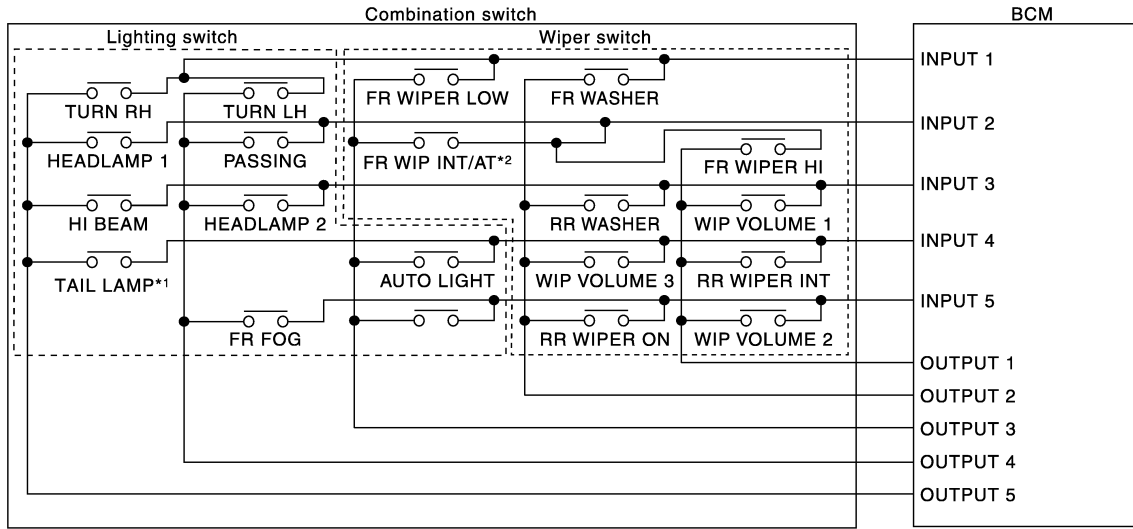
COMBINATION SWITCH READING SYSTEM

< SYSTEM DESCRIPTION >

COMBINATION SWITCH READING SYSTEM

System Diagram

INFOID:000000010576865



NOTE:

- *1: TAIL LAMP switch links lighting switch 1ST position.
- *2: "FR WIP INT/AT" is FR WIPER INT/AUTO.

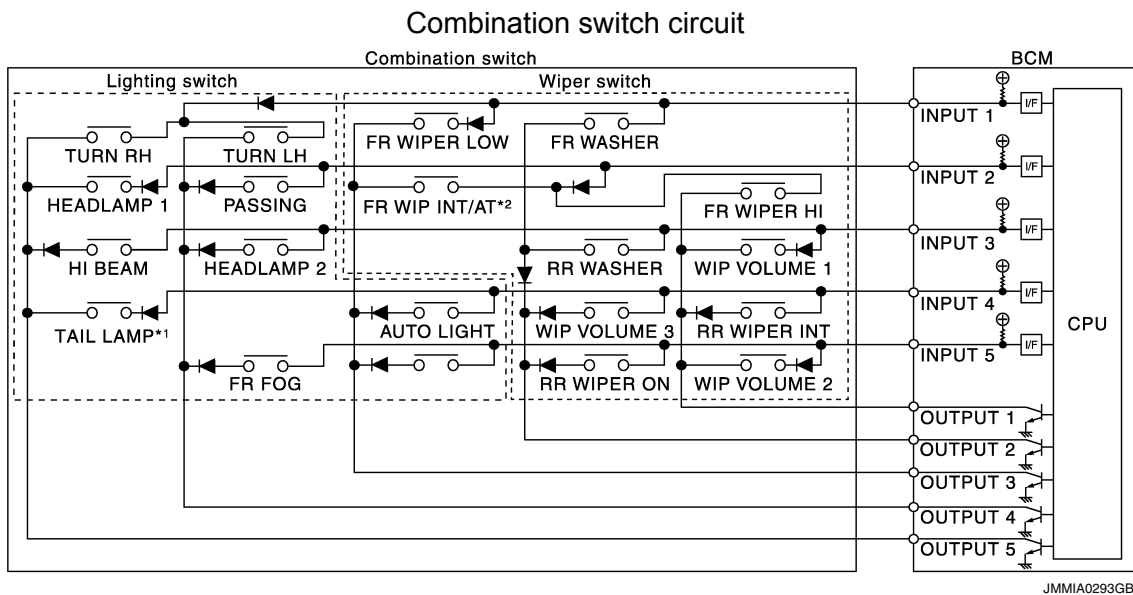
System Description

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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



NOTE:

- *1: TAIL LAMP switch links lighting switch 1ST position.
- *2: "FR WIP INT/AT" is FR WIPER INT/AUTO.

COMBINATION SWITCH READING SYSTEM

< SYSTEM DESCRIPTION >

Combination switch INPUT-OUTPUT system list

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

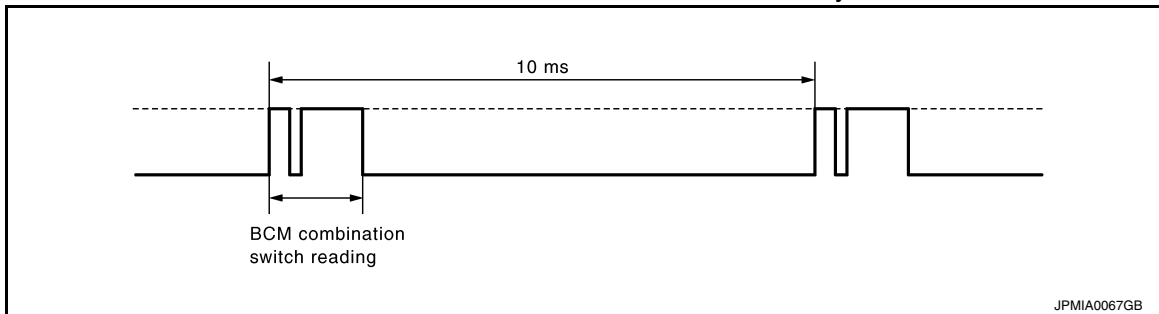
NOTE:

Headlamp has a dual system switch.

COMBINATION SWITCH READING FUNCTION

Description

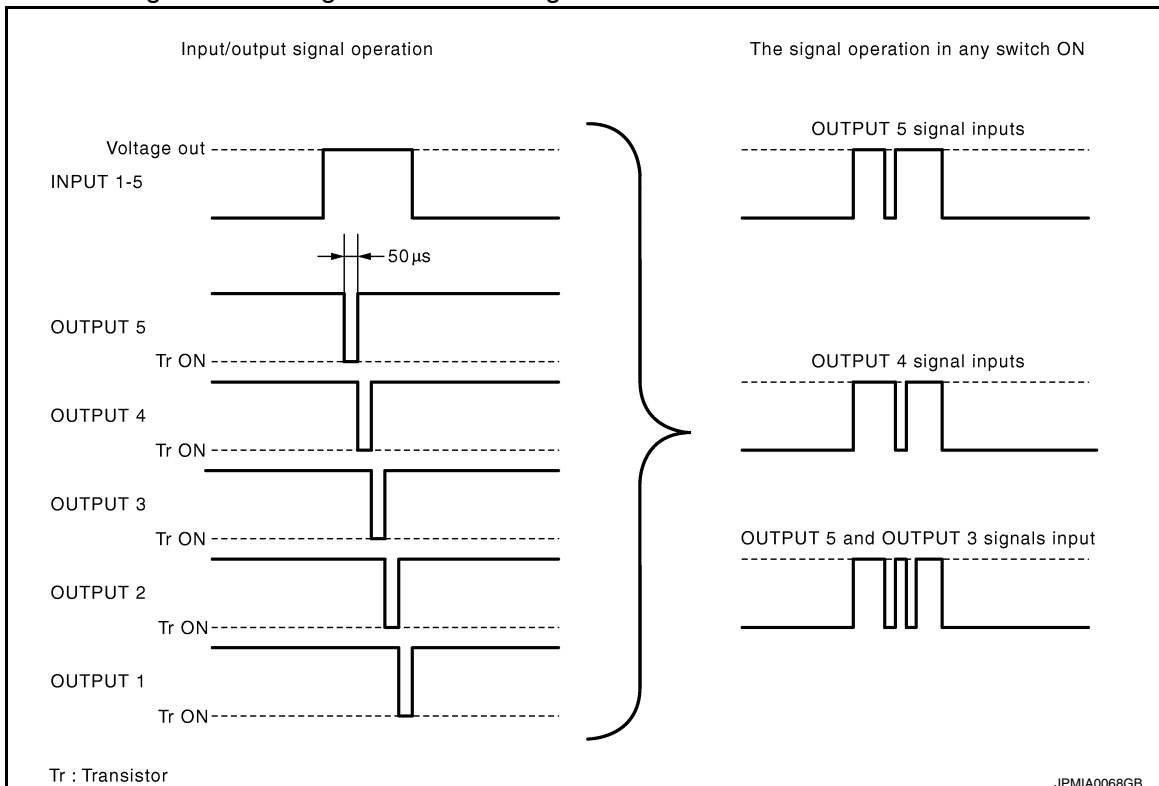
- BCM reads the status of the combination switch at 10 ms interval normally.



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.



COMBINATION SWITCH READING SYSTEM

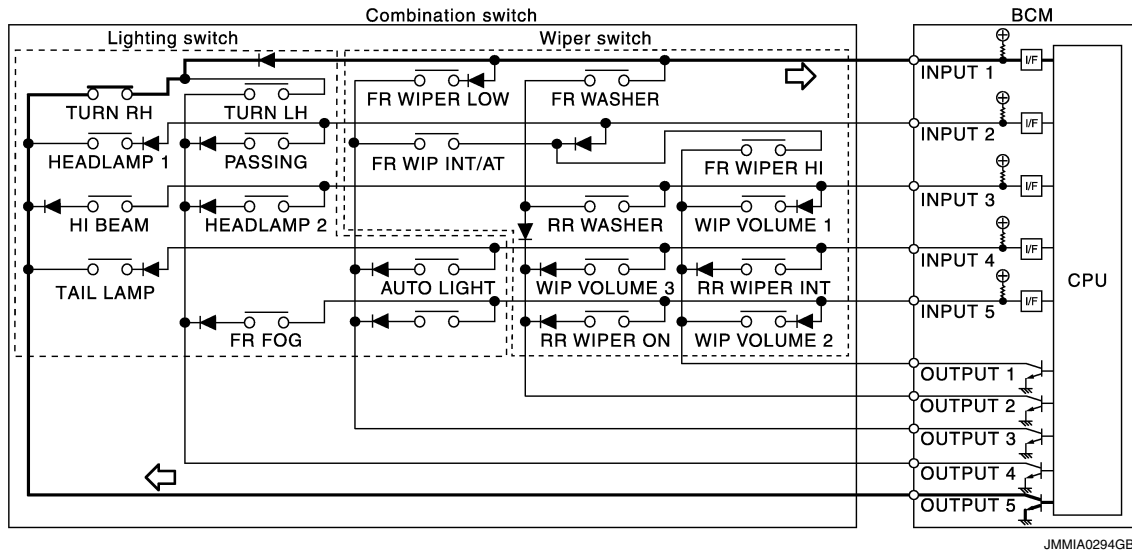
< SYSTEM DESCRIPTION >

Operation Example

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

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

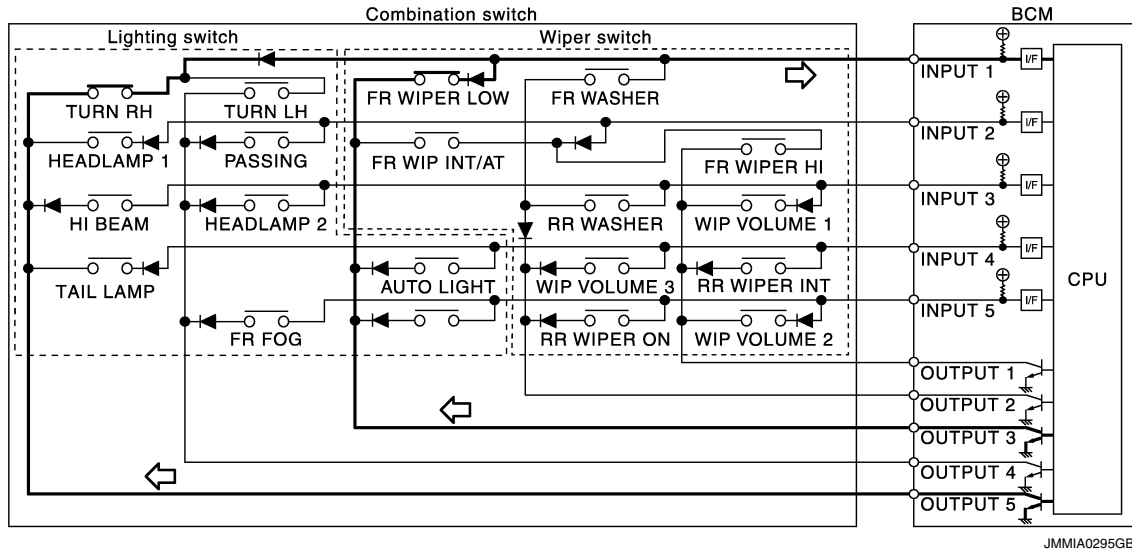
- The circuit between INPUT 1 and OUTPUT 5 is formed when the TURN RH switch is turned ON.



- 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

COMBINATION SWITCH READING SYSTEM

< SYSTEM DESCRIPTION >

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

NOTE:

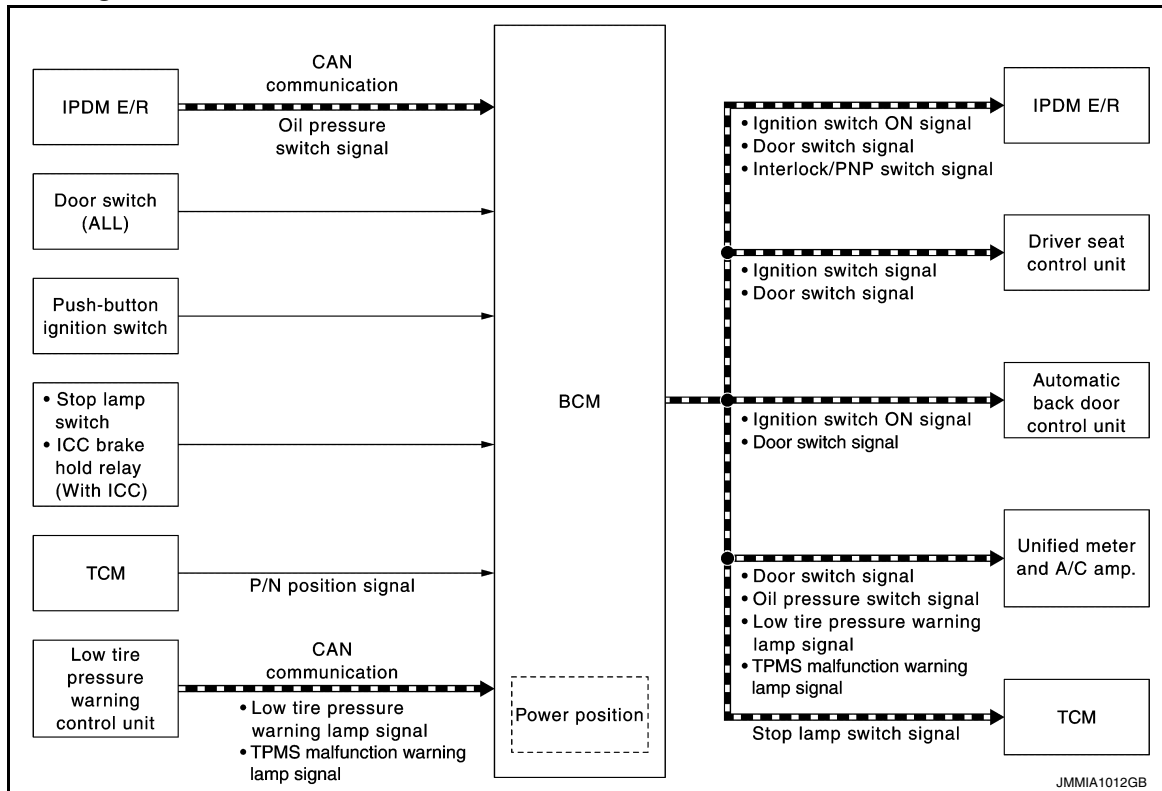
For details of wiper volume dial position, refer to [WW-6. "WITH RAIN SENSOR : System Description"](#) (with rain sensor), [WW-10. "WITH-OUT RAIN SENSOR : System Description"](#) (without rain sensor).

SIGNAL BUFFER SYSTEM

< SYSTEM DESCRIPTION >

SIGNAL BUFFER SYSTEM

System Diagram



System Description

INFOID:0000000010576868

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) Automatic back door 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"> 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)	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.
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.

SIGNAL BUFFER SYSTEM

< SYSTEM DESCRIPTION >

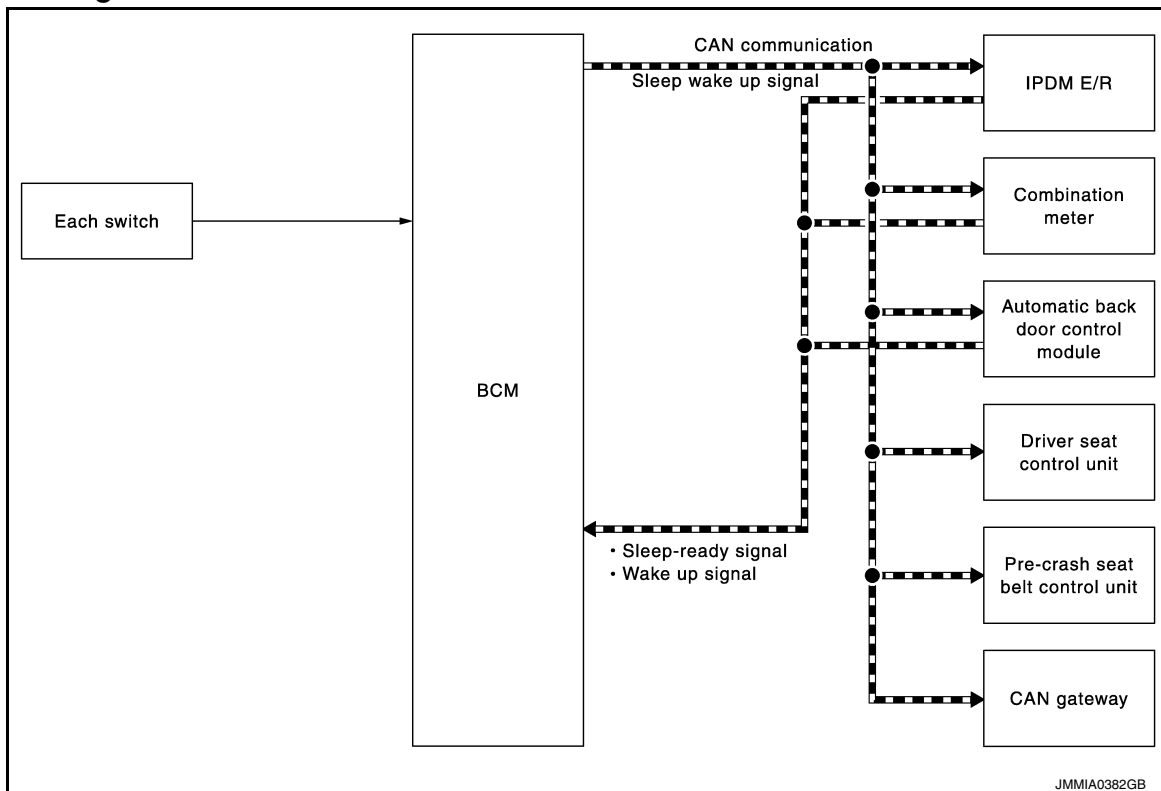
Signal name	Input	Output	Description
Low tire pressure warning lamp signal	Low tire pressure warning control unit	Unified meter and A/C amp. (CAN)	Transmits the received low tire pressure warning lamp signal via CAN communication.
TPMS malfunction warning lamp signal	Low tire pressure warning control unit	Unified meter and A/C amp. (CAN)	Transmits the received TPMS malfunction warning lamp signal via CAN communication.

POWER CONSUMPTION CONTROL SYSTEM

< SYSTEM DESCRIPTION >

POWER CONSUMPTION CONTROL SYSTEM

System Diagram



NOTE:

Combination meter is received via unified meter and A/C amp.

System Description

INFOID:0000000010576870

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.), driver seat control unit, pre-crash seat belt control unit, automatic back door control unit and CAN gateway] 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, unified meter and A/C amp. and automatic back door control unit via CAN communication.
- BCM transmits the sleep wake up signal (sleep) to each unit when all of the CAN sleep conditions are fulfilled.

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POWER CONSUMPTION CONTROL SYSTEM

< SYSTEM DESCRIPTION >

- Each unit stops the transmission of CAN communication with the sleep wake up signal. BCM is in CAN communication sleep mode.
- BCM is in the low power consumption mode and perform the low power consumption control when all of the BCM sleep conditions are fulfilled with CAN sleep condition.

Sleep condition

CAN sleep condition	BCM sleep condition
<ul style="list-style-type: none"> • Receiving the sleep-ready signal (ready) from all units • Ignition switch: OFF • Vehicle security system and panic alarm: 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 communication status: Not communication • Meter display signal: Non-transmission • Door switch status: No change • Rear window defogger: OFF 	<ul style="list-style-type: none"> • Interior room lamp battery saver: Time out • RAP system: OFF • Power window switch communication: No transmission • Push-button ignition switch 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

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

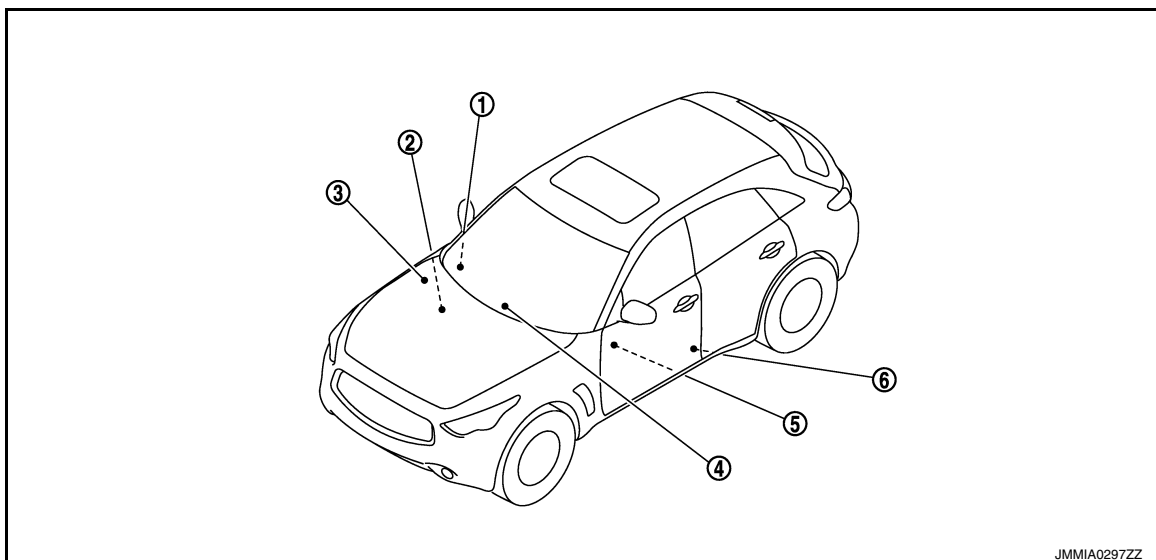
BCM wake-up condition	CAN wake-up condition
<ul style="list-style-type: none"> • Power window switch communication: Receiving • Remote keyless entry receiver: Receiving 	<ul style="list-style-type: none"> • Receiving the sleep-ready signal (Not-ready) from any units • Key slot (key switch): OFF → ON, ON → OFF • Push-button ignition switch (push switch): OFF → ON • Hazard switch: OFF → ON • PASSING switch: OFF → ON, ON → OFF • TAIL LAMP 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

POWER CONSUMPTION CONTROL SYSTEM

< SYSTEM DESCRIPTION >

Component Parts Location

INFOID:0000000010576871



- | | | |
|---|--|---|
| 1. CAN gateway
Refer to LAN-118, "Component Parts Location" . | 2. BCM
Refer to BCS-10, "Component Parts Location" . | 3. IPDM E/R
Refer to PCS-5, "Component Parts Location" . |
| 4. Unified meter and A/C amp.
Refer to MWI-10, "METER SYSTEM : Component Parts Location" . | 5. Driver seat control unit
Refer to ADP-15, "AUTOMATIC DRIVE POSITIONER SYSTEM : Component Parts Location" . | 6. Pre-crash seat belt control unit
Refer to SBC-9, "Component Parts Location" . |

BCS

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000010576872

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

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

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)	F
	ACC>OFF		While turning power supply position from "ACC" to "OFF"	
	OFF>LOCK		While turning power supply position from "OFF" to "LOCK"*	G
	OFF>ACC		While turning power supply position from "OFF" to "ACC"	
	ON>CRANK		While turning power supply position from "IGN" to "CRANKING"	
	OFF>SLEEP		While turning BCM status from normal mode (Power supply position is "OFF".) to low power consumption mode	H
	LOCK>SLEEP		While turning BCM status from normal mode (Power supply position is "LOCK"*) to low power consumption mode	I
	LOCK		Power supply position is "LOCK"*	
	OFF		Power supply position is "OFF" (Ignition switch OFF)	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

NOTE:

*: Power supply position shifts to "LOCK" from "OFF", when ignition switch is in the OFF position, selector lever is in the P position, and any of the following conditions are met.

- Closing door
- Opening door
- Door is locked using door request switch
- Door is locked using Intelligent Key

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

DOOR LOCK

DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)

INFOID:0000000011009627

BCM CONSULT FUNCTION

CONSULT performs the following functions via CAN communication with BCM.

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

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

WORK SUPPORT

Monitor item	Description
DOOR LOCK-UNLOCK SET	Selective unlock function mode can be changed to operate (WITH) or not operate (WITHOUT) with this mode.
AUTOMATIC DOOR LOCK SELECT	Automatic door lock function mode can be selected from the following in this mode. <ul style="list-style-type: none"> VH SPD: All doors are locked when vehicle speed more than 24km/h (15MPH) P RANGE: All doors are locked when shifting the selector lever from P position to other than the P position
AUTOMATIC DOOR UNLOCK SELECT	Automatic door unlock function mode can be selected from the following in the 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 in 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

NOTE:

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

Monitor Item	Contents
REQ SW-DR	Indicated [ON/OFF] condition of door request switch (driver side).
REQ SW-AS	Indicated [ON/OFF] condition of door request switch (passenger side).
REQ SW-BD/TR	Indicated [ON/OFF] condition of back door 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	Indicated [ON/OFF] condition of lock signal from door key cylinder.
KEY CYL UN-SW	Indicated [ON/OFF] condition of unlock signal from door key cylinder.

ACTIVE TEST

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

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 screen is touched.• The all door lock actuators are unlocked when "ALL UNLK" on CONSULT screen is touched.• The door lock actuator (driver side) is unlocked when "DR UNLK" on CONSULT screen is touched.• The door lock actuator (passenger side) is unlocked when "AS UNLK" on CONSULT screen is touched.• The door lock actuator (rear LH and RH) is unlocked when "OTR ULK" on CONSULT screen is touched.

REAR WINDOW DEFOGGER

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

INFOID:0000000011009638

DATA MONITOR

NOTE:

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

Monitor Item	Description
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	Rear window defogger operates when "ON" on CONSULT screen is touched.

BUZZER

BUZZER : CONSULT Function (BCM - BUZZER)

INFOID:0000000011009639

CONSULT 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

NOTE:

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

Display item [Unit]	Description
PUSH SW [On/Off]	Status of push button ignition switch judged by BCM.
UNLK SEN-DR [On/Off]	Status of unlock sensor judged by BCM.
VEH SPEED 1 [Km/h 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.

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

Display item [Unit]	Description
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 Function (BCM - INT LAMP)

INFOID:0000000011009635

WORK SUPPORT

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

NOTE:

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

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

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
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)
DOOR SW-BK [On/Off]	The switch status input from back door switch
CDL LOCK SW [On/Off]	Lock switch status received from door lock/unlock switch by power window switch serial link
CDL UNLOCK SW [On/Off]	Unlock switch status received from door lock/unlock switch by power window switch serial link
KEY CYL LK-SW [On/Off]	Lock switch status received from key cylinder switch by power window switch serial link
KEY CYL UN-SW [On/Off]	Unlock switch status received from key cylinder switch by power window switch serial link
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

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

HEADLAMP : CONSULT Function (BCM - HEAD LAMP)

INFOID:0000000011009633

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	
ILL DELAY SET	MODE 1*	45 sec.	Sets delay timer function timer operation time. (All doors closed)
	MODE 2	Without the function	
	MODE 3	30 sec.	
	MODE 4	60 sec.	
	MODE 5	90 sec.	
	MODE 6	120 sec.	
	MODE 7	150 sec.	
	MODE 8	180 sec.	

*: Factory setting

DATA MONITOR

NOTE:

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

Monitor item [Unit]	Description
PUSH SW [On/Off]	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

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description
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]	
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]	The value of exterior brightness voltage input from the optical sensor

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.
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	NOTE: The item is indicated, but cannot be tested.
	Off	
CORNERING LAMP	RH	NOTE: The item is indicated, but cannot be tested.
	LH	
	Off	

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

Test item	Operation	Description
ILL DIM SIGNAL	On	NOTE: The item is indicated, but cannot be tested.
	Off	

WIPER

WIPER : CONSULT Function (BCM - WIPER)

INFOID:0000000011009637

WORK SUPPORT

Service item	Setting item	Description
WIPER SPEED SETTING*1	On	With vehicle speed (Front wiper intermittent time linked with the vehicle speed and wiper intermittent dial position)
	Off*2	Without vehicle speed (Front wiper intermittent time linked with the wiper intermittent dial position)

*1:For models without rain sensor.

*2:Factory setting.

DATA MONITOR

NOTE:

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

Monitor Item [Unit]	Description
PUSH SW [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.
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.
H/L WASH SW [Off/On]	NOTE: The item is indicated, but not monitored.

ACTIVE TEST

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

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.

FLASHER

FLASHER : CONSULT Function (BCM - FLASHER)

INFOID:000000011009634

WORK SUPPORT

Service item	Setting item	Setting
HAZARD ANSWER BACK	Lock/Unlk*	With locking/unlocking
	Unlk Only	With unlocking only
	Lock Only	With locking only
	Off	Without the function

*: Factory setting

DATA MONITOR

NOTE:

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

Monitor item [Unit]	Description
REQ SW-DR [On/Off]	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]	
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

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

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 Function (BCM - INTELLIGENT KEY)

INFOID:0000000011009628

WORK SUPPORT

Monitor item	Description
REMO CONT ID CONFIR	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 min. • MODE 2: 5 min. • MODE 3: 30 sec. • MODE 4: 2 min.
WELCOME LIGHT OP SET	Welcome light function mode can be changed to operate (WITH) or not operate (WITHOUT) in 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 (WITH) or not operate (WITHOUT) in this mode.
ENGINE START BY I-KEY	Engine start function mode can be changed to operate (WITH) or not operate (WITHOUT) in this mode.
TRUNK/GLASS HATCH OPEN	Buzzer reminder function mode by back door request switch can be changed to operate (ON) or not operate (OFF) in this mode.
PANIC ALARM SET	Panic alarm button pressing time on Intelligent Key remote control button can be selected from the following in this mode. <ul style="list-style-type: none"> • MODE 1: 0.5 sec. • MODE 2: Non-operational • MODE 3: 1.5 sec.
PW DOWN SET	Unlock button pressing time on Intelligent Key button can be selected from the following in this mode. <ul style="list-style-type: none"> • MODE 1: 3 sec. • MODE 2: Non-operational • 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 (WITH) or not operate (WITHOUT) with this mode.
ANTI KEY LOCK IN FUNCTI	Key reminder function mode can be changed to operate (WITH) or not operate (WITHOUT) with this mode.
HAZARD ANSWER BACK	Hazard reminder function mode can be selected from the following in 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-operational
ANS BACK I-KEY LOCK	Buzzer reminder function (lock operation) mode by door request switch (driver side and passenger side) can be selected from the following in this mode. <ul style="list-style-type: none"> • Horn chirp: Sound horn • Buzzer: Sound Intelligent Key warning buzzer • OFF: Non-operational
ANS BACK I-KEY UNLOCK	Buzzer reminder function (unlock operation) mode by door request switch can be changed to operate (ON) or not operate (OFF) in this mode.

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

Monitor item	Description
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.
HORN WITH KEYLESS LOCK	Horn reminder function mode by Intelligent Key button can be changed to operate (ON) or not operate (OFF) in this mode.
WELCOME LIGHT SELECT	Welcome light function mode can be selected from the following in this mode. <ul style="list-style-type: none"> • Puddle Lamp (ON/OFF) • Room Lamp (ON/OFF) • Head and Tail Lamps (This item is displayed, but cannot be supported.) • Outside Handle (This item is displayed, but cannot be supported.)

SELF-DIAG RESULT

Refer to [BCS-88, "DTC Index"](#).

DATA MONITOR

NOTE:

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

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 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.
CLUCH SW	NOTE: This item is displayed, but cannot be monitored.
BRAKE SW 1	Indicates [ON/OFF] condition of brake switch.
DETE/CANCL SW	Indicates [ON/OFF] condition of the P position.
SFT PN/N SW	Indicates [ON/OFF] condition of the P or N position.
S/L -LOCK	NOTE: This item is displayed, but cannot be monitored.
S/L -UNLOCK	NOTE: This item is displayed, but cannot be monitored.
S/L RELAY -F/B	NOTE: This item is displayed, but cannot be monitored.
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 the P position.
SFT PN -IPDM	Indicates [ON/OFF] condition of the P or N position.
SFT P -MET	Indicates [ON/OFF] condition of the P position.
SFT N -MET	Indicates [ON/OFF] condition of the N position.
ENGINE STATE	Indicates [STOP/START/CRANK/RUN] condition of engine states.
S/L LOCK-IPDM	NOTE: This item is displayed, but cannot be monitored.
S/L UNLK-IPDM	NOTE: This item is displayed, but cannot be monitored.
S/L RELAY-REQ	NOTE: This item is displayed, but cannot be monitored.

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

Monitor Item	Condition
VEH SPEED 1	Displays the vehicle speed signal received from unified meter and A/C amp. by numerical value [Km/h].
VEH SPEED 2	Displays the vehicle speed signal received from ABS or VDC or CVT 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	Indicates [ON/OFF] condition of PANIC button of Intelligent Key.
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 values starts changing.
RKE OPE COUN2	NOTE: This item is displayed, but cannot be monitored.

ACTIVE TEST

Test item	Description
BATTERY SAVER	This test is able to check interior room lamp operation. The interior room lamp is activated when "ON" on CONSULT screen is touched.
PW REMOTO DOWN SET	This test is able to check power window down operation. The power window down is activated when "ON" on CONSULT screen is touched.
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation. The Intelligent Key warning buzzer is activated when "ON" on CONSULT screen is touched.
INSIDE BUZZER	This test is able to check warning chime in combination meter operation. <ul style="list-style-type: none"> • Takes away warning chime sounds when "TAKE OUT" on CONSULT screen is touched. • Key warning chime sounds when "KEY" on CONSULT screen is touched. • The P position warning chime sounds when "KNOB" on CONSULT screen is touched.
INDICATOR	This test is able to check warning lamp operation. <ul style="list-style-type: none"> • "KEY" Warning lamp illuminates when "RED ON" on CONSULT screen is touched. • The "KEY" Warning lamp blinks when "RED IND" on CONSULT screen is touched.
INT LAMP	This test is able to check interior room lamp operation. The interior room lamp is activated when "ON" on CONSULT screen is touched.
LCD	This test is able to check meter display information <ul style="list-style-type: none"> • Engine start information displays when "BP N" on CONSULT screen is touched. • Engine start information displays when "BP I" on CONSULT screen is touched. • Key ID warning displays when "ID NG" on CONSULT screen is touched. • ROTAT: This item is displayed, but cannot be tasted. • The P position warning displays when "SFT P" on CONSULT screen is touched. • Intelligent Key insert information displays when "INSRT" on CONSULT screen is touched. • Intelligent Key low battery warning displays when "BATT" on CONSULT screen is touched. • Take away through window warning displays when "NO KY" on CONSULT screen is touched. • Take away warning displays when "OUTKY" on CONSULT screen is touched. • The OFF position warning displays when "LK WN" on CONSULT screen is touched.

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

Test item	Description
TRUNK/GLASS HATCH	NOTE: This item is displayed, but cannot be used.
FLASHER	This test is able to check security hazard lamp operation. The hazard lamps is activated when "LH" or "RH" on CONSULT screen is touched.
HORN	This test is able to check horn operation. The horn will be activated when "ON" on CONSULT screen is touched.
P RANGE	This test is able to check A/T shift selector power supply A/T shift selector power is supplied when "ON" on CONSULT screen is touched.
ENGINE SW ILLUMI	This test is able to check push-ignition switch illumination operation. Push-ignition switch illumination illuminates when "ON" on CONSULT screen is touched.
LOCK INDICATOR	This test is able to check indicator in push-ignition switch operation. Indicator in push-ignition switch (LOCK) illuminates when "ON" on CONSULT screen is touched.
ACC INDICATOR	This test is able to check indicator in push-ignition switch operation. Indicator in push-ignition switch (ACC) illuminates when "ON" on CONSULT screen is touched.
IGNITION ON IND	This test is able to check indicator in push-ignition switch operation. Indicator in push-ignition switch (ON) illuminates when "ON" on CONSULT screen is touched.
KEY SLOT ILLUMI	This test is able to check key slot illumination operation. Key slot illumination blinks when "ON" on CONSULT screen is touched.

COMB SW

COMB SW : CONSULT Function (BCM - COMB SW)

INFOID:0000000010576881

DATA MONITOR

NOTE:

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

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

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

Monitor item [UNIT]	Description
TAIL LAMP SW [Off/On]	Displays the status of the TAIL LAMP switch in combination switch judged by BCM with the combination switch reading function.
HI BEAM SW [Off/On]	Displays the status of the HI BEAM switch in combination switch judged by BCM with the combination switch reading function.
HEAD LAMP SW 1 [Off/On]	Displays the status of the HEADLAMP 1 switch in combination switch judged by BCM with the combination switch reading function.
HEAD LAMP SW 2 [Off/On]	Displays the status of the HEADLAMP 2 switch in combination switch judged by BCM with the combination switch reading function.
PASSING SW [Off/On]	Displays the status of the PASSING switch in combination switch judged by BCM with the combination switch reading function.
AUTO LIGHT SW [Off/On]	Displays the status of the AUTO LIGHT switch in combination switch judged by BCM with the combination switch reading function.
FR FOG SW [Off/On]	Displays the status of the FR FOG switch in combination switch judged by BCM with the combination switch reading function.
RR FOG SW [Off/On]	NOTE: The item is indicated, but not monitored.

BCM

BCM : CONSULT Function (BCM - BCM)

INFOID:0000000010576882

WORK SUPPORT

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

IMMU

IMMU : CONSULT Function (BCM - IMMU)

INFOID:0000000011009631

DATA MONITOR

NOTE:

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

Monitor item	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 ID which has been 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 will be turned on when "ON" on CONSULT screen touched.

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

BATTERY SAVER

BATTERY SAVER : CONSULT Function (BCM - BATTERY SAVER)

INFOID:0000000011009636

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.	
	MODE 3*	15 min.	
BATTERY SAVER SET	On*	With the exterior lamp battery saver function	
	Off	Without the exterior lamp battery saver function	

*: Factory setting

DATA MONITOR

NOTE:

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

Monitor item [Unit]	Description
REQ SW-DR [On/Off]	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
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)
DOOR SW-BK [On/Off]	The switch status input from back door switch
CDL LOCK SW [On/Off]	Lock switch status received from door lock/unlock switch by power window switch serial link
CDL UNLOCK SW [On/Off]	Unlock switch status received from door lock/unlock switch by power window switch serial link
KEY CYL LK-SW [On/Off]	Lock switch status received from key cylinder switch by power window switch serial link

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description
KEY CYL UN-SW [On/Off]	Unlock switch status received from key cylinder switch by power window switch serial link
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 Function (BCM - TRUNK)

INFOID:0000000011009629

BCM CONSULT FUNCTION

CONSULT 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

NOTE:

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

Monitor Item	Contents
PUSH SW	Indicates [ON/OFF] condition of push-button ignition switch.
UNLK SEN -DR	NOTE: This item is displayed, but cannot be monitored.
VEH SPEED 1	Indicates [Km/h] condition of vehicle speed signal from combination meter.
KEY CYL SW-TR	NOTE: This item is displayed, but cannot be monitored.
TR CANCEL SW	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.

*: With back door opener system

ACTIVE TEST

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

THEFT ALM

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

THEFT ALM : CONSULT Function (BCM - THEFT ALM)

INFOID:0000000011009630

DATA MONITOR

NOTE:

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

Monitored Item	Description
REQ SW -DR	Indicates [ON/OFF] condition of door request switch (driver side).
REQ SW -AS	Indicates [ON/OFF] condition of door request switch (passenger side).
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 LH.
DOOR SW-AS	Indicates [ON/OFF] condition of front door switch RH.
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.
KEY CYL LK-SW	Indicates [ON/OFF] condition of lock signal from front door key cylinder switch.
KEY CYL UN-SW	Indicates [ON/OFF] condition of unlock signal from front door key cylinder switch.
KEY CYL SW-TR	NOTE: This is displayed even when it is not equipped.
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

Test Item	Description
SECURITY ALARM SET	This mode is able to confirm and change security alarm ON-OFF setting.
THEFT ALM TRG	The switch which triggered vehicle security alarm is recorded. This mode is able to confirm and erase the record of vehicle security alarm. The trigger data can be erased by touching "CLEAR" on CONSULT screen.

ACTIVE TEST

Test Item	Description
THEFT IND	This test is able to check security indicator lamp operation. The lamp will be turned on when "ON" on CONSULT screen is touched.
VEHICLE SECURITY HORN	This test is able to check vehicle security horn operation. The horns will be activated for 0.5 seconds after "ON" on CONSULT screen is touched.

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

Test Item	Description
HEADLAMP(HI)	This test is able to check vehicle security lamp operation. The headlamps will be activated for 0.5 seconds after "ON" on CONSULT screen is touched.
FLASHER	This test is able to check vehicle security hazard lamp operation. The hazard lamps will be activated after "LH" or "RH" on CONSULT screen is touched.

RETAINED PWR

RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)

INFOID:0000000011009632

Data monitor

NOTE:

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

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

SIGNAL BUFFER

SIGNAL BUFFER : CONSULT Function (BCM - SIGNAL BUFFER)

INFOID:0000000010576888

DATA MONITOR

NOTE:

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

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

ACTIVE TEST

Test item	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:0000000010576889

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-35, "CAN Communication Signal Chart"](#).

DTC Logic

INFOID:0000000010576890

DTC DETECTION LOGIC

DTC	CONSULT 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:0000000010576891

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-25, "Trouble Diagnosis Flow Chart"](#).
NO >> Refer to [GI-47, "Intermittent Incident"](#).

U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

U1010 CONTROL UNIT (CAN)

DTC Logic

INFOID:0000000010576892

DTC DETECTION LOGIC

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

Diagnosis Procedure

INFOID:0000000010576893

1.REPLACE BCM

When DTC "U1010" is detected, replace BCM.

>> Replace BCM. Refer to [BCS-93. "Removal and Installation"](#).

U0415 VEHICLE SPEED SIG

< DTC/CIRCUIT DIAGNOSIS >

U0415 VEHICLE SPEED SIG

Description

INFOID:0000000010576894

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:0000000010576895

DTC DETECTION LOGIC

DTC	CONSULT 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, when passed 2 seconds or more after the ignition switch is turned ON.

Is any DTC detected?

- YES >> Refer to [BCS-41, "Diagnosis Procedure"](#).
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000010576896

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

Perform "Self-Diagnostic Result" of ABS actuator and electric unit (control unit) with CONSULT. Refer to [BRC-31, "CONSULT Function"](#).

Is any DTC detected?

- YES >> Repair or replace the malfunctioning part.
NO >> Replace BCM. Refer to [BCS-93, "Removal and Installation"](#).

BCS

B2562 LOW VOLTAGE

< DTC/CIRCUIT DIAGNOSIS >

B2562 LOW VOLTAGE

DTC Logic

INFOID:0000000010576897

DTC DETECTION LOGIC

DTC	CONSULT 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, when passed 120 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:0000000010576898

1. CHECK POWER SUPPLY CIRCUIT

Check BCM power supply circuit. Refer to [BCS-44, "Diagnosis Procedure"](#).

Is the circuit normal?

- YES >> Replace BCM. Refer to [BCS-93, "Removal and Installation"](#).
NO >> Repair the malfunctioning part.

B26E7 TPMS CAN COMM

< DTC/CIRCUIT DIAGNOSIS >

B26E7 TPMS CAN COMM

DTC Logic

INFOID:0000000010576899

DTC DETECTION LOGIC

DTC	CONSULT 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 systemLow tire pressure warning control unitBCM

DTC CONFIRMATION PROCEDURE

1.DTC CONFIRMATION

- Erase the DTC.
- Turn ignition switch OFF.
- Perform the "Self Diagnostic Result" of CONSULT, when passed 2 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:0000000010576900

NOTE:

If DTC "B26E7" detected along with DTC "U1000", first diagnose the DTC "U1000". Refer to [BCS-39, "DTC Logic"](#).

1.LOW TIRE PRESSURE WARNING CONTROL UNIT SELF DIAGNOSTIC RESULT

Perform "Self Diagnostic Result" of low tire pressure warning control unit with CONSULT. Refer to [BRC-31, "CONSULT 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 [BCS-88, "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-93, "Removal and Installation"](#).
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-93, "Removal and Installation"](#).
NO >> Replace low tire pressure warning control unit. Refer to [WT-67, "Removal and Installation"](#).

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure

INFOID:000000010576901

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.

COMBINATION SWITCH INPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

COMBINATION SWITCH INPUT CIRCUIT

Diagnosis Procedure

INFOID:000000010576902

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-49, "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-93, "Removal and Installation"](#).

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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.)	
	(+) (−)			
	BCM			
	Connector	Terminal		
INPUT 1	M122	107	Ground	Refer to BCS-49 , "Refer- ence Value".
INPUT 2		109		
INPUT 3		88		
INPUT 4		108		
INPUT 5		87		

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

- YES >> Replace BCM. Refer to [BCS-93](#), "Removal and Installation".
NO >> Replace combination switch. Refer to [BCS-94](#), "Removal and Installation".

COMBINATION SWITCH OUTPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

COMBINATION SWITCH OUTPUT CIRCUIT

Diagnosis Procedure

INFOID:0000000010576903

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.

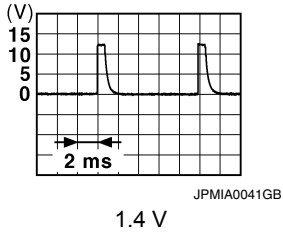
NOTE:

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	



JPMIA0041GB

1.4 V

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

- YES >> Replace BCM. Refer to [BCS-93. "Removal and Installation"](#).
- NO >> Replace combination switch. Refer to [BCS-94. "Removal and Installation"](#).

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:0000000010576904

VALUES ON THE DIAGNOSIS TOOL

NOTE:

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

CONSULT MONITOR ITEM

Monitor Item	Condition	Value/Status
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 INT/AUTO	Off
	Front wiper switch INT/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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
FR FOG SW	Front fog lamp switch OFF	Off
	Front fog lamp switch ON	On
RR FOG SW	NOTE: The item is indicated, but not monitored.	Off
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	Other than driver door key cylinder LOCK position	Off
	Driver door key cylinder LOCK position	On
KEY CYL UN-SW	Other than driver door key cylinder UNLOCK position	Off
	Driver door key cylinder UNLOCK position	On
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
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
REVERSE SW	NOTE: The item is indicated, but not monitored.	Off
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	PANIC button of the Intelligent Key is not pressed	Off
	PANIC button of the Intelligent Key is pressed	On
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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
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	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 request switch is not pressed	Off
	Back door 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	NOTE: The item is indicated, but not monitored.	Off
ACC RLY -F/B	NOTE: The item is indicated, but not monitored.	Off
CLUCH SW	NOTE: The item is indicated, but not monitored.	Off
BRAKE SW 1	The brake pedal is depressed when No. 7 fuse is blown	Off
	The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal	On
BRAKE SW 2	The brake pedal is not depressed	Off
	The 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	Selector lever in any position other than P and N	Off
	Selector lever in P or N position	On
S/L -LOCK	NOTE: The item is indicated but not monitored.	Off
S/L -UNLOCK	NOTE: The item is indicated but not monitored.	Off
S/L RELAY-F/B	NOTE: The item is indicated but not monitored.	Off
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
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

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
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	NOTE: The item is indicated but not monitored.	Off
S/L UNLK-IPDM	NOTE: The item is indicated but not monitored.	Off
S/L RELAY-REQ	NOTE: The item is indicated but not monitored.	Off
VEH SPEED 1	While driving	Equivalent to 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	Driver side door is open after ignition switch is turned OFF (Selector lever is in the P position)	Reset
	Ignition switch ON	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.	—
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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
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

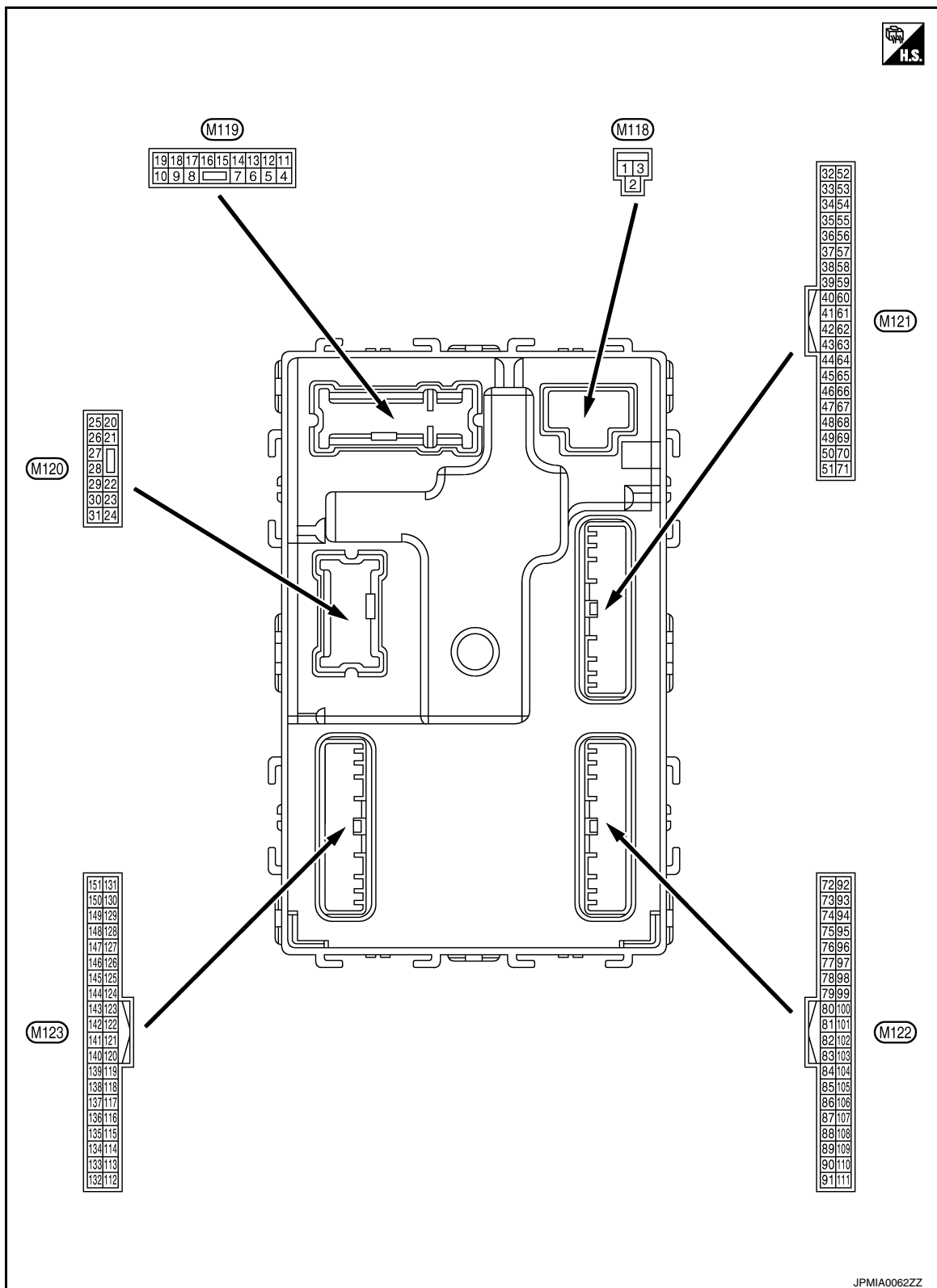
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BCM (BODY CONTROL MODULE)

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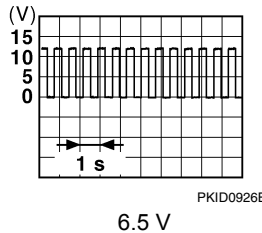
TERMINAL LAYOUT



PHYSICAL VALUES

BCM (BODY CONTROL MODULE)

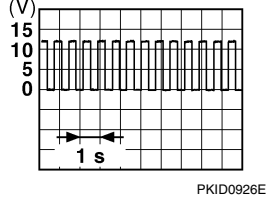
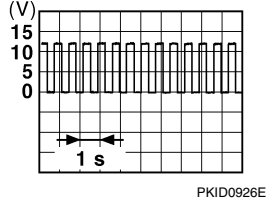
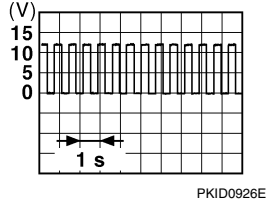
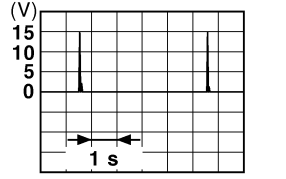
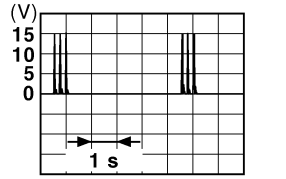
< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
1 (W)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (Y)	Ground	P/W power supply (BAT)	Output	Ignition switch OFF		12 V
3 (BG)	Ground	P/W power supply (IGN)	Output	Ignition switch ON		12 V
4 (P)	Ground	Interior room lamp power supply	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 (V)	Ground	Passenger door UN- LOCK	Output	Passenger door	UNLOCK (Actuator is activated)	12 V
					Other than UNLOCK (Actuator is not activated)	0 V
7 (Y)	Ground	Step lamp control	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	Rear RH door and rear LH door UN- LOCK	Output	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)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	

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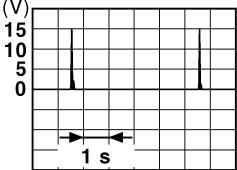
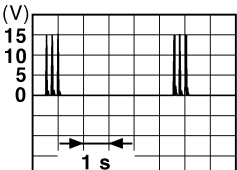
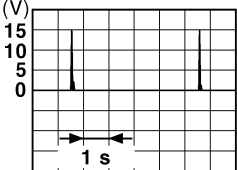
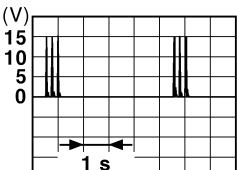
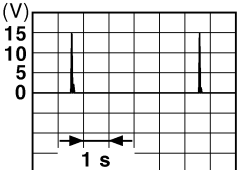
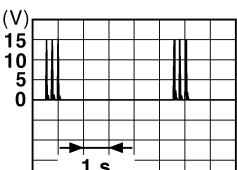
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
18 (BG)	Ground	Turn signal LH (Front)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	 6.5 V
19 (SB)	Ground	Interior room lamp control	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
25 (G)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	 6.5 V
26 (P)	Ground	Rear wiper	Output	Rear wiper	OFF (Stopped)	0 V
					ON (Operated)	12 V
34 (SB)	Ground	Luggage room anten- na (-)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	
					When Intelligent Key is not in the passenger com- partment	

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
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 request 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 detection area	 JMKIA0063GB
39 (W)	Ground	Back door antenna (+)	Output	When the back door opener request 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 detection area	 JMKIA0063GB
47 (Y)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC	12 V
					ON	0 V

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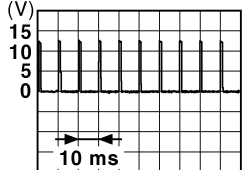
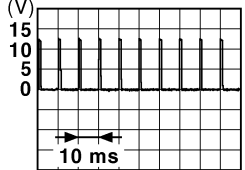
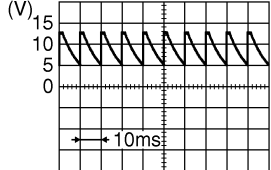
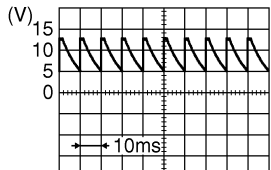
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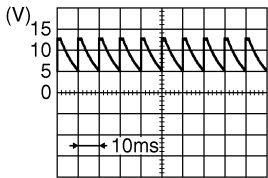
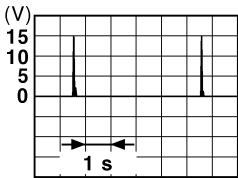
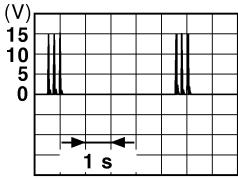
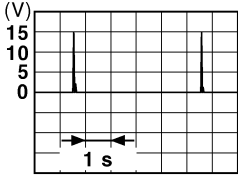
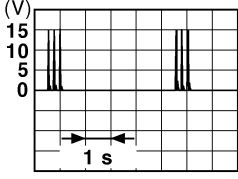
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
52 (LG)	Ground	Starter relay control	Output	Ignition switch ON	When selector lever is in P or N position	12 V
					When selector lever is not in P or N position	0 V
60 (SB)	Ground	Push-button ignition switch (Push switch)	Input	Push-button ig- nition switch (Push switch)	Pressed	0 V
					Not pressed	12 V
61 (W)	Ground	Back door opener re- quest switch	Input	Back door re- quest switch	ON (Pressed)	0 V
					OFF (Not pressed)	 <p>JPMIA0016GB</p> <p>1.0 V</p>
64 (L)	Ground	Intelligent Key warn- ing buzzer (Engine room)	Output	Intelligent Key warning buzzer (Engine room)	Sounding	0 V
					Not sounding	12 V
65 (BG)	Ground	Rear wiper stop posi- tion	Input	Rear wiper	In stop position	 <p>JPMIA0016GB</p> <p>1.0 V</p>
					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
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)	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

BCM (BODY CONTROL MODULE)

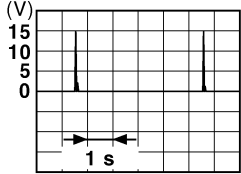
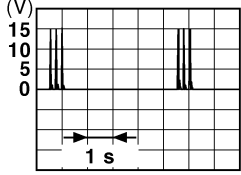
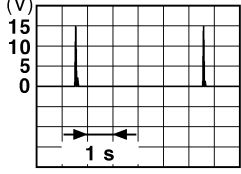
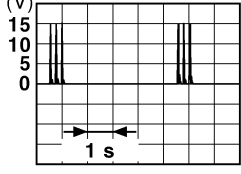
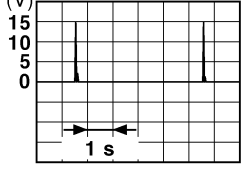
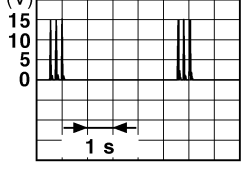
< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
69 (R)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (Door close)	 8.5 - 9.0 V
					ON (Door open)	0 V
74 (SB)	Ground	Passenger door antenna (-)	Output	When the passenger door request 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 detection area	 JMKIA0063GB
75 (BR)	Ground	Passenger door antenna (+)	Output	When the passenger door request 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 detection area	 JMKIA0063GB

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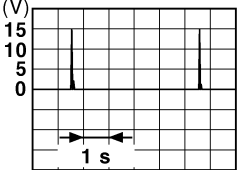
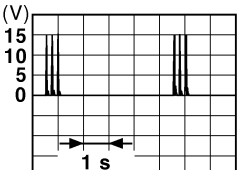
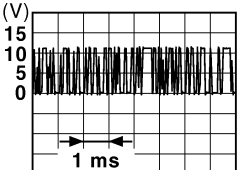
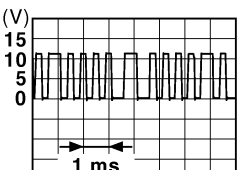
BCM (BODY CONTROL MODULE)

< 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 (-) (Instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compart- ment	 JMKIA0063GB

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >


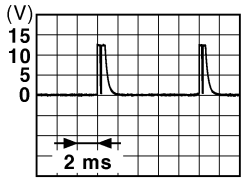
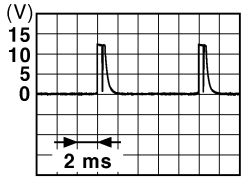
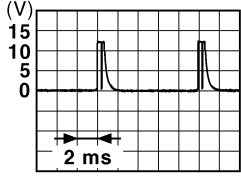
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
79 (BR)	Ground	Room antenna (+) (Instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compart- ment	 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)	Ground	Ignition relay [Fuse block (J/B)] control	Output	Ignition switch	OFF or ACC	0 V
					ON	12 V
83 (GR)	Ground	Remote keyless entry receiver communica- tion	Input/ Output		During waiting	 JMKIA0064GB
					When operating either button on the Intelli- gent Key	 JMKIA0065GB

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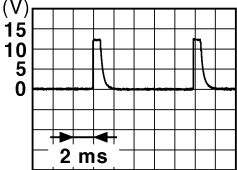


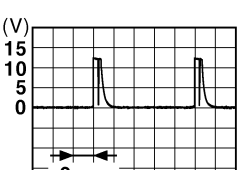
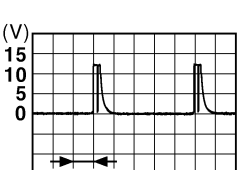
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
87 (BR)	Ground	Combination switch INPUT 5	Input	Combination switch	 <p>1.4 V</p>
				Front fog lamp switch ON (Wiper volume dial 4)	 <p>1.3 V</p>
				Rear wiper switch ON (Wiper volume dial 4)	 <p>1.3 V</p>
				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 	 <p>1.3 V</p>

BCM (BODY CONTROL MODULE)

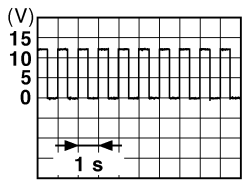
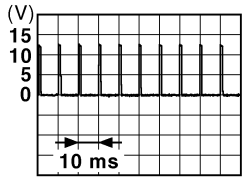
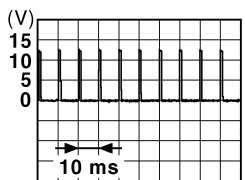
< ECU DIAGNOSIS INFORMATION >

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 below with all switches OFF • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 3  1.3 V
90 (P)	Ground	CAN-L	Input/ Output	—	—
91 (L)	Ground	CAN-H	Input/ Output	—	—

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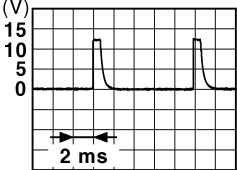

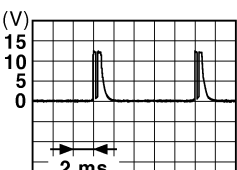
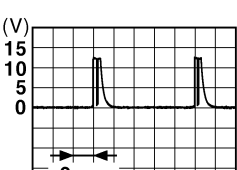
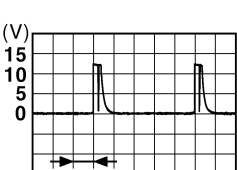
BCM (BODY CONTROL MODULE)

< 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 (BG)	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
99 (R)	Ground	Selector lever P position switch	Input	Selector lever	P position	0 V
					Any position other than P	12 V
100 (G)	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 (BG)	Ground	Blower fan motor relay control	Output	Ignition switch	OFF or ACC	0 V
					ON	12 V
103 (BR)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OFF		12 V

BCM (BODY CONTROL MODULE)

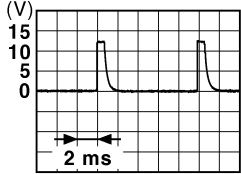




< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
107 (LG)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper volume dial 4)	<p>All switches OFF</p>  <p>1.4 V</p>
					<p>Turn signal switch LH</p>  <p>1.3 V</p>
					<p>Turn signal switch RH</p>  <p>1.3 V</p>
					<p>Front wiper switch LO</p>  <p>1.3 V</p>
					<p>Front washer switch ON</p>  <p>1.3 V</p>

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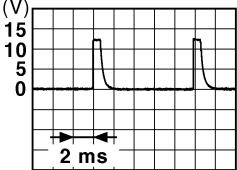

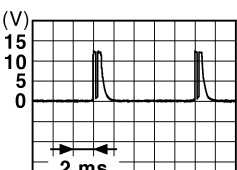
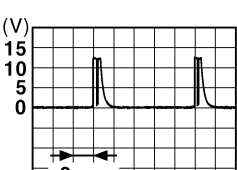
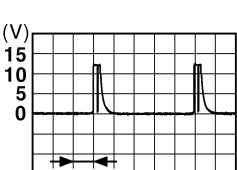
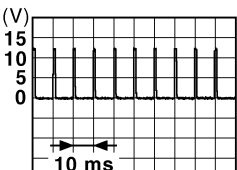
BCM (BODY CONTROL MODULE)

< 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>1.4 V</p>
				Lighting switch AUTO (Wiper volume dial 4)	 <p>1.3 V</p>
				Lighting switch 1ST (Wiper volume dial 4)	 <p>1.3 V</p>
				Rear wiper switch INT (Wiper volume dial 4)	 <p>1.3 V</p>
				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 	 <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 (Y)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper volume dial 4)	All switches OFF  <small>JPMIA0041GB</small> 1.4 V
					Lighting switch PASS  <small>JPMIA0037GB</small> 1.3 V
					Lighting switch 2ND  <small>JPMIA0036GB</small> 1.3 V
					Front wiper switch INT/ AUTO  <small>JPMIA0038GB</small> 1.3 V
					Front wiper switch HI  <small>JPMIA0040GB</small> 1.3 V
					ON 0 V
110 (G)	Ground	Hazard switch	Input	Hazard switch	OFF  <small>JPMIA0012GB</small> 1.1 V

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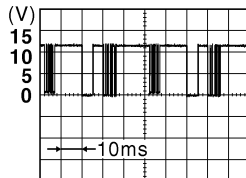
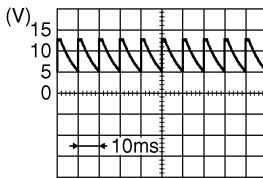
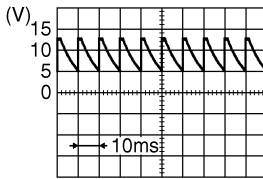
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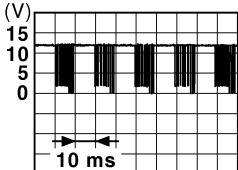
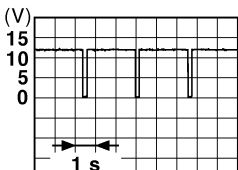
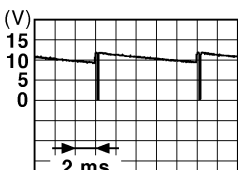
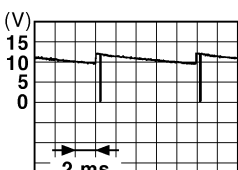
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	−	Signal name	Input/ Output			
112 (GR)	Ground	Rain sensor serial link	Input/ Output	Ignition switch ON		<div></div> 8.7 V
113 (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
116 (BR)	Ground	Stop lamp switch 1	Input	—		Battery voltage
118 (P)	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)		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)	Ground	Front door lock assembly driver side (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	<div></div> 8.5 - 9.0 V
					UNLOCK status (Unlock switch sensor ON)	0 V
121 (BR)	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)	<div></div> 8.5 - 9.0 V
					ON (Door open)	0 V

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	−	Signal name	Input/ Output			
132 (BG)	Ground	Power window switch communication	Input/ Output	Ignition switch ON		 JPMIA0013GB 10.2 V
				Ignition switch OFF or ACC		12 V
134 (GR)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	OFF	Battery voltage
					ON	0 V
137 (B)	Ground	Receiver and sensor ground	Input	Ignition switch ON		0 V
138 (Y)	Ground	Sensor power supply	Output	Ignition switch	OFF	0 V
					ACC or ON	5.0 V
140 (R)	Ground	Selector lever P/N position	Input	Selector lever	P or N position	12 V
					Except P and N positions	0 V
141 (G)	Ground	Security indicator lamp	Output		ON	0 V
						 JPMIA0014GB 11.3 V
					Blinking	
					OFF	12 V
142 (BG)	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	
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)	 JPMIA0032GB 10.7 V
					Rear wiper switch INT (Wiper volume dial 4)	
					Any of the conditions be- low with all switches OFF	
					• Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 3 • Wiper volume dial 6 • Wiper volume dial 7	

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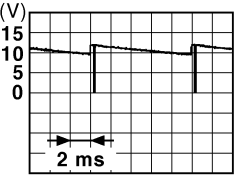
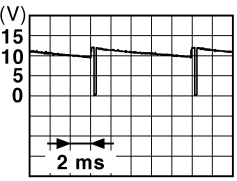
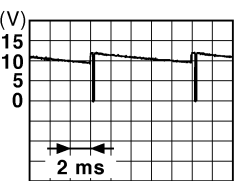
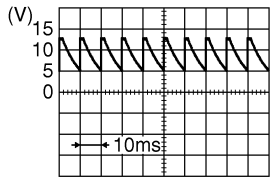
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BCM (BODY CONTROL MODULE)

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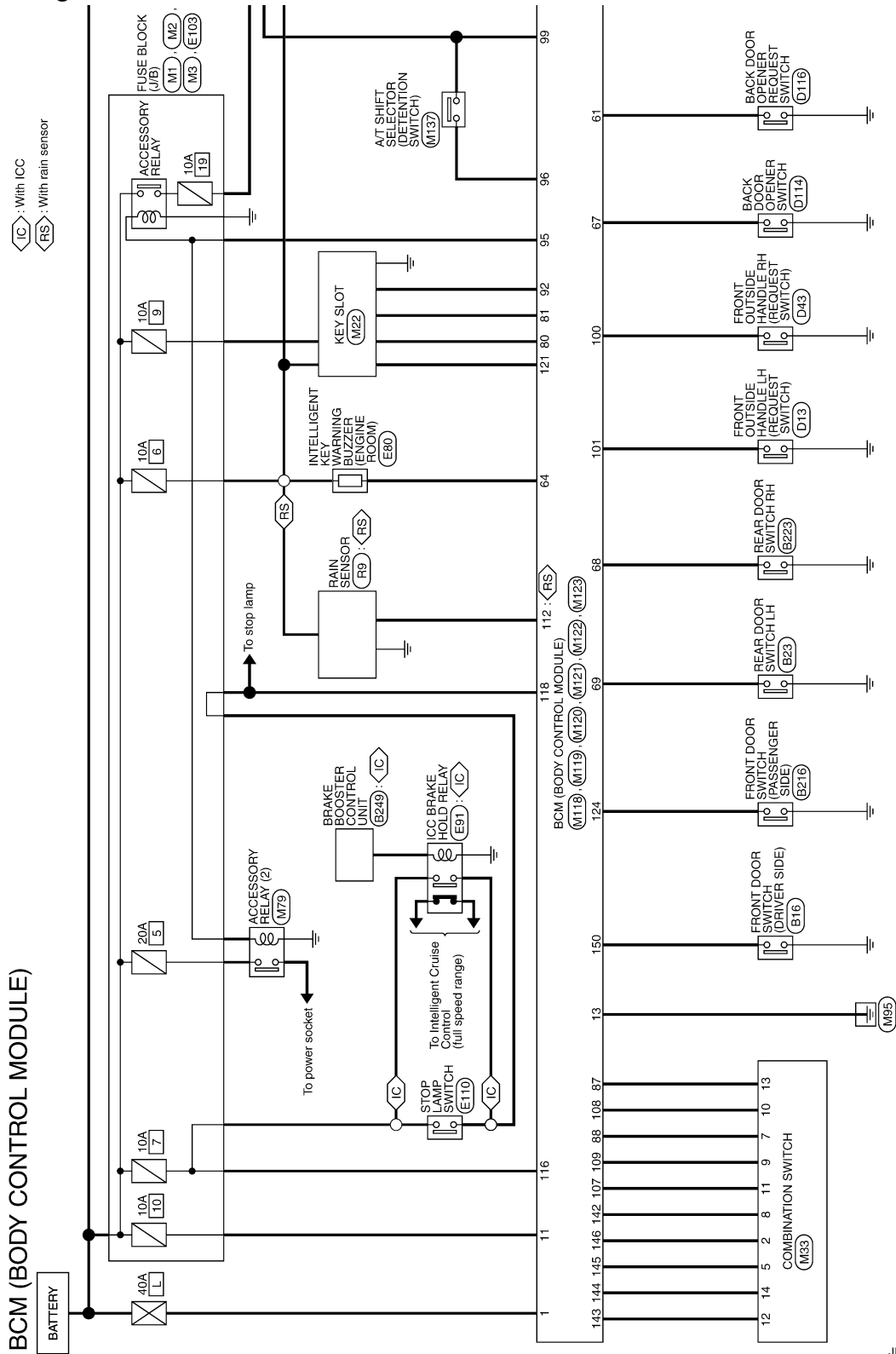
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
144 (G)	Ground	Combination switch OUTPUT 2	Output	Combination switch	All switches OFF (Wiper volume dial 4)	0 V
					Front washer switch ON (Wiper volume dial 4)	 <p>JPMIA0033GB</p>
					Rear wiper switch 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 	10.7 V
145 (L)	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper volume dial 4)	All switches OFF	0 V
					Front wiper switch INT/ AUTO	 <p>JPMIA0034GB</p>
					Front wiper switch LO	
					Lighting switch AUTO	10.7 V
146 (SB)	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper volume dial 4)	All switches OFF	0 V
					Front fog lamp switch ON	 <p>JPMIA0035GB</p>
					Lighting switch 2ND	
					Lighting switch PASS	
					Turn signal switch LH	10.7 V
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 defog- ger relay control	Output	Rear window de- fogger	Active	0 V
					Not activated	Battery voltage

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Wiring Diagram - BCM -

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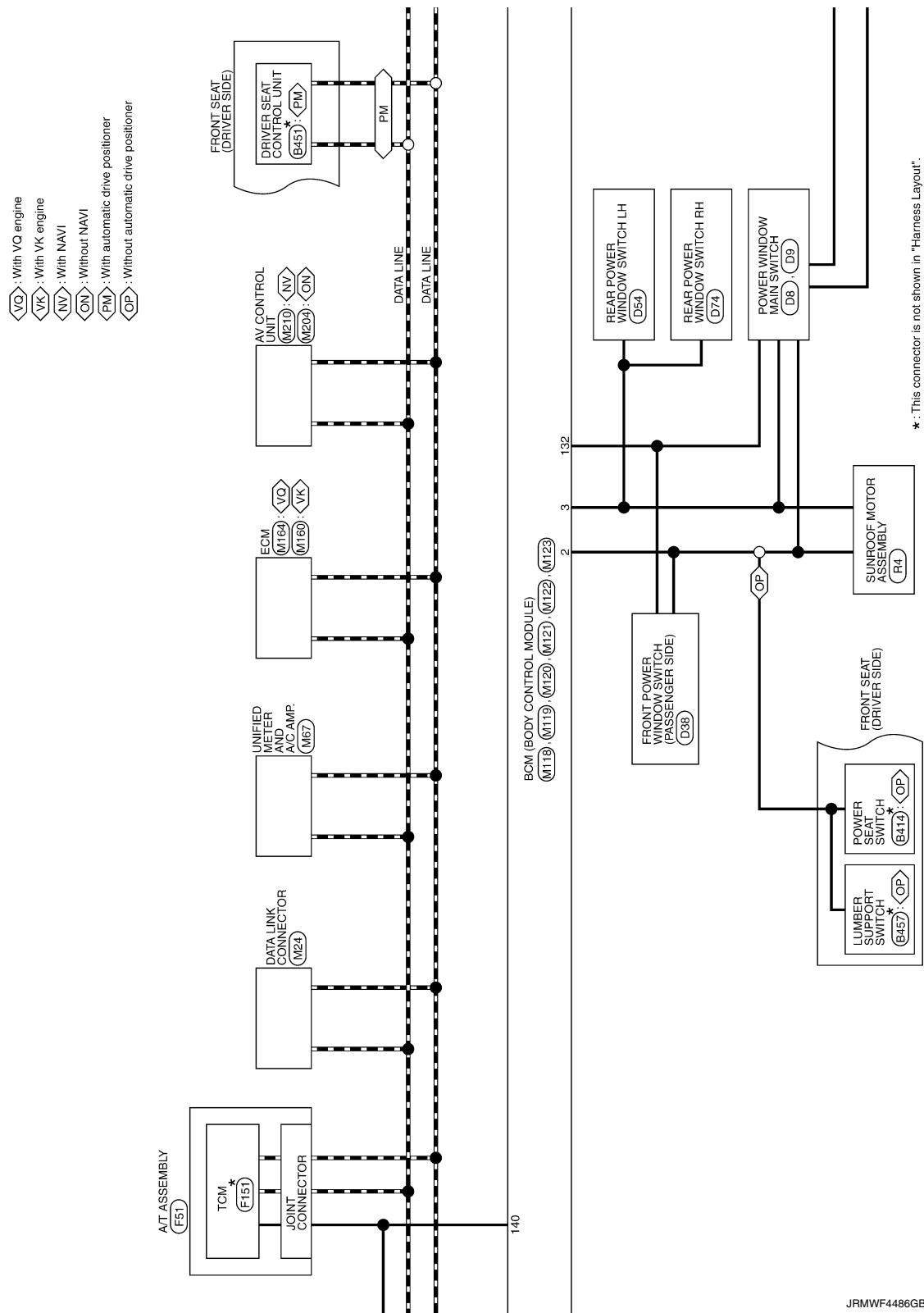
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< ECU DIAGNOSIS INFORMATION >



BCM (BODY CONTROL MODULE)

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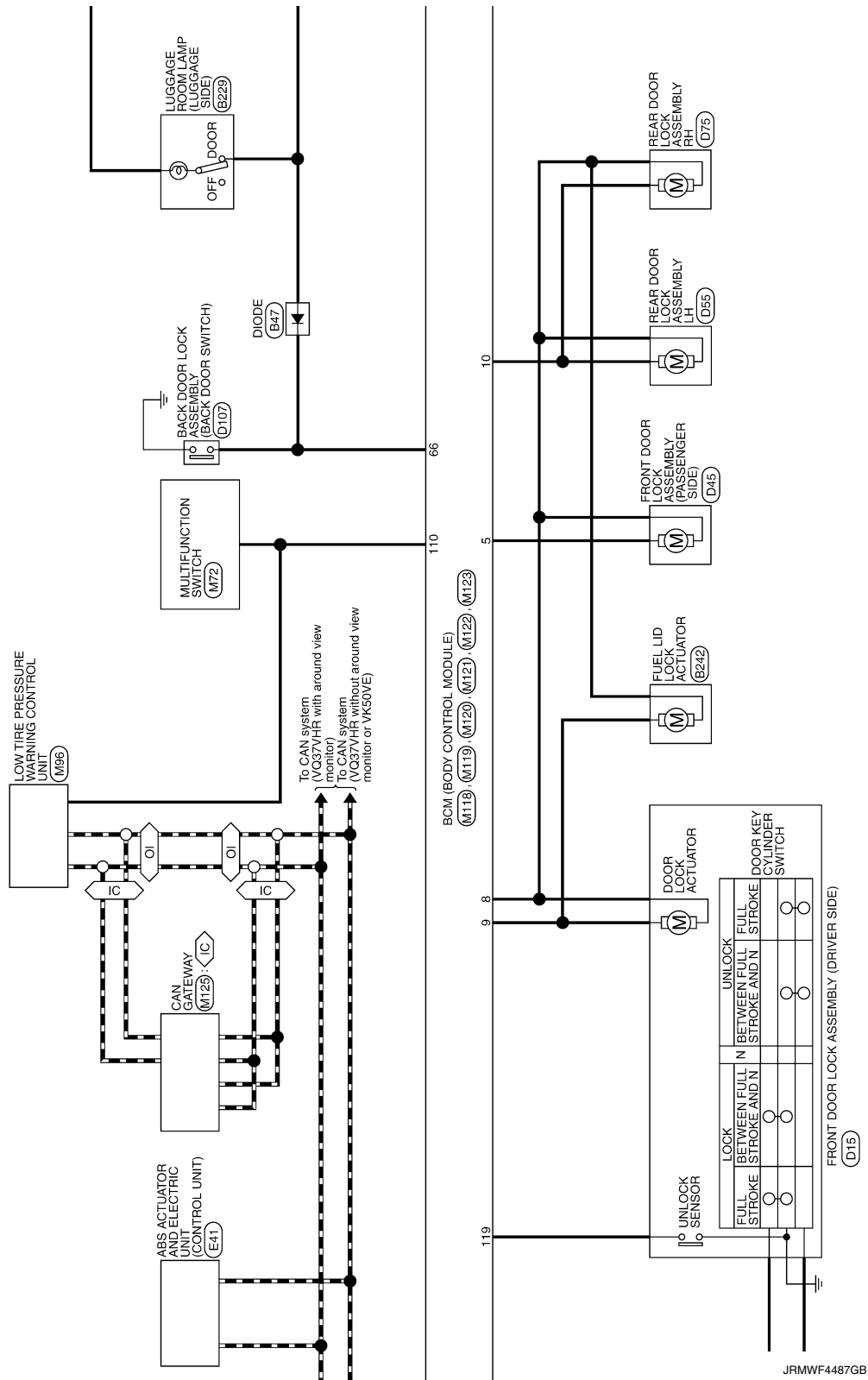
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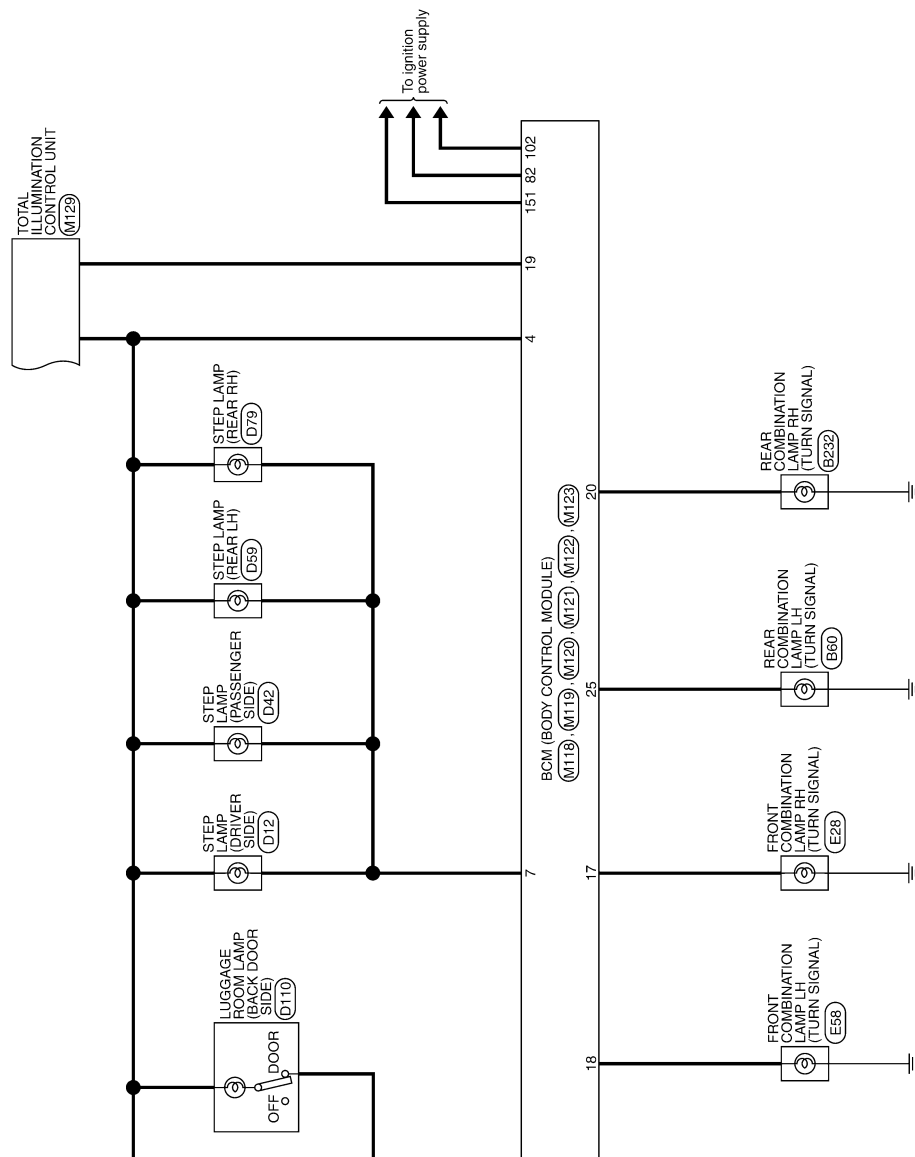
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IC : With ICC
OI : Without ICC



BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >



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BCS

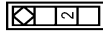
BCS

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

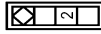
BCM (BODY CONTROL MODULE)

Connector No.	B16
Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)
Connector Type	A03FW



Terminal No.	Wire	Signal Name [Specification]
2	GR	-

Connector No.	B23
Connector Name	REAR DOOR SWITCH LH
Connector Type	A03FW



Terminal No.	Wire	Signal Name [Specification]
2	W	-

Connector No.	B47
Connector Name	DIODE
Connector Type	24335_C9000



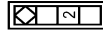
Terminal No.	Wire	Signal Name [Specification]
1	GR	-
2	V	-

Connector No.	B60
Connector Name	REAR COMBINATION LAMP LH
Connector Type	TH04MW-NH



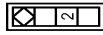
Terminal No.	Wire	Signal Name [Specification]
1	R	-
2	LG	-
3	G	-
4	B	-

Connector No.	B216
Connector Name	FRONT DOOR SWITCH (PASSENGER SIDE)
Connector Type	A03FW



Terminal No.	Wire	Signal Name [Specification]
2	GR	-

Connector No.	B223
Connector Name	REAR DOOR SWITCH RH
Connector Type	A03FW



Terminal No.	Wire	Signal Name [Specification]
2	BG	-

Connector No.	B228
Connector Name	INSIDE KEY ANTENNA (LUGGAGE ROOM)
Connector Type	RKG2FGY



Terminal No.	Wire	Signal Name [Specification]
1	V	-
2	SB	-

Connector No.	B229
Connector Name	LUGGAGE ROOM LAMP (LUGGAGE SIDE)
Connector Type	TK03FW



Terminal No.	Wire	Signal Name [Specification]
1	W	-
2	L	-

Connector No.	B232
Connector Name	REAR COMBINATION LAMP RH
Connector Type	TH04MW-NH



Terminal No.	Wire	Signal Name [Specification]
1	P	-
2	LG	-
3	V	-
4	B	-

JRMWF4489GB

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

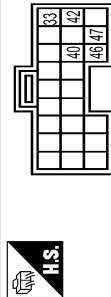
BCM (BODY CONTROL MODULE)

Connector No.	B242
Connector Name	FUEL LID LOCK ACTUATOR
Connector Type	MD4FW-LC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	V	-

Connector No.	B249
Connector Name	BRAKE BOOSTER CONTROL UNIT
Connector Type	TK2AFGY



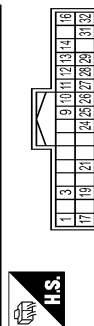
Terminal No.	Color Of Wire	Signal Name [Specification]
33	G	IGNITION
40	SB	IBA OFF SW
42	G	IGNITION
46	B	GROUND
47	LG	BRAKE HOLD RLY DRIVE SIGNAL

Connector No.	B414
Connector Name	POWER SEAT SWITCH
Connector Type	NS10FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
3	GY	-
4	P	-
5	W	-
6	V	-
7	LY	-
8	L	-
9	L/R	-
10	GW	-
33	R	-
48	B	-

Connector No.	B451
Connector Name	DRIVER SEAT CONTROL UNIT
Connector Type	TH32FW



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LW	RX
3	RY	CANH
9	W/G	PULSE (RECLINING)
10	P/B	PULSE (RR LIFTING)
11	BR	SLIDING SW (BACKWARD)
12	SB	RECLINING SW (BACKWARD)
13	LG/R	FRONT LIFTING SW (DOWNWARD)
14	GB	REAR LIFTING SW (DOWNWARD)
16	O	VCC
17	Y/R	TX

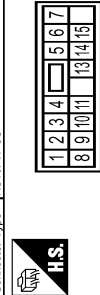
19	V	CAN-L
21	LY	P RANGE SW
24	R	PULSE (SLIDING)
25	Y/B	PULSE (RR LIFTING)
26	Y	SLIDING SW (FORWARD)
27	R/G	RECLINING SW (FORWARD)
28	W/B	FRONT LIFTING SW (UPWARD)
29	P/L	REAR LIFTING SW (UPWARD)
31	GR	SENSOR GND
32	B/W	GND (SIGNAL)

Connector No.	B457
Connector Name	LUMBAR SUPPORT SWITCH
Connector Type	NS04FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
33	R	-
48	B	-
57	W	-
58	L	-

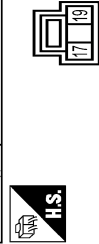
Connector No.	D8
Connector Name	POWER WINDOW MAIN SWITCH
Connector Type	NS16FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	LG	-
3	GR	-
4	V	-

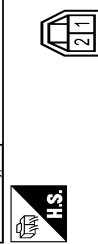
5	SB	-
6	Y	-
7	BR	-
8	L	-
9	W	-
10	O	-
11	G	-
13	P	-
14	V	-
15	W	-

Connector No.	D9
Connector Name	POWER WINDOW MAIN SWITCH
Connector Type	NS03FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
17	B	-
19	Y	-

Connector No.	D12
Connector Name	STEP LAMP (DRIVER SIDE)
Connector Type	TB02FW



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

JRMWF4490GB

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

BCM (BODY CONTROL MODULE)

Connector No.	D13
Connector Name	FRONT OUTSIDE HANDLE LH (REQUEST SWITCH)
Connector Type	RK02FL-B



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

Connector No.	D14
Connector Name	FRONT OUTSIDE HANDLE LH (OUTSIDE KEY ANTENNA)
Connector Type	RK02MGY



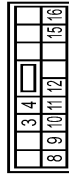
Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	-
2	V	-

Connector No.	D15
Connector Name	FRONT DOOR LOCK ASSEMBLY (DRIVER SIDE)
Connector Type	E06FGY-RS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	-
2	R	-
3	G	-
4	B	-
5	V	-
6	V	-

Connector No.	D38
Connector Name	FRONT POWER WINDOW SWITCH (PASSENGER SIDE)
Connector Type	NS16FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	-
4	W	-
8	L	-
9	G	-
10	Y	-
11	B	-
12	P	-
15	R	-
16	V	-

Connector No.	D42
Connector Name	STEP LAMP (PASSENGER SIDE)
Connector Type	TB02FW



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

Connector No.	D43
Connector Name	FRONT OUTSIDE HANDLE RH (REQUEST SWITCH)
Connector Type	RK02FL-B



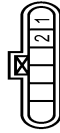
Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	B	-

Connector No.	D44
Connector Name	FRONT OUTSIDE HANDLE RH (OUTSIDE KEY ANTENNA)
Connector Type	RK02MGY



Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	-
2	W	-

Connector No.	D45
Connector Name	FRONT DOOR LOCK ASSEMBLY (PASSENGER SIDE)
Connector Type	E06FGY-RS



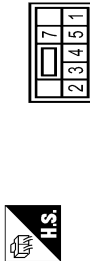
Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	LG	-

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

BCM (BODY CONTROL MODULE)

Connector No.	D54
Connector Name	REAR POWER WINDOW SWITCH LH
Connector Type	NS08FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	L	-
3	R	-
4	L	-
5	G	-
7	B	-

Connector No.	D55
Connector Name	REAR DOOR LOCK ASSEMBLY LH
Connector Type	E06FGY-RS



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

Connector No.	D59
Connector Name	STEP LAMP (REAR LH)
Connector Type	TB02FW



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	O	-

Connector No.	D74
Connector Name	REAR POWER WINDOW SWITCH RH
Connector Type	NS08FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	P	-
3	R	-
4	L	-
5	G	-
7	B	-

Connector No.	D75
Connector Name	REAR DOOR LOCK ASSEMBLY RH
Connector Type	E06FGY-RS



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

Connector No.	D79
Connector Name	STEP LAMP (REAR RH)
Connector Type	TB02FW



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	O	-

Connector No.	D107
Connector Name	BACK DOOR LOCK ASSEMBLY
Connector Type	NS08FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LW	-
2	LB	-
4	G	-
5	L	-
6	W	-
7	LG	-
8	GR	-

Connector No.	D110
Connector Name	LUGGAGE ROOM LAMP (BACK DOOR SIDE)
Connector Type	TK03FW



Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	-
2	L	-

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

BCM (BODY CONTROL MODULE)

Connector No.	D114
Connector Name	BACK DOOR OPENER SWITCH
Connector Type	TK02MBR-P



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

Connector No.	D115
Connector Name	REAR WIPER MOTOR
Connector Type	CJ04FM-IV



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

Connector No.	D116
Connector Name	BACK DOOR OPENER REQUEST SWITCH
Connector Type	TK02MBR-P



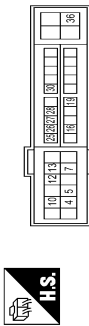
Terminal No.	Color Of Wire	Signal Name [Specification]
1	V	-
2	B	-

Connector No.	D118
Connector Name	OUTSIDE KEY ANTENNA (BACK DOOR)
Connector Type	RK02EGY



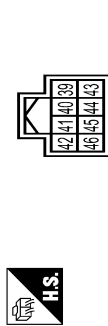
Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	-
2	R	-

Connector No.	E5
Connector Name	IPDM/ER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH02FM-LCS12-M4-1V



Terminal No.	Color Of Wire	Signal Name [Specification]
4	V	-
5	L	-
7	R	-
10	SB	-
12	B	-
13	Y	-
16	LG	-
19	W	-
25	G	-
26	R	-
27	Y	-
28	BG	-
30	GR	-
36	G	-

Connector No.	E6
Connector Name	IPDM/ER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH03FM-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
39	P	-
40	L	-
41	B	-
42	Y	-
43	SB	-
44	W	-

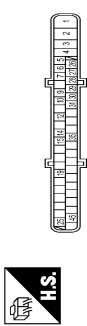
45	G
46	BR

Connector No.	E28
Connector Name	FRONT COMBINATION LAMP RH
Connector Type	RS04FB-PR



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

Connector No.	E41
Connector Name	ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)
Connector Type	BAA42FB-AH24-LH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GROUND
2	G	LBWR
3	R	LBVR
4	B	GROUND
5	Y	DS FL
6	BG	DP RL
7	BR	DP BR
9	B	DP FR
10	W	DS FR
12	L	VAC
14	P	CAN-L
15	SHIELD	AGND

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

BCM (BODY CONTROL MODULE)

Connector No.	Signal Name [Specification]
19 P	UST
25 Y	BUS-L
26 R	DP FL
27 GR	DS RL
28 G	UZ
29 LG	DS RR
30 SB	BLS
31 R	VDC OFF SW
35 L	CANH
45 B	BUS-H

Connector No.	Signal Name [Specification]
E58	FRONT COMBINATION LAMP LH
Connector Name	FSQ4EB-FR
Connector Type	



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

Connector No.	Signal Name [Specification]
E80	INTELLIGENT KEY WARNING BUZZER (BUZZER ROOM)
Connector Name	RK03FBR
Connector Type	



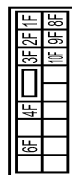
Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	+BAT (VOL SMALL)
3	GR	BUZZER SIGNAL

Connector No.	Signal Name [Specification]
E91	ICC BRAKE HOLD RELAY
Connector Name	M06FGY-R-US
Connector Type	



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	B	-
3	G	-
4	G	-
6	W	-
7	L	-

Connector No.	Signal Name [Specification]
E103	FUSE BLOCK (J/B)
Connector Name	NS16FW-CS
Connector Type	



Terminal No.	Color Of Wire	Signal Name [Specification]
10F	L	-
1F	SB	-
2F	W	-
3F	Y	-
4F	G	-
6F	BG	-
8F	L	-
9F	R	-

Connector No.	Signal Name [Specification]
E110	STOP LAMP SWITCH
Connector Name	M04FW-LC
Connector Type	



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	W	-
3	G	-
4	BR	-

Connector No.	Signal Name [Specification]
F51	AT ASSEMBLY
Connector Name	RK10FG-DGY
Connector Type	



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	IGNITION POWER SUPPLY
2	R	BATTERY POWER SUPPLY (MEMORY BACKUP)
3	L	CANH
4	V	K-LINE
5	B	GROUND
6	Y	IGNITION POWER SUPPLY
7	R	BACK-UP LAMP RELAY
8	P	CANL
9	GR	STARTER RELAY (With VQ engine)
9	LG	STARTER RELAY (With VK engine)
10	B	GROUND

Connector No.	Signal Name [Specification]
F151	TCM
Connector Name	SPI0FG
Connector Type	



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	IGNITION POWER SUPPLY
2	B	BATTERY POWER SUPPLY (MEMORY BACKUP)
3	R	CANH
4	O	K-LINE
5	G	GROUND
6	GR	IGNITION POWER SUPPLY
7	L	BACK-UP LAMP RELAY
8	BR	CANL
9	Y	STARTER RELAY
10	W/B	GROUND

Connector No.	Signal Name [Specification]
M1	FUSE BLOCK (J/B)
Connector Name	NS08FM-M2
Connector Type	



Terminal No.	Color Of Wire	Signal Name [Specification]
1A	BG	-
2A	G	-
3A	L	-
4A	R	-
5A	V	-
6A	Y	-
7A	R	-
8A	L	-

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

BCM (BODY CONTROL MODULE)

Connector No.	M2
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS10FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1B	LG	-
3B	P	-
4B	G	-
5B	BG	-
6B	Y	-
7B	L	-
8B	R	-
9B	BR	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



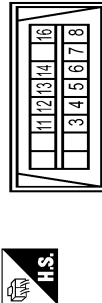
Terminal No.	Color Of Wire	Signal Name [Specification]
10C	L	-
11C	LG	-
12C	R	-
6C	P	-
7C	B	-
9C	BG	-

Connector No.	M22
Connector Name	KEY SLOT
Connector Type	TH12FW-AH



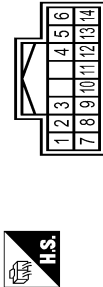
Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	BAT
2	GR	CLOCK
3	W	DATA
4	Y	ILL BAT
5	LG	ILL
6	L	GROUND
7	B	KEY SWITCH SIGNAL
11	BR	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	-
4	B	-
5	B	-
6	L	-
7	GR	-
8	G	-
11	SB	-
12	P	-
13	L	-
14	P	-
16	BG	-

Connector No.	M33
Connector Name	COMBINATION SWITCH
Connector Type	TH16FW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	FR WASHER (-)
2	SB	OUTPUT 4
3	BG	FR WASHER (+)
4	G	IGN
5	L	OUTPUT 3
6	B	GROUND
7	V	INPUT 3
8	BG	OUTPUT 5
9	Y	INPUT 2
10	R	INPUT 4
11	LG	INPUT 1
12	P	OUTPUT 1
13	BR	INPUT 5
14	G	OUTPUT 2

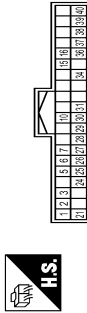
Connector No.	M50
Connector Name	PUSH-BUTTON IGNITION SWITCH
Connector Type	TK08FBR



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	R	-
3	BG	-
4	SB	-
5	GR	-
6	Y	-

7	V
8	P

Connector No.	M53
Connector Name	COMBINATION METER
Connector Type	TH40FW-AH



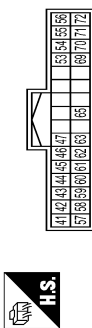
Terminal No.	Color Of Wire	Signal Name [Specification]
1	BG	BATTERY POWER SUPPLY
2	LG	COMMUNICATION SIGNAL (METER-AMP)
3	GR	COMMUNICATION SIGNAL (AMP->METER)
4	B	GROUND
5	W	ALTERNATOR SIGNAL
6	P	AIR BAG SIGNAL
7	G	SECURITY INDICATOR SIGNAL
15	B	GROUND
16	B	METER CONTROL SWITCH GROUND
21	R	IGNITION SIGNAL
24	BR	COMMUNICATION SIGNAL (LCD-AMP)
25	Y	COMMUNICATION SIGNAL (AMP->LCD)
26	R	VEHICLE SPEED SIGNAL (8-PULSE)
27	V	PARKING BRAKE SWITCH SIGNAL
28	W	BRAKE FLUID LEVEL SWITCH SIGNAL
29	SB	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)
30	G	PASSENGER SEAT BELT WARNING SIGNAL
31	L	WASHER LEVEL SWITCH SIGNAL
34	B	ILLUMINATION CONTROL SIGNAL
36	LG	SELECT SWITCH SIGNAL
37	SB	ENTER SWITCH SIGNAL
38	L	TRIP AB RESET SWITCH SIGNAL
39	P	ILLUMINATION CONTROL SWITCH SIGNAL (-)
40	BG	ILLUMINATION CONTROL SWITCH SIGNAL (+)

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

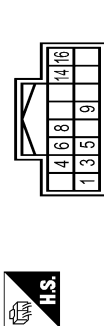
BCM (BODY CONTROL MODULE)

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH32FW-NH



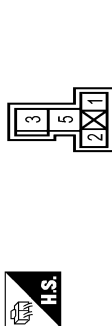
Terminal No.	Color	Wire	Signal Name [Specification]
41	V		ACC POWER SUPPLY
42	Y		FUEL LEVEL SENSOR SIGNAL
43	R		INTAKE SENSOR SIGNAL
44	LG		IN-VEHICLE SENSOR SIGNAL
45	P		AMBIENT SENSOR SIGNAL
46	BG		SUNLOAD SENSOR SIGNAL
47	V		GAS SENSOR SIGNAL
53	G		IGNITION POWER SUPPLY
54	BG		BATTERY POWER SUPPLY
55	B		GROUND
56	L		CANH
57	W		BRAKE FLUID LEVEL SWITCH SIGNAL
58	B		FUEL LEVEL SENSOR GROUND
59	GR		INTAKE SENSOR GROUND
60	L		IN-VEHICLE SENSOR GROUND
61	BR		AMBIENT SENSOR GROUND
62	SB		SUNLOAD SENSOR GROUND
63	R		ION MODE SIGNAL
65	BG		ECV SIGNAL
69	L		A/C LAN SIGNAL
70	R		EACH DOOR MOTOR POWER SUPPLY
71	B		GROUND
72	P		CANH

Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH16FW-NH



Terminal No.	Color	Wire	Signal Name [Specification]
1	B		GROUND
3	V		ACC
4	R		ILL
5	R		ILL CONT
6	SB		AV COMM (H)
8	LG		AV COMM (L)
9	BR		SW GND
14	SB		DISK EJECT SIGNAL
16	G		HAZARD ON

Connector No.	M79
Connector Name	ACCESSORY RELAY (2)
Connector Type	MS02FL-M2-LC



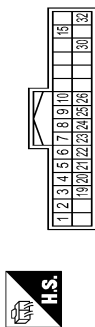
Terminal No.	Color	Wire	Signal Name [Specification]
1	G		-
2	B		-
3	LG		-
5	L		-

Connector No.	M94
Connector Name	OPTICAL SENSOR
Connector Type	TK03FW



Terminal No.	Color	Wire	Signal Name [Specification]
1	Y		POWER
2	P		OUTPUT
3	B		GROUND

Connector No.	M96
Connector Name	LOW TIRE PRESSURE WARNING CONTROL UNIT
Connector Type	TH02FW-NH



Terminal No.	Color	Wire	Signal Name [Specification]
1	P		CAN- (L)
2	L		CAN+ (H)
3	BG		RR TUNER (SIG)
4	L		RL TUNER (SIG)
5	R		FR TUNER (SIG)
6	P		FL TUNER (SIG)
7	SB		RR TUNER (VCC)
8	R		RL TUNER (VCC)
9	GR		FR TUNER (VCC)
10	G		FL TUNER (VCC)
15	Y		IGN
19	W		RR TUNER (RSSI)
20	BR		RL TUNER (RSSI)
21	LG		FR TUNER (RSSI)
22	V		FL TUNER (RSSI)
23	B		RR TUNER (GND)
24	Y		RL TUNER (GND)

25	W		FR TUNER (GND)
26	P		FL TUNER (GND)
30	LG		BCM FLASHER
32	B		GROUND

Connector No.	M104
Connector Name	REMOTE KEYLESS ENTRY RECEIVER
Connector Type	JAB04FB



Terminal No.	Color	Wire	Signal Name [Specification]
1	B		GROUND
2	GR		SIGNAL OUTPUT
4	BR		BATTERY

Connector No.	M118
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	IM03FB-LC



Terminal No.	Color	Wire	Signal Name [Specification]
1	W		BAT (F/L)
2	Y		POWER WINDOW POWER SUPPLY (BAT)
3	BG		POWER WINDOW POWER SUPPLY (RAP)

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS16FW-CS



4	5	7	8	9	10
11	13	15	17	18	19

Terminal No.	Color Of Wire	Signal Name [Specification]
4	P	INT ROOM LAMP PWR SUPPLY (BAT SAVE)
5	V	PASSENGER DOOR UNLOCK OUTPUT
7	Y	STEP LAMP OUTPUT
8	V	ALL DOOR FUEL LID LOCK OUTPUT
9	G	DRIVER DOOR FUEL LID UNLOCK OUTPUT
10	BR	REAR DOOR UNLOCK OUTPUT
11	R	BAT (FUSE)
13	B	GROUND
15	Y	ACC IND
17	W	TURN SIGNAL RH (FRONT)
18	BG	TURN SIGNAL LH (FRONT)
19	SB	ROOM LAMP TIMER

Connector No.	M120
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS12FW-CS



20	25	26
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Terminal No.	Color Of Wire	Signal Name [Specification]
20	V	TURN SIGNAL RH (REAR)
25	G	TURN SIGNAL LH (REAR)
26	P	REAR WIPER OUTPUT

Connector No.	M121
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH



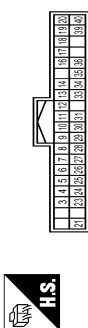
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

BCM (BODY CONTROL MODULE)

Connector No.	M123
Connector Name	TOTAL ILLUMINATION CONTROL UNIT
Connector Type	TH40FW-NH



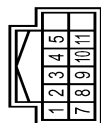
Terminal No.	Color	Wire	Signal Name [Specification]
3	V		DDL2
4	L		TAIL LAMP SIGNAL
5	V		ACC SIGNAL
6	P		BAT SAVING SIGNAL
7	W		IGN SIGNAL
8	G		DOOR SW (AS)
9	BG		DOOR SW (RL)
10	SB		MOOD LAMP (FR ARMREST RH)
11	Y		MOOD LAMP (RR ARMREST RH)
12	P		MAP LAMP (AS)
13	G		PERSONAL LAMP (LH)
14	R		PERSONAL LAMP (RH)
16	GR		FOOT LAMP (RH)
17	LG		HSPL ILLUMINATIONS
18	L		MAP LAMP (DR)
19	R		PUSH ENG START SW LED
20	Y		AMBIENCE LAMP
21	R		BAT POWER SUPPLY
23	B		GROUND
24	B		ILL CONT INPUT
25	BR		DOOR SW (RR)
26	BR		MAP LAMP SW (DOOR)
27	R		MAP LAMP SW (ALL ON)
28	SB		ROOM LAMP TIMER
29	GR		DOOR SW (DR)
30	LG		MOOD LAMP (FR ARMREST LH)
31	BG		MOOD LAMP (RR ARMREST LH)
33	W		HSPL POWER SUPPLY 3
34	R		HSPL POWER SUPPLY 2
35	V		HSPL POWER SUPPLY 1
36	L		FOOT LAMP (LH)
39	B		PUDDLE LAMP (RH)
40	BG		PUDDLE LAMP (LH)

Connector No.	M131
Connector Name	INSIDE KEY ANTENNA (INSTRUMENT CENTER)
Connector Type	RK02MGY



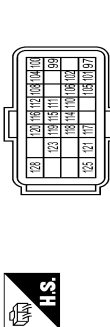
Terminal No.	Color	Wire	Signal Name [Specification]
1	BR		-
2	Y		-

Connector No.	M137
Connector Name	AT SHIFT SELECTOR
Connector Type	TH12FW-NH



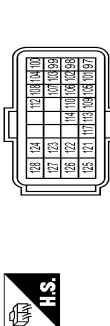
Terminal No.	Color	Wire	Signal Name [Specification]
1	W		-
2	V		-
3	L		-
4	B		-
5	G		-
7	BG		-
8	SB		-
9	B		-
10	GR		-
11	R		-

Connector No.	M160
Connector Name	ECM
Connector Type	RH24FGY-R28-LH-Z



Terminal No.	Color	Wire	Signal Name [Specification]
97	R		ENGINE SPEED SIGNAL OUTPUT
99	G		SENSOR POWER SUPPLY
100	L		SENSOR POWER SUPPLY
101	P		CAN COMMUNICATION LINE
102	SB		ASCD/CC STEERING SWITCH
104	R		ACCELERATOR PEDAL POSITION SENSOR 1
105	L		CAN COMMUNICATION LINE
106	P		IGNITION SWITCH
108	P		ACCELERATOR PEDAL POSITION SENSOR 2
110	P		STOP LAMP SWITCH
111	V		SENSOR GROUND
112	LG		FUEL PUMP CONTROL MODULE (FFCM) CHECK
114	GR		DATA LINK CONNECTOR
115	GR		SENSOR GROUND
116	G		TRANSMISSION RANGE SWITCH
117	BR		ASCD/CC BRAKE SWITCH
118	R		POWER SUPPLY FOR ECM (BACK-UP)
119	W		SENSOR GROUND
120	W		FUEL TANK TEMPERATURE SENSOR
121	GR		POWER SUPPLY FOR ECM
123	B		ECM GROUND
125	R		FUEL PUMP CONTROL MODULE (FFCM)
128	B		ECM GROUND

Connector No.	M164
Connector Name	ECM
Connector Type	RH24FGY-R28-LH-Z



Terminal No.	Color	Wire	Signal Name [Specification]
97	R		ACCELERATOR PEDAL POSITION SENSOR 1
98	P		ACCELERATOR PEDAL POSITION SENSOR 2
99	Y		ACCELERATOR PEDAL POSITION SENSOR 3
99	G		SENSOR POWER SUPPLY (With NAVI)
99	L		SENSOR POWER SUPPLY (Without NAVI)
100	W		SENSOR GROUND
101	SB		ASCD/CC STEERING SWITCH
102	LG		EVAP CONTROL SYSTEM PRESSURE SENSOR
103	G		SENSOR POWER SUPPLY (With NAVI)
103	L		SENSOR POWER SUPPLY (Without NAVI)
104	BR		SENSOR GROUND (With NAVI)
104	GR		SENSOR GROUND (Without NAVI)
105	L		REFRIGERANT PRESSURE SENSOR
106	W		FUEL TANK TEMPERATURE SENSOR
107	BG		SENSOR POWER SUPPLY
108	V		SENSOR GROUND
109	G		PNP SIGNAL
110	R		ENGINE SPEED OUTPUT SIGNAL
112	V		ENGINE OIL PRESSURE SENSOR
112	W		ENGINE OIL PRESSURE SENSOR
113	P		CAN COMMUNICATION LINE
114	L		CAN COMMUNICATION LINE
117	GR		DATA LINK CONNECTOR
121	LG		EVAP CANISTER VENT CONTROL VALVE
122	P		STOP LAMP SWITCH
123	B		ECM GROUND
124	B		ECM GROUND
125	GR		POWER SUPPLY FOR ECM
126	BR		ASCD/CC BRAKE SWITCH
127	B		ECM GROUND
128	B		ECM GROUND

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

BCM (BODY CONTROL MODULE)

Connector No.	M204
Connector Name	AV CONTROL UNIT
Connector Type	TH22FW-NH

Terminal No.	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023	1024	1025	1026	1027	1028	1029	1030	1031	1032	1033	1034	1035	1036	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	1061	1062	1063	1064	1065	1066	1067	1068	1069	1070	1071	1072	1073	1074	1075	1076	1077	1078	1079	1080	1081	1082	1083	1084	1085	1086	1087	1088	1089	1090	1091	1092	1093	1094	1095	1096	1097	1098	1099	1100	1101	1102	1103	1104	1105	1106	1107	1108	1109	1110	1111	1112	1113	1114	1115	1116	1117	1118	1119	1120	1121	1122	1123	1124	1125	1126	1127	1128	1129	1130	1131	1132	1133	1134	1135	1136	1137	1138	1139	1140	1141	1142	1143	1144	1145	1146	1147	1148	1149	1150	1151	1152	1153	1154	1155	1156	1157	1158	1159	1160	1161	1162	1163	1164	1165	1166	1167	1168	1169	1170	1171	1172	1173	1174	1175	1176	1177	1178	1179	1180	1181	1182	1183	1184	1185	1186	1187	1188	1189	1190	1191	1192	1193	1194	1195	1196	1197	1198	1199	1200	1201	1202	1203	1204	1205	1206	1207	1208	1209	1210	1211	1212	1213	1214	1215	1216	1217	1218	1219	1220	1221	1222	1223	1224	1225	1226	1227	1228	1229	1230	1231	1232	1233	1234	1235	1236	1237	1238	1239	1240	1241	1242	1243	1244	1245	1246	1247	1248	1249	1250	1251	1252	1253	1254	1255	1256	1257	1258	1259	1260	1261	1262	1263	1264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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Display contents of CONSULT	Fail-safe	Cancellation
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
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
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent <ul style="list-style-type: none"> Starter relay control signal Starter relay status signal (CAN)
B260A: IGNITION RELAY	Inhibit engine cranking	500 ms after the following conditions are fulfilled <ul style="list-style-type: none"> IGN relay (IPDM E/R) control signal: OFF (Battery voltage) Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions are fulfilled <ul style="list-style-type: none"> Power position changes to ACC Receives engine status signal (CAN)
B2617: STARTER RELAY CIRC	Inhibit engine cranking	1 second after the starter 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
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization

FAIL-SAFE CONTROL BY RAIN SENSOR MALFUNCTION

- BCM judges the rain sensor serial link error by the rain sensor serial link condition and detects the rain sensor malfunction by rain sensor malfunction signal.
- When BCM detects the rain sensor serial link error or the rain sensor malfunction while front wiper AUTO operation, BCM operates a fail-safe control.

NOTE:

If rain sensor malfunction is detected when ignition switch is turned OFF ⇒ ON and front wiper switch is INT position, BCM operates a fail-safe control.

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

- More than 1 minute is passed after the rear wiper stops.
- Turn rear wiper switch OFF.
- Operate the rear wiper switch or rear washer switch.

DTC Inspection Priority Chart

INFOID:0000000010576907

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)

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Priority	DTC
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
4	<ul style="list-style-type: none"> • 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 • B2608: STARTER RELAY • B260A: IGNITION RELAY • B260F: ENG STATE SIG LOST • B2614: BCM • B2615: BCM • B2616: BCM • B2617: BCM • B2618: BCM • B261A: PUSH-BTN IGN SW • B261E: VEHICLE TYPE • B26EA: KEY REGISTRATION • U0415: VEHICLE SPEED SIG
5	<ul style="list-style-type: none"> • B2621: INSIDE ANTENNA • B2623: INSIDE ANTENNA
6	B26E7: TPMS CAN COMM

DTC Index

INFOID:0000000010576908

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-20, "COMMON ITEM : CONSULT 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
No DTC is detected. Further testing may be required.	—	—	—	—
U1000: CAN COMM	—	—	—	BCS-39
U1010: CONTROL UNIT(CAN)	—	—	—	BCS-40
U0415: VEHICLE SPEED SIG	—	—	—	BCS-41
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-53
B2195: ANTI SCANNING	×	—	—	SEC-54
B2553: IGNITION RELAY	—	×	—	PCS-53
B2555: STOP LAMP	—	×	—	SEC-55

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warning lamp ON	Reference
B2556: PUSH-BTN IGN SW	—	×	×	SEC-57
B2557: VEHICLE SPEED	×	×	×	SEC-59
B2560: STARTER CONT RELAY	×	×	×	SEC-60
B2562: LOW VOLTAGE	—	×	—	BCS-42
B2601: SHIFT POSITION	×	×	×	SEC-61
B2602: SHIFT POSITION	×	×	×	SEC-64
B2603: SHIFT POSI STATUS	×	×	×	SEC-66
B2604: PNP/CLUTCH SW	×	×	×	SEC-69
B2605: PNP/CLUTCH SW	×	×	×	SEC-71
B2608: STARTER RELAY	×	×	×	SEC-73
B260A: IGNITION RELAY	×	×	×	PCS-55
B260F: ENG STATE SIG LOST	×	×	×	SEC-75
B2614: BCM	—	×	×	PCS-57
B2615: BCM	—	×	×	PCS-59
B2616: BCM	—	×	×	PCS-61
B2617: BCM	×	×	×	SEC-77
B2618: BCM	×	×	×	PCS-63
B261A: PUSH-BTN IGN SW	—	×	×	SEC-79
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	SEC-82
B2621: INSIDE ANTENNA	—	×	—	DLK-101
B2623: INSIDE ANTENNA	—	×	—	DLK-103
B26E7: TPMS CAN COMM	—	—	—	BCS-43
B26EA: KEY REGISTRATION	—	×	× (Turn ON for 15 seconds)	SEC-76

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BCS

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P

COMBINATION SWITCH SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

COMBINATION SWITCH SYSTEM SYMPTOMS

Symptom Table

INFOID:0000000010576909

1. Perform "Data Monitor" of CONSULT 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
A		x	x						x	x							
B	x			x									x		x		
C							x	x				x		x			
D						x		x			x					x	
E					x			x									x
F	x					x		x									
G			x		x		x	x									
H		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-45, "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-47, "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-93, "Exploded View" .
L	Combination switch	Replace the combination switch.

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

NORMAL OPERATING CONDITION

Description

INFOID:0000000010576910

TRANSIT MODE

- Transit mode inhibits battery power consumption during transportation or storage of the vehicle.
- BCM is set to transit mode before delivery.
- In transit mode, remote keyless entry function, headlamp ON/OFF function, theft warning alarm function, and other BCM control functions do not operate normally.
- Therefore, cancel operation must be performed so that the vehicle is used in normal status.
- For transit mode cancel operation, refer to [BCS-8. "Description"](#).

NOTE:

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

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BCS

PRECAUTIONS

< PRECAUTION >

PRECAUTION

PRECAUTIONS

Precautions for Removing Battery Terminal

INFOID:0000000010709185

- When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.

NOTE:

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

- For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch.

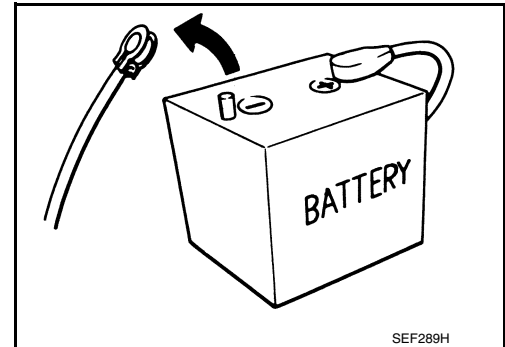
NOTE:

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

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

NOTE:

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



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

INFOID:0000000010576911

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

WARNING:

Always observe the following items for preventing accidental activation.

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

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

WARNING:

Always observe the following items for preventing accidental activation.

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

BCM (BODY CONTROL MODULE)

< REMOVAL AND INSTALLATION >

REMOVAL AND INSTALLATION

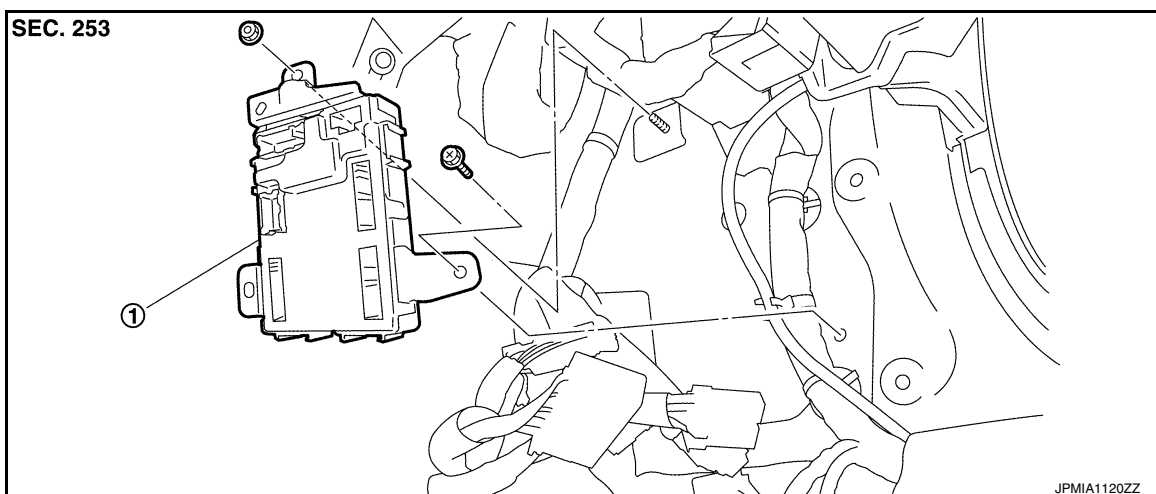
BCM (BODY CONTROL MODULE)

Exploded View

INFOID:0000000010576912

CAUTION:

Before replacing BCM, perform “Before Replace ECU” of “Read / Write 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:0000000010576913

CAUTION:

Before replacing BCM, perform “Before Replace ECU” of “Read / Write 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-18, "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 “After Replace ECU” of “Read / Write Configuration” or “Manual Configuration” when replacing BCM. Refer to [BCS-3, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT \(BCM\) : Description"](#).

NOTE:

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

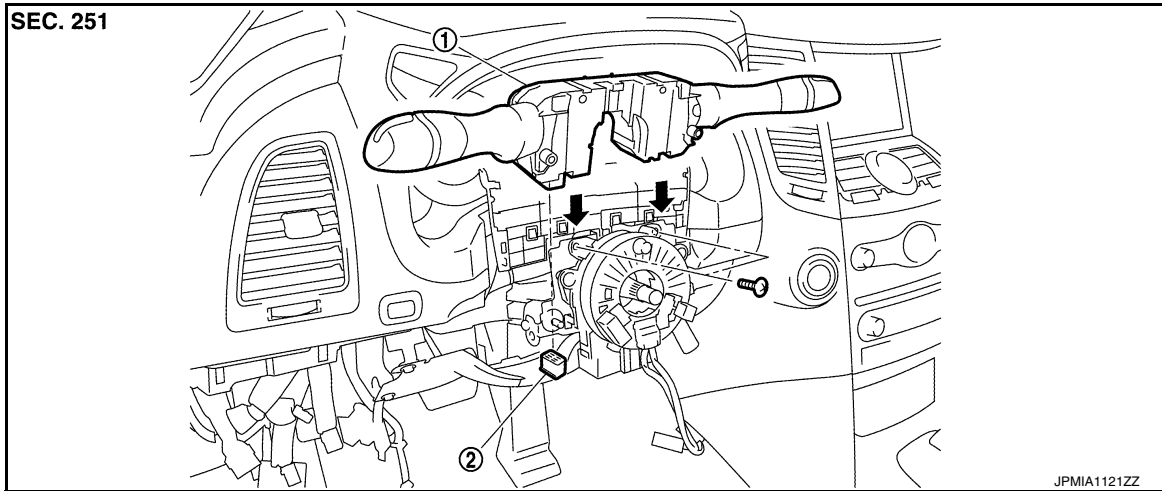
COMBINATION SWITCH

< REMOVAL AND INSTALLATION >

COMBINATION SWITCH

Exploded View

INFOID:0000000010576914



1. Combination switch

2. Combination switch connector

Removal and Installation

INFOID:0000000010576915

REMOVAL

1. Remove steering column cover. Refer to [IP-12, "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.