ELECTRICAL & POWER CONTROL

SECTION BCS

BODY CONTROL SYSTEM

CONTENTS

BASIC INSPECTION

INSPECTION AND ADJUSTMENT
ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

INFOID:0000000006201755

BEFORE REPLACEMENT

When replacing BCM, save or print current vehicle specification with CONSULT-III configuration before replacement.
NOTE:
If "READ CONFIGURATION" can not be used, use the "WRITE CONFIGURATION - Manual selection" after replacing BCM.

AFTER REPLACEMENT
CAUTION:
• **When replacing BCM, you must perform "WRITE CONFIGURATION" with CONSULT-III.**
- **Complete the procedure of "WRITE CONFIGURATION" in order.**
- **If you set incorrect "WRITE CONFIGURATION", incidents might occur.**
- **Configuration is different for each vehicle model. Confirm configuration of each vehicle model.**
• **When replacing BCM, perform the system initialization (NATS).**

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement

INFOID:0000000006201756

1.SAVING VEHICLE SPECIFICATION

CONSULT-III Configuration
Perform "READ CONFIGURATION" to save or print current vehicle specification. Refer to BCS-3, "CONFIGURATION (BCM) : Description".
NOTE:
If "READ CONFIGURATION" can not be used, use the "WRITE CONFIGURATION - Manual selection" after replacing BCM.

>> GO TO 2.
2.REPLACE BCM

Replace BCM. Refer to BCS-66, "Exploded View".

>> GO TO 3.
3.WRITING VEHICLE SPECIFICATION

CONSULT-III Configuration
Perform "WRITE CONFIGURATION - Config file" or "WRITE CONFIGURATION - Manual selection" to write vehicle specification. Refer to BCS-4, "CONFIGURATION (BCM) : Special Repair Requirement".

>> GO TO 4.
4.INITIALIZE BCM (NATS)

Perform BCM initialization. (NATS)

>> WORK END
CONFIGURATION (BCM)

CONFIGURATION (BCM) : Description

INFOID:0000000006201757

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

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

Configuration has three functions as follows

Function	Description
READ CONFIGURATION	• Reads the vehicle configuration of current BCM. • Saves the read vehicle configuration.
WRITE CONFIGURATION - Manual selection	Writes the vehicle configuration with manual selection.
WRITE CONFIGURATION - Config file	Writes the vehicle configuration with saved data.

NOTE:

Manual setting item: Items which need selection by vehicle specifications

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

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

CONFIGURATION (BCM) : Special Repair Requirement

INFOID:0000000006201758

1.WRITING MODE SELECTION

CONSULT-III Configuration
Select "CONFIGURATION" of BCM.

When writing saved data>>GO TO 2.
When writing manually>>GO TO 3.

2.PERFORM "WRITE CONFIGURATION - CONFIG FILE"

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

>> WORK END

3.PERFORM "WRITE CONFIGURATION - MANUAL SELECTION"

CONSULT-III Configuration
1. Select "WRITE CONFIGURATION - Manual selection".
2. Identify the correct model and configuration list. Refer to .
3. Confirm and/or change setting value for each item.
4. Select "Setting change".
    CAUTION:
    Make sure to select "Setting change" even if the indicated configuration of brand new BCM is same as the desirable configuration. If not, configuration which is set automatically by selecting vehicle model can not be memorized.
5. When "COMMAND FINISHED", select "END".

>> GO TO 4.

4.OPERATION CHECK

Confirm that each function controlled by BCM operates normally.

>> WORK END

CONFIGURATION (BCM) : Configuration list

INFOID:0000000006201759

EXCEPT FOR MEXICO

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

MANUAL SETTING ITEM		NOTE
Items	Setting value	
KEYLESS ENTRY	WITH ⇔ WITHOUT	• WITH: Without Intelligent Key system • WITHOUT: With Intelligent Key system
I-KEY	WITH ⇔ WITHOUT	• WITH: With Intelligent Key system • WITHOUT: Without Intelligent Key system
TK/BD OPEN LGIC	MODE2 ⇔ MODE3	• MODE2: Without Intelligent Key system • MODE3: With Intelligent Key system
DTRL	WITH ⇔ WITHOUT	• WITH: For Canada • WITHOUT: Except for Canada

⇔: Items which confirm vehicle specifications

AUTO SETTING ITEM		NOTE
Items	Setting value	
UNLOCK WITH SHOCK	WITHOUT	—
RAP FUNC SET	MODE1	—
LIGHT RECOG	MODE6	—
REAR WIPER	WITH	—
SPEED SIGNAL	MODE2	—
TPMS	WITH	—
TIRE PRESSURE	MODE7	—
FR FOG LOGIC	MODE1	—
DISPLAY STYLE	MODE1	—
AUTO LOCK&UNLOCK FUNC	WITH	—
WAKUP SLP LOG	MODE1	—
BUCKLE SW	MODE2	—
RR WIPER GND	MODE2	—
SEAT BLT WARN	WITH	—
THEFT ALARM	WITH	—

FOR MEXICO

MANUAL SETTING ITEM		NOTE
Items	Setting value	
KEYLESS ENTRY	WITHOUT	—

AUTO SETTING ITEM		NOTE
Items	Setting value	
UNLOCK WITH SHOCK	WITHOUT	—
RAP FUNC SET	MODE1	—
I-KEY	WITH	—
DTRL	WITHOUT	—
LIGHT RECOG	MODE6	—
REAR WIPER	WITH	—
SPEED SIGNAL	MODE2	—
TK/BD OPEN LGIC	MODE3	—
TPMS	WITHOUT	—
TIRE PRESSURE	MODE2	—

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

AUTO SETTING ITEM		NOTE
Items	Setting value	
FR FOG LOGIC	MODE1	—
DISPLAY STYLE	MODE1	—
AUTO LOCK&UNLOCK FUNC	WITH	—
WAKUP SLP LOG	MODE1	—
BUCKLE SW	MODE2	—
RR WIPER GND	MODE2	—
SEAT BLT WARN	WITHOUT	—
THEFT ALARM	WITH	—

SYSTEM DESCRIPTION

BODY CONTROL SYSTEM

System Description

INFOID:0000000006201760

OUTLINE

- BCM (Body Control Module) controls various electrical components.It receives the information required from CAN communication and the signals received from each switch and sensor.
- BCM has a combination switch reading function for reading the status of combination switches (light, turn signal, wiper and washer) in addition to functions for controlling the operation of various electrical components. It also has a signal transmission function, for other systems, and a power consumption control function that reduces the power consumption with the ignition switch OFF.
- BCM is equipped with a diagnosis function that operates with CONSULT-III and allows for various settings to be changed.

BCM FUNCTION LIST

System	Reference page
Combination switch reading system	BCS-9, "System Diagram"
Signal buffer system	BCS-13, "System Diagram"
Power consumption control system	BCS-14, "System Diagram"
Auto light system	• EXL-10, "System Diagram" (Xenon type headlamp) • EXL-150, "System Diagram" (Halogen type headlamp)
Headlamp system	• EXL-8, "System Diagram" (Xenon type headlamp) • EXL-148, "System Diagram" (Halogen type headlamp)
Daytime running light system	EXL-152, "System Diagram"
Front fog lamp system	• EXL-12, "System Diagram" (Xenon type headlamp) • EXL-155, "System Diagram" (Halogen type headlamp)
Turn signal and hazard warning lamp system	• EXL-14, "System Diagram" (Xenon type headlamp) • EXL-157, "System Diagram" (Halogen type headlamp)
Parking, license plate and tail lamps system	• EXL-16, "System Diagram" (Xenon type headlamp) • EXL-159, "System Diagram" (Halogen type headlamp)
Exterior lamp battery saver system	• EXL-18, "System Diagram" (Xenon type headlamp) • EXL-161, "System Diagram" (Halogen type headlamp)
Interior room lamp control system	INL-5, "System Diagram"
Luggage room lamp	
Interior room lamp battery saver system	INL-9, "System Diagram"
Front wiper and washer system	WW-5, "System Diagram"
Rear wiper and washer system	WW-10, "System Diagram"
Warning chime system	WCS-5, "WARNING CHIME SYSTEM : System Diagram"
Manual air conditioner system	HAC-127, "System Diagram"
Door lock system	• DLK-15, "System Diagram" (With Intelligent Key system) • DLK-278, "System Diagram" (Without Intelligent Key system)
Back door opener function	• DLK-40, "System Diagram" (With Intelligent Key system) • DLK-288, "System Diagram" (Without Intelligent Key system)
Nissan vehicle immobilizer system-NATS (NVIS)	• SEC-15, "System Diagram" (With Intelligent Key system) • SEC-146, "System Diagram" (Without Intelligent Key system)
Vehicle security (theft warning) system	• SEC-20, "System Diagram" (With Intelligent Key system) • SEC-150, "System Diagram" (Without Intelligent Key system)
Panic alarm system	• DLK-27, "REMOTE KEYLESS ENTRY FUNCTION : System Diagram" (With Intelligent Key system) • DLK-283, "System Diagram" (Without Intelligent Key system)
Rear window defogger system	DEF-4, "System Diagram"

BODY CONTROL SYSTEM

< SYSTEM DESCRIPTION >

System		Reference page
Remote keyless entry system (Without Intelligent Key system)		DLK-283, "System Diagram"
Intelligent Key system	Door lock system	DLK-20, "INTELLIGENT KEY SYSTEM : System Diagram"
	Remote keyless entry system	
	Key reminder	
	Warning function	
Power window system		PWC-7, "System Diagram"
Retained accessory power (RAP) system		PWC-7, "System Description"
Tire pressure monitor system (TPMS) - AIR PRESSURE MONITOR		WT-8, "System Diagram"

Component Parts Location

INFOID:0000000006201761

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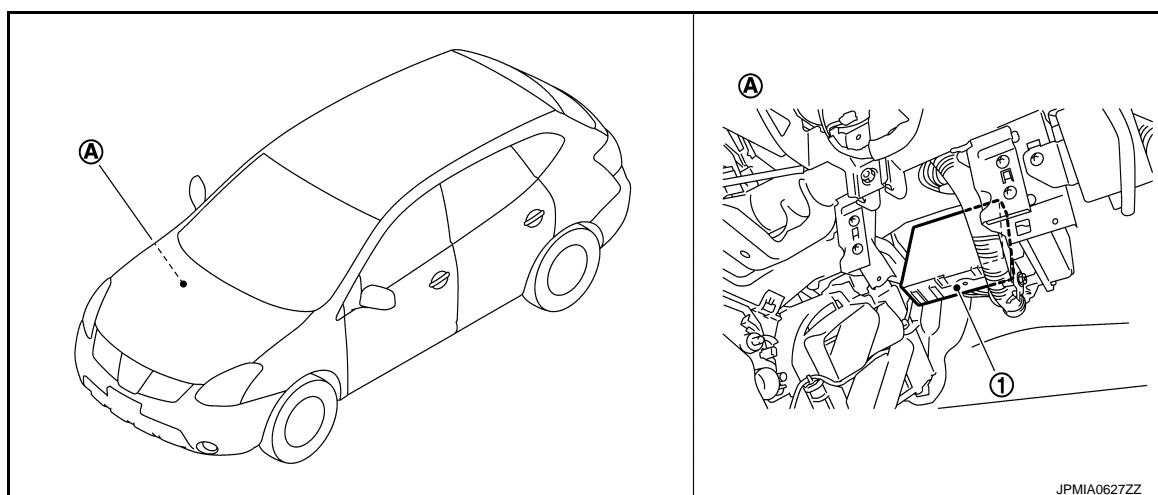
1. BCM
A. Over the glove box

COMBINATION SWITCH READING SYSTEM

System Diagram

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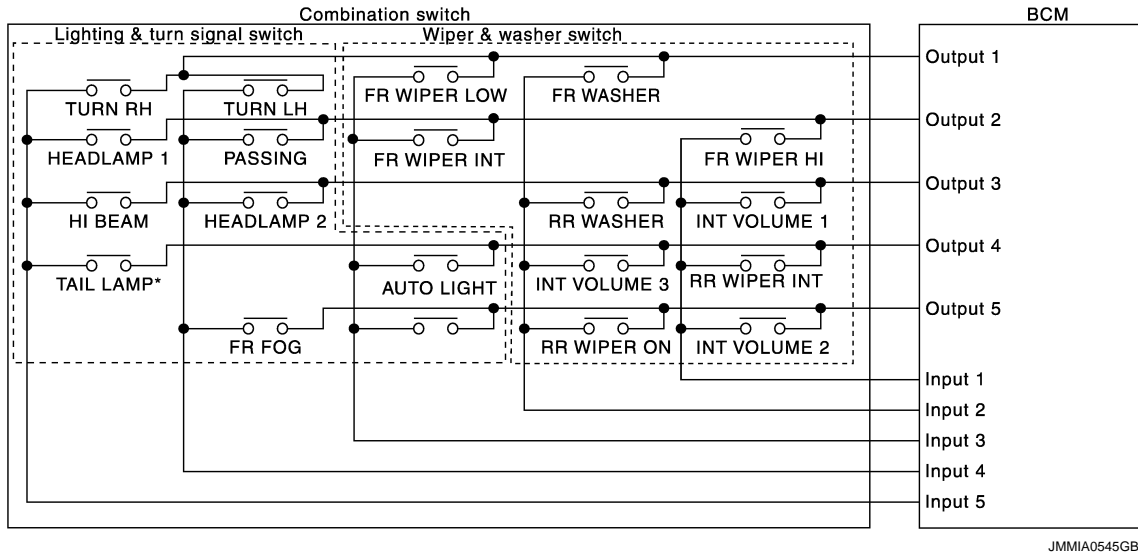
NOTE:
*: TAIL LAMP switch links lighting switch 1ST and 2ND positions.

System Description

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

COMBINATION SWITCH MATRIX

Combination switch circuit

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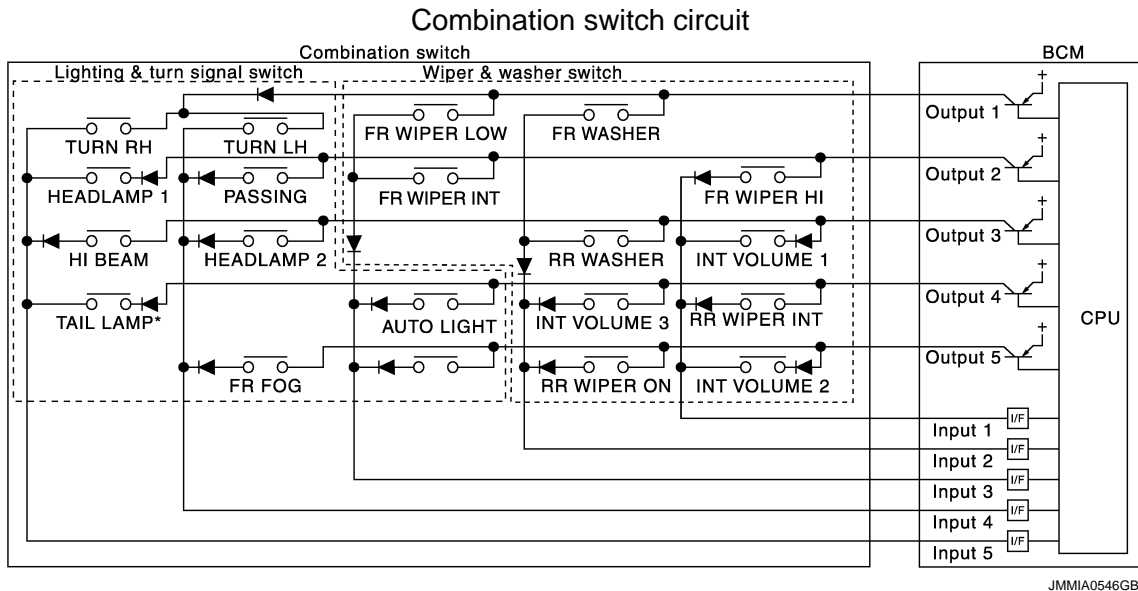
NOTE:
*: TAIL LAMP switch links lighting switch 1ST and 2ND positions.

Combination switch INPUT-OUTPUT system list

System	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5
OUTPUT 1	—	FR WASHER	FR WIPER LOW	TURN LH	TURN RH
OUTPUT 2	FR WIPER HI	—	FR WIPER INT	PASSING	HEADLAMP 1

COMBINATION SWITCH READING SYSTEM

< SYSTEM DESCRIPTION >

System	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5
OUTPUT 3	INT VOLUME 1	RR WASHER	—	HEADLAMP 2	HI BEAM
OUTPUT 4	RR WIPER INT	INT VOLUME 3	AUTO LIGHT	—	TAIL LAMP
OUTPUT 5	INT VOLUME 2	RR WIPER ON	—	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.

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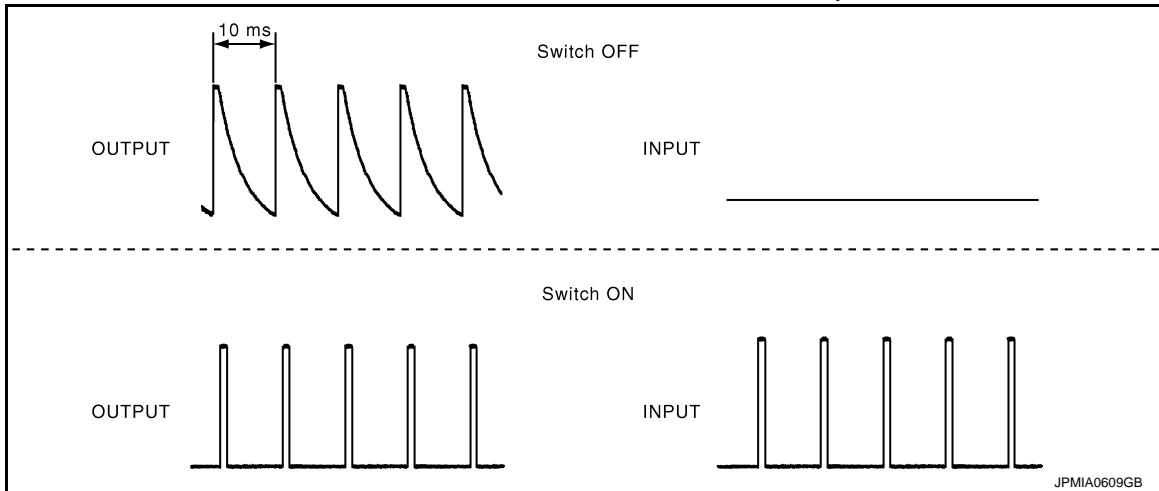
NOTE:
BCM reads the status of the combination switch at 65 ms interval when BCM is controlled at low power consumption control mode.
- BCM operates as follows and judges the status of the combination switch.
- It operates the transistor on OUTPUT side in the following order: OUTPUT 1 → 2 → 3 → 4 → 5, and outputs voltage waveform.
- The voltage waveform of OUTPUT corresponding to the formed circuit is input into the interface on INPUT side if any (1 or more) switches are ON.
- It reads this change of the voltage as the status signal of the combination switch.

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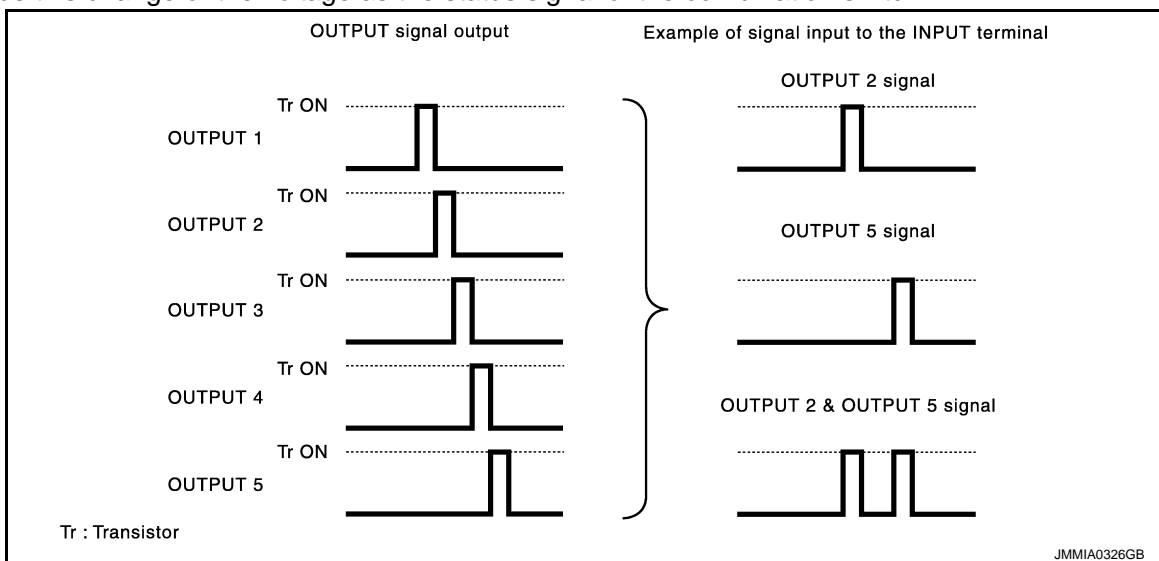
Operation Example
In the following operation example, the combination of the status signals of the combination switch is replaced as follows: INPUT 1 - 5 to "1 - 5" and OUTPUT 1 - 5 to "A - E".

Example 1: When a switch (TAIL LAMP switch) is turned ON

COMBINATION SWITCH READING SYSTEM

< SYSTEM DESCRIPTION >

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

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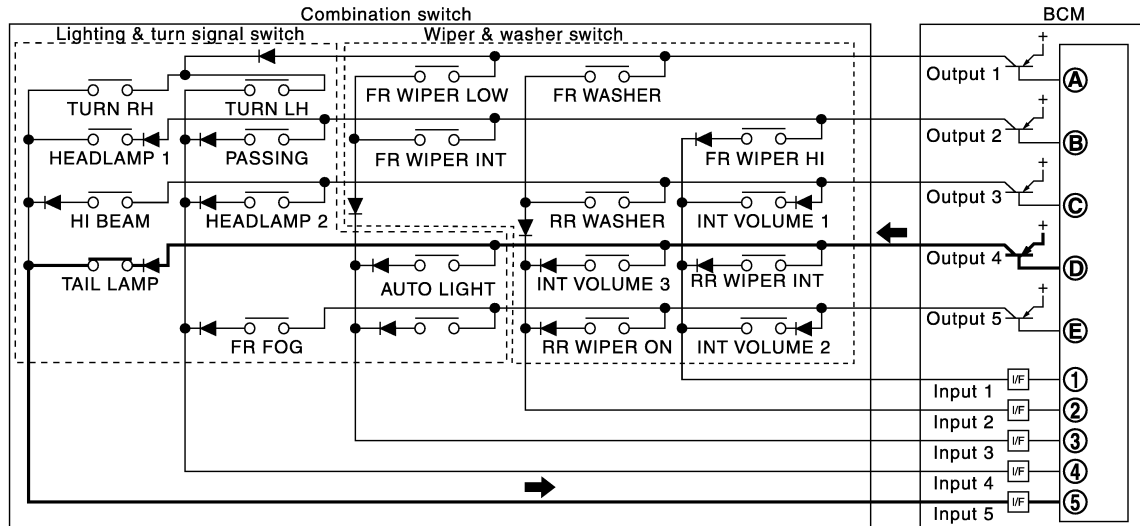
- BCM detects the combination switch status signal "5D" when the signal of OUTPUT 4 is input to INPUT 5.
- BCM judges that the TAIL LAMP switch is ON when the signal "5D" is detected.

Example 2: When some switches (TURN RH switch, TAIL LAMP switch) are turned ON
- The circuits between OUTPUT 1 and INPUT 5 and between OUTPUT 4 and INPUT 5 are formed when the TURN RH switch and TAIL LAMP switch are turned ON.

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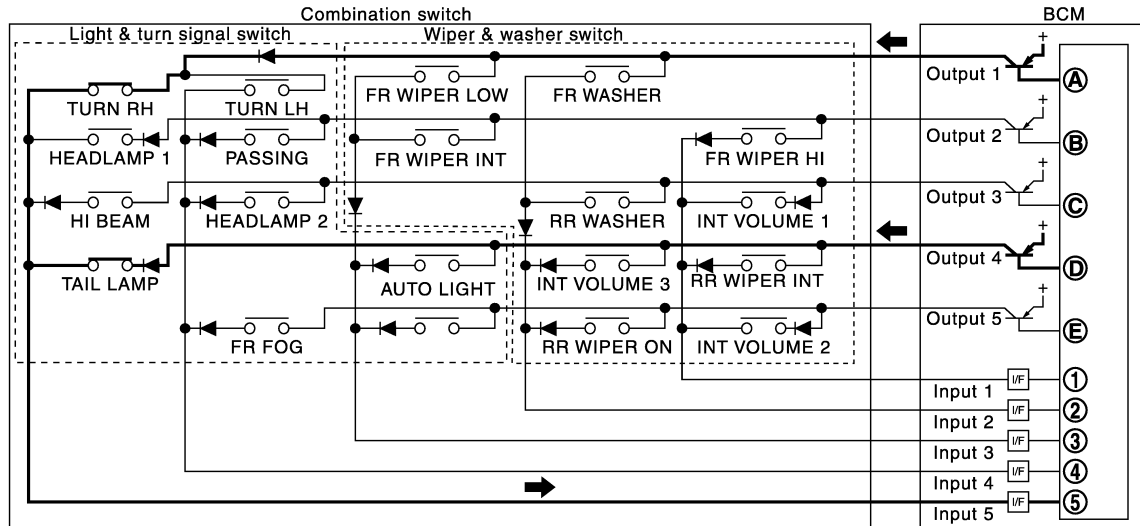
- BCM detects the combination switch status signal "5AD" when the signals of OUTPUT 1 and OUTPUT 4 are input to INPUT 5.
- BCM judges that the TURN RH switch and TAIL LAMP switch are ON when the signal "5AD" is detected.

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

Wiper intermittent dial position	Switch status		
	INT VOLUME 1	INT VOLUME 2	INT VOLUME 3
1	ON	ON	ON
2	ON	ON	OFF
3	ON	OFF	OFF
4	OFF	OFF	OFF
5	OFF	OFF	ON

Wiper intermittent dial position	Switch status		
	INT VOLUME 1	INT VOLUME 2	INT VOLUME 3
6	OFF	ON	ON
7	OFF	ON	OFF

NOTE:

For details of wiper volume dial position, refer to WW-5, "System Diagram".

Component Parts Location

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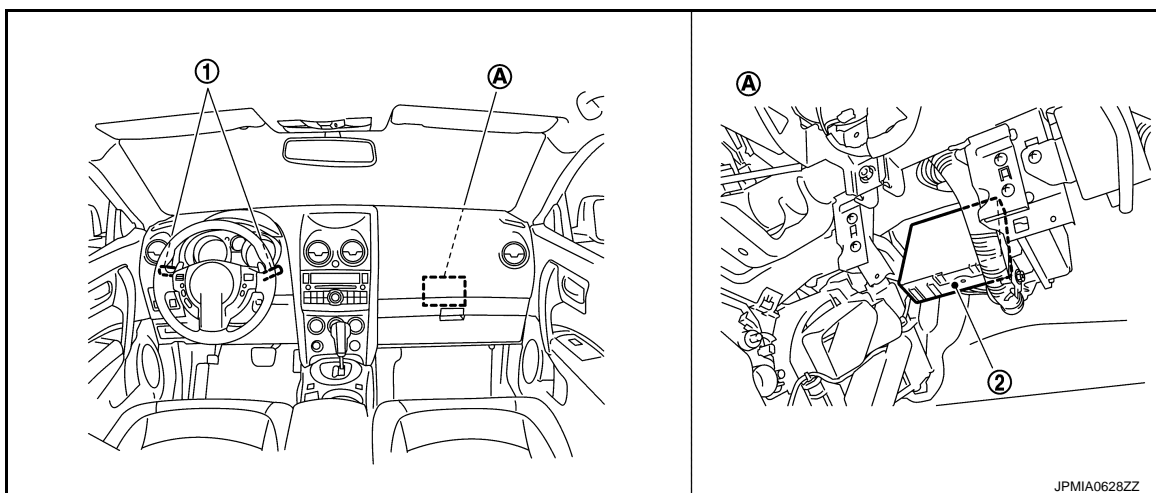
1. Combination switch
2. BCM
A. Over the glove box

SIGNAL BUFFER SYSTEM

System Diagram

INFOID:0000000006201765

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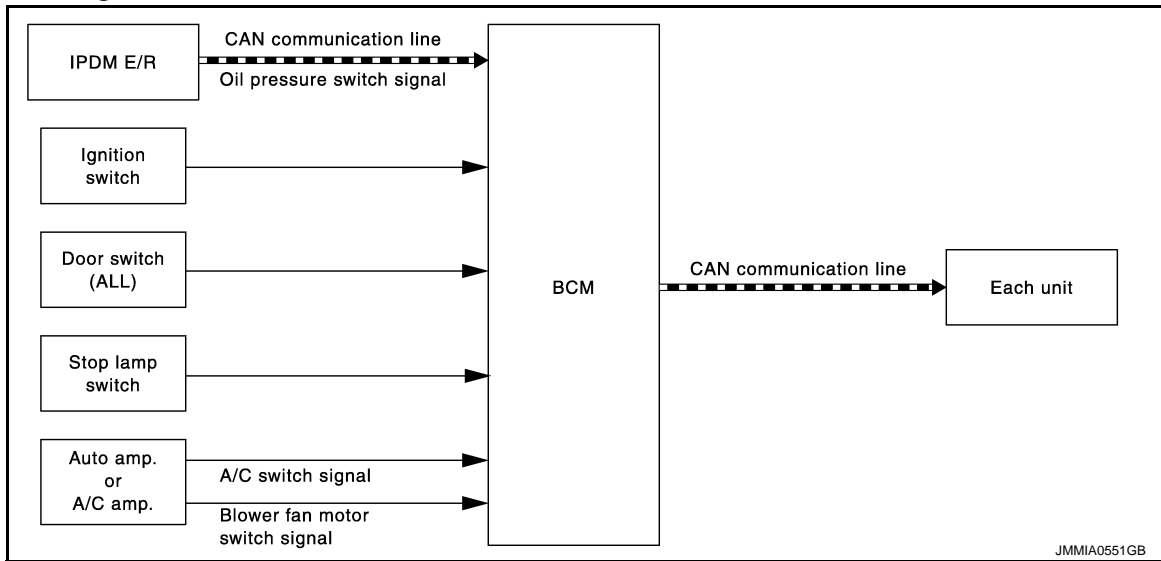
System Description

INFOID:0000000006201766

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
Ignition switch ON signal	Ignition switch	IPDM E/R (CAN)	Inputs the ignition switch signal and transmits it with CAN communication.
Door switch signal	Any door switch	• Combination meter (CAN) • IPDM E/R (CAN) • Intelligent Key unit (CAN)	Inputs the door switch signal and transmits it with CAN communication.
Stop lamp switch signal	Stop lamp switch	TCM (CAN)	Inputs the stop lamp switch signal and transmits it with CAN communication.
Oil pressure switch signal	IPDM E/R (CAN)	Combination meter (CAN)	Transmits the received oil pressure switch signal with CAN communication.
A/C switch signal	• Auto amp. (automatic air conditioning system) • A/C amp. (manual air conditioning system)	ECM (CAN)	Inputs the A/C switch signal and transmits it with CAN communication.
Blower fan motor switch signal			Inputs the Blower fan motor switch signal and transmits it with CAN communication.

POWER CONSUMPTION CONTROL SYSTEM

System Diagram

INFOID:0000000006201767

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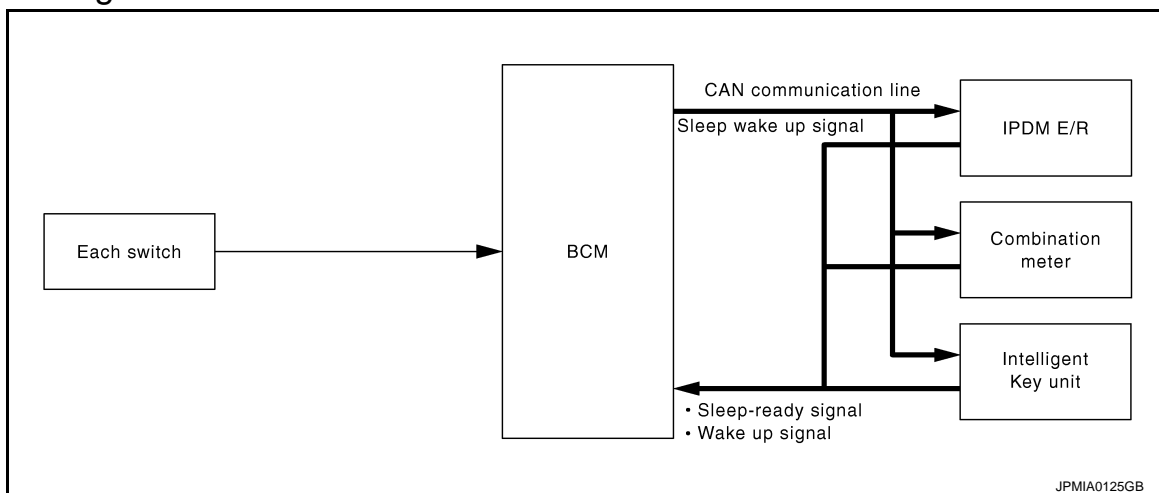
System Description

INFOID:0000000006201768

OUTLINE
- BCM incorporates a power consumption 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 and Intelligent Key unit) that operates with the ignition switch OFF.

Normal mode (wake-up)
- CAN communication is normally performed with other units
- Each control with BCM is operating properly

CAN communication sleep mode (CAN sleep)
- CAN transmission is stopped
- Control with BCM only is operating

Low power consumption mode (BCM sleep)
- Low power consumption control is active
- CAN transmission is stopped

LOW POWER CONSUMPTION CONTROL WITH BCM
BCM reduces the power consumption with the following operation in the low power consumption mode.
- The reading interval of the each switches changes from 10 ms interval to 65 ms interval.

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

POWER CONSUMPTION CONTROL SYSTEM

< SYSTEM DESCRIPTION >

Sleep condition

CAN sleep condition	BCM sleep condition
• Receiving the sleep-ready signal (ready) from all units • Key switch status: No change • Ignition switch: OFF • Door switch status: No change • Door lock status: No change • Hazard warning lamp: Not operation • Exterior lamp: OFF • Warning lamp: Not operation (Except security indicator) • Warning chime: Not operation • Remote keyless entry receiver: Not receiving • Intelligent key unit communication: No operation request (CAN) • CONSULT-III communication status: Not communication • Vehicle security system alarm: Not operation • Stop lamp switch: OFF	The controls only BCM are completed. (Interior room lamp battery saver: Time out etc.)

WAKE-UP OPERATION

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

Wake-up condition

BCM wake-up condition
• Receiving the sleep-ready signal (Not-ready) from any unit • Key switch: OFF → ON, ON → OFF • Ignition switch: OFF → ACC or ON • Any door switch: OFF → ON, ON → OFF • Central door lock switch: NEUTRAL → LOCK, NEUTRAL → UNLOCK • Key cylinder switch: NEUTRAL → LOCK, NEUTRAL → UNLOCK • Hazard switch: OFF → ON • Lighting switch: OFF → 1ST or PASS • Remote keyless entry receiver: Receiving • Intelligent key unit communication: Receiving operation request (CAN) • CONSULT-III communication status: Receiving • Stop lamp switch: ON (Depress brake pedal) • Back door opener switch OFF → ON

Component Parts Location

INFOID:0000000006201769

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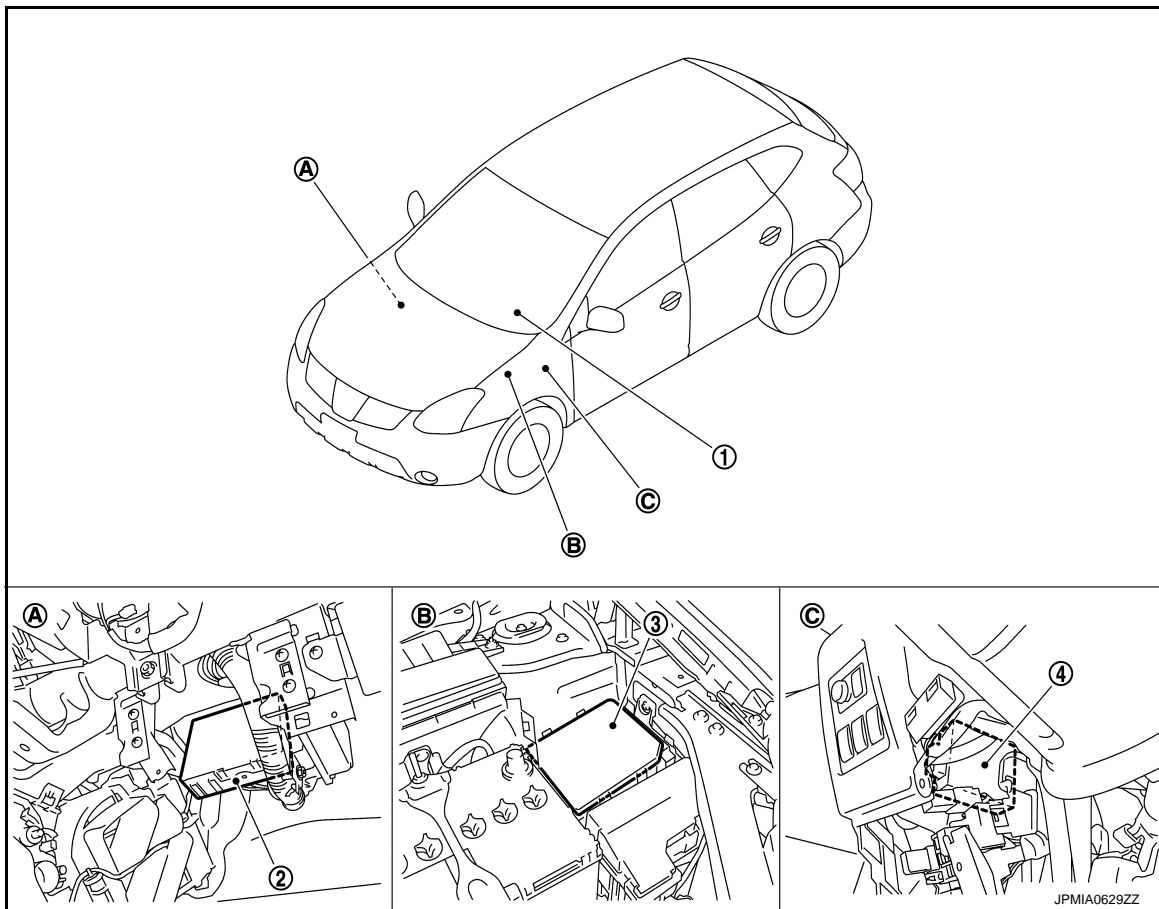
1. Combination meter
2. BCM
3. IPDM E/R
4. Intelligent Key unit
A. Over the glove box
B. Engine room (LH)
C. Over the instrument lower panel (driver side)

DIAGNOSIS SYSTEM (BCM)
COMMON ITEM

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

INFOID:0000000006201770

APPLICATION ITEM

CONSULT-III can display each diagnostic item using the diagnostic test modes shown following.

Diagnosis mode	Function description
ECU Identification	BCM part number is displayed.
Self-Diagnostic Result	Displays the diagnosis results judged by BCM. Refer to BCS-62, "DTC Index".
Data Monitor	BCM input/output signals are displayed.
Active Test	The signals used to activate each device are forcibly supplied from BCM.
Work Support	Changes the setting for each system function.
Configuration	• Read and save the vehicle specification. • Write the vehicle specification when replacing BCM.
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from 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	CONSULT-III 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 control	INT LAMP	×	×	×
Remote keyless entry system	MULTI REMOTE ENT	×	×	×
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER		×	×
• Auto air conditioning system • Manual air conditioning system	AIR CONDITONER		×	
Intelligent Key system	INTELLIGENT KEY		×	
Combination switch	COMB SW		×	
Body control system	BCM	×		
Immobilizer	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		×	×
—	FUEL LID*			
TPMS	TPMS (AIR PRESSURE MONITOR)	×	×	×
Panic alarm system	PANIC ALARM			×

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

DOOR LOCK

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

INFOID:0000000006548653

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

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

DATA MONITOR

Monitor Item	Condition
IGN ON SW	Indicates [ON/OFF] condition of ignition switch in ON position
PUSH SW[1]	Indicates [ON/OFF] condition of ignition knob switch
KEY ON SW	Indicates [ON/OFF] condition of key switch
CDL LOCK SW	Indicates [ON/OFF] condition of door lock and unlock switch
CDL UNLOCK SW	Indicates [ON/OFF] condition of door lock and unlock switch
DOOR SW-DR	Indicates [ON/OFF] condition of front door switch (driver side)
DOOR SW-AS	Indicates [ON/OFF] condition of front door switch (passenger side)
DOOR SW-RR	Indicates [ON/OFF] condition of rear door switch RH
DOOR SW-RL	Indicates [ON/OFF] condition of rear door switch LH
BACK DOOR SW	Indicates [ON/OFF] condition of back door switch
KEYLESS LOCK[2]	Indicates [ON/OFF] condition of lock signal from key fob
KEYLESS UNLOCK[2]	Indicates [ON/OFF] condition of unlock signal from key fob
I-KEY LOCK[1]	Indicates [ON/OFF] condition of lock signal from Intelligent Key
I-KEY UNLOCK[1]	Indicates [ON/OFF] condition of unlock signal from Intelligent Key
KEY CYL LK-SW	Indicates [ON/OFF] condition of lock signal from key cylinder
KEY CYL UN-SW	Indicates [ON/OFF] condition of unlock signal from key cylinder

[1]: For the Intelligent Key equipped vehicle.

[2]: For the multi remote control system equipped vehicle.

ACTIVE TEST

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

WORK SUPPORT

Test item	Description
DOOR LOCK-UNLOCK SET	Select unlock mode can be changed in this mode. Selects ON-OFF of select unlock mode
ANTI-LOCK OUT SET	Key reminder door mode can be changed in this mode. Selects ON-OFF of Key reminder door mode
AUTOMATIC DOOR LOCK SELECT	The automatic door lock function mode can be selected as per the following item in this Mode. • VH SPD: All doors are locked when vehicle speed is more than 5 MPH (10km/h) • P RANGE: All doors are locked when shifting the selector lever from the P position to other than the P position

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

Test item	Description
AUTOMATIC DOOR UNLOCK SELECT	The automatic door unlock function mode can be selected as per the following item in this Mode. • 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 to other than the P to P positions • MODE 4: Driver side door is unlocked when the power supply position is changed from ON to OFF • MODE 5: Driver side door is unlocked when shifting the selector lever from any position to other than the P to P positions
AUTOMATIC DOOR LOCK/UNLOCK SET	The automatic door lock/unlock function can be changed to operate (ON) or not operate (OFF) in this mode.

REAR WINDOW DEFOGGER

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

INFOID:0000000006548694

Data monitor

Monitor Item	Description
REAR DEF SW	Displays "Press (ON)/other (OFF)" status determined with the rear window defogger switch.
IGN ON SW	Indicates [ON/OFF] condition of ignition switch in ON position.
ACC ON SW	Indicates [ON/OFF] condition of ignition switch in ACC position.

ACTIVE TEST

Test Item	Description
REAR DEFOGGER	This test is able to check rear window defogger operation.

BUZZER

BUZZER : CONSULT-III Function (BCM - BUZZER)

INFOID:0000000006548696

CONSULT-III FUNCTION (BCM – BUZZER)

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

DATA MONITOR

Display item [Unit]	Description
IGN ON SW [On/Off]	Ignition switch (ON) status judged by ignition power supply input.
KEY ON SW [On/Off]	Key switch status.
DOOR SW -DR [On/Off]	Front door switch (driver side) status judged by BCM.
LIGHT SW 1ST [On/Off]	Lighting switch status judged by the lighting switch signal read with combination switch reading function.
BUCKLE SW [On/Off]	Seat belt buckle switch (driver side) status judged by BCM.

ACTIVE TEST

Display item	Description
LIGHT WARN ALM	The light reminder warning chime operation can be checked by operating the relevant function (On/Off).
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).

INT LAMP

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

INFOID:0000000006548690

WORK SUPPORT

JPLIA0093GB
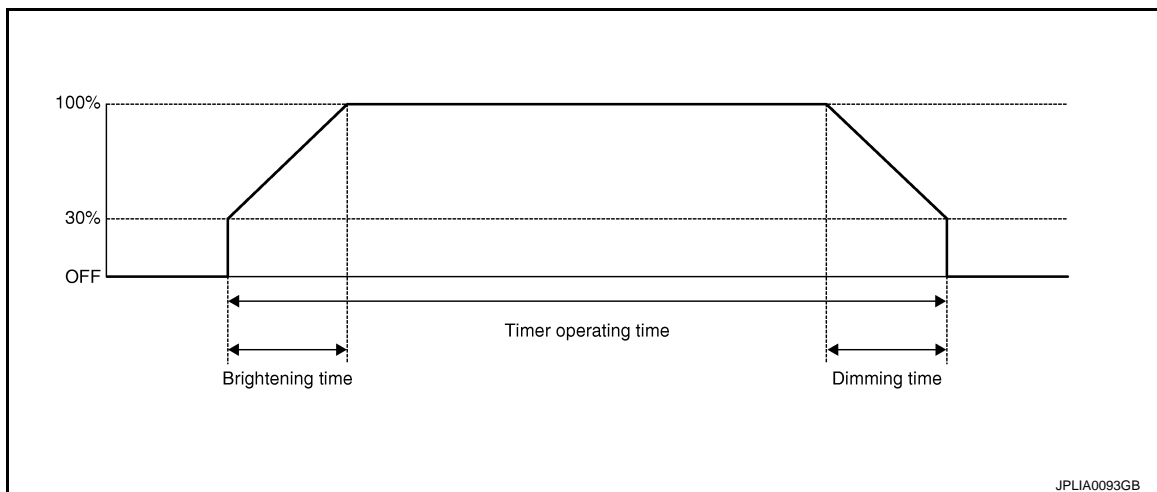
Service item	Setting item		Setting
SET I/L D-UNLCK INTCON	On*		With the interior room lamp timer function
	Off		Without the interior room lamp timer function
ROOM LAMP ON TIME SET	MODE 1	0.5 sec.	Sets the interior room lamp gradual brightening time.
	MODE 2*	1 sec.	
	MODE 3	2 sec.	
	MODE 4	3 sec.	
	MODE 5	4 sec.	
	MODE 6	5 sec.	
	MODE 7	0 sec.	
ROOM LAMP OFF TIME SET	MODE 1	0.5 sec.	Sets the interior room lamp gradual dimming time.
	MODE 2*	1 sec.	
	MODE 3	2 sec.	
	MODE 4	3 sec.	
	MODE 5	4 sec.	
	MODE 6	5 sec.	
	MODE 7	0 sec.	

*: Factory setting

DATA MONITOR

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description
IGN ON SW [On/Off]	Ignition switch (ON) status judges from IGN signal (ignition power supply)
KEY ON SW [On/Off]	The switch status input from key switch
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
BACK DOOR SW [On/Off]	The switch status input from back door switch
KEY CYL LK-SW [On/Off]	Lock switch status input from key cylinder switch
KEY CYL UN-SW [On/Off]	Unlock switch status input from key cylinder switch
CDL LOCK SW [On/Off]	Lock switch status input from door lock and unlock switch
CDL UNLOCK SW [On/Off]	Unlock switch status input from door lock and unlock switch
I-KEY LOCK [On/Off]	Lock signal status received from Intelligent Key unit by CAN communication
I-KEY UNLOCK [On/Off]	Unlock signal status received from Intelligent Key unit by CAN communication
KEYLESS LOCK [On/Off]	Lock signal status received from remote keyless entry receiver
KEYLESS UNLOCK [On/Off]	Unlock signal status received from remote keyless entry receiver

ACTIVE TEST

Test item	Operation	Description
INT LAMP	On	Outputs the interior room lamp control signal to turn the interior room lamps ON. [Map lamp, room lamp (when applicable lamps switch is in DOOR position.)]
	Off	Stops the interior room lamp control signal to turn the interior room lamps OFF.
IGN ILLUM	On	Outputs the ignition keyhole illumination control signal to turn ignition keyhole illumination ON.
	Off	Stops the ignition keyhole illumination control signal to turn ignition keyhole illumination OFF.
STEP LAMP TEST	On	**NOTE:** The item is indicated, but not operate.
	Off	
LUGGAGE LAMP TEST	On	Outputs the luggage room lamp control signal to turn luggage room lamp ON.
	Off	Stops the luggage room lamp control signal to turn luggage room lamp OFF.

MULTIREMOTE ENT

MULTIREMOTE ENT : CONSULT-III Function (BCM - MULTIREMOTE ENT)

INFOID:0000000006548695

BCM CONSULT-III FUNCTION

BCS-21

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

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

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.

DATA MONITOR

Monitor Item	Condition
IGN ON SW	Indicates [ON/OFF] condition of ignition switch in ON position.
KEY ON SW	Indicates [ON/OFF] condition of key switch.
ACC ON SW	Indicates [ON/OFF] condition of ignition switch in ACC position.
KEYKESS LOCK	Indicates [ON/OFF] condition of lock signal from key fob.
KEYLESS UNLOCK	Indicates [ON/OFF] condition of unlock signal from key fob.
KEYLESS PANIC	Indicates [ON/OFF] condition of panic alarm signal from key fob.
DOOR SW-DR	Indicates [ON/OFF] condition of front door switch (driver side).
DOOR SW-AS	Indicates [ON/OFF] condition of front door switch (passenger side).
DOOR SW-RR	Indicates [ON/OFF] condition of rear door switch RH.
DOOR SW-RL	Indicates [ON/OFF] condition of rear door switch LH.
BACK DOOR SW	Indicates [ON/OFF] condition of back door switch.
CDL LOCK SW	Indicates [ON/OFF] condition of door lock and unlock switch.
CDL UNLOCK SW	Indicates [ON/OFF] condition of door lock and unlock switch.
RKE LOCK AND UNLOCK	Indicates [ON/OFF] condition of lock and unlock signal from keyfob.
MEMORY 1	Indicates [ON/OFF] condition of remote controller ID code registration.
MEMORY 2	Indicates [ON/OFF] condition of remote controller ID code registration.
MEMORY 3	Indicates [ON/OFF] condition of remote controller ID code registration.
MEMORY 4	Indicates [ON/OFF] condition of remote controller ID code registration.
MEMORY 5	Indicates [ON/OFF] condition of remote controller ID code registration.

ACTIVE TEST

Test item	Description
DOOR LOCK	This test is able to check door lock operation [ALL LOCK/ALL UNLOCK/DR UNLOCK OTHER UNLOCK].
FLASHER	This test is able to check flasher operation [LH/RH/OFF].
HORN	This test is able to check horn operation [ON/OFF].

WORK SUPPORT

Test item	Description
HAZARD LAMP SET	Answer back function (hazard) mode can be changed in this mode. For the detail of the setting.
HORN CHIRP SET	Answer back function (horn) mode can be changed in this mode. For the detail of the setting.

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

Test item	Description
AUTO LOCK SET	Auto door lock time can be changed in this mode. • MODE 1: 1 minute • MODE 2: 2 minutes • MODE 3: 3 minutes • MODE 4: 4 minutes • MODE 5: 5 minutes
PANIC ALRM SET	Panic alarm operation mode can be changed in this mode.

HEADLAMP

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

INFOID:0000000006548689

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 MODE2.)	
	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

Monitor item [Unit]	Description
IGN ON SW [On/Off]	Ignition switch (ON) status judged from IGN signal (ignition power supply)
ACC ON SW [On/Off]	Ignition switch (ACC) status judged from ACC signal (ACC power supply)

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description
HI BEAM SW [On/Off]	Each switch status that BCM judges from the combination switch reading function
HEAD LAMP SW1 [On/Off]	
HEAD LAMP SW2 [On/Off]	
LIGHT SW 1ST [On/Off]	
PASSING SW [On/Off]	
FR FOG SW [On/Off]	
AUTO LIGHT SW [On/Off]	
RR FOG SW [On/Off]	**NOTE:** The item is indicated, but not monitored
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
BACK DOOR SW [On/Off]	The switch status input from back door switch
TURN SIGNAL R [On/Off]	Each switch status that BCM judges from the combination switch reading function
TURN SIGNAL L [On/Off]	
ENGINE RUNNING [On/Off]	The engine status received from ECM with CAN communication
PKB SW [On/Off]	The parking brake switch status received from combination meter with CAN communication
CARGO LAMP SW [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 tail lamp request signal transmission.
HEAD LAMP	Hi	Transmits the high beam request signal with CAN communication to turn the headlamp (HI).
	Lo	Transmits the low beam request signal with CAN communication to turn the headlamp (LO).
	Off	Stops the high & low beam request signal transmission.

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

Test item	Operation	Description
FR FOG LAMP	On	Transmits the front fog lights request signal to IPDM E/R with CAN communication to turn the front fog lamp ON.
	Off	Stops the front fog lights request signal transmission.
DAYTIME RUNNING LIGHT	On	**NOTE:**
	Off	The item indicated, but not operate

WIPER

WIPER : CONSULT-III Function (BCM - WIPER)

INFOID:0000000006548692

WORK SUPPORT

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

*:Factory setting

DATA MONITOR

Monitor Item [Unit]	Description
IGN ON SW [On/Off]	Ignition switch ON status judged from ignition power supply.
IGN SW CAN [On/Off]	Ignition switch ON status received from IPDM E/R with CAN communication.
FR WIPER HI [On/Off]	Each switch status that BCM judges from the combination switch reading function.
FR WIPER LOW [On/Off]	
FR WIPER INT [On/Off]	
FR WASHER SW [On/Off]	
INT VOLUME [1 – 7]	Each switch status that BCM judges from the combination switch reading function.
FR WIPER STOP [On/Off]	Front wiper motor (stop position) status received from IPDM E/R with CAN communication.
VEHICLE SPEED [km/h]	The value of the vehicle speed signal received from combination meter with CAN communication.
RR WIPER ON [On/Off]	Each switch status that BCM judges from the combination switch reading function.
RR WIPER INT [On/Off]	
RR WASHER SW [On/Off]	
RR WIPER STOP [On/Off]	Rear wiper motor (stop position) status input from the rear wiper motor.
H/L WASH SW [On/Off]	**NOTE:** The item is indicated, but not monitored.

ACTIVE TEST

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

AIR CONDITIONER

AIR CONDITIONER : CONSULT-III Function (BCM - AUTO AIR CONDITIONER)

INFOID:0000000006548698

DATA MONITOR
Display Item List

Monitor Item [Unit]		Contents
IGN SW	[On/Off]	Displays [ignition switch position (On)/OFF, ACC position (Off)] status as judged form ignition switch signal.
FAN ON SIG	[On/Off]	Displays [FAN (On)/FAN (Off)] status as judged form blower fan motor switch signal.
AIR COND SW	[On/Off]	Displays [COMP (On)/COMP (Off)] status as judged form air conditioner switch signal.

FLASHER

FLASHER : CONSULT-III Function (BCM - FLASHER)

INFOID:0000000006548697

DATA MONITOR

Monitor item [Unit]	Description
IGN ON SW [On/Off]	Ignition switch (ON) status judged from IGN signal (ignition power supply)
HAZARD SW [On/Off]	The switch status input from the hazard switch
TURN SIGNAL R [On/Off]	Each switch condition that BCM judges from the combination switch reading function
TURN SIGNAL L [On/Off]	
BRAKE SW [On/Off]	The switch status input from the stop lamp switch

ACTIVE TEST

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

INTELLIGENT KEY

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY) *INFOID:0000000006548654*

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

Diagnosis mode	Function Description
DATA MONITOR	The BCM input/output signals are displayed

DATA MONITOR

Monitor Item	Condition
PUSH SW	Indicates [ON/OFF] condition of ignition knob switch
I-KEY LOCK	Indicates [ON/OFF] condition of lock signal from Intelligent Key
I-KEY UNLOCK	Indicates [ON/OFF] condition of unlock signal from Intelligent Key
I-KEY TRUNK	This item is indicated, but not monitored
I-KEY PW DWN	This item is indicated, but not monitored
I-KEY PANIC	Indicates [ON/OFF] condition of panic alarm

COMB SW

COMB SW : CONSULT-III Function (BCM - COMB SW) *INFOID:0000000006201781*

DATA MONITOR

Monitor item [UNIT]	Description
TURN SIGNAL R [Off/On]	Displays the status of "TURN RH" switch in combination switch judged by the combination switch reading function.
TURN SIGNAL L [Off/On]	Displays the status of the "TURN LH" switch in combination switch judged by the combination switch reading function.
HI BEAM SW [Off/On]	Displays the status of "HI BEAM" switch in combination switch judged by the combination switch reading function.
HEAD LAMP SW 1 [Off/On]	Displays the status of "HEADLAMP 1" switch in combination switch judged by the combination switch reading function.
HEAD LAMP SW 2 [Off/On]	Displays the status of "HEADLAMP 2" switch in combination switch judged by the combination switch reading function.
LIGHT SW 1ST [Off/On]	Displays the status of "TAIL LAMP" switch in combination switch judged by the combination switch reading function.
PASSING SW [Off/On]	Displays the status of "PASSING" switch in combination switch judged by the combination switch reading function.
AUTO LIGHT SW [Off/On]	Displays the status of "AUTO LIGHT" switch in combination switch judged by the combination switch reading function.
FR FOG SW [Off/On]	Displays the status of "FR FOG" switch in combination switch judged by the combination switch reading function.
RR FOG SW [Off/On]	**NOTE:** The item is indicated, but not monitored.
FR WIPER HI [Off/On]	Displays the status of "FR WIPER HI" switch in combination switch judged by the combination switch reading function.
FR WIPER LOW [Off/On]	Displays the status of " FR WIPER LOW" switch in combination switch judged by the combination switch reading function.
FR WIPER INT [Off/On]	Displays the status of "FR WIPER INT" switch in combination switch judged by the combination switch reading function.
FR WASHER SW [Off/On]	Displays the status of " FR WASHER" switch in combination switch judged by the combination switch reading function.

Monitor item [UNIT]	Description
INT VOLUME [1 - 7]	Displays the status of wiper intermittent dial position judged by the combination switch reading function.
RR WIPER ON [Off/On]	Displays the status of "RR WIPER ON" switch in combination switch judged by the combination switch reading function.
RR WIPER INT [Off/On]	Displays the status of "RR WIPER INT" switch in combination switch judged by the combination switch reading function.
RR WASHER SW [Off/On]	Displays the status of "RR WASHER" switch in combination switch judged by the combination switch reading function.

BCM

BCM : CONSULT-III Function (BCM - BCM)

INFOID:0000000006201782

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-III Function (BCM - IMMU)

INFOID:0000000006548657

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

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

DATA MONITOR

Monitor item	Content
IGN ON SW	Indicates [ON/OFF] condition of ignition switch in ON position.

ACTIVE TEST

Test item	Description
THEFT IND	This test is able to check security indicator operation [ON/OFF].

BATTERY SAVER

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

INFOID:0000000006548691

WORK SUPPORT

Service item	Setting item		Setting
ROOM LAMP TIMER SET	MODE 1*	30 min.	Sets the interior room lamp battery saver timer operating time.
	MODE 2	60 min.	

*: Factory setting

DATA MONITOR

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

Monitor item [Unit]	Description
IGN ON SW [On/Off]	Ignition switch (ON) status judges from IGN signal (ignition power supply)
KEY ON SW [On/Off]	The switch status input from key switch
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
BACK DOOR SW [On/Off]	The switch status input from back door switch
KEY CYL LK-SW [On/Off]	Lock switch status input from key cylinder switch
KEY CYL UN-SW [On/Off]	Unlock switch status input from key cylinder switch
CDL LOCK SW [On/Off]	Lock switch status input from door lock and unlock switch
CDL UNLOCK SW [On/Off]	Unlock switch status input from door lock and unlock switch
I-KEY LOCK [On/Off]	Lock signal status received from Intelligent Key unit by CAN communication
I-KEY UNLOCK [On/Off]	Unlock signal status received from Intelligent Key unit by CAN communication
KEYLESS LOCK [On/Off]	Lock signal status received from remote keyless entry receiver
KEYLESS 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 to turn interior room lamps OFF.
	On	Outputs the interior room lamp power supply to turn interior room lamps ON.*

*: Each lamp switch is in ON position.

TRUNK

TRUNK : CONSULT-III Function (BCM - TRUNK)

INFOID:0000000006548655

APPLICATION ITEM

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

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

DATA MONITOR

Monitor Item	Condition
IGN ON SW	Indicates [ON/OFF] condition of ignition switch in ON position
I-KEY TRUNK	This item is indicated, but not monitored
TRNK OPNR SW	Indicates [ON/OFF] condition of back door opener switch
VEHICLE SPEED	Displays the vehicle speed signal received from combination meter by numerical value [km/h]

ACTIVE TEST

Test item	Description
TRUNK/BACK DOOR	This test is able to check back door opener operation [ON/OFF]

THEFT ALM

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

INFOID:0000000006548663

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

Diagnosis mode	Function Description
WORK SUPPORT	Changes the setting for each system function.
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

Monitor Item	Condition
IGN ON SW	Indicates [ON/OFF] condition of ignition switch in ON position.
ACC ON SW	Indicates [ON/OFF] condition of ignition switch in ACC position.
KEY ON SW	Indicates [ON/OFF] condition of key switch.
KEYLESS LOCK[*2]	Indicates [ON/OFF] condition of lock signal from key fob.
KEYLESS UNLOCK[*2]	Indicates [ON/OFF] condition of unlock signal from key fob.
I-KEY LOCK[*1]	Indicates [ON/OFF] condition of lock signal from Intelligent Key.
I-KEY UNLOCK[*1]	Indicates [ON/OFF] condition of unlock signal from Intelligent Key.
TRUNK OPNR SW	Indicates [ON/OFF] condition of back door opener switch.
TRUNK CYL SW	**NOTE:** The item is indicated, but not monitored.
TRNK OPNR MNTR	**NOTE:** The item is indicated, but not monitored.
HOOD SW	Indicates [ON/OFF] condition of hood switch.
DOOR SW-DR	Indicates [ON/OFF] condition of front door switch (driver side).
DOOR SW-AS	Indicates [ON/OFF] condition of front door switch (passenger side).
DOOR SW-RR	Indicates [ON/OFF] condition of rear door switch RH.
DOOR SW-RL	Indicates [ON/OFF] condition of rear door switch LH.
BACK DOOR SW	Indicates [ON/OFF] condition of back door switch.
KEY CYL LK-SW	Indicates [ON/OFF] condition of key cylinder switch.
KEY CYL UN-SW	Indicates [ON/OFF] condition of key cylinder switch.
CDL LOCK SW	Indicates [ON/OFF] condition of door lock and unlock switch.
CDL UNLOCK SW	Indicates [ON/OFF] condition of door lock and unlock switch.

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

*1: For vehicle equipped with Intelligent Key.

*2: For the vehicle equipped with remote key less entry system.

ACTIVE TEST

Test item	Description
THEFT IND	This test is able to check security indicator operation [ON/OFF].
VEHICLE SECURITY HORN	This test is able to check horn operation [ON].
HEAD LAMP(HI)	This test is able to check head lamp (HI) operation [ON/OFF].

WORK SUPPORT

Test item	Description
SECURITY ALARM SET	Vehicle security function mode can be changed in this mode. • ON: Vehicle security function is ON. • OFF: Vehicle security function is OFF.
THEFT ALM TRG	The switch which triggered vehicle security system is recorded. This mode can be able to confirm and erase the record of vehicle security system.

RETAIND PWR

RETAIND PWR : CONSULT-III Function (BCM - RETAINED PWR)
INFOID:0000000006548688

Data monitor

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

SIGNAL BUFFER

SIGNAL BUFFER : CONSULT-III Function (BCM - SIGNAL BUFFER)
INFOID:0000000006201788

DATA MONITOR

Monitor item [UNIT]	Description
OIL PRESS SW [Off/On]	Displays the status of oil pressure switch received from IPDM E/R with CAN communication.

ACTIVE TEST

Test item	Operation	Description
OIL PRESSURE SW	On	Transmits the oil pressure switch signal with CAN communication to illuminate the oil pressure warning lamp in the combination meter.
	Off	Stops the oil pressure switch signal transmission.

AIR PRESSURE MONITOR

AIR PRESSURE MONITOR : Component Description
INFOID:0000000006548700

Component parts	Function
BCM (Body Control Module)	BCS-7, "System Description".
Transmitter	WT-18, "Description".
Remote keyless entry receiver (Tire pressure receiver)	WT-24, "Description".

Component parts	Function
Turn signal lamp	ID registration of each wheel has been completed, turn signal lamp flashes.
Combination meter	Controls a low tire pressure warning lamp, turn signal lamp, and buzzer by signals from the BCM.
Low tire pressure warning lamp	WT-26, "Description"I.

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

INFOID:0000000006548699

WORK SUPPORT MODE

ID Read
The registered ID number is displayed.

ID Regist
Refer to WT-5, "ID REGISTRATION PROCEDURE : Special Repair Requirement".

SELF-DIAG RESULTS MODE

Operation Procedure
Refer to BCS-62, "DTC_Index".

DATA MONITOR MODE
Screen of data monitor mode is displayed.
NOTE:
When malfunction is detected, CONSULT-III perform REAL-TIME DIAGNOSIS.
Also, any malfunction detected while in this mode will be displayed at real time.

Display item list

Monitor	Condition	Specification
VEHICLE SPEED	Drive vehicle	Vehicle speed (km/h or MPH)
AIR PRESS FL AIR PRESS FR AIR PRESS RR AIR PRESS RL	• Drive vehicle for a few minutes. or • Ignition switch ON and transmitter activation tool is transmitting activation signals.	Tire pressure (kPa or Psi)
ID REGST FL ID REGST FR ID REGST RR ID REGST RL	Ignition switch ON	Registration ID: Done No registration: Yet
WARNING LAMP		Low tire pressure warning lamp ON: On Low tire pressure warning lamp OFF: Off
BUZZER		Buzzer in combination meter ON: On Buzzer in combination meter OFF: Off

NOTE:
Before performing the self-diagnosis, be sure to register the ID, or erase the actual malfunction location may be different from that displayed on CONSULT-III.

ACTIVE TEST MODE
NOTE:
Before performing the self-diagnosis, be sure to register the ID, or erase the actual malfunction may be different from that displayed on CONSULT-III.

TEST ITEM LIST

Test item	Content
WARNING LAMP	This test is able to check to check that the low tire pressure warning lamp turns on.
ID REGIST WARNING	This test is able to check to check that the buzzer sounds or the low tire pressure warning lamp turns on.
FLAT TIRE WARNING	This test is able to check to check that the buzzer sounds.
HORN	This test is able to check to check that the horn sounds.

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

Test item	Content
FLASHER	This test is able to check to check that each turn signal lamp turns on.
RUNFLAT TIRE W/L	**NOTE:** This item is displayed, but cannot be use this item.

PANIC ALARM

PANIC ALARM : CONSULT-III Function (BCM - PANIC ALARM)

INFOID:0000000006548656

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

Diagnosis mode	Function Description
ACTIVE TEST	The signals used to activate each device are forcibly supplied from BCM

ACTIVE TEST

Test item	Description
HEAD LAMP (HI)	This test is able to check head lamp (hi) operation [ON/OFF]
PANIC ALARM	This test is able to check panic alarm operation [ON/OFF]

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description
INFOID:0000000006201792

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-25, "CAN Communication Signal Chart".

DTC Logic
INFOID:0000000006201793

DTC DETECTION LOGIC

DTC	DTC Detection Condition	Possible cause
U1000: CAN COMM CIRCUIT	When BCM cannot communicate CAN communication signal continuously for 2 seconds or more.	CAN communication system

Diagnosis Procedure
INFOID:0000000006201794

1.PERFORM SELF DIAGNOSTIC

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

Is DTC "U1000" displayed?

YES >> Refer to LAN-15, "Trouble Diagnosis Flow Chart".
NO >> Refer to GI-45, "Intermittent Incident".

C1735 IGN CIRCUIT OPEN

< DTC/CIRCUIT DIAGNOSIS >

C1735 IGN CIRCUIT OPEN

DTC Logic

INFOID:000000006201795

DTC DETECTION LOGIC

DTC	CONSULT-III display description	DTC Detection Condition	Possible cause
C1735	IGN CIRCUIT OPEN	Detected following signals are different for 60 seconds; • Ignition switch ON signal inputted from ignition switch • Ignition relay status signal received from IPDM E/R with CAN communication	• Harness or connector (Ignition power supply circuit) • BCM • IPDM E/R

NOTE:

BCM may detect that ignition switch is OFF when IGN power supply voltage is low.

DTC CONFIRMATION PROCEDURE

1.DTC CONFIRMATION

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

Is any DTC detected?

YES >> Refer to BCS-35, "Diagnosis Procedure".
NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000006201796

1.CHECK BCM IGNITION POWER SUPPLY CIRCUIT

Check BCM ignition power supply circuit. Refer to BCS-36, "Diagnosis Procedure".

Is the circuit normal?

YES >> GO TO 2
NO >> Repair the malfunctioning part.

2.CHECK IPDM E/R POWER SUPPLY CIRCUIT

Check IPDM E/R power supply circuit. Refer to PCS-15, "Diagnosis Procedure".

Is the circuit normal?

YES >> GO TO 3.
NO >> Repair the malfunctioning part.

3.CHECK IPDM E/R IGNITION RELAY STATUS

CONSULT-III DATA MONITOR
1. Select "IGN RLY" of IPDM E/R data monitor item.
2. With operating the ignition switch, check the monitor status.

Monitor item	Condition		Monitor status
IGN RLY	Ignition switch	OFF	Off
		ON	On

Is the item status normal?

YES >> Replace BCM. Refer to BCS-66, "Exploded View".
NO >> Replace IPDM E/R. Refer to PCS-29, "Exploded View".

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure

INFOID:000000006201797

1.CHECK FUSES AND FUSIBLE LINK

Check that the following fuses and fusible link are not fusing.

Signal name	Fuses and fusible link No.
Battery power supply	10
	J
ACC power supply	20
Ignition power supply	1

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

Terminals				Ignition switch position		
(+)			(−)			
BCM				OFF	ACC	ON
Connector	Terminal					
M67	70		Ground	Battery voltage	Battery voltage	Battery voltage
	57					
M65	11			Approx. 0 V	Battery voltage	Battery voltage
	38			Approx. 0 V	Approx. 0 V	Battery voltage

Is the measurement value normal?

YES >> GO TO 3.
NO >> Repair the harness or connector.

3.CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and the ground.

BCM		Ground	Continuity
Connector	Terminal		
M67	67		Existed

Does continuity exist?

YES >> INSPECTION END
NO >> Repair the harness or connector.

COMBINATION SWITCH OUTPUT CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

COMBINATION SWITCH OUTPUT CIRCUIT

Diagnosis Procedure

INFOID:000000006201798

1.CHECK OUTPUT 1 - 5 CIRCUIT FOR OPEN

1. Turn the ignition switch OFF.
2. Disconnect 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	
OUTPUT 1		36		1	
OUTPUT 2		35		2	
OUTPUT 3	M65	34	M27	3	Existed
OUTPUT 4		33		4	
OUTPUT 5		32		5	

Does continuity exist?

YES   >> GO TO 2.
NO   >> Repair the harnesses or connectors.

2.CHECK OUTPUT 1 - 5 CIRCUIT FOR SHORT

Check for continuity between BCM harness connector and the ground.

System	BCM			Continuity
	Connector	Terminal		
OUTPUT 1		36		
OUTPUT 2		35		
OUTPUT 3	M65	34	Ground	Not existed
OUTPUT 4		33		
OUTPUT 5		32		

Does continuity exist?

YES   >> Repair the harnesses or connectors.
NO   >> GO TO 3.

3.CHECK BCM OUTPUT VOLTAGE

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

System	Terminals			Voltage (Approx.)
	(+)		(−)	
	BCM			
	Connector	Terminal		
OUTPUT 1		36		
OUTPUT 2		35		
OUTPUT 3	M65	34	Ground	Refer to BCS-42, "Reference Value".
OUTPUT 4		33		
OUTPUT 5		32		

Is the measurement value normal?

YES   >> GO TO 4.
NO   >> Replace BCM. Refer to BCS-66, "Exploded View".

4.CHECK COMBINATION SWITCH

Check combination switch. Refer to BCS-41, "Description".

Is the check result normal?

  YES   >> Replace BCM. Refer to BCS-66, "Exploded View".
  NO   >> Replace the combination switch (applicable parts).

COMBINATION SWITCH INPUT CIRCUIT

Diagnosis Procedure

INFOID:000000006201799

1.CHECK INPUT 1 - 5 CIRCUIT FOR OPEN

1. Turn the ignition switch OFF.
2. Disconnect 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		6		6	
INPUT 2		5		7	
INPUT 3	M65	4	M27	10	Existed
INPUT 4		3		9	
INPUT 5		2		8	

Does continuity exist?

YES >> GO TO 2.
NO >> Repair the harnesses or connectors.

2.CHECK INPUT 1 - 5 CIRCUIT FOR SHORT

Check for continuity between BCM harness connector and the ground.

System	BCM			Continuity
	Connector	Terminal		
INPUT 1		6		
INPUT 2		5		
INPUT 3	M65	4	Ground	Not existed
INPUT 4		3		
INPUT 5		2		

Does continuity exist?

YES >> Repair the harnesses or connectors.
NO >> GO TO 3.

3.CHECK BCM INPUT SIGNAL

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

System	Terminals			Voltage (Approx.)
	(+)		(−)	
	BCM			
	Connector	Terminal		
INPUT 1		6		
INPUT 2		5		
INPUT 3	M65	4	Ground	Refer to BCS-42, "Reference Value".
INPUT 4		3		
INPUT 5		2		

Is the measurement value normal?

Yes >> Replace BCM. Refer to BCS-66, "Exploded View".

No   >> GO TO 4.

4.CHECK COMBINATION SWITCH

Check combination switch. Refer to BCS-41, "Description".

Is the check result normal?

YES   >> Replace BCM. Refer to BCS-66, "Exploded View".
NO   >> Replace the combination switch (applicable parts).

COMBINATION SWITCH
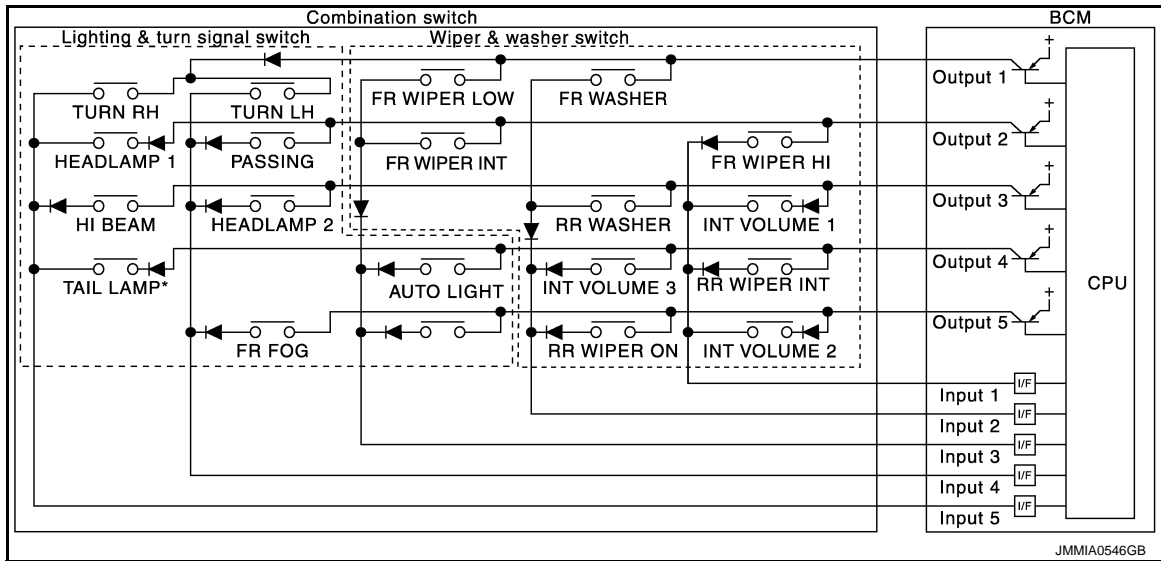
< DTC/CIRCUIT DIAGNOSIS >

COMBINATION SWITCH

Description

COMBINATION SWITCH MATRIX
Combination switch consists of INPUT circuit and OUTPUT circuit.

Combination switch circuit

JMMIA0546GB

Combination switch OUTPUT-INPUT system list

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

NOTE:

Headlamp has a dual system switch.

Diagnosis Procedure

1.CHECK LIGHT & TURN SIGNAL SWITCH

Check operation with normal light & turn signal switch installed.

Does it operate normally?

YES >> Replace the light & turn signal switch.
NO >> GO TO 2.

2.CHECK WIPER & WASHER SWITCH

Check operation with normal wiper & washer switch installed.

Does it operate normally?

YES >> Replace the wiper & washer switch.
NO >> GO TO 3.

3.CHECK SWITCH BASE (SPIRAL CABLE)

Check operation with normal switch base (spiral cable) installed.

Does it operate normally?

YES >> Replace the switch base (spiral cable).
NO >> Combination switch is normal.

ECU DIAGNOSIS INFORMATION
BCM (BODY CONTROL MODULE)

Reference Value

INFOID:0000000006201802

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
IGN ON SW	Ignition switch OFF or ACC	Off
	Ignition switch ON	On
KEY ON SW	Mechanical key is removed from key cylinder	Off
	Mechanical key is inserted to key cylinder	On
CDL LOCK SW	Door lock/unlock switch does not operate	Off
	Press door lock/unlock switch to the lock side	On
CDL UNLOCK SW	Door lock/unlock switch does not operate	Off
	Press door lock/unlock switch to the unlock side	On
DOOR SW-DR	Driver's door closed	Off
	Driver's 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
BACK DOOR SW	Back door closed	Off
	Back door opened	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
KEYLESS LOCK	"LOCK" button of key fob is not pressed	Off
	"LOCK" button of key fob is pressed	On
KEYLESS UNLOCK	"UNLOCK" button of key fob is not pressed	Off
	"UNLOCK" button of key fob is pressed	On
I-KEY LOCK	"LOCK" button of Intelligent Key or door request switch are not pressed	Off
	"LOCK" button of Intelligent Key or door request switch are pressed	On
I-KEY UNLOCK	"UNLOCK" button of Intelligent Key or door request switch are not pressed	Off
	"UNLOCK" button of Intelligent Key or door request switch are pressed	On
ACC ON SW	Ignition switch OFF	Off
	Ignition switch ACC or ON	On
REAR DEF SW	Rear window defogger switch OFF	Off
	Rear window defogger switch ON	On
LIGHT SW 1ST	Lighting switch OFF	Off
	Lighting switch 1ST	On

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
BUCKLE SW	The seat belt (driver side) is unfastened. [Seat belt switch (driver side) OFF]	Off
	The seat belt (driver side) is fastened. [Seat belt switch (driver side) ON]	On
KEYLESS PANIC	PANIC button of key fob is not pressed	Off
	PANIC button of key fob is pressed	On
KEYLESS TRUNK	**NOTE:** The item is indicated, but not monitored.	Off
TRNK OPN MNTR	**NOTE:** The item is indicated, but not monitored.	Off
RKE LCK-UNLCK	LOCK/UNLOCK button of key fob is not pressed and held simultaneously	Off
	LOCK/UNLOCK button of key fob is pressed and held simultaneously	On
RKE KEEP UNLK	UNLOCK button of key fob is not pressed	Off
	UNLOCK button of key fob is pressed and held	On
HI BEAM SW	Lighting switch OFF	Off
	Lighting switch HI	On
HEAD LAMP SW 1	Lighting switch OFF	Off
	Lighting switch 2ND	On
HEAD LAMP SW 2	Lighting switch OFF	Off
	Lighting switch 2ND	On
AUTO LIGHT SW	Other than lighting switch AUTO	Off
	Lighting switch AUTO	On
PASSING SW	Other than lighting switch PASS	Off
	Lighting switch PASS	On
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
TURN SIGNAL R	Turn signal switch OFF	Off
	Turn signal switch RH	On
TURN SIGNAL L	Turn signal switch OFF	Off
	Turn signal switch LH	On
ENGINE RUN	Engine stopped	Off
	Engine running	On
PKB SW	Parking brake switch is OFF	Off
	Parking brake switch is ON	On
CARGO LAMP SW	**NOTE:** The item is indicated, but not monitored.	Off
OPTICAL SENSOR	Bright outside of the vehicle	Close to 5 V
	Dark outside of the vehicle	Close to 0 V
IGN SW CAN	Ignition switch OFF or ACC	Off
	Ignition switch ON	On
FR WIPER HI	Front wiper switch OFF	Off
	Front wiper switch HI	On

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
FR WIPER LOW	Front wiper switch OFF	Off
	Front wiper switch LO	On
FR WIPER INT	Front wiper switch OFF	Off
	Front wiper switch INT	On
FR WASHER SW	Front washer switch OFF	Off
	Front washer switch ON	On
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	1 - 7
FR WIPER STOP	Any position other than front wiper stop position	Off
	Front wiper stop position	On
VEHICLE SPEED	While driving	Equivalent to speedometer reading
RR WIPER ON	Rear wiper switch OFF	Off
	Rear wiper switch ON	On
RR WIPER INT	Rear wiper switch OFF	Off
	Rear wiper switch INT	On
RR WASHER SW	Rear washer switch OFF	Off
	Rear washer switch ON	On
RR WIPER STOP	Rear wiper stop position	Off
	Other than rear wiper stop position	On
RR WIPER STP2	**NOTE:** The item is indicated, but not monitored.	Off
H/L WASH SW	**NOTE:** The item is indicated, but not monitored.	Off
HAZARD SW	Hazard switch OFF	Off
	Hazard switch ON	On
BRAKE SW	Brake pedal is not depressed	Off
	Brake pedal is depressed	On
FAN ON SIG	Blower fan motor switch OFF	Off
	Blower fan motor switch ON (other than OFF)	On
AIR COND SW	• A/C conditioner OFF (A/C switch indicator OFF) (Automatic air conditioner) • A/C switch OFF (Manual air conditioner)	Off
	• A/C conditioner ON (A/C switch indicator ON) (Automatic air conditioner) • A/C switch ON (Manual air conditioner)	On
I-KEY TRUNK	**NOTE:** The item is indicated, but not monitored.	Off
I-KEY PW DWN	UNLOCK button of Intelligent Key is not pressed	Off
	UNLOCK button of Intelligent Key is pressed and held	On
I-KEY PANIC	PANIC button of Intelligent Key is not pressed	Off
	PANIC button of Intelligent Key is pressed	On
PUSH SW	Return to ignition switch to "LOCK" position	Off
	Press ignition switch	On
TRNK OPNR SW	When back door opener switch is not pressed	Off
	When back door opener switch is pressed	On
TRUNK CYL SW	**NOTE:** The item is indicated, but not monitored.	Off

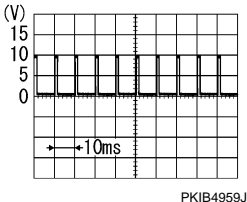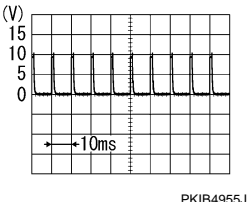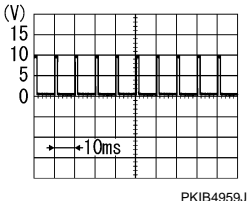| Monitor Item	Condition	Value/Status
HOOD SW	Close the hood **NOTE:** Vehicles of except for Mexico are OFF-fixed	Off
	Open the hood	On
OIL PRESS SW	• Ignition switch OFF or ACC • Engine running	Off
	Ignition switch ON	On
AIR PRESS FL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front LH tire
AIR PRESS FR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front RH tire
AIR PRESS RR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear RH tire
AIR PRESS RL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear LH tire
ID REGST FL1	ID of front LH tire transmitter is registered	Done
	ID of front LH tire transmitter is not registered	Yet
ID REGST FR1	ID of front RH tire transmitter is registered	Done
	ID of front RH tire transmitter is not registered	Yet
ID REGST RR1	ID of rear RH tire transmitter is registered	Done
	ID of rear RH tire transmitter is not registered	Yet
ID REGST RL1	ID of rear LH tire transmitter is registered	Done
	ID of rear LH tire transmitter is not registered	Yet
WARNING LAMP	Tire pressure indicator OFF	Off
	Tire pressure indicator ON	On
BUZZER	Tire pressure warning alarm is not sounding	Off
	Tire pressure warning alarm is sounding	On

TERMINAL LAYOUT

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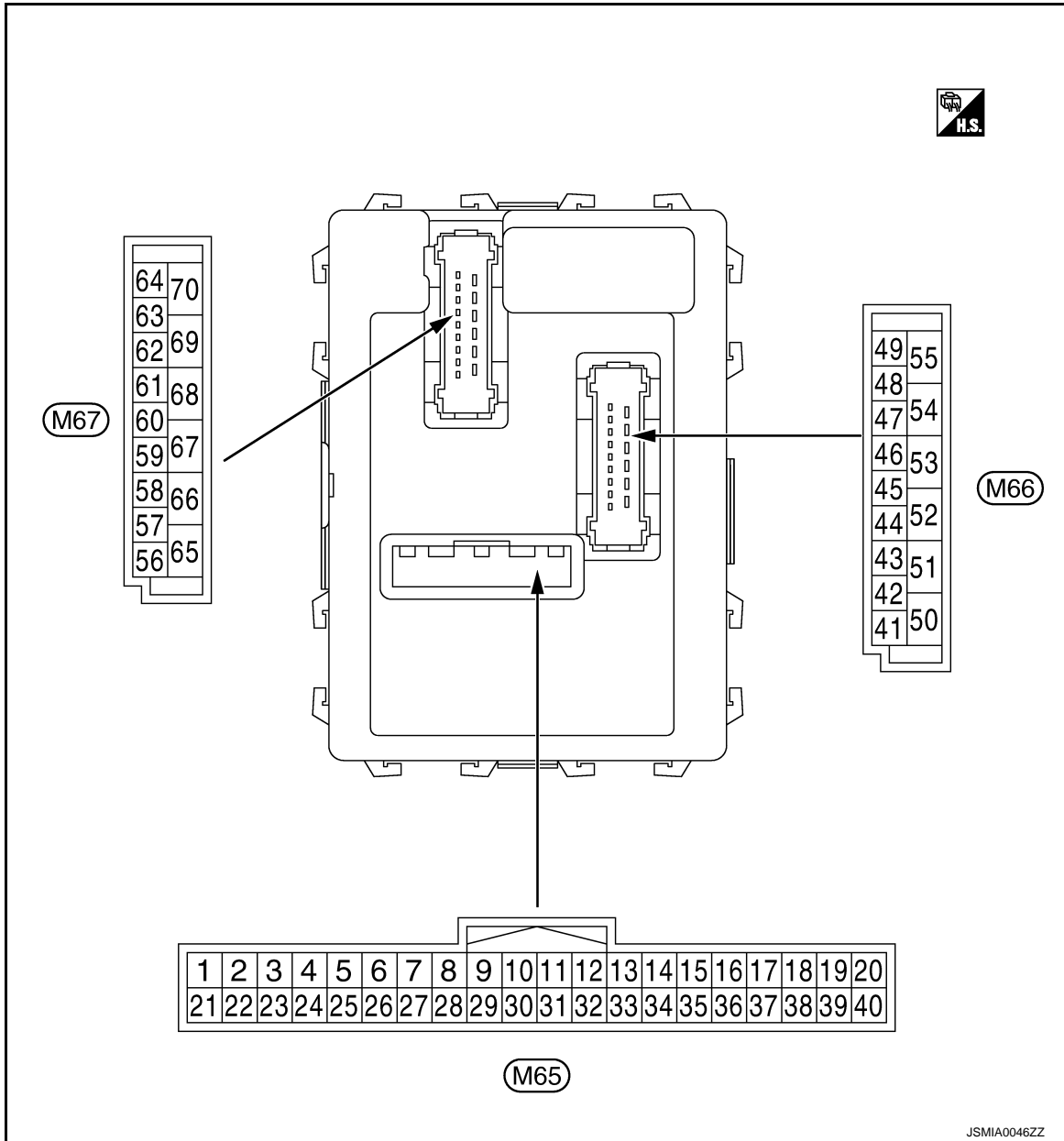
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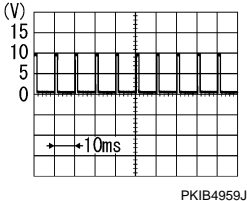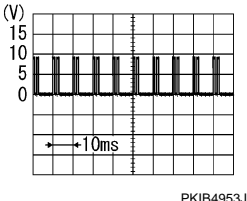
CAUTION:
- **Check combination switch system terminal waveform under the loaded condition with lighting switch, turn signal switch and wiper switch OFF is not to be fluctuated by being overloaded.**
- **Turn wiper intermittent dial position to 4 except when checking waveform or voltage of wiper intermittent dial position. Wiper intermittent dial position can be confirmed on CONSULT-III. Refer to BCS-27, "COMB SW : CONSULT-III Function (BCM - COMB SW)".**
- **BCM reads the status of the combination switch at 10 ms internal normally. Refer to BCS-9, "System Diagram".**

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	−	Signal name	Input/ Output			
1 (V)	Ground	Ignition key hole illumination control	Output	Ignition key hole illumination	OFF	Battery voltage
					ON	0 V

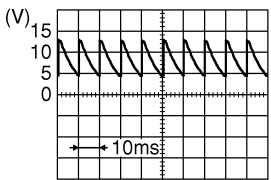| Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	−	Signal name	Input/ Output			
2 (G)	Ground	Combination switch INPUT 5	Input	Combination switch (Wiper intermittent dial 4)	All switch OFF	0 V
					Turn signal switch RH	(V) 15 10 5 0 ←→10ms PKIB4959J 1.0 V
					Lighting switch HI	
					Lighting switch 1ST	
					Lighting switch 2ND	(V) 15 10 5 0 ←→10ms PKIB4953J 2.0 V
3 (Y)	Ground	Combination switch INPUT 4	Input	Combination switch (Wiper intermittent dial 4)	All switch OFF	0 V
					Turn signal switch LH	(V) 15 10 5 0 ←→10ms PKIB4959J 1.0 V
					Lighting switch PASS	
					Lighting switch 2ND	
					Front fog lamp switch ON	(V) 15 10 5 0 ←→10ms PKIB4955J 0.8 V
4 (W)	Ground	Combination switch INPUT 3	Input	Combination switch (Wiper intermittent dial 4)	All switch OFF	0 V
					Lighting switch AUTO	(V) 15 10 5 0 ←→10ms PKIB4959J 1.0 V
					Front wiper switch LO	
					Front wiper switch MIST	
					Front wiper switch INT	
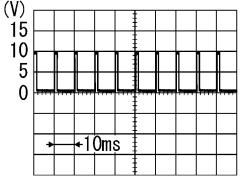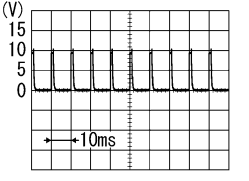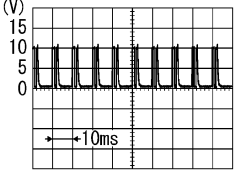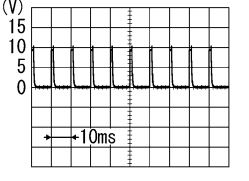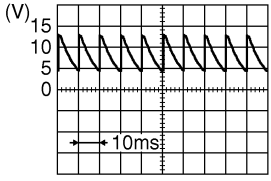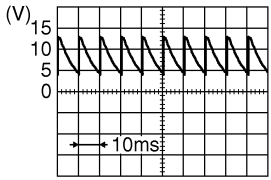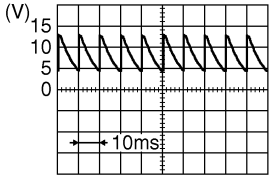
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	−	Signal name	Input/Output		
5 (R)	Ground	Combination switch INPUT 2	Input	Combination switch	**All switch OFF** (Wiper intermittent dial 4) → 0 V
					Front washer switch (Wiper intermittent dial 4) / **Rear washer ON** (Wiper intermittent dial 4) / **Any of the condition below with all switch OFF** • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6 → (V) 15 10 5 0, 10ms, PKIB4959J, 1.0 V
					Rear wiper switch ON (Wiper intermittent dial 4) → (V) 15 10 5 0, 10ms, PKIB4955J, 0.8 V
6 (P)	Ground	Combination switch INPUT 1	Input	Combination switch	**All switch OFF** (Wiper intermittent dial 4) → 0 V
					Front wiper switch HI (Wiper intermittent dial 4) / **Rear wiper switch INT** (Wiper intermittent dial 4) / **Wiper intermittent dial 3** (All switch OFF) → (V) 15 10 5 0, 10ms, PKIB4959J, 1.0 V
					Any of the condition below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 → (V) 15 10 5 0, 10ms, PKIB4952J, 1.7 V
					Any of the condition below with all switch OFF • Wiper intermittent dial 6 • Wiper intermittent dial 7 → (V) 15 10 5 0, 10ms, PKIB4955J, 0.8 V

BCS-48

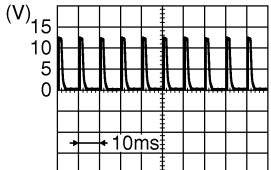| Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	−	Signal name	Input/ Output			
7 (L)	Ground	Door key cylinder switch UNLOCK signal	Input	Door key cylinder switch	NEUTRAL position	(V) 15 10 5 0 ·········· ·········· |←→|10ms JPMIA0587GB 8.0 - 8.5 V
					UNLOCK position	0 V
8 (R)	Ground	Door key cylinder switch LOCK signal	Input	Door key cylinder switch	NEUTRAL position	(V) 15 10 5 0 ·········· ·········· |←→|10ms JPMIA0587GB 8.0 - 8.5 V
					LOCK position	0 V
9 (R)	Ground	Stop lamp switch	Input	Stop lamp switch	OFF (Brake pedal is not depressed)	0 V
					ON (Brake pedal is depressed)	Battery voltage
10 (SB)	Ground	Rear window defogger switch	Input	Rear window defogger switch	Not pressed	Battery voltage
					Pressed	0 V
11 (SB)	Ground	Ignition switch ACC	Input	Ignition switch OFF		0 V
				Ignition switch ACC or ON		Battery voltage
12 (P)	Ground	Passenger door switch	Input	Passenger door switch	OFF (When passenger door closed)	(V) 15 10 5 0 ·········· ·········· |←→|10ms JPMIA0586GB 7.5 - 8.0 V
					ON (When passenger door opened)	0 V
13 (LG)	Ground	Rear door switch RH	Input	Rear door switch RH	OFF (When rear door RH closed)	(V) 15 10 5 0 ·········· ·········· |←→|10ms JPMIA0587GB 8.0 - 8.5 V
					ON (When rear door RH opened)	0 V
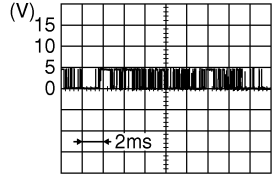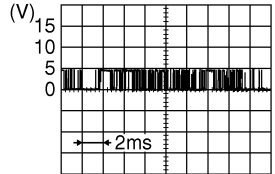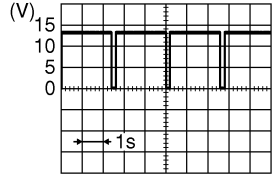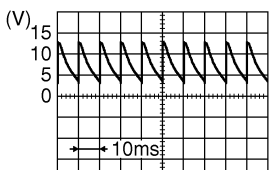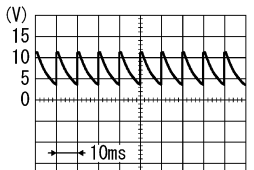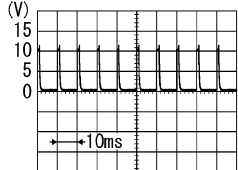
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color) +	−	Description Signal name	Input/ Output	Condition		Value (Approx.)
14 (G)	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
17 (W)	Ground	Optical sensor power supply	Output	Ignition switch	OFF, ACC	0 V
					ON	5 V
18* (O)	Ground	Remote keyless entry receiver ground	Input	Ignition switch ON		0 V
19* (V)	Ground	Remote keyless entry receiver power supply	Input	Without Intelligent Key system	At any condition	5 V
				With Intelligent Key system	• Ignition switch OFF • For 3 seconds after ignition switch OFF to ON	0 V
					3 seconds or later after ignition switch OFF to ON	5 V
20* (GR)	Ground	Remote keyless entry receiver signal	Input	Without Intelligent Key system	At any condition	JPMIA0589GB **NOTE:** The wave form changes according to signal-receiving condition.
				With Intelligent Key system	• Ignition switch OFF • For 3 seconds after ignition switch OFF to ON	0 V
					3 seconds or later after ignition switch OFF to ON	JPMIA0589GB **NOTE:** The wave form changes according to signal-receiving condition.
21 (G)	Ground	NATS antenna amp.	Input/ Output	Just after inserting ignition key in key cylinder		Pointer of tester should move
23 (B)	Ground	Security indicator signal	Input	Security indicator	ON	0 V
					Blinking (Ignition switch OFF)	JPMIA0590GB 12.0 V
					OFF	Battery voltage

BCM (BODY CONTROL MODULE)
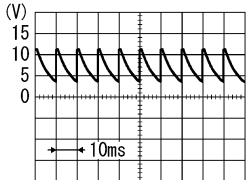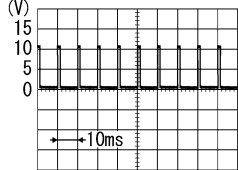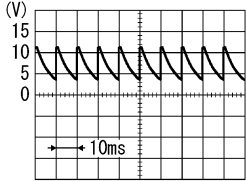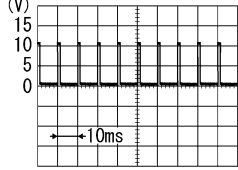
< ECU DIAGNOSIS INFORMATION >

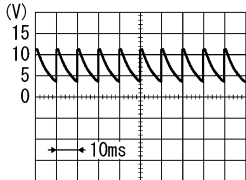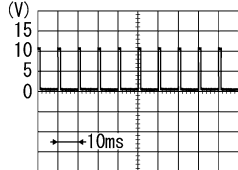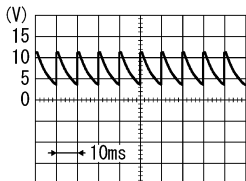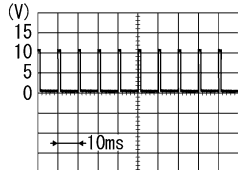| Terminal No. (Wire color) +	Terminal No. (Wire color) −	Description Signal name	Description Input/Output	Condition		Value (Approx.)
25 (BR)	Ground	NATS antenna amp.	Input/Output	Just after inserting ignition key in key cylinder		Pointer of tester should move
27 (Y)	Ground	A/C switch	Input	Ignition switch OFF		
				Ignition switch ON	A/C switch OFF	JPMIA0591GB 1.6 V
					A/C switch ON	0 V
28 (LG)	Ground	Blower fan switch	Input	Ignition switch OFF		
				Ignition switch ON	Blower fan switch OFF	JPMIA0592GB 7.0 - 7.5 V
					Blower fan switch ON	0 V
29 (W)	Ground	Hazard switch	Input	Hazard switch	OFF	Battery voltage
					ON	0 V
30 (G)	Ground	Back door opener switch	Input	Back door opener switch	Not pressed	Battery voltage
					Pressed	0 V
32 (BR)	Ground	Combination switch OUTPUT 5	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	PKIB4960J 7.2 V
					Front fog lamp switch ON (Wiper intermittent dial 4)	PKIB4956J 1.0 V
					Rear wiper switch ON (Wiper intermittent dial 4)	
					Any of the condition below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7	

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

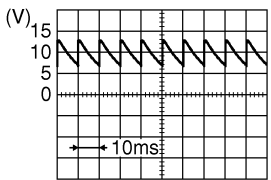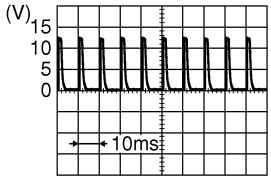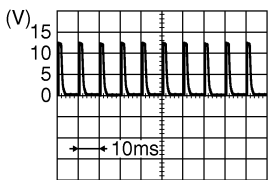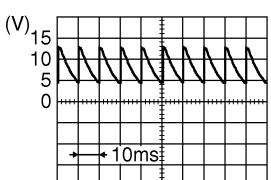| Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	−	Signal name	Input/ Output			
33 (GR)	Ground	Combination switch OUTPUT 4	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 ┤←→┤ 10ms PKIB4960J 7.2 V
					Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 10 5 0 ┤←→┤ 10ms PKIB4958J 1.2 V
					Lighting switch AUTO (Wiper intermittent dial 4)	
					Rear wiper switch INT (Wiper intermittent dial 4)	
					Any of the condition below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	
34 (L)	Ground	Combination switch OUTPUT 3	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 ┤←→┤ 10ms PKIB4960J 7.2 V
					Lighting switch 2ND (Wiper intermittent dial 4)	(V) 15 10 5 0 ┤←→┤ 10ms PKIB4958J 1.2 V
					Lighting switch HI (Wiper intermittent dial 4)	
					Rear washer switch ON (Wiper intermittent dial 4)	
					Any of the condition below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3	

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	−	Signal name	Input/ Output			
35 (B)	Ground	Combination switch OUTPUT 2	Output	Combination switch (Wiper intermittent dial 4)	All switch OFF	(V) 15 10 5 0 10ms PKIB4960J 7.2 V
					Lighting switch 2ND	(V) 15 10 5 0 10ms PKIB4958J 1.2 V
					Lighting switch PASS	
					Front wiper switch INT	
					Front wiper switch HI	
36 (V)	Ground	Combination switch OUTPUT 1	Output	Combination switch (Wiper intermittent dial 4)	All switch OFF	(V) 15 10 5 0 10ms PKIB4960J 7.2 V
					Turn signal switch RH	(V) 15 10 5 0 10ms PKIB4958J 1.2 V
					Turn signal switch LH	
					Front wiper switch LO (Front wiper switch MIST)	
					Front washer switch ON	
37 (LG)	Ground	Key switch	Input	Insert mechanical key into ignition key cylinder		Battery voltage
				Remove mechanical key from ignition key cylinder		0 V
38 (G)	Ground	Ignition switch ON	Input	Ignition switch OFF or ACC		0 V
				Ignition switch ON or START		Battery voltage
39 (L)	Ground	CAN-H	Input/ Output	—		—
40 (P)	Ground	CAN-L	Input/ Output	—		—
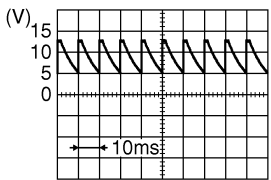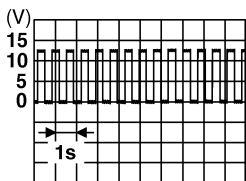
BCS-53

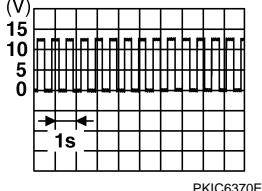| Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	−	Signal name	Input/ Output			
43 (V)	Ground	Back door switch	Input	Back door switch	OFF (When back door closed)	JPMIA0593GB 9.5 - 10.0 V
					ON (When back door opened)	0 V
44 (B)	Ground	Rear wiper auto stop	Input	Ignition switch ON	Rear wiper stop position	0 V
					Any position other than rear wiper stop position	Battery voltage
45 (P)	Ground	Door lock and unlock switch LOCK signal	Input	Door lock and unlock switch	NEUTRAL position	JPMIA0591GB 1.6 V
					LOCK position	0 V
46 (BR)	Ground	Door lock and unlock switch UNLOCK signal	Input	Door lock and unlock switch	NEUTRAL position	JPMIA0591GB 1.6 V
					UNLOCK position	0 V
47 (W)	Ground	Driver door switch	Input	Driver door switch	OFF (When driver door closed)	JPMIA0587GB 8.0 - 8.5 V
					ON (When driver door opened)	0 V

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	−	Signal name	Input/ Output			
48 (GR)	Ground	Rear door switch LH	Input	Rear door switch LH	OFF (When rear door LH closed)	JPMIA0594GB 8.5 - 9.0 V
					ON (When rear door LH opened)	0 V
49 (L)	Ground	Luggage room lamp control	Output	Luggage room lamp switch DOOR position	Back door is closed (Luggage room lamp turns OFF)	Battery voltage
					Back door is opened (Luggage room lamp turns ON)	0 V
53 (V)	Ground	Back door open	Output	Back door opener switch	Not pressed (Back door actuator is activated)	0 V
					Pressed (Back door actuator is activated)	Battery voltage
55 (SB)	Ground	Rear wiper motor	Output	Ignition switch ON	Rear wiper switch OFF	0 V
					Rear wiper switch ON	Battery voltage
56 (Y)	Ground	Interior room lamp power supply	Output	After passing the interior room lamp battery saver operation time		0 V
				Any other time after passing the interior room lamp battery saver operation time		Battery voltage
57 (G)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
59 (L)	Ground	Driver door UN-LOCK	Output	Driver door	UNLOCK (Actuator is activated)	Battery voltage
					Other then UNLOCK (Actuator is not activated)	0 V
60 (BR)	Ground	Turn signal LH	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	PKIC6370E 6.0 V

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	−	Signal name	Input/Output			
61 (GR)	Ground	Turn signal RH	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	6.0 V
63 (R)	Ground	Interior room lamp timer control	Output	Interior room lamp	OFF	Battery voltage
					ON	0 V
65 (V)	Ground	All doors LOCK	Output	All doors	LOCK (Actuator is activated)	Battery voltage
					Other then LOCK (Actuator is not activated)	0 V
66 (G)	Ground	Passenger door and rear door UNLOCK	Output	Passenger door and rear door	UNLOCK (Actuator is activated)	Battery voltage
					Other then UNLOCK (Actuator is not activated)	0 V
67 (B)	Ground	Ground	Output	Ignition switch ON		0 V
68 (L)	Ground	P/W power supply (RAP)	Output	Ignition switch ON		Battery voltage
69 (P)	Ground	P/W power supply (BAT)	Output	Ignition switch OFF		Battery voltage
70 (Y)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage

*: Except for Mexico with Intelligent Key

Wiring Diagram - BCM -

INFOID:0000000006201803

JCMWM9302GB

JCMWM9303GB

XK : Except for Mexico with Intelligent Key
SR : With sunroof
PS : With power seat
AN : With anti-pinch system
AL : With auto light system
AK : With auto light system or except for Mexico with Intelligent Key
VM : With vanity mirror lamp

OPTICAL SENSOR (M17) : AL

14
17 : AL

REMOTE KEYLESS ENTRY RECEIVER (M91) : XK

AL
XK

18 : AK
20
19 : XK

VANITY MIRROR LAMP (PASSENGER SIDE) : VM (R10)

VANITY MIRROR LAMP (DRIVER SIDE) : VM (R14)

ROOM LAMP (R15)

OFF ON
DOOR

VM

MAP LAMP (R4)

ON
DOOR

ON
DOOR

OFF
DOOR

REAR POWER WINDOW SWITCH LH (D83)

REAR POWER WINDOW SWITCH RH (D103)

BCM (BODY CONTROL MODULE) (M65), (M66), (M67)

SUNROOF MOTOR ASSEMBLY (R5) : SR

SR

68
69

AN

PS

FRONT SEAT (DRIVER SIDE)

POWER SEAT SWITCH (DRIVER SIDE) : PS (B402) *

63
49

LUGGAGE ROOM LAMP (D155)

OFF ON
DOOR

POWER WINDOW MAIN SWITCH (D5), (D6)

DOOR LOCK AND UNLOCK SWITCH

AN

FRONT POWER WINDOW SWITCH (PASSENGER SIDE) (D45)

DOOR LOCK AND UNLOCK SWITCH

46
45 : 46

56

IGNITION KEYHOLE ILLUMINATION (M68)

1

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

JCMWM9304GB

A

B

C

D

E

F

G

H

I

J

K

L

BCS

N

O

P

JCMWM9305GB

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Connector No. M67
Connector Name BCM (BODY CONTROL MODULE)
Connector Type FEA09FB-FHA6-SA

Terminal No.	Color of Wire	Signal Name [Specification]
56	Y	BATTERY SAVER OUTPUT
57	G	BAT FUSE
59	L	D/L UNLOCK DR
60	BR	FLASHER OUT PUT (LEFT)
61	GR	FLASHER OUT PUT (RIGHT)
63	R	ROOM LAMP OUTPUT
65	V	D/L LOCK ALL
66	G	D/L UNLOCK OTHER
67	B	GND
68	L	POWER WDW OUTPUT (RAP)
69	P	POWER WDW OUTPUT (BAT)
70	Y	BAT FL

Terminal No.	Color of Wire	Signal Name [Specification]
9	R	BRAKE SW
10	SB	RR DEF SW
11	SB	ACC
12	P	DR SW AS
13	LG	DR SW RR
14	G	AUTO LIGHT SENS INPUT
17	W	SENS POWER SUPPLY
18	O	KEYLESS TUNER SENS GND
19	V	KEYLESS TUNER POWER
20	GR	KEYLESS TUNER SIGNAL
21	G	IMMOBI ANT (CLOCK)
23	B	SECURITY IND OUT PUT
25	BR	IMMOBI ANT (RX, TX)
27	Y	AIRCON SW
28	LG	BLOWER FAN SW
29	W	HAZARD SW
30	G	BACK DOOR OPEN SW
32	BR	OUTPUT 5
33	GR	OUTPUT 4
34	L	OUTPUT 3
35	B	OUTPUT 2
36	V	OUTPUT 1
37	LG	KEY SW
38	G	IGN
39	L	CAN-H
40	P	CAN-L

Connector No. M66
Connector Name BCM (BODY CONTROL MODULE)
Connector Type FEA09FW-FHA6-SA

Terminal No.	Color of Wire	Signal Name [Specification]
43	V	BACK DOOR SW
44	B	RR WIP AUTO STOP
45	P	CDLLOCK SW
46	BR	CDLUNLOCK SW
47	W	DR SW DR
48	GR	DR SW RL
49	L	LUGGAGE LAMP OUTPUT
53	V	BACK DOOR OPENER OUTPUT
55	SB	RR WIP MTR OUT

BCM (BODY CONTROL MODULE)

Connector No. M27
Connector Name COMBINATION SWITCH
Connector Type TK16FW

Terminal No.	Color of Wire	Signal Name [Specification]
1	V	INPUT 1
2	B	INPUT 2
3	L	INPUT 3
4	GR	INPUT 4
5	BR	INPUT 5
6	P	OUTPUT 1
7	R	OUTPUT 2
8	G	OUTPUT 5
9	Y	OUTPUT 4
10	W	OUTPUT 3
11	LG	WASH FR (-) RR (+)
12	B	GND
13	O	WASH FR (+) RR (-)
14	BR	IGN

Connector No. M65
Connector Name BCM (BODY CONTROL MODULE)
Connector Type TH40FW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
1	V	KEY RING OUTPUT
2	G	INPUT 5
3	Y	INPUT 4
4	W	INPUT 3
5	R	INPUT 2
6	P	INPUT 1
7	L	KEY CYC UNLOCK
8	R	KEY CYL LOCK SW

JCMWM9306GB

Fail-safe

INFOID:0000000006201804

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 more than 5 seconds while driving the rear wiper, BCM stops power supply to protect the rear wiper motor.

Condition of cancellation

1. Pass more than 1 minute after the rear wiper stop.
2. Turn the rear wiper switch OFF.
3. Operate the rear wiper switch or rear washer switch.

DTC Inspection Priority Chart

INFOID:0000000006201805

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

Priority	DTC
1	U1000: CAN COMM CIRCUIT
2	C1735: IGN CIRCUIT OPEN
3	• C1704: LOW PRESSURE FL • C1705: LOW PRESSURE FR • C1706: LOW PRESSURE RR • C1707: LOW PRESSURE RL • C1708: [NO DATA] FL • C1709: [NO DATA] FR • C1710: [NO DATA] RR • C1711: [NO DATA] RL • C1716: [PRESS DATA ERR] FL • C1717: [PRESS DATA ERR] FR • C1718: [PRESS DATA ERR] RR • C1719: [PRESS DATA ERR] RL • C1729: VHCL SPEED SIG ERR

DTC Index

INFOID:0000000006201806

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

CONSULT display	Tire pressure monitor warning lamp ON	Reference
U1000: CAN COMM CIRCUIT	—	BCS-34
C1704: LOW PRESSURE FL	×	WT-13
C1705: LOW PRESSURE FR	×	
C1706: LOW PRESSURE RR	×	
C1707: LOW PRESSURE RL	×	
C1708: [NO DATA] FL	×	WT-15
C1709: [NO DATA] FR	×	
C1710: [NO DATA] RR	×	
C1711: [NO DATA] RL	×	
C1716: [PRESS DATA ERR] FL	×	WT-18
C1717: [PRESS DATA ERR] FR	×	
C1718: [PRESS DATA ERR] RR	×	
C1719: [PRESS DATA ERR] RL	×	
C1729: VHCL SPEED SIG ERR	×	WT-20
C1735: IGN CIRCUIT OPEN	—	BCS-35

PRECAUTION

PRECAUTIONS

FOR USA AND CANADA

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

INFOID:0000000006201807

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

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

FOR MEXICO

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

INFOID:0000000006201808

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. Information necessary to service the system safely is included in the "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

WARNING:
- **To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.**
- **Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see "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:
- **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**

PRECAUTIONS

< PRECAUTION >

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.**

SYMPTOM DIAGNOSIS

COMBINATION SWITCH SYSTEM SYMPTOMS

Symptom Table

INFOID:0000000006201809

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

Malfunction item: ×

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

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 "OUTPUT 1" circuit	Inspect the combination switch output circuit applicable to the malfunctioning part. Refer to BCS-37, "Diagnosis Procedure".
B	Combination switch "OUTPUT 2" circuit	
C	Combination switch "OUTPUT 3" circuit	
D	Combination switch "OUTPUT 4" circuit	
E	Combination switch "OUTPUT 5" circuit	
F	Combination switch "INPUT 1" circuit	Inspect the combination switch input circuit applicable to the malfunctioning part. Refer to BCS-39, "Diagnosis Procedure".
G	Combination switch "INPUT 2" circuit	
H	Combination switch "INPUT 3" circuit	
I	Combination switch "INPUT 4" circuit	
J	Combination switch "INPUT 5" circuit	
K	Combination switch	Inspect the combination switch. Refer to BCS-41, "Description".
L	BCM	Replace BCM.

REMOVAL AND INSTALLATION

BCM (BODY CONTROL MODULE)

Exploded View

INFOID:0000000006201810

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

SEC. 253

JPMIA0617ZZ
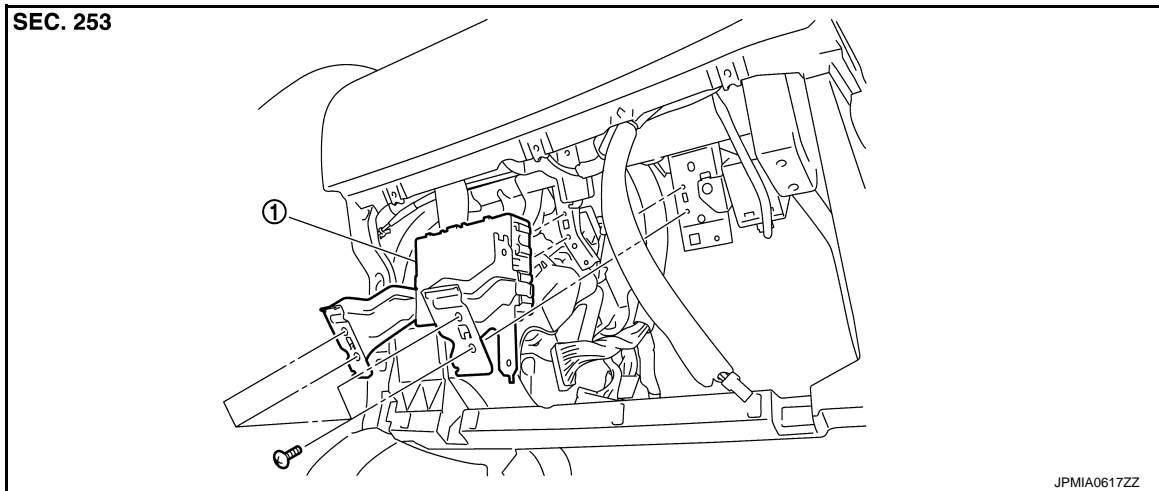
1. BCM

Removal and Installation

INFOID:0000000006201811

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

REMOVAL

1. Remove the glove box assembly. Refer to IP-13, "Exploded View".
2. Remove the BCM bracket mounting screws.
3. Remove the BCM and disconnect the connector.

INSTALLATION
Install in the reverse order of removal.
CAUTION:
• **Be sure to perform "WRITE CONFIGURATION" when replacing BCM.**
• **Be sure to perform the system initialization (NATS) when replacing BCM.**
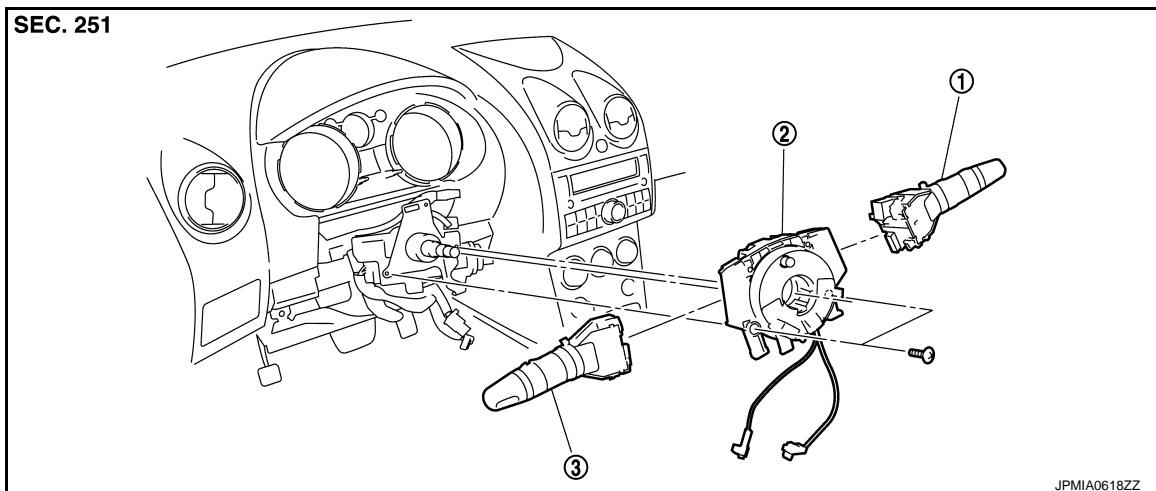**Refer to BCS-3, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".**

A

B

C

COMBINATION SWITCH

Exploded View

INFOID:000000006201812

SEC. 251

JPMIA0618ZZ

1. Wiper & washer switch
2. Switch base (Spiral cable)
3. Light & turn signal switch

D

E

F

G

Removal and Installation

INFOID:000000006201813

Refer to the spiral cable removal and installation SR-14, "Exploded View".

H

I

J

K

L

BCS

N

O

P