SECTION BCS
BODY CONTROL SYSTEM

CONTENTS

BCM

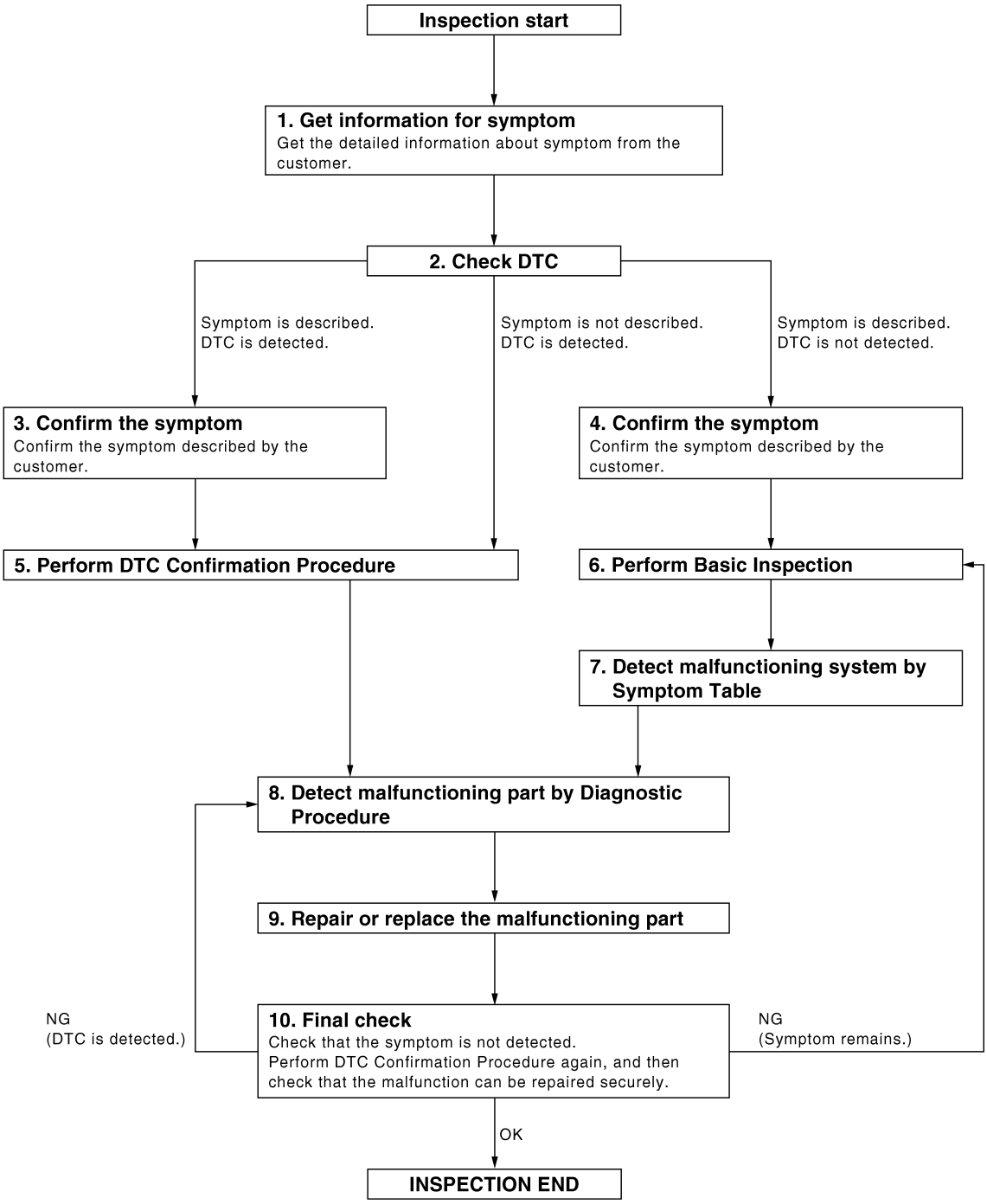
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:0000000008634409

OVERALL SEQUENCE



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DETAILED FLOW

1. GET INFORMATION FOR SYMPTOM

Get the detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurred).

>> GO TO 2

2. CHECK DTC

1. Check DTC.
2. Perform the following procedure if DTC is displayed.
- Record DTC and freeze frame data.
- Erase DTC.
- Study the relationship between the cause detected by DTC and the symptom described by the customer.
3. Check related service bulletins for information.

Is any symptom described and any DTC detected?

Symptom is described, DTC is displayed>>GO TO 3
Symptom is described, DTC is not displayed>>GO TO 4
Symptom is not described, DTC is displayed>>GO TO 5

3. CONFIRM THE SYMPTOM

Confirm the symptom described by the customer.
Connect CONSULT to the vehicle in “DATA MONITOR” mode and check real time diagnosis results.
Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 5

4. CONFIRM THE SYMPTOM

Confirm the symptom described by the customer.
Connect CONSULT to the vehicle in “DATA MONITOR ” mode and check real time diagnosis results.
Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 6

5. PERFORM DTC CONFIRMATION PROCEDURE

Perform DTC Confirmation Procedure for the displayed DTC, and then check that DTC is detected again.
At this time, always connect CONSULT to the vehicle, and check diagnostic results in real time.
If two or more DTCs are detected, refer to BCS-63, "DTC Inspection Priority Chart" and determine trouble diagnosis order.

NOTE:

- Freeze frame data is useful if the DTC is not detected.
- Perform Component Function Check if DTC Confirmation Procedure is not included in Service Manual. This simplified check procedure is an effective alternative though DTC cannot be detected during this check.
  If the result of Component Function Check is NG, it is the same as the detection of DTC by DTC Confirmation Procedure.

Is DTC detected?

YES >> GO TO 8
NO >> Refer to BCS-64, "DTC Index".

6. PERFORM BASIC INSPECTION

Perform BCS-3, "Work Flow".

Inspection End>>GO TO 7

7. DETECT MALFUNCTIONING SYSTEM BY SYMPTOM TABLE

Detect malfunctioning system according to BCS-8, "System Description" based on the confirmed symptom in step 4, and determine the trouble diagnosis order based on possible causes and symptom.

>> GO TO 8

8. DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE

Inspect according to Diagnostic Procedure of the system.

NOTE:

The Diagnostic Procedure described based on open circuit inspection. A short circuit inspection is also required for the circuit check in the Diagnostic Procedure.

Is malfunctioning part detected?

YES >> GO TO 9

NO >> Check voltage of related BCM terminals using CONSULT.

9. REPAIR OR REPLACE THE MALFUNCTIONING PART

1. Repair or replace the malfunctioning part.
2. Reconnect parts or connectors disconnected during Diagnostic Procedure again after repair and replacement.
3. Check DTC. If DTC is displayed, erase it.

>> GO TO 10

10. FINAL CHECK

When DTC was detected in step 2, perform DTC Confirmation Procedure or Component Function Check again, and then check that the malfunction have been repaired securely.

When symptom was described from the customer, refer to confirmed symptom in step 3 or 4, and check that the symptom is not detected.

Does the symptom reappear?

YES (DTC is detected)>>GO TO 8

YES (Symptom remains)>>GO TO 6

NO >> Inspection End.

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM)

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM) : Description

INFOID:0000000008634410

BEFORE REPLACEMENT

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

NOTE:

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

AFTER REPLACEMENT

CAUTION:

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

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

INFOID:0000000008634411

1. SAVING VEHICLE SPECIFICATION

CONSULT

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

NOTE:

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

>> GO TO 2.

2.REPLACE BCM

Replace BCM. Refer to BCS-79, "Removal and Installation".

>> GO TO 3.

3.WRITING VEHICLE SPECIFICATION

CONSULT
1. Enter "Re/Programming, Configuration".
2. If “Before Replace ECU” operation was performed, automatically an "Operation Log Selection" screen will be displayed. Select the applicable file from the "Saved Data List" and press “Confirm” to write vehicle specification. Refer to BCS-6, "CONFIGURATION (BCM) : Work Procedure".
3. If “Before Replace ECU” operation was not performed, select "After Replace ECU" or "Manual Configuration" to write vehicle specification. Refer to BCS-6, "CONFIGURATION (BCM) : Work Procedure".

>> GO TO 4.

4.INITIALIZE BCM (NATS)

Perform BCM initialization. (NATS)

>> Work End.

CONFIGURATION (BCM)

CONFIGURATION (BCM) : Description

INFOID:0000000008634412

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

Function	Description
"Before Replace ECU"	• Reads the vehicle configuration of current BCM. • Saves the read vehicle configuration.
"After Replace ECU"	Writes the vehicle configuration with manual selection.
"Select Saved Data List"	Writes the vehicle configuration with saved data.

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

CONFIGURATION (BCM) : Work Procedure

INFOID:0000000008634413

1.WRITING MODE SELECTION

CONSULT
Select “Reprogramming, Configuration” of BCM.

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

2.PERFORM “SAVED DATA LIST”

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

>> Work End.

3.PERFORM “AFTER REPLACE ECU” OR “MANUAL CONFIGURATION”

CONSULT
1. Select “After Replace ECU” or “Manual Configuration”.
2. Identify the correct model and configuration list. Refer to BCS-7, "CONFIGURATION (BCM) : Configuration list".
3. Confirm and/or change setting value for each item.
   CAUTION:
   Thoroughly read and understand the vehicle specification. ECU control may not operate normally if the setting is not correct.
4. Select “Next”.
   CAUTION:
   Make sure to select “Next”, confirm each setting value and press “OK” even if the indicated configuration of brand new BCM is same as the desirable configuration. If not, configuration which is set automatically by selecting vehicle model can not be memorized.
5. When "Completed", select "End".

>> GO TO 4.

4.OPERATION CHECK

Confirm that each function controlled by BCM operates normally.

>> Work End.

CONFIGURATION (BCM) : Configuration list

INFOID:0000000008634414

MANUAL SETTING ITEM	
Items	Setting value
AUTO LIGHT	WITH⇔WITHOUT
DTRL	WITH⇔WITHOUT
AV C/U	WITH⇔WITHOUT

SYSTEM DESCRIPTION

BODY CONTROL SYSTEM

System Description

INFOID:0000000008634415

OUTLINE

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

CAN communication control

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

CAN communication signal

Refer to the LAN-24, "CAN Communication Signal Chart".

BCM control function list

System	Refer to
Combination switch reading system	BCS-10, "System Description"
Signal buffer system	BCS-14, "System Description"
Power consumption control system	BCS-15, "System Description"
Auto light system	EXL-13, "System Description"
Turn signal and hazard warning lamp system	EXL-17, "System Description"
Headlamp system (xenon type)	EXL-9, "System Description"
Headlamp system (halogen type)	EXL-174, "System Description"
Front fog lamp system (if equipped)	EXL-15, "System Description"
Exterior lamp battery saver system	EXL-19, "System Description"
Daytime running light system (Canada only)	EXL-11, "System Description"
Interior room lamp control system	INL-6, "System Description"
Step lamp system	
Interior room lamp battery saver system	INL-6, "System Description"
Front wiper and washer system	WW-6, "System Description"
Warning chime system	WCS-5, "WARNING CHIME SYSTEM : System Description"
Door lock system	DLK-17, "DOOR LOCK AND UNLOCK SWITCH : System Description"
Trunk open system	DLK-30, "TRUNK LID OPENER SWITCH : System Description"
Automatic drive positioner system	ADP-10, "AUTOMATIC DRIVE POSITIONER SYSTEM : System Description"
Nissan vehicle immobilizer system	SEC-15, "System Description"
Vehicle security system	SEC-19, "System Description"
Panic alarm	
Rear window defogger system	DEF-6, "System Description"

System		Refer to
Intelligent Key system/engine start system	Door lock function	• DLK-19, "DOOR REQUEST SWITCH : System Description" (door request switch) • DLK-24, "INTELLIGENT KEY : System Description" (Intelligent Key)
	Trunk open function	• DLK-32, "TRUNK REQUEST SWITCH : System Description" (trunk request switch) • DLK-24, "INTELLIGENT KEY : System Description" (Intelligent Key)
	Warning function	DLK-42, "System Description"
	Key reminder function	DLK-49, "System Description"
	Engine start function	SEC-10, "System Description"
Power window system		PWC-9, "System Description"
RAP (retained accessory power) system		BCS-30, "RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)"
TPMS (tire pressure monitor system)		WT-8, "System Description"

Component Parts Location

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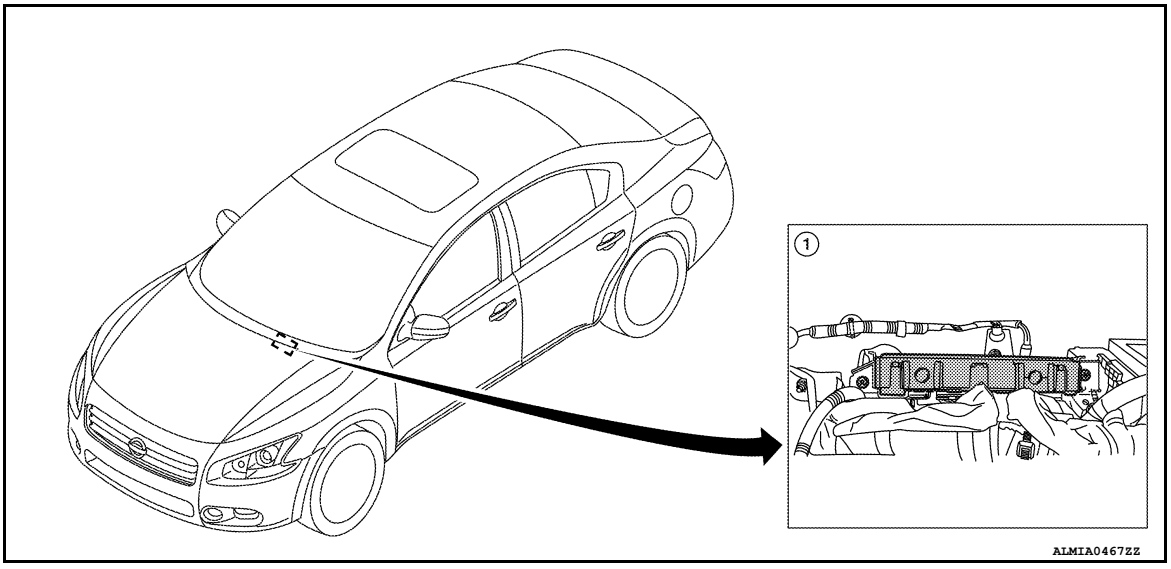
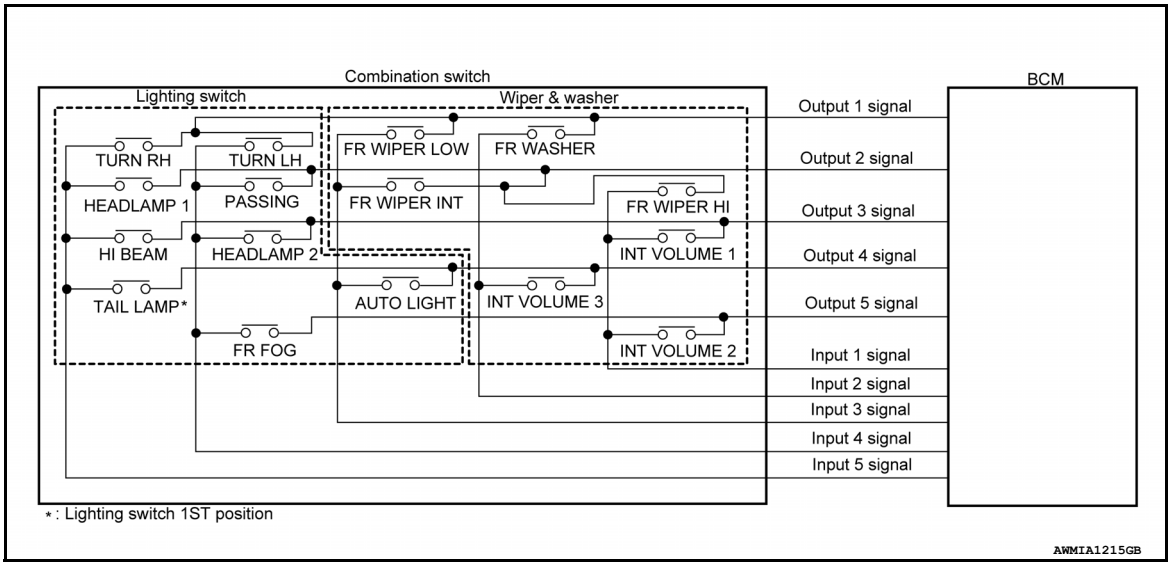


1. BCM M16, M17, M18, M19, M20, M21 (view with instrument panel removed)

COMBINATION SWITCH READING SYSTEM

System Diagram

INFOID:0000000008634417



System Description

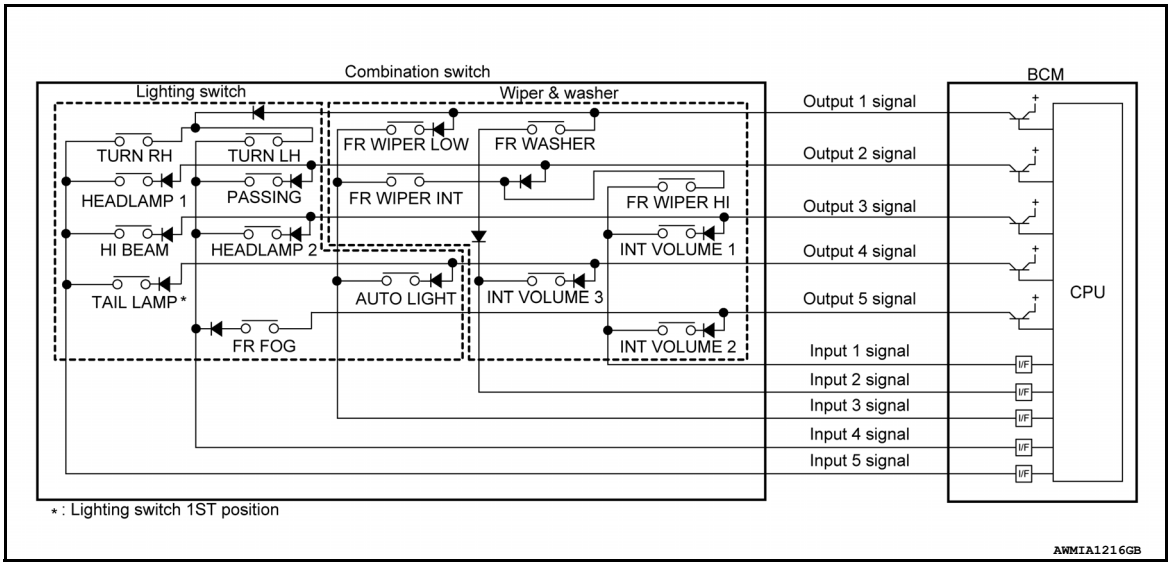
INFOID:0000000008634418

OUTLINE

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

COMBINATION SWITCH MATRIX

Combination switch circuit



Combination switch INPUT-OUTPUT system list

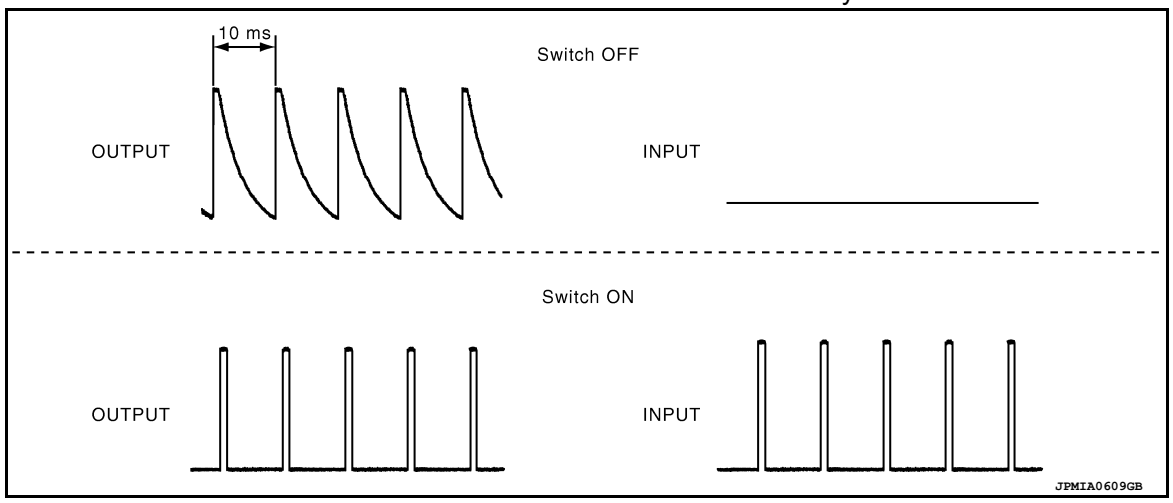
System	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5
OUTPUT 1	—	FR WASHER	FR WIPER LOW	TURN LH	TURN RH
OUTPUT 2	FR WIPER HI	—	FR WIPER INT	PASSING	HEADLAMP 1
OUTPUT 3	INT VOLUME 1	—	—	HEADLAMP 2	HI BEAM

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

COMBINATION SWITCH READING FUNCTION

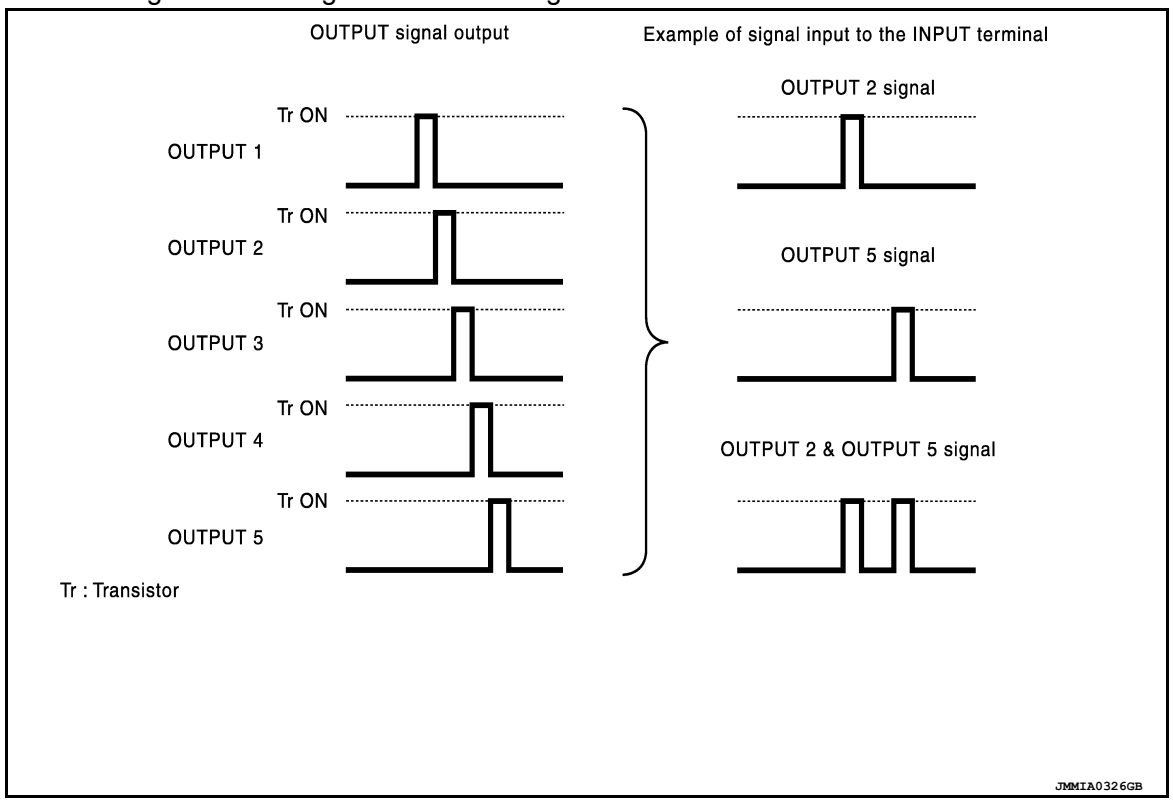
Description

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



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

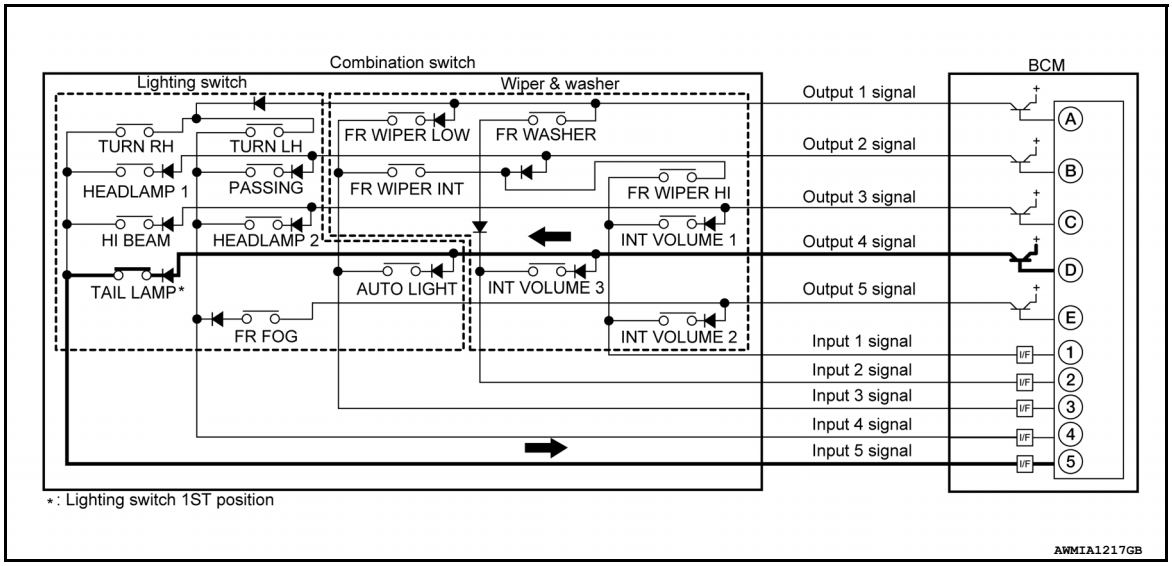
- BCM operates as follows and judges the status of the combination switch.
- It operates the transistor on OUTPUT side in the following order: OUTPUT 1 → 2 →3 →4 →5 and outputs voltage waveform.
- The voltage waveform of OUTPUT corresponding to the formed circuit is input into the interface on INPUT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



Operation Example

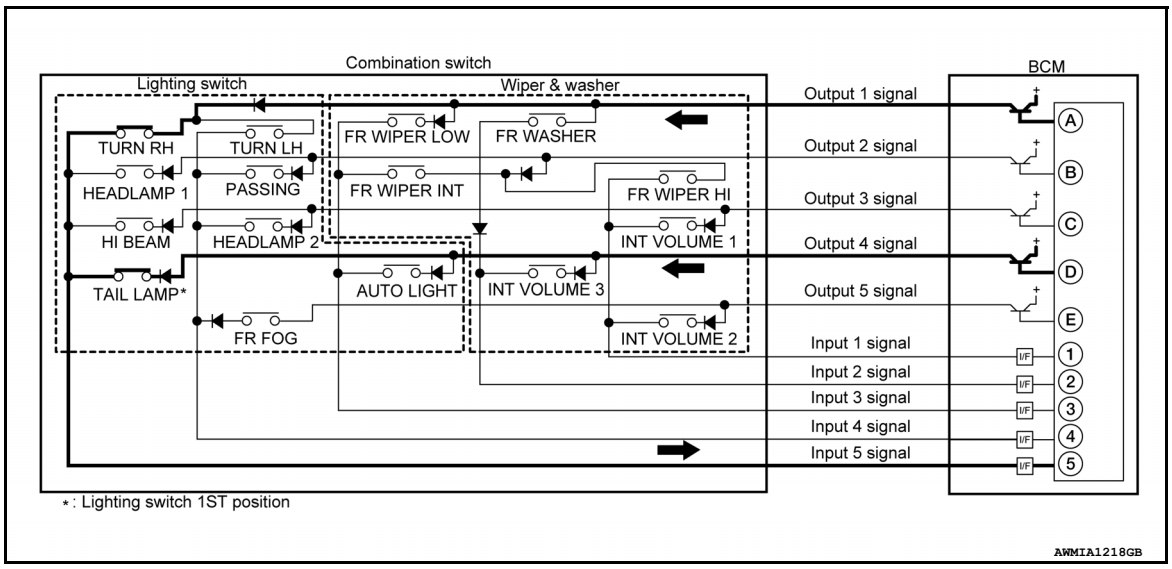
In the following operation example, the combination of the status signals of the combination switch is replaced as follows: INPUT 1 - 5 to “1 - 5” and OUTPUT 1 - 5 to “A - E”.

Example 1: When a switch (TAIL LAMP) is turned ON
- The circuit between OUTPUT 4 and INPUT 5 is formed when the TAIL LAMP is turned ON.



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

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



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

WIPER INTERMITTENT DIAL POSITION SETTING (FRONT WIPER INTERMITTENT OPERATION)

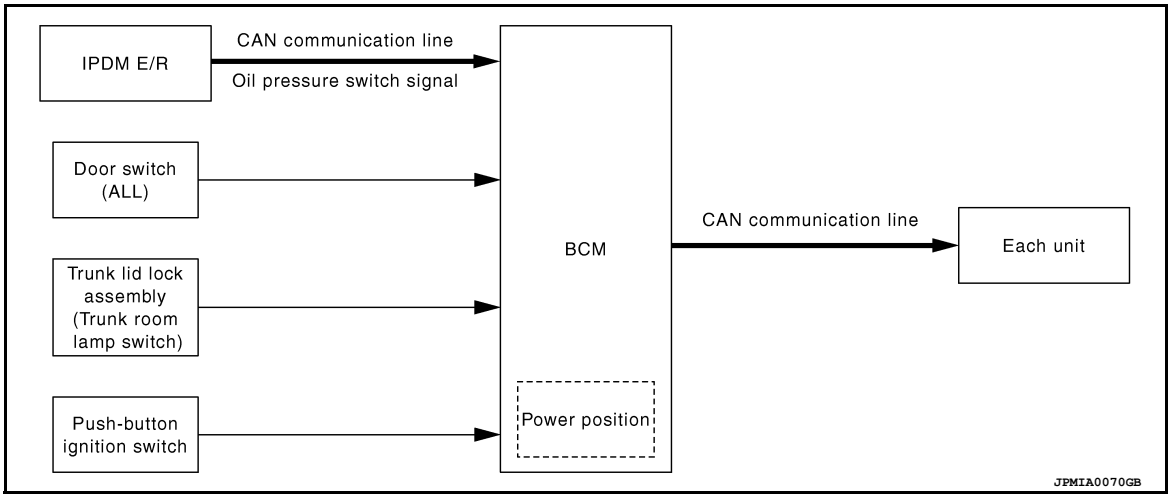
BCM judges the wiper intermittent dial 1 - 7 by the status of INT VOLUME 1, 2, and 3 switches.

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

SIGNAL BUFFER SYSTEM

System Diagram

INFOID:0000000008634419



System Description

INFOID:0000000008634420

OUTLINE

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

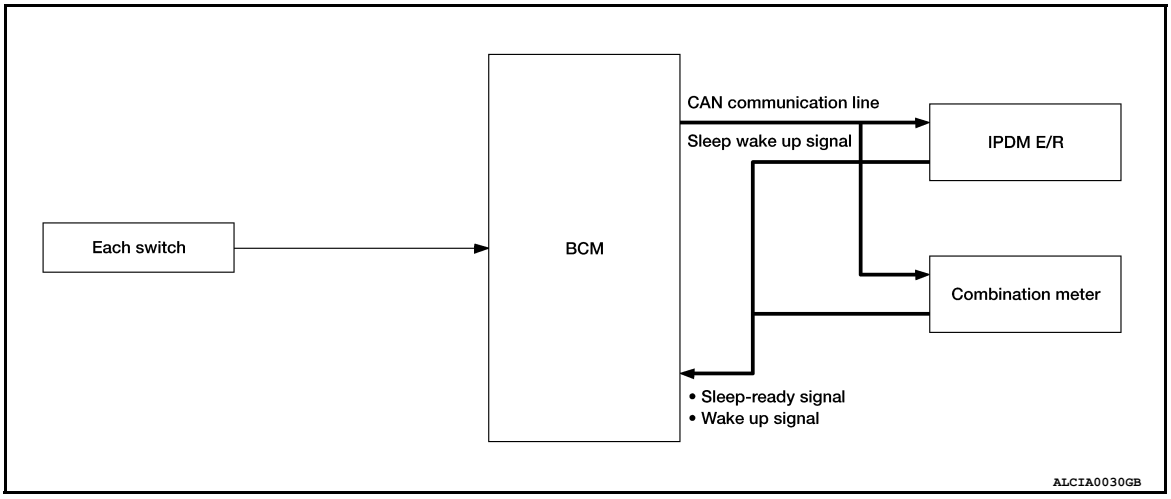
Signal transmission function list

Signal name	Input	Output	Description
• Ignition switch ON signal • Ignition switch signal	Engine switch (push switch)	IPDM E/R (CAN)	Inputs the push-button ignition switch (push switch) signal and transmits the ignition switch status judged with BCM via CAN communication.
Door switch signal	Any door switch	• Combination meter (CAN) • IPDM E/R (CAN)	Inputs the door switch signal and transmits it via CAN communication.
Trunk switch signal	Trunk room lamp switch	Combination meter (CAN)	Inputs the trunk room lamp switch signal and transmits the trunk switch signal via CAN communication.
Oil pressure switch signal	IPDM E/R (CAN)	Combination meter (CAN)	Transmits the received oil pressure switch signal via CAN communication.

POWER CONSUMPTION CONTROL SYSTEM

System Diagram

INFOID:0000000008634421



System Description

INFOID:0000000008634422

OUTLINE

- BCM incorporates a power saving control function that reduces the power consumption according to the vehicle status.
- BCM switches the status (control mode) by itself with the power saving control function. It performs the sleep request to each unit (IPDM E/R and combination meter) that operates with the ignition switch OFF.

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

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

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

LOW POWER CONSUMPTION CONTROL WITH BCM

BCM reduces the power consumption with the following operation in the low power consumption mode.
- The reading interval of the each switches changes from 10 ms interval to 60 ms interval.

Sleep mode activation

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

Sleep condition

CAN sleep condition	BCM sleep condition
• Receiving the sleep-ready signal (ready) from all units • Ignition switch: OFF • Vehicle security system alarm and panic alarm : No operation • Warning lamp: No operation • Intelligent Key system buzzer: No operation • Trunk room lamp switch status: No change • Brake switch: OFF • Key slot status: No change • Turn signal indicator lamp: No operation • Exterior lamp: OFF • Door lock status: No change • CONSULT communication status: No communication • Meter display signal : Non-transmission • Door switch status: No change • Rear window defogger: OFF	• Interior room lamp battery saver: Time out • RAP system: OFF • Power window switch communication: No transmission • Push-button ignition switch (push switch) illumination: OFF • NATS: No operation • Remote keyless entry receiver communication status: No communication • Tire pressure monitor system: Stop

Wake-up operation

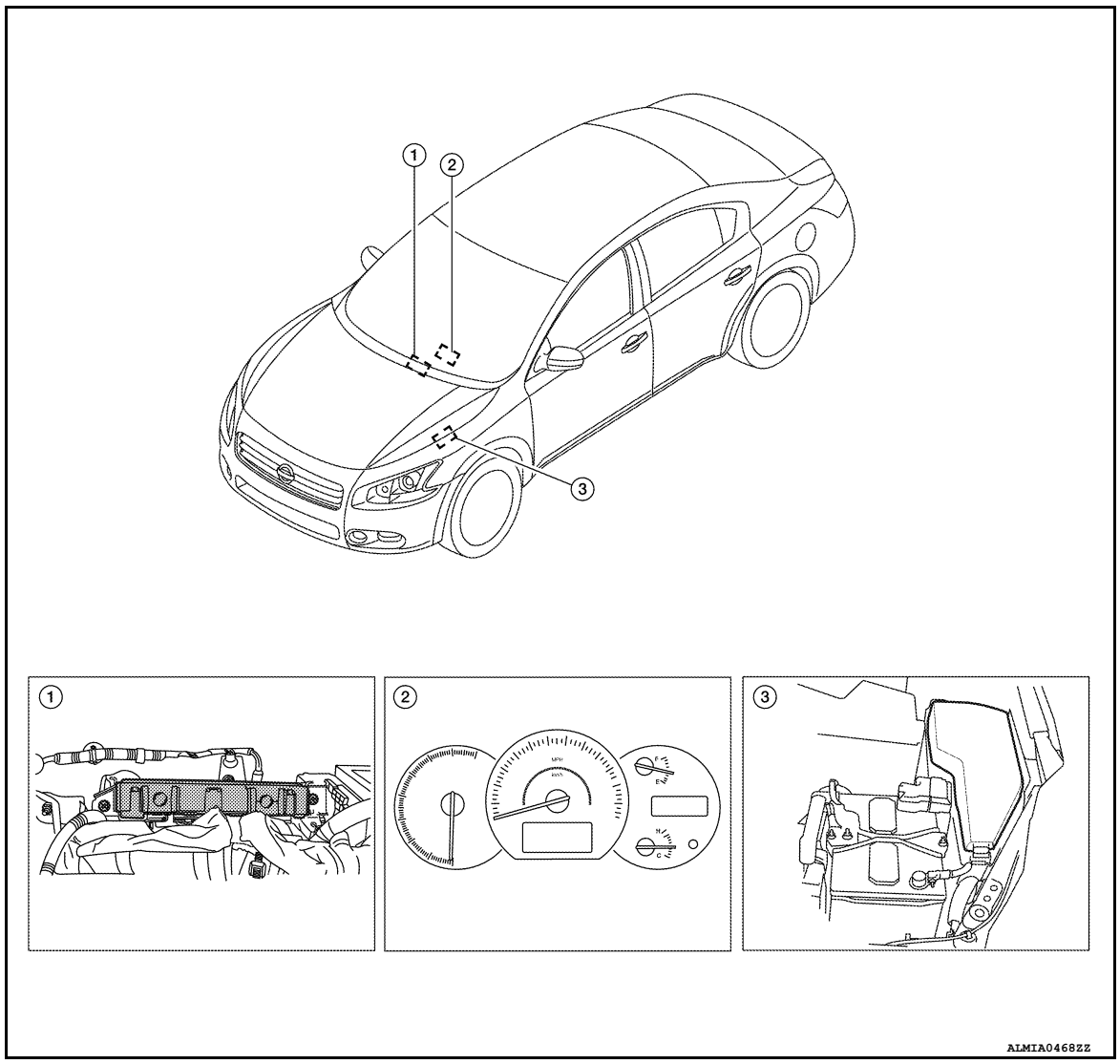
- BCM changes from the low power consumption mode to the CAN communication sleep mode when any of the BCM wake-up conditions is fulfilled. Only the control with BCM is activated.
- BCM transmits the sleep wake up signal (wake up) to each unit when any of the CAN wake-up conditions is fulfilled. It changes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

Wake-up condition

BCM wake-up condition	CAN wake-up condition
• Door unlock sensor: OFF→ON, ON→OFF • Door lock lock assembly LH (key cylinder switch): Lock or unlock • Door lock switch: OFF→ON • Door unlock switch: OFF→ON • Trunk lid opener switch: OFF→ON • Power window serial link communication: Receiving • Remote keyless entry receiver: Receiving valid keyfob	• Receiving the sleep-ready signal (Not-ready) from any units • Key slot: OFF→ON, ON→OFF • Push-button ignition switch (push switch): OFF→ON • Hazard switch: OFF→ON • PASSING switch: OFF→ON, ON→OFF • TAIL LAMP switch: OFF→ON • Driver door switch: OFF→ON, ON→OFF • Passenger door switch: OFF → ON, ON → OFF • Trunk room lamp switch: OFF→ON, ON→OFF • Driver door request switch: OFF→ON • Passenger door request switch: OFF→ON • Trunk request switch: OFF→ON • Stop lamp switch 2 signal: ON • Remote keyless entry receiver: Receiving valid keyfob

Component Parts Location

INFOID:0000000008634423



1. BCM M16, M17, M18, M19, M20, M21 (view with instrument panel removed)
2. Combination meter M24
3. IPDM E/R E16, E17, E18, E200, E201, F10

DIAGNOSIS SYSTEM (BCM)
COMMON ITEM
COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000008634424

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

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

SYSTEM APPLICATION
BCM can perform the following functions.

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

DOOR LOCK

DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)

INFOID:0000000008634425

SELF DIAGNOSTIC RESULT

Refer to BCS-64, "DTC Index".

DATA MONITOR

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

ACTIVE TEST

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

WORK SUPPORT

Support Item	Setting	Description
DOOR LOCK-UNLOCK SET	On*	Automatic door locks function ON
	Off	Automatic door locks function OFF
AUTOMATIC DOOR LOCK SELECT	P RANGE	Doors lock automatically when shifted out of park (P)
	VH SPD*	Doors lock automatically when vehicle speed reaches 24 km/h (15 mph)
AUTOMATIC DOOR UNLOCK SELECT	MODE4	Drivers door unlocks automatically when shifted into park (P)
	MODE3	Drivers door unlocks automatically when ignition is switched from ON to OFF
	MODE2	Doors unlock automatically when shifted into park (P)
	MODE1*	Doors unlock automatically when ignition is switched from ON to OFF
AUTOMATIC LOCK/UNLOCK SELECT	Lock/Unlock*	Automatic door locks function operates in lock and unlock
	Lock Only	Automatic door locks function operates in lock only
	Unlock Only	Automatic door locks function operates in unlock only
	Off	Automatic door locks function OFF

* : Initial setting

REAR DEFOGGER

REAR DEFOGGER : CONSULT Function (BCM - REAR DEFOGGER)

INFOID:0000000008634426

DATA MONITOR

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

ACTIVE TEST

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

BUZZER

BUZZER : CONSULT Function (BCM - BUZZER)

INFOID:0000000008634427

DATA MONITOR

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

ACTIVE TEST

Test Item	Description
IGN KEY WARN ALM	This test is able to check key warning chime operation [On/Off].
SEAT BELT WARN TEST	This test is able to check seat belt warning chime operation [On/Off].
ID REGIST WARNING	This test is able to check ID regist warning chime operation [On/Off].
LIGHT WARN ALM	This test is able to check light warning chime operation [On/Off].

INT LAMP

INT LAMP : CONSULT Function (BCM - INT LAMP)

INFOID:0000000008634428

DATA MONITOR

Monitor Item [Unit]	Description
REQ SW -DR [On/Off]	Indicates condition of door request switch LH
REQ SW -AS [On/Off]	Indicates condition of door request switch RH
PUSH -SW [On/Off]	Indicates condition of push button ignition switch
ACC RLY -F/B [ON/OFF]	Indicates condition of accessory relay
UNLK SEN -DR [On/Off]	Indicates condition of door unlock sensor
KEY SW -SLOT [On/Off]	Indicates condition of key slot
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH
DOOR SW-RR [On/Off]	Indicates condition of rear door switch RH
DOOR SW-RL [On/Off]	Indicates condition of rear door switch LH
DOOR SW-BK [On/Off]	Indicates condition of trunk switch
CDL LOCK SW [On/Off]	Indicates condition of lock signal from door lock and unlock switch

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

ACTIVE TEST

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

WORK SUPPORT

Support Item	Setting		Description
SET I/L D-UNLCK INTCON	On*		Interior room lamp timer function ON
	Off		Interior room lamp timer function OFF
ROOM LAMP TIMER SET	MODE 4	30 sec.	Sets the interior room lamp ON time. (Timer operating time)
	MODE 3*	15 sec.	
	MODE 2	7.5 sec.	
ROOM LAMP ON TIME SET	MODE 5	0 sec.	Sets the interior room lamp gradual brightening time.
	MODE 4	3 sec.	
	MODE 3	2 sec.	
	MODE 2*	1 sec.	
	MODE 1	0.5 sec.	
ROOM LAMP OFF TIME SET	MODE 5	0 sec.	Sets the interior room lamp gradual dimming time.
	MODE 4*	3 sec.	
	MODE 3	2 sec.	
	MODE 2	1 sec.	
	MODE 1	0.5 sec.	
R LAMP TIMER LOGIC SET	MODE 2		Interior room lamp timer activates with all doors.
	MODE 1*		Interior room lamp timer activates with the driver door only.

* : Initial setting

HEADLAMP

HEADLAMP : CONSULT Function (BCM - HEAD LAMP)

INFOID:0000000008634429

DATA MONITOR

Monitor Item [Unit]	Description
PUSH SW [On/Off]	Indicates condition of push button ignition switch
ENGINE STATE [Stop/Stall/Crank/Run]	Indicates engine status received from ECM on CAN communication line
VEH SPEED 1 [km/h]	Indicates vehicle speed signal received from ABS on CAN communication line
KEY SW -SLOT [On/Off]	Indicates condition of key slot

Monitor Item [Unit]	Description
TURN SIGNAL R [On/Off]	Indicates condition of combination switch
TURN SIGNAL L [On/Off]	
TAIL LAMP SW [On/Off]	
HI BEAM SW [On/Off]	
HEAD LAMP SW 1 [On/Off]	
HEAD LAMP SW 2 [On/Off]	
PASSING SW [On/Off]	
AUTO LIGHT SW [On/Off]	
FR FOG SW [On/Off]	
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH
DOOR SW-RR [On/Off]	Indicates condition of rear door switch RH
DOOR SW-RL [On/Off]	Indicates condition of rear door switch LH
DOOR SW-BK [On/Off]	Indicates condition of trunk switch
OPTICAL SENSOR [V]	Indicates voltage signal from optical sensor

ACTIVE TEST

Test Item	Description
TAIL LAMP	This test is able to check tail lamp operation [On/Off].
HEAD LAMP	This test is able to check head lamp operation [Hi/Low/Off].
FR FOG LAMP	This test is able to check front fog lamp operation [On/Off].
CORNERING LAMP	This test is able to check turn signal lamp operation [LH/RH/Off].
ILL DIM SIGNAL	This test is able to check head lamp illumination dimming operation [On/Off].

WORK SUPPORT

Support Item	Setting		Description
CUSTOM A/LIGHT SETTING	MODE 4		Less sensitive setting than normal setting (Turns ON later than normal operation.)
	MODE 3		More sensitive setting than MODE 2 (Turns ON earlier than MODE 2.)
	MODE 2		More sensitive setting than normal setting (Turns ON earlier than normal operation.)
	MODE 1*		Normal
BATTERY SAVER SET	On*		Exterior lamp battery saver function ON
	Off		Exterior lamp battery saver function OFF
ILL DELAY SET	MODE 8	180 sec.	Sets delay timer function operation time (All doors closed)
	MODE 7	150 sec.	
	MODE 6	120 sec.	
	MODE 4	60 sec.	
	MODE 5	90 sec.	
	MODE 3	30 sec.	
	MODE 2	OFF	
	MODE 1*	45 sec.	

* : Initial setting

WIPER

WIPER : CONSULT Function (BCM - WIPER)

INFOID:0000000008634430

DATA MONITOR

Monitor Item [Unit]	Description
PUSH SW [On/Off]	Indicates condition of push button ignition switch
VEH SPEED 1 [km/h]	Indicates vehicle speed signal received from ABS on CAN communication line
FR WIPER HI [On/Off]	Indicates condition of wiper operation of combination switch
FR WIPER LOW [On/Off]	
FR WASHER SW [On/Off]	
FR WIPER INT [On/Off]	
FR WIPER STOP [On/Off]	Indicates front wiper auto stop signal received from IPDM E/R on CAN communication line
INT VOLUME [1 – 7]	Indicates condition of intermittent wiper operation of combination switch

ACTIVE TEST

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

WORK SUPPORT

Support Item	Setting	Description
WIPER SPEED SETTING	On	Front wiper intermittent time linked with vehicle speed and wiper dial position
	Off*	Front wiper intermittent time linked with wiper dial position

* : Initial setting

FLASHER

FLASHER : CONSULT Function (BCM - FLASHER)

INFOID:0000000008634431

DATA MONITOR

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

ACTIVE TEST

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

WORK SUPPORT

Support Item	Setting	Description
HAZARD ANSWER BACK	Lock/Unlock*	Hazard warning lamp activation when doors are locked or unlocked with the Intelligent Key.
	Unlock Only	Hazard warning lamp activation when doors are unlocked with the Intelligent Key.
	Lock Only	Hazard warning lamp activation when doors are locked with the Intelligent Key.
	Off	No hazard warning lamp activation when doors are locked or unlocked with the Intelligent Key.

* : Initial setting

INTELLIGENT KEY

INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)

INFOID:0000000008634432

DATA MONITOR

Monitor Item [Unit]	Main	Description
REQ SW -DR [On/Off]	×	Indicates condition of door request switch LH
REQ SW -AS [On/Off]	×	Indicates condition of door request switch RH
REQ SW -BD/TR [On/Off]	×	Indicates condition of trunk opener request switch
PUSH SW [On/Off]		Indicates condition of push button ignition switch
IGN RLY2 -F/B [On/Off]		Indicates condition of ignition relay 2
ACC RLY -F/B [On/Off]		Indicates condition of accessory relay
BRAKE SW 1 [On/Off]	×	Indicates condition of brake switch
BRAKE SW 2 [On/Off]		Indicates condition of brake switch
DETE/CANCL SW [On/Off]	×	Indicates condition of P position
SFT PN/N SW [On/Off]	×	Indicates condition of P or N position
UNLK SEN -DR [On/Off]	×	Indicates condition of door unlock sensor
PUSH SW -IPDM [On/Off]		Indicates condition of push button ignition switch received from IPDM E/R on CAN communication line
IGN RLY1 -F/B [On/Off]		Indicates condition of ignition relay 1 received from IPDM E/R on CAN communication line
DETE SW -IPDM [On/Off]		Indicates condition of detent switch received from TCM on CAN communication line
SFT PN -IPDM [On/Off]		Indicates condition of P or N position from TCM on CAN communication line
SFT P -MET [On/Off]		Indicates condition of P position from TCM on CAN communication line
SFT N -MET [On/Off]		Indicates condition of N position from IPDM E/R on CAN communication line
ENGINE STATE [Stop/Start/Crank/Run]	×	Indicates condition of engine state from ECM on CAN communication line
VEH SPEED 1 [mph/km/h]	×	Indicates condition of vehicle speed signal received from ABS on CAN communication line
VEH SPEED 2 [mph/km/h]	×	Indicates condition of vehicle speed signal received from combination meter on CAN communication line
DOOR STAT -DR [LOCK/READY/UNLK]	×	Indicates condition of driver side door status.
DOOR STAT -AS [LOCK/READY/UNLK]	×	Indicates condition of passenger side door status.
ID OK FLAG [Set/Reset]		Indicates condition of Intelligent Key ID.
PRMT ENG STRT [Set/Reset]		Indicates condition of engine start possibility.
PRMT RKE STRT [Set/Reset]		Indicates condition of engine start possibility from Intelligent Key.
KEY SW -SLOT [On/Off]		Indicates condition of key slot.
TRNK/HAT MNTR [On/Off]		Indicates condition of trunk lid.

Monitor Item [Unit]	Main	Description
RKE-LOCK [On/Off]		Indicates condition of lock signal from Intelligent Key.
RKE-UNLOCK [On/Off]		Indicates condition of unlock signal from Intelligent Key.
RKE-TR/BD [On/Off]		Indicates condition of trunk open signal from Intelligent Key.
RKE-PANIC [On/Off]		Indicates condition of panic signal from Intelligent Key.
RKE-P/W OPEN [On/Off]		Indicates condition of power window down signal from Intelligent Key.
RKE-MODE CHG [On/Off]		Indicates condition of mode change signal from Intelligent Key.
RKE OPE COUN1 [0-19]	×	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing.
RKE OPE COUN2 [0-19]	×	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing.
REVERSE SW [On/Off]		Indicates condition of reverse switch status.

ACTIVE TEST

Test Item	Description
BATTERY SAVER	This test is able to check battery saver operation [On/Off].
PW REMOTO DOWN SET	This test is able to check power window down operation [On/Off].
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation [Off/On].
INSIDE BUZZER	This test is able to check combination meter warning chime operation [Key/Knob/Take Out/Off].
INDICATOR	This test is able to check combination meter warning lamp operation [KEY IND/KEY ON/Off].
INT LAMP	This test is able to check interior room lamp operation [On/Off].
LCD	This test is able to check combination meter display information [Off/LK WN/OUTKEY/NO KY/BATT/INSRT/SFT P/ROTAT/ID NG/BP I/BP N].
TRUNK/GLASS HATCH	This test is able to check trunk lid opener actuator open operation [Open].
FLASHER	This test is able to check hazard lamp operation [Off/LH/RH].
HORN	This test is able to check horn operation [On].
P RANGE	This test is able to check CVT shift selector illumination operation [On/Off].
ENGINE SW ILLUMI	This test is able to check push button ignition switch illumination operation [On/Off].
LOCK INDICATOR	This test is able to check LOCK indicator in push button ignition switch operation [On/Off].
ACC INDICATOR	This test is able to check ACC indicator in push button ignition switch operation [On/Off].
IGNITION ON IND	This test is able to check ignition ON indicator in push button ignition switch operation [On/Off].
KEY SLOT ILLUMI	This test is able to check key slot illumination operation [On/Off].
TRUNK/BACK DOOR	This test is able to check trunk lid opener actuator operation [Open].

WORK SUPPORT

Support Item	Setting		Description
CONFIRM KEY FOB ID	MEMORY 1		Intelligent Key ID code can be checked.
	MEMORY 2		
	MEMORY 3		
	MEMORY 4		
	NON REGIST		
AUTO LOCK SET	MODE 4	2 min	Auto door lock time can be set in this mode.
	MODE 3	30 sec	
	MODE 2	5 min	
	MODE 1*	1 min	

Support Item	Setting		Description
LOCK/UNLOCK BY I-KEY	On*		Door lock/unlock function by request switch ON.
	Off		Door lock/unlock function by request switch OFF.
ENGINE START BY I-KEY	On*		Engine start function from Intelligent Key ON.
	Off		Engine start function from Intelligent Key OFF.
TRUNK/GLASS HATCH OPEN	On*		Buzzer reminder function by trunk opener request switch ON.
	Off		Buzzer reminder function by trunk opener request switch OFF.
PANIC ALARM SET	MODE 3	1.5 sec	Panic alarm button set time on Intelligent Key can be set in this mode.
	MODE 2	OFF	
	MODE 1*	0.5 sec	
PW DOWN SET	MODE 3	5 sec	Unlock button press time on Intelligent Key to lower front window can be set in this mode.
	MODE 2	OFF	
	MODE 1*	3 sec	
TRUNK OPEN DELAY	MODE 3	1.5 sec	Trunk button pressing time on Intelligent Key button can be selected from the following with this mode.
	MODE 2	OFF	
	MODE 1*	0.5 sec	
LO- BATT OF KEY FOB WARN	On*		Intelligent Key low battery warning mode ON.
	Off		Intelligent Key low battery warning mode OFF.
ANTI KEY LOCK IN FUNCTI	On*		Key reminder function mode ON.
	Off		Key reminder function mode OFF.
HAZARD ANSWER BACK	Lock/Unlock*		Hazard warning lamp activation when doors are locked or unlocked with Intelligent Key.
	Unlock Only		Hazard warning lamp activation when doors are unlocked with Intelligent Key.
	Lock Only		Hazard warning lamp activation when doors are locked with Intelligent Key.
	Off		No hazard warning lamp activation when doors are locked or unlocked with Intelligent Key.
ANS BACK I-KEY LOCK	Horn Chirp		Horn chirp reminder when doors are unlocked with Intelligent Key
	Buzzer*		Buzzer or horn chirp reminder when doors are unlocked with Intelligent Key
	Off		No buzzer or horn chirp reminder when doors are unlocked with Intelligent Key
ANS BACK I-KEY UNLOCK	Off		No buzzer or horn chirp reminder when doors are unlocked with Intelligent Key
	On*		Buzzer or horn chirp reminder when doors are unlocked with Intelligent Key
SHORT CRANKING OUTPUT	Start	70 msec	Starter motor operation duration times.
		100 msec	
		200 msec	
	End		
INSIDE ANT DIAGNOSIS	Start		This function allows inside key antenna self-diagnosis.
HORN WITH KEYLESS LOCK	Off		No horn reminder activation when doors are locked with Intelligent Key.
	On*		Horn reminder activation when doors are locked with Intelligent Key.

*: Initial Setting

COMB SW

COMB SW : CONSULT Function (BCM-COMB SW)

INFOID:0000000008634433

DATA MONITOR

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

BCM

BCM : CONSULT Function (BCM - BCM)

INFOID:0000000008634434

ECU IDENTIFICATION

The BCM part number is displayed.

SELF DIAGNOSTIC RESULT

Refer to BCS-64, "DTC Index".

WORK SUPPORT

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

CONFIGURATION

Refer to BCS-6, "CONFIGURATION (BCM) : Description".

CAN DIAG SUPPORT MNTR

Refer to LAN-12, "CAN Diagnostic Support Monitor".

IMMU

IMMU : CONSULT Function (BCM - IMMU)

INFOID:0000000008634435

SELF DIAGNOSTIC RESULT

Refer to BCS-64, "DTC Index".

DATA MONITOR

Monitor Item [Unit]	Description
CONFRM ID ALL [Yet/DONE]	Switches to DONE when a registered Intelligent Key is inserted into the key slot.
CONFIRM ID4 [Yet/DONE]	
CONFIRM ID3 [Yet/DONE]	
CONFIRM ID2 [Yet/DONE]	
CONFIRM ID1 [Yet/DONE]	
TP 4 [Yet/DONE]	DONE indicates the number of Intelligent Key ID which has been registered.
TP 3 [Yet/DONE]	
TP 2 [Yet/DONE]	
TP 1 [Yet/DONE]	
PUSH SW [On/Off]	Indicates condition of push button ignition switch
KEY SW -SLOT [On/Off]	Indicates condition of key slot

ACTIVE TEST

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

BATTERY SAVER

BATTERY SAVER : CONSULT Function (BCM - BATTERY SAVER)

INFOID:0000000008634436

DATA MONITOR

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

ACTIVE TEST

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

WORK SUPPORT

Support Item	Setting		Description
ROOM LAMP BAT SAV SET	ON*		Interior room lamp battery saver function ON
	OFF		Interior room lamp battery saver function OFF
ROOM LAMP TIMER SET	MODE 2	60 min.	Sets interior room lamp battery saver timer operating time
	MODE 1*	15 min.	
BATTERY SAVER SET	ON*		Exterior lamp battery saver function ON
	OFF		Exterior lamp battery saver function OFF

* : Initial setting

TRUNK

TRUNK : CONSULT Function (BCM - TRUNK)

INFOID:0000000008634437

DATA MONITOR

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

ACTIVE TEST

Test Item	Description
TRUNK/GLASS HATCH	This test is able to check trunk open operation [Open].

THEFT ALM

THEFT ALM : CONSULT Function (BCM - THEFT ALM)

INFOID:0000000008634438

DATA MONITOR

Monitored Item	Description
REQ SW -DR [On/Off]	Indicates condition of door request switch LH
REQ SW -AS [On/Off]	Indicates condition of door request switch RH
REQ SW -BD/TR [On/Off]	Indicates condition of trunk opener request switch
PUSH SW [On/Off]	Indicates condition of push button ignition switch
UNLK SEN -DR [On/Off]	Indicates condition of door unlock sensor
KEY SW -SLOT [On/Off]	Indicates condition of key slot
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH
DOOR SW-RR [On/Off]	Indicates condition of rear door switch RH
DOOR SW-RL [On/Off]	Indicates condition of rear door switch LH
DOOR SW-BK [On/Off]	Indicates condition of trunk switch
CDL LOCK SW [On/Off]	Indicates condition of lock signal from door lock and unlock switch
CDL UNLOCK SW [On/Off]	Indicates condition of unlock signal from door lock and unlock switch
KEY CYL LK-SW [On/Off]	Indicates condition of lock signal from door key cylinder switch

Monitored Item	Description
KEY CYL UN-SW [On/Off]	Indicates condition of unlock signal from door key cylinder switch
TR/BD OPEN SW [On/Off]	Indicates condition of trunk opener switch
TRNK/HAT MNTR [On/Off]	Indicates condition of trunk room lamp switch
RKE-LOCK [On/Off]	Indicates condition of lock signal from Intelligent Key
RKE-UNLOCK [On/Off]	Indicates condition of unlock signal from Intelligent Key
RKE-TR/BD [On/Off]	Indicates condition of trunk open signal from Intelligent Key

ACTIVE TEST

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

WORK SUPPORT

Support Item	Setting	Description
SECURITY ALARM SET	On	Security alarm ON
	Off	Security alarm OFF
THEFT ALM TRG	Off/On	The switch which triggered vehicle security alarm is recorded [On]. This mode is able to confirm and erase the record of vehicle security alarm. The trigger data can be erased by touching [CLEAR].
	CLEAR	

RETAINED PWR

RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)

INFOID:0000000008634439

DATA MONITOR

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

SIGNAL BUFFER

SIGNAL BUFFER : CONSULT Function (BCM - SIGNAL BUFFER)

INFOID:0000000008634440

DATA MONITOR

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

ACTIVE TEST

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

AIR PRESSURE MONITOR

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

INFOID:0000000008634441

SELF DIAGNOSTIC RESULT

NOTE:
Before performing Self Diagnostic Result, be sure to register the ID, or else the actual malfunction may be different from that displayed on CONSULT.
Refer to BCS-64, "DTC Index".

DATA MONITOR

Monitor Item	Condition	Specification
AIR PRESS FL	• Drive vehicle for a few minutes. or • Ignition switch ON and activation tool is transmitting activation signals.	Tire pressure (kPa, kg/cm^2 or Psi)
AIR PRESS FR		
AIR PRESS RR		
AIR PRESS RL		
ID REGST FL1	Ignition switch ON	Registration ID: Green No registration: Red
ID REGST FR1		
ID REGST RR1		
ID REGST RL1		
WARNING LAMP	Ignition switch ON	Low tire pressure warning lamp on: ON Low tire pressure warning lamp off: OFF
BUZZER	Ignition switch ON	Buzzer in combination meter on: ON Buzzer in combination meter off: OFF

ACTIVE TEST

Test Item	Description
WARNING LAMP	This test is able to check tire pressure warning lamp operation [On/Off].
ID REGIST WARNING	This test is able to check ID regist warning chime operation [On/Off].
FLASHER	This test is able to check turn signal lamp operation [Off/LH/RH].
HORN	This test is able to check horn operation [On].

WORK SUPPORT

Support Item	Description
ID READ	The registered ID number is displayed.
ID REGIST	Refer to WT-6, "ID Registration Procedure".

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description

INFOID:0000000008634442

Refer to LAN-6, "System Description".

DTC Logic

INFOID:0000000008634443

DTC DETECTION LOGIC

NOTE:
U1000 can be set if a module harness was disconnected and reconnected, perhaps during a repair. Confirm that there are actual CAN diagnostic symptoms and a present DTC by performing the Self Diagnostic Result procedure.

CONSULT Display	DTC Detection Condition	Possible cause
CAN COMM CIRCUIT [U1000]	When any listed module cannot communicate with CAN communication signal continuously for 2 seconds or more with ignition switch ON	In CAN communication system, any item (or items) of the following listed below is malfunctioning. • Transmission • Receiving (ECM) • Receiving (VDC/TCS/ABS) • Receiving (METER/M&A) • Receiving (TCM) • Receiving (IPDM E/R)

Diagnosis Procedure

INFOID:0000000008634444

1. PERFORM SELF DIAGNOSTIC

1. Turn ignition switch ON and wait for 2 seconds or more.
2. Check “SELF- DIAG RESULTS”.

Is “CAN COMM CIRCUIT” displayed?

YES >> Perform CAN Diagnosis as described in DIAGNOSIS section of CONSULT Operation Manual.
NO >> Refer to GI-45, "Intermittent Incident".

U1010 CONTROL UNIT (CAN)

DTC Logic

INFOID:0000000008634445

DTC DETECTION LOGIC

CONSULT display description	DTC Detection Condition	Possible cause
CAN COMM CIRCUIT [U1010]	BCM detected internal CAN communication circuit malfunction.	BCM

Diagnosis Procedure

INFOID:0000000008634446

1. REPLACE BCM

When DTC U1010 is detected, replace BCM.

>> Replace BCM. Refer to BCS-79, "Removal and Installation".

U0415 VEHICLE SPEED SIG

Description

INFOID:0000000008634447

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

DTC Logic

INFOID:0000000008634448

DTC DETECTION LOGIC

DTC	Display contents of CONSULT	Diagnostic item is detected when ...	Probable malfunction location
U0415	VEHICLE SPEED SIG [U0415]	When the vehicle speed signal received from the ABS actuator and electric unit (control unit) remains abnormal for 2 seconds or more.	• ABS actuator and electric unit (control unit) • BCM • Combination meter

DTC CONFIRMATION PROCEDURE

1. DTC CONFIRMATION

1. Erase the DTC.
2. Turn ignition switch OFF.
3. Perform the "SELF-DIAG RESULTS" of BCM with CONSULT, after the ignition switch has been turned ON for 2 seconds or more.

Is any DTC detected?

YES >> Refer to BCS-64, "DTC Index".
NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000008634449

1. ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) SELF DIAGNOSTIC RESULT

Perform Self Diagnostic Result of ABS actuator and electric unit (control unit) with CONSULT. Refer to BRC-21, "CONSULT Function (ABS)".

Is any DTC detected?

YES >> Perform the trouble diagnosis related to the detected DTC. Refer to BRC-82, "DTC No. Index".
NO >> GO TO 2.

2. CHECK ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) POWER SUPPLY AND GROUND CIRCUIT

Check ABS actuator and electric unit (control unit) power and ground. Refer to BRC-32, "Diagnosis Procedure".

Is the inspection result normal?

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

3. COMBINATION METER SELF DIAGNOSTIC RESULT

Perform Self Diagnostic Result of METER M&A with CONSULT. Refer to MWI-29, "CONSULT Function (METER/M&A)".

Is any DTC detected?

YES >> Perform the trouble diagnosis related to the detected DTC. Refer to MWI-51, "DTC Index".
NO >> Refer to GI-45, "Intermittent Incident".

B2562 LOW VOLTAGE

DTC Logic

INFOID:0000000008634450

DTC DETECTION LOGIC

DTC	Display contents of CONSULT	Diagnostic item is detected when ...	Possible cause
B2562	LOW VOLTAGE	When the power supply voltage to BCM remains less than 8.8 V for 1.5 seconds or more	Harness or connector (power supply circuit)

DTC CONFIRMATION PROCEDURE

1. DTC CONFIRMATION

1. Erase DTC.
2. Turn ignition switch OFF.
3. Perform the "SELF-DIAG RESULTS" of BCM with CONSULT, after the ignition switch has been turned ON for 1.5 seconds or more.

Is any DTC detected?

YES >> Refer to BCS-35, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000008634451

1. CHECK BATTERY VOLTAGE

Check battery voltage.

Is battery voltage less than 8.8V?

YES >> Charge battery and retest. Refer to PG-2, "Work Flow".
NO >> GO TO 2

2. CHECK POWER SUPPLY CIRCUIT AND GROUND CIRCUIT

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

Is the inspection results normal?

YES >> Replace BCM. Refer to BCS-79, "Removal and Installation".
NO >> Repair or replace harness.

Special Repair Requirement

INFOID:0000000008634452

1. REQUIRED WORK WHEN REPLACING BCM

Initialize control unit. Refer to BCS-5, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM) : Work Procedure".

>> Work End.

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000008634453

Regarding Wiring Diagram information, refer to BCS-67, "Wiring Diagram".

1. CHECK FUSE AND FUSIBLE LINK

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

Terminal No.	Signal name	Fuse and fusible link No.
1	Battery power supply	H
11		10
24		7

Is the fuse or fusible link blown?

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

2. CHECK POWER SUPPLY CIRCUIT

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

Terminals			Voltage (Approx.)
(+)		(–)	
BCM		Ground	
Connector	Terminal		
M16	1		Battery voltage
M17	11		
M18	24		

Is the measurement normal?

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

3. CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M17	13		Yes

Does continuity exist?

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

Special Repair Requirement

INFOID:0000000008634454

1. REQUIRED WORK WHEN REPLACING BCM

Initialize control unit. Refer to BCS-5, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM) : Work Procedure".

>> Work End.

COMBINATION SWITCH INPUT CIRCUIT

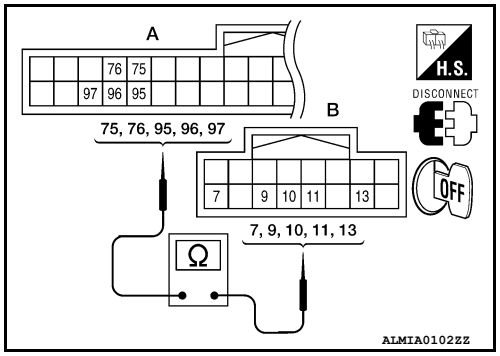
Diagnosis Procedure

INFOID:0000000008634455

Regarding Wiring Diagram information, refer to BCS-67, "Wiring Diagram".

1. CHECK INPUT 1 - 5 SYSTEM CIRCUIT FOR OPEN

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



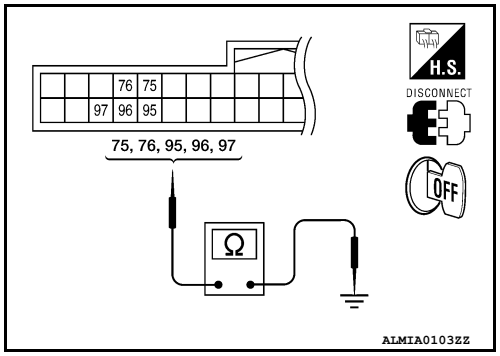
System	BCM		Combination switch		Continuity
	Connector	Terminal	Connector	Terminal	
INPUT 1	M19 (A)	95	M28 (B)	11	Yes
INPUT 2		97		9	
INPUT 3		76		7	
INPUT 4		96		10	
INPUT 5		75		13	

Does continuity exist?

YES >> GO TO 2
NO >> Repair or replace harness.

2. CHECK INPUT 1 - 5 SYSTEM CIRCUIT FOR SHORT

Check for continuity between BCM harness connector and ground.



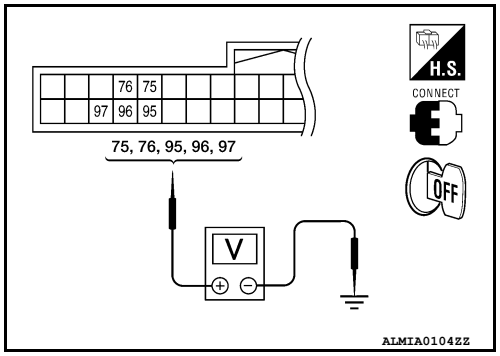
System	BCM		Ground	Continuity
	Connector	Terminal		
INPUT 1	M19	95	Ground	No
INPUT 2		97		
INPUT 3		76		
INPUT 4		96		
INPUT 5		75		

Does continuity exist?

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

3. CHECK BCM OUTPUT SIGNAL

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



System	Terminals			Voltage (Approx.)
	(+)		(-)	
	BCM			
	Connector	Terminal		
INPUT 1	M19	95	Ground	Refer to BCS-46, "Physical Values".
INPUT 2		97		
INPUT 3		76		
INPUT 4		96		
INPUT 5		75		

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

YES >> Replace combination switch. Refer to EXL-160, "Removal and Installation" or EXL-324, "Removal and Installation".

NO >> Replace BCM. Refer to BCS-79, "Removal and Installation".

Special Repair Requirement

INFOID:0000000008634456

1. REQUIRED WORK WHEN REPLACING BCM

Initialize control unit. Refer to BCS-5, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM) : Description".

>> Work end.

COMBINATION SWITCH OUTPUT CIRCUIT

Diagnosis Procedure

INFOID:0000000008634457

Regarding Wiring Diagram information, refer to BCS-67, "Wiring Diagram".

1. CHECK OUTPUT 1 - 5 SYSTEM CIRCUIT FOR OPEN

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

System	BCM		Combination switch		Continuity
	Connector	Terminal	Connector	Terminal	
OUTPUT 1	M18 (A)	51	M28 (B)	12	Yes
OUTPUT 2		52		14	
OUTPUT 3		53		5	
OUTPUT 4		54		2	
OUTPUT 5		50		8	

Does continuity exist?

YES >> GO TO 2
NO >> Repair or replace harness.

2. CHECK OUTPUT 1 - 5 SYSTEM CIRCUIT FOR SHORT

Check for continuity between BCM harness connector and ground.

System	BCM			Continuity
	Connector	Terminal		
OUTPUT 1	M18	51	Ground	No
OUTPUT 2		52		
OUTPUT 3		53		
OUTPUT 4		54		
OUTPUT 5		50		

Does continuity exist?

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

3. CHECK BCM INPUT VOLTAGE

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

System	Terminals			Voltage (Approx.)
	(+)		(-)	
	BCM			
	Connector	Terminal		
INPUT 1	M19	95	Ground	Refer to BCS-46, "Physical Values".
INPUT 2		97		
INPUT 3		76		
INPUT 4		96		
INPUT 5		75		

Is the measurement normal?

YES >> Replace BCM. Refer to BCS-79, "Removal and Installation".
NO >> Replace the combination switch. Refer to EXL-160, "Removal and Installation" or EXL-324, "Removal and Installation".

Special Repair Requirement

INFOID:0000000008634458

1. REQUIRED WORK WHEN REPLACING BCM

Initialize control unit. Refer to BCS-5, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM) : Description".

>> Work end.

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:0000000008634459

NOTE:
The Signal Tech II Tool (J-50190) can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Activate and display TPMS transmitter IDs
- Display tire pressure reported by the TPMS transmitter
- Read TPMS DTCs
- Register TPMS transmitter IDs
- Check Intelligent Key relative signal strength
- Confirm vehicle Intelligent Key antenna signal strength

VALUES ON THE DIAGNOSIS TOOL

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

Monitor Item	Condition	Value/Status
DOOR SW-AS	Passenger door closed	OFF
	Passenger door opened	ON
DOOR SW-RR	Rear door RH closed	OFF
	Rear door RH opened	ON
DOOR SW-RL	Rear door LH closed	OFF
	Rear door LH opened	ON
CDL LOCK SW	Other than power door lock switch LOCK	OFF
	Power door lock switch LOCK	ON
CDL UNLOCK SW	Other than power door lock switch UNLOCK	OFF
	Power door lock switch UNLOCK	ON
KEY CYL LK-SW	Other than driver door key cylinder LOCK position	OFF
	Driver door key cylinder LOCK position	ON
KEY CYL UN-SW	Other than driver door key cylinder UNLOCK position	OFF
	Driver door key cylinder UNLOCK position	ON
HAZARD SW	When hazard switch is not pressed	OFF
	When hazard switch is pressed	ON
REAR DEF SW	When rear window defogger switch is pressed	ON
TR CANCEL SW	Trunk lid opener cancel switch OFF	OFF
	Trunk lid opener cancel switch ON	ON
TR/BD OPEN SW	Trunk lid opener switch OFF	OFF
	While the trunk lid opener switch is turned ON	ON
TRNK/HAT MNTR	Trunk lid closed	OFF
	Trunk lid opened	ON
RKE-LOCK	When LOCK button of Intelligent Key is not pressed	OFF
	When LOCK button of Intelligent Key is pressed	ON
RKE-UNLOCK	When UNLOCK button of Intelligent Key is not pressed	OFF
	When UNLOCK button of Intelligent Key is pressed	ON
RKE-TR/BD	When TRUNK OPEN button of Intelligent Key is not pressed	OFF
	When TRUNK OPEN button of Intelligent Key is pressed	ON
RKE-PANIC	When PANIC button of Intelligent Key is not pressed	OFF
	When PANIC button of Intelligent Key is pressed	ON
RKE-P/W OPEN	When UNLOCK button of Intelligent Key is not pressed and held	OFF
	When UNLOCK button of Intelligent Key is pressed and held	ON
RKE-MODE CHG	When LOCK/UNLOCK button of Intelligent Key is not pressed and held simultaneously	OFF
	When LOCK/UNLOCK button of Intelligent Key is pressed and held simultaneously	ON
OPTICAL SENSOR	When outside of the vehicle is bright	Close to 5 V
	When outside of the vehicle is dark	Close to 0 V
REQ SW -DR	When front door request switch is not pressed (driver side)	OFF
	When front door request switch is pressed (driver side)	ON
REQ SW -AS	When front door request switch is not pressed (passenger side)	OFF
	When front door request switch is pressed (passenger side)	ON
REQ SW -RL	When rear door request switch is not pressed (driver side)	OFF
	When rear door request switch is pressed (driver side)	ON

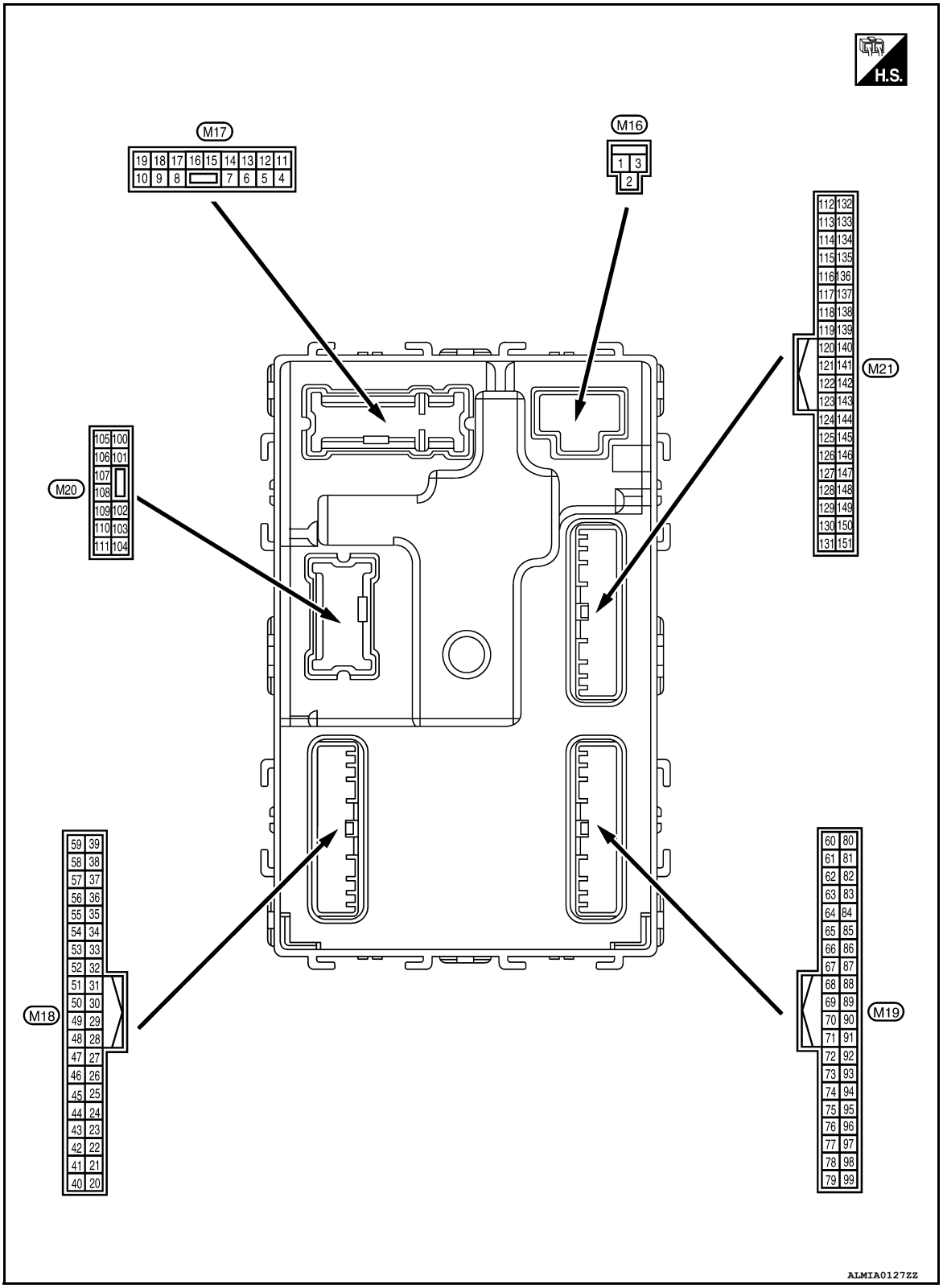
Monitor Item	Condition	Value/Status
REQ SW -RR	When rear door request switch is not pressed (passenger side)	OFF
	When rear door request switch is pressed (passenger side)	ON
REQ SW -BD/TR	When trunk request switch is not pressed	OFF
	When trunk request switch is pressed	ON
PUSH SW	When engine switch (push switch) is not pressed	OFF
	When engine switch (push switch) is pressed	ON
IGN RLY2 -F/B	Ignition switch OFF or ACC	OFF
	Ignition switch ON	ON
ACC RLY -F/B	Ignition switch OFF	OFF
	Ignition switch ACC or ON	ON
BRAKE SW 1	When the brake pedal is not depressed	ON
	When the brake pedal is depressed	OFF
DETE/CANCL SW	When selector lever is in P position	OFF
	When selector lever is in any position other than P	ON
SFT PN/N SW	When selector lever is in any position other than P or N	OFF
	When selector lever is in P or N position	ON
UNLK SEN -DR	Driver door UNLOCK status	OFF
	Driver door LOCK status	ON
PUSH SW -IPDM	When engine switch (push switch) is not pressed	OFF
	When engine switch (push switch) is pressed	ON
IGN RLY1 -F/B	Ignition switch OFF or ACC	OFF
	Ignition switch ON	ON
DETE SW -IPDM	When selector lever is in P position	OFF
	When selector lever is in any position other than P	ON
SFT PN -IPDM	When selector lever is in any position other than P or N	OFF
	When selector lever is in P or N position	ON
SFT P -MET	When selector lever is in any position other than P	OFF
	When selector lever is in P position	ON
SFT N -MET	When selector lever is in any position other than N	OFF
	When selector lever is in N position	ON
ENGINE STATE	Engine stopped	STOP
	While the engine stalls	STALL
	At engine cranking	CRANK
	Engine running	RUN
VEH SPEED 1	While driving	Equivalent to speedometer reading
VEH SPEED 2	While driving	Equivalent to speedometer reading
DOOR STAT-DR	Driver door LOCK status	LOCK
	Wait with selective UNLOCK operation (5 seconds)	READY
	Driver door UNLOCK status	UNLK
DOOR STAT-AS	Passenger door LOCK status	LOCK
	Wait with selective UNLOCK operation (5 seconds)	READY
	Passenger door UNLOCK status	UNLK
ID OK FLAG	Ignition switch ACC or ON	RESET
	Ignition switch OFF	SET

Monitor Item	Condition	Value/Status
PRMT ENG STRT	When the engine start is prohibited	RESET
	When the engine start is permitted	SET
KEY SW -SLOT	When Intelligent Key is not inserted into key slot	OFF
	When Intelligent Key is inserted into key slot	ON
RKE OPE COUN1	During the operation of Intelligent Key	Operation frequency of Intelligent Key
CONFRM ID ALL	The key ID that the key slot receives does not accord with any key ID registered to BCM.	YET
	The key ID that the key slot receives accords with any key ID registered to BCM.	DONE
CONFIRM ID4	The key ID that the key slot receives does not accord with the fourth key ID registered to BCM.	YET
	The key ID that the key slot receives accords with the fourth key ID registered to BCM.	DONE
CONFIRM ID3	The key ID that the key slot receives does not accord with the third key ID registered to BCM.	YET
	The key ID that the key slot receives accords with the third key ID registered to BCM.	DONE
CONFIRM ID2	The key ID that the key slot receives does not accord with the second key ID registered to BCM.	YET
	The key ID that the key slot receives accords with the second key ID registered to BCM.	DONE
CONFIRM ID1	The key ID that the key slot receives does not accord with the first key ID registered to BCM.	YET
	The key ID that the key slot receives accords with the first key ID registered to BCM.	DONE
TP 4	The ID of fourth key is not registered to BCM	YET
	The ID of fourth key is registered to BCM	DONE
TP 3	The ID of third key is not registered to BCM	YET
	The ID of third key is registered to BCM	DONE
TP 2	The ID of second key is not registered to BCM	YET
	The ID of second key is registered to BCM	DONE
TP 1	The ID of first key is not registered to BCM	YET
	The ID of first key is registered to BCM	DONE
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	When ID of front LH tire transmitter is registered	DONE
	When ID of front LH tire transmitter is not registered	YET
ID REGST FR1	When ID of front RH tire transmitter is registered	DONE
	When ID of front RH tire transmitter is not registered	YET
ID REGST RR1	When ID of rear RH tire transmitter is registered	DONE
	When ID of rear RH tire transmitter is not registered	YET
ID REGST RL1	When ID of rear LH tire transmitter is registered	DONE
	When ID of rear LH tire transmitter is not registered	YET

Monitor Item	Condition	Value/Status
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

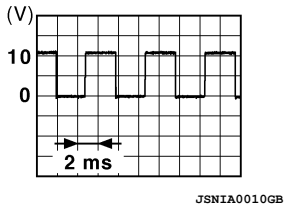
Terminal Layout

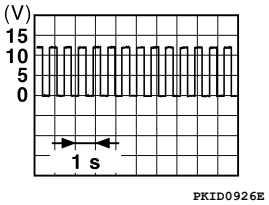
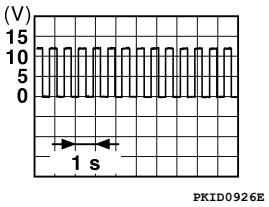
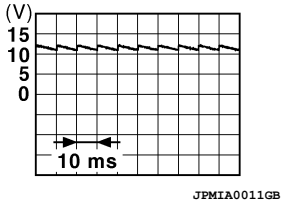
INFOID:0000000008634460

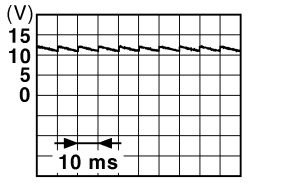
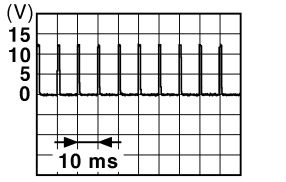
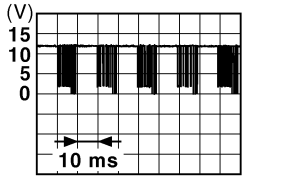


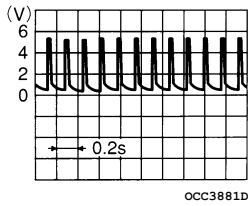
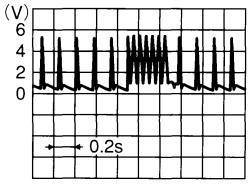
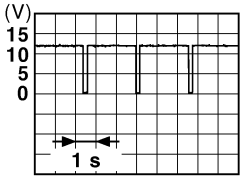
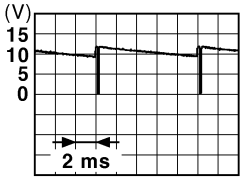
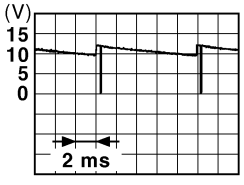
Physical Values

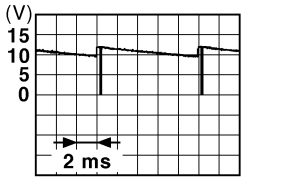
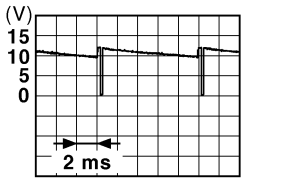
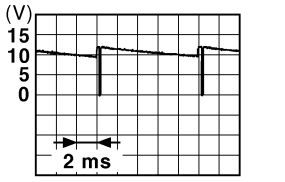
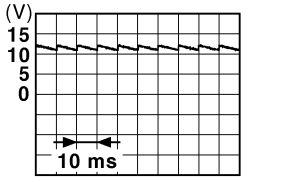
INFOID:0000000008634461

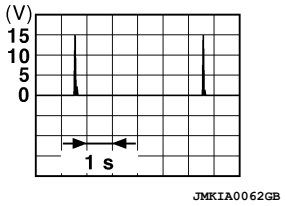
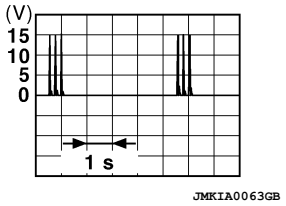
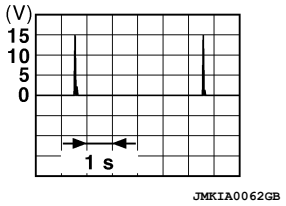
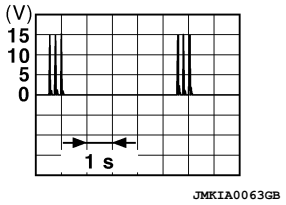
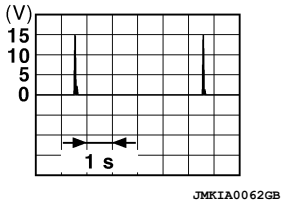
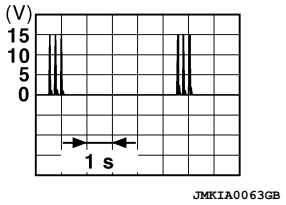
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
1 (W/B)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (R/Y)	Ground	Battery power supply output	Output	Ignition switch OFF		Battery voltage
3 (L/W)	Ground	Ignition power supply output	Output	Ignition switch ON		Battery voltage
4 (P/W)	Ground	Interior room lamp power supply	Output	After passing the interior room lamp battery saver operation time		0V
				Any other time after passing the interior room lamp battery saver operation time		Battery voltage
5 (G)	Ground	Front door RH UNLOCK	Output	Front door RH	UNLOCK (actuator is activated)	Battery voltage
					Other than UNLOCK (actuator is not activated)	0V
7 (R/W)	Ground	Step lamp	Output	Step lamp	ON	0V
					OFF	Battery voltage
8 (V)	Ground	All doors LOCK	Output	All doors	LOCK (actuator is activated)	Battery voltage
					Other than LOCK (actuator is not activated)	0V
9 (L)	Ground	Front door LH UNLOCK	Output	Front door LH	UNLOCK (actuator is activated)	Battery voltage
					Other than UNLOCK (actuator is not activated)	0V
10 (G)	Ground	Rear door RH and rear door LH UNLOCK	Output	Rear door RH and rear door LH	UNLOCK (actuator is activated)	Battery voltage
					Other than UNLOCK (actuator is not activated)	0V
11 (Y/R)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
13 (B)	Ground	Ground	—	Ignition switch ON		0V
14 (GR/ W)	Ground	Engine switch (push switch) illumination ground	Input	Tail lamp	OFF	0V
					ON	**NOTE:** When the illumination brightening/dimming level is in the neutral position 
15 (Y/L)	Ground	ACC indicator lamp	Output	Ignition switch	OFF	Battery voltage
					ACC or ON	0V

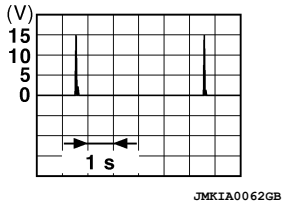
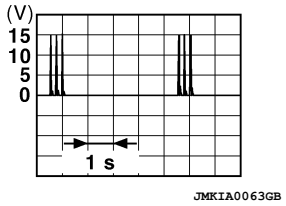
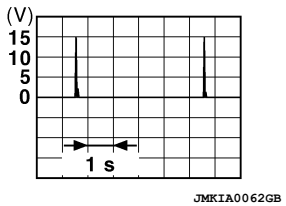
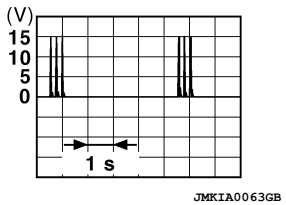
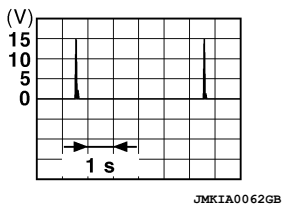
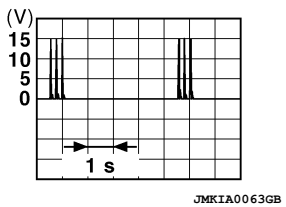
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
17 (G/B)	Ground	Turn signal (RH)	Output	Ignition switch ON	Turn signal switch OFF	0V
					Turn signal switch RH	 6.5 V
18 (G/Y)	Ground	Turn signal (LH)	Output	Ignition switch ON	Turn signal switch OFF	0V
					Turn signal switch LH	 6.5 V
19 (Y)	Ground	Room lamp timer control	Output	Interior room lamp	OFF	Battery voltage
					ON	0V
21 (P/B)	Ground	Optical sensor signal	Input	Ignition switch ON	When outside of the vehicle is bright	Close to 5V
					When outside of the vehicle is dark	Close to 0V
24 (R/W)	Ground	Stop lamp switch 1	Input	—		Battery voltage
26 (O/L)	Ground	Stop lamp switch 2	Input	Stop lamp switch	OFF (brake pedal is released)	0V
					ON (brake pedal is depressed)	Battery voltage
27 (O)	Ground	Front door lock assembly LH (unlock sensor)	Input	Front door LH	LOCK status	 11.8V
					UNLOCK status	0V
29 (Y)	Ground	Key slot switch	Input	When Intelligent Key is inserted into key slot		Battery voltage
				When Intelligent Key is not inserted into key slot		0V
31 (G)	Ground	Rear window defogger feedback signal	Input	Rear window defogger switch	OFF	0V
					ON	Battery voltage

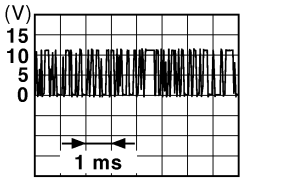
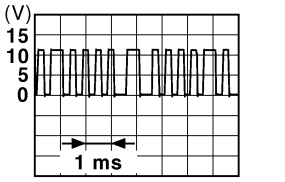
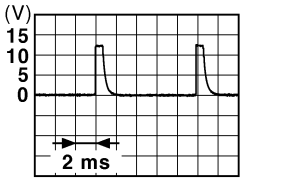
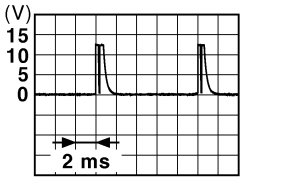
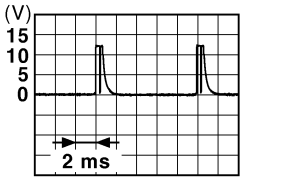
Terminal No. (Wire color) (+)	Terminal No. (Wire color) (-)	Description Signal name	Description Input/ Output	Condition		Value (Approx.)
32 (R/B)	Ground	Front door RH switch	Input	Front door RH switch	OFF (when front door RH closes)	 JPMIA0011GB 11.8 V
					ON (when front door RH opens)	0V
37 (O)	Ground	Trunk lid opener cancel switch	Input	Trunk lid opener cancel switch	CANCEL	 JPMIA0012GB 1.1V
					ON	0V
38 (GR/ W)	Ground	Rear window defogger ON signal	Input	Rear window defogger switch	OFF	5V
					ON	0V
40 (Y/G)	Ground	Power window serial link	Input/ Output	Ignition switch ON		 JPMIA0013GB 10.2V
				Ignition switch OFF or ACC		0V
41 (W)	Ground	Engine switch (push switch) illumination	Output	Engine switch (push switch) illumination	ON	5.5V
					OFF	0V
42 (R)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	ON	0V
					OFF	Battery voltage
45 (P)	Ground	Receiver & sensor ground	Input	Ignition switch ON		0V
46 (V/W)	Ground	Receiver & sensor power supply output	Output	Ignition switch	OFF	0V
					ACC or ON	5.0V

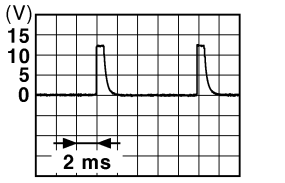
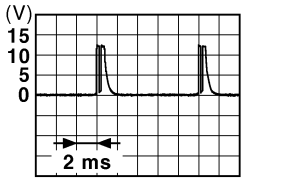
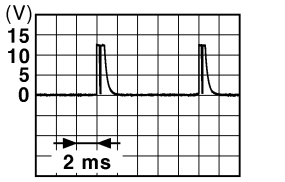
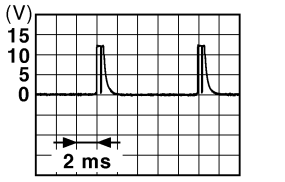
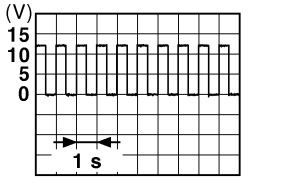
Terminal No. (Wire color) (+)	Terminal No. (Wire color) (-)	Description Signal name	Description Input/ Output	Condition		Value (Approx.)
47 (G/O)	Ground	Tire pressure receiver signal	Input/ Output	Ignition switch ON	Standby state	 OCC3881D
					When receiving the signal from the transmitter	 OCC3880D
48 (R/G)	Ground	Selector lever transmission range switch signal	Input	Selector lever	P or N position	12.0V
					Except P and N positions	0V
49 (L/O)	Ground	Security indicator signal	Output	Security indicator	ON	0V
					Blinking	 JPMIA0014GB 11.3V
					OFF	Battery voltage
50 (LG/ B)	Ground	Combination switch OUTPUT 5	Input	Combination switch (Wiper intermittent dial 4)	All switch OFF	0V
					Lighting switch 1ST	 JPMIA0031GB 10.7V
					Lighting switch high-beam	
					Lighting switch 2ND	
					Turn signal switch RH	
51 (L/W)	Ground	Combination switch OUTPUT 1	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)	0V
					Front wiper switch HI (Wiper intermittent dial 4)	 JPMIA0032GB 10.7V
					Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • WIper intermittent dial 2 • Wiper intermittent dial 3 • Wiper intermittent dial 6 • Wiper intermittent dial 7	

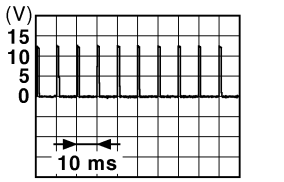
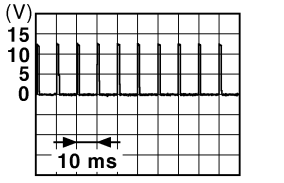
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
52 (G/B)	Ground	Combination switch OUTPUT 2	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)	0V
					Front washer switch ON (Wiper intermittent dial 4)	 JPMIA0033GB 10.7V
					Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • WIper intermittent dial 5 • Wiper intermittent dial 6	
53 (LG/ R)	Ground	Combination switch OUTPUT 3	Input	Combination switch (Wiper intermittent dial 4)	All switch OFF	0V
					Front wiper switch INT	 JPMIA0034GB 10.7V
					Front wiper switch LO	
					Lighting switch AUTO	
54 (G/Y)	Ground	Combination switch OUTPUT 4	Input	Combination switch (Wiper intermittent dial 4)	All switch OFF	0V
					Front fog lamp switch ON	 JPMIA0035GB 10.7V
					Lighting switch 2ND	
					Lighting switch flash-to-pass	
					Turn signal switch LH	
57 (W)	Ground	Tire pressure warning check switch	Input	—		5V
58 (SB)	Ground	Front door LH switch	Input	Front door LH switch	OFF (front door LH CLOSE)	 JPMIA0011GB 11.8V
					ON (front door LH OPEN)	0V
59 (G/R)	Ground	Rear window defogger relay	Output	Rear window defogger	Active	Battery voltage
					Not activated	0V

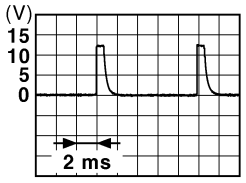
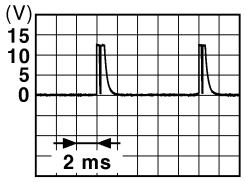
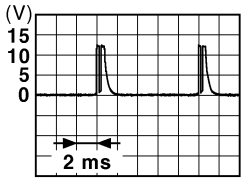
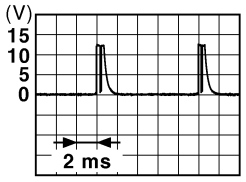
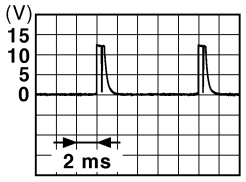
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
60 (B/R)	Ground	Front console antenna 2 (-)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
61 (W/R)	Ground	Center console antenna 2 (+)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
62 (V)	Ground	Front outside handle RH antenna (-)	Output	When the front door RH request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB

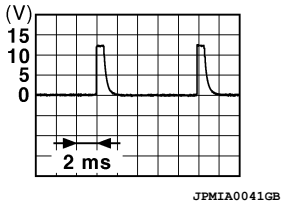
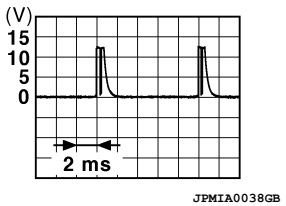
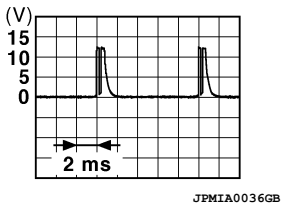
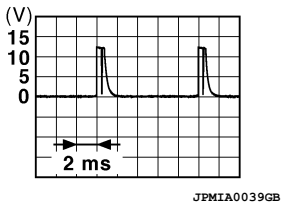
Terminal No. (Wire color) (+)	Terminal No. (Wire color) (-)	Description Signal name	Description Input/ Output	Condition		Value (Approx.)
63 (P)	Ground	Front outside handle RH antenna (+)	Output	When the front door RH request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
64 (V)	Ground	Front outside handle LH antenna (-)	Output	When the front door LH request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
65 (P)	Ground	Front outside handle LH antenna (+)	Output	When the front door LH request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB

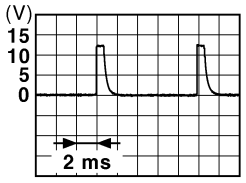
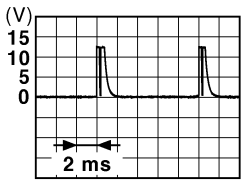
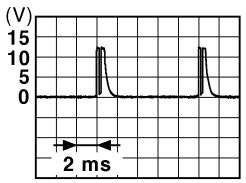
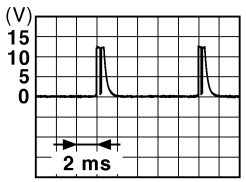
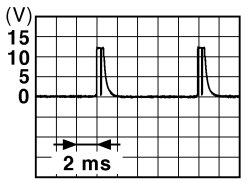
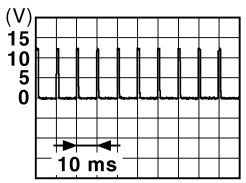
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
68 (G/O)	Ground	NATS antenna amp (built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
69 (O)	Ground	NATS antenna amp (built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
70 (R/B)	Ground	Ignition relay-2 control	Output	Ignition switch	OFF or ACC	0V
					ON	Battery voltage
71 (L/O)	Ground	Remote keyless entry receiver signal	Input/ Output	During waiting		 JMKIA0064GB
				When operating either button on Intelligent Key		 JMKIA0065GB
75 (R/Y)	Ground	Combination switch INPUT 5	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	 JPMIA0041GB 1.4V
					Front fog lamp switch ON (Wiper intermittent dial 4)	 JPMIA0037GB 1.3V
					Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7	 JPMIA0040GB 1.3V

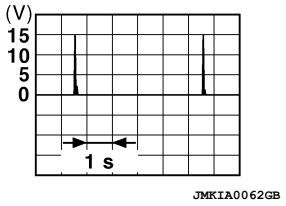
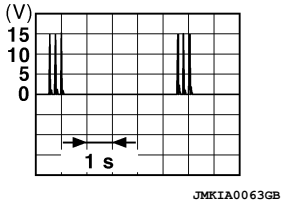
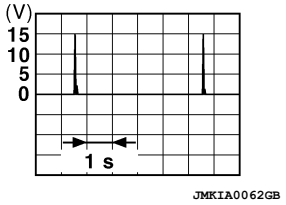
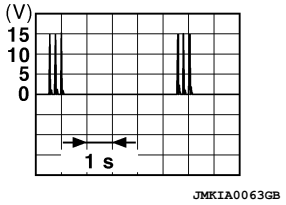
Terminal No. (Wire color) (+)	Terminal No. (Wire color) (-)	Description Signal name	Description Input/ Output	Condition		Value (Approx.)
76 (R/G)	Ground	Combination switch INPUT 3	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	 JPMIA0041GB 1.4V
					Lighting switch high-beam (Wiper intermittent dial 4)	 JPMIA0036GB 1.3V
					Lighting switch 2ND (Wiper intermittent dial 4)	 JPMIA0037GB 1.3V
					Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3	 JPMIA0040GB 1.3V
78 (P)	Ground	CAN-L	Input/ Output	—		—
79 (L)	Ground	CAN-H	Input/ Output	—		—
80 (R/L)	Ground	Key slot illumination	Output	Key slot illumination	OFF	Battery voltage
					Blinking	 JPMIA0015GB 6.5V
					ON	0V
81 (LG)	Ground	ON indicator lamp	Output	Ignition switch	OFF or ACC	0V
					ON	Battery voltage

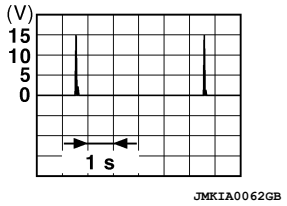
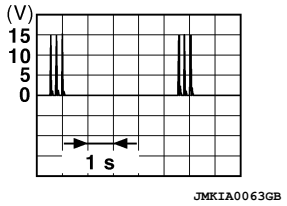
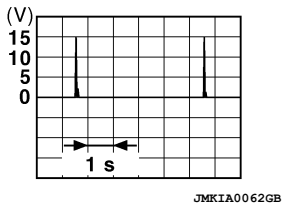
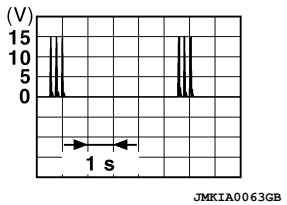
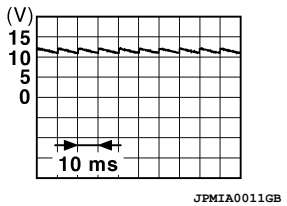
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
83 (L)	Ground	ACC relay control	Output	Ignition switch	OFF	0V
					ACC or ON	Battery voltage
84 (Y/R)	Ground	CVT shift selector	Output	—		Battery voltage
87 (G/B)	Ground	Selector lever P position switch	Input	Selector lever	P position	0V
					Any position other than P	Battery voltage
88 (R)	Ground	Front door RH request switch	Input	Front door RH request switch	ON (pressed)	0V
					OFF (not pressed)	 1.0V
89 (R)	Ground	Front door LH request switch	Input	Front door LH request switch	ON (pressed)	0V
					OFF (not pressed)	 1.0V
90 (Y)	Ground	Blower fan motor relay control	Output	Ignition switch	OFF or ACC	0V
					ON	Battery voltage
91 (L/R)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OFF		Battery voltage

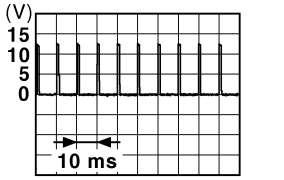
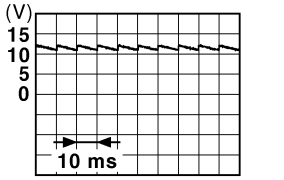
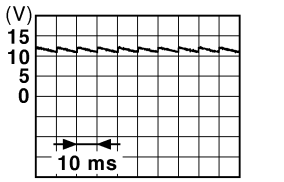
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
95 (R/W)	Ground	Combination switch INPUT 1	Output	Combination switch (Wiper intermittent dial 4)	All switch OFF	 JPMIA0041GB 1.4V
					Turn signal switch LH	 JPMIA0037GB 1.3V
					Turn signal switch RH	 JPMIA0036GB 1.3V
					Front wiper switch LO	 JPMIA0038GB 1.3V
					Front washer switch ON	 JPMIA0039GB 1.3V

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
96 (P/B)	Ground	Combination switch INPUT 4	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	 JPMIA0041GB 1.4V
					Lighting switch AUTO (Wiper intermittent dial 4)	 JPMIA0038GB 1.3V
					Lighting switch 1ST (Wiper intermittent dial 4)	 JPMIA0036GB 1.3V
					Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	 JPMIA0039GB 1.3V

Terminal No. (Wire color) (+)	Terminal No. (Wire color) (-)	Description Signal name	Description Input/ Output	Condition		Value (Approx.)
97 (R/B)	Ground	Combination switch INPUT 2	Output	Combination switch (Wiper intermittent dial 4)	All switch OFF	 JPMIA0041GB 1.4V
					Lighting switch flash-to-pass	 JPMIA0037GB 1.3V
					Lighting switch 2ND	 JPMIA0036GB 1.3V
					Front wiper switch INT	 JPMIA0038GB 1.3V
					Front wiper switch HI	 JPMIA0040GB 1.3V
98 (G/O)	Ground	Hazard switch	Input	Hazard switch	Pressed	0 V
					Not pressed	 JPMIA0012GB 1.1V

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
103 (V)	Ground	Trunk lid opening.	Output	Trunk lid	Open (trunk lid opener actuator is activated)	Battery voltage
					Close (trunk lid opener actuator is not activated)	0V
110 (V/W)	Ground	Trunk room lamp	Output	Trunk room lamp	ON	0V
					OFF	Battery voltage
114 (B)	Ground	Trunk room antenna 1 (-)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
115 (W)	Ground	Trunk room antenna 1 (+)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB

Terminal No. (Wire color) (+)	Terminal No. (Wire color) (-)	Description Signal name	Description Input/ Output	Condition		Value (Approx.)
118 (L/O)	Ground	Rear bumper antenna (-)	Output	When the trunk lid request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
119 (BR/W)	Ground	Rear bumper antenna (+)	Output	When the trunk lid request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
127 (BR/W)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC	Battery voltage
					ON	0V
130 (W)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (trunk is closed)	 JPMIA0011GB 11.8V
					ON (trunk is open)	0V
132 (R)	Ground	Starter motor relay control	Output	Ignition switch ON	When selector lever is in P or N position and the brake is depressed	Battery voltage
					When selector lever is in P or N position and the brake is not depressed	0V

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
140 (BR)	Ground	Engine switch (push switch)	Input	Engine switch (push switch)	Pressed	0V
					Not pressed	Battery voltage
141 (BR)	Ground	Trunk request switch	Input	Trunk request switch	ON (pressed)	0V
					OFF (not pressed)	 1.0V
144 (GR)	Ground	Request switch buzzer	Output	Request switch buzzer	Sounding	0V
					Not sounding	Battery voltage
147 (L/R)	Ground	Trunk lid opener switch	Input	Trunk lid opener switch	Pressed	0V
					Not pressed	Battery voltage
148 (R/W)	Ground	Rear door RH switch	Input	Rear door RH switch	OFF (when rear door RH closes)	 11.8V
					ON (when rear door RH opens)	0V
149 (R/B)	Ground	Rear door LH switch	Input	Rear door LH switch	OFF (when rear door LH closes)	 11.8V
					ON (when rear door LH opens)	0V

Fail Safe

INFOID:0000000008634462

Display contents of CONSULT	Fail-safe	Cancellation
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI-SCANNING	Inhibit engine cranking	Erase DTC
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has become consistent • Starter control relay signal • Starter relay status signal

Display contents of CONSULT	Fail-safe	Cancellation
B2562: LO VOLTAGE	Inhibit engine cranking	100 ms after the power supply voltage increases to more than 8.8 V
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent • Starter motor relay control signal • Starter relay status signal (CAN)
B260A: IGNITION RELAY	Inhibit engine cranking	500 ms after the following conditions are fulfilled • IGN relay (IPDM E/R) control signal: OFF (Battery voltage) • Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) • Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions is fulfilled • Power position changes to ACC • Receives engine status signal (CAN)
B2617: STARTER RELAY CIRC	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal
B26E1: ENG STATE NO RECIV	Inhibit engine cranking	When any of the following conditions are fulfilled • Power position changes to ACC • Receives engine status signal (CAN)

DTC Inspection Priority Chart

INFOID:0000000008634463

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

Priority	DTC
1	• B2562: LO VOLTAGE
2	• U1000: CAN COMM CIRCUIT • U1010: CONTROL UNIT (CAN)
3	• B2190: NATS ANTENNA AMP • B2191: DIFFERENCE OF KEY • B2192: ID DISCORD BCM-ECM • B2193: CHAIN OF BCM-ECM
4	• B2553: IGNITION RELAY • B2555: STOP LAMP • B2556: PUSH-BTN IGN SW • B2557: VEHICLE SPEED • B2560: STARTER CONT RELAY • B2601: SHIFT POSITION • B2602: SHIFT POSITION • B2603: SHIFT POSI STATUS • B2604: PNP SWITCH • B2605: PNP SWITCH • B2608: STARTER RELAY • B260A: IGNITION RELAY • B260F: ENG STATE SIG LOST • B2614: ACC RELAY CIRC • B2615: BLOWER RELAY CIRC • B2616: IGN RELAY CIRC • B2617: STARTER RELAY CIRC • B2618: BCM • B261A: PUSH-BTN IGN SW • B26E1: ENG STATE NO RECIV • C1729: VHCL SPEED SIG ERR • U0415: VEHICLE SPEED SIG

Priority	DTC
5	• 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 • C1712: [CHECKSUM ERR] FL • C1713: [CHECKSUM ERR] FR • C1714: [CHECKSUM ERR] RR • C1715: [CHECKSUM ERR] RL • C1716: [PRESSDATA ERR] FL • C1717: [PRESSDATA ERR] FR • C1718: [PRESSDATA ERR] RR • C1719: [PRESSDATA ERR] RL • C1720: [CODE ERR] FL • C1721: [CODE ERR] FR • C1722: [CODE ERR] RR • C1723: [CODE ERR] RL • C1724: [BATT VOLT LOW] FL • C1725: [BATT VOLT LOW] FR • C1726: [BATT VOLT LOW] RR • C1727: [BATT VOLT LOW] RL • C1734: CONTROL UNIT
6	• B2622: INSIDE ANTENNA • B2623: INSIDE ANTENNA

DTC Index

INFOID:0000000008634464

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 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	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
No DTC is detected. further testing may be required.	—	—	—	—
U1000: CAN COMM CIRCUIT	—	—	—	BCS-32
U1010: CONTROL UNIT (CAN)	—	—	—	BCS-33
U0415: VEHICLE SPEED SIG	—	—	—	BCS-34
B2190: NATS ANTENNA AMP	×	—	—	SEC-37
B2191: DIFFERENCE OF KEY	×	—	—	SEC-40
B2192: ID DISCORD BCM-ECM	×	—	—	SEC-41
B2193: CHAIN OF BCM-ECM	×	—	—	SEC-42
B2553: IGNITION RELAY	—	—	—	PCS-46
B2555: STOP LAMP	—	—	—	SEC-43
B2556: PUSH-BTN IGN SW	—	×	—	SEC-46
B2557: VEHICLE SPEED	×	×	—	SEC-48
B2560: STARTER CONT RELAY	×	×	—	SEC-49

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
B2562: LOW VOLTAGE	—	—	—	BCS-35
B2601: SHIFT POSITION	×	×	—	SEC-50
B2602: SHIFT POSITION	×	×	—	SEC-53
B2603: SHIFT POSI STATUS	×	×	—	SEC-56
B2604: PNP SWITCH	×	×	—	SEC-59
B2605: PNP SWITCH	×	×	—	SEC-61
B2608: STARTER RELAY	×	×	—	SEC-63
B260A: IGNITION RELAY	×	×	—	PCS-48
B260F: ENG STATE SIG LOST	×	×	—	SEC-65
B2614: ACC RELAY CIRC	—	×	—	PCS-50
B2615: BLOWER RELAY CIRC	—	×	—	PCS-53
B2616: IGN RELAY CIRC	—	×	—	PCS-56
B2617: STARTER RELAY CIRC	×	×	—	SEC-67
B2618: BCM	×	×	—	PCS-59
B261A: PUSH-BTN IGN SW	—	×	—	PCS-60
B2622: INSIDE ANTENNA	—	—	—	DLK-60
B2623: INSIDE ANTENNA	—	—	—	DLK-63
B26E1: ENG STATE NO RES	×	×	—	SEC-66
C1704: LOW PRESSURE FL	—	—	×	WT-43
C1705: LOW PRESSURE FR	—	—	×	WT-43
C1706: LOW PRESSURE RR	—	—	×	WT-43
C1707: LOW PRESSURE RL	—	—	×	WT-43
C1708: [NO DATA] FL	—	—	×	WT-13
C1709: [NO DATA] FR	—	—	×	WT-13
C1710: [NO DATA] RR	—	—	×	WT-13
C1711: [NO DATA] RL	—	—	×	WT-13
C1712: [CHECKSUM ERR] FL	—	—	×	WT-15
C1713: [CHECKSUM ERR] FR	—	—	×	WT-15
C1714: [CHECKSUM ERR] RR	—	—	×	WT-15
C1715: [CHECKSUM ERR] RL	—	—	×	WT-15
C1716: [PRESSDATA ERR] FL	—	—	×	WT-17
C1717: [PRESSDATA ERR] FR	—	—	×	WT-17
C1718: [PRESSDATA ERR] RR	—	—	×	WT-17
C1719: [PRESSDATA ERR] RL	—	—	×	WT-17
C1720: [CODE ERR] FL	—	—	×	WT-15
C1721: [CODE ERR] FR	—	—	×	WT-15
C1722: [CODE ERR] RR	—	—	×	WT-15
C1723: [CODE ERR] RL	—	—	×	WT-15
C1724: [BATT VOLT LOW] FL	—	—	×	WT-15
C1725: [BATT VOLT LOW] FR	—	—	×	WT-15
C1726: [BATT VOLT LOW] RR	—	—	×	WT-15
C1727: [BATT VOLT LOW] RL	—	—	×	WT-15

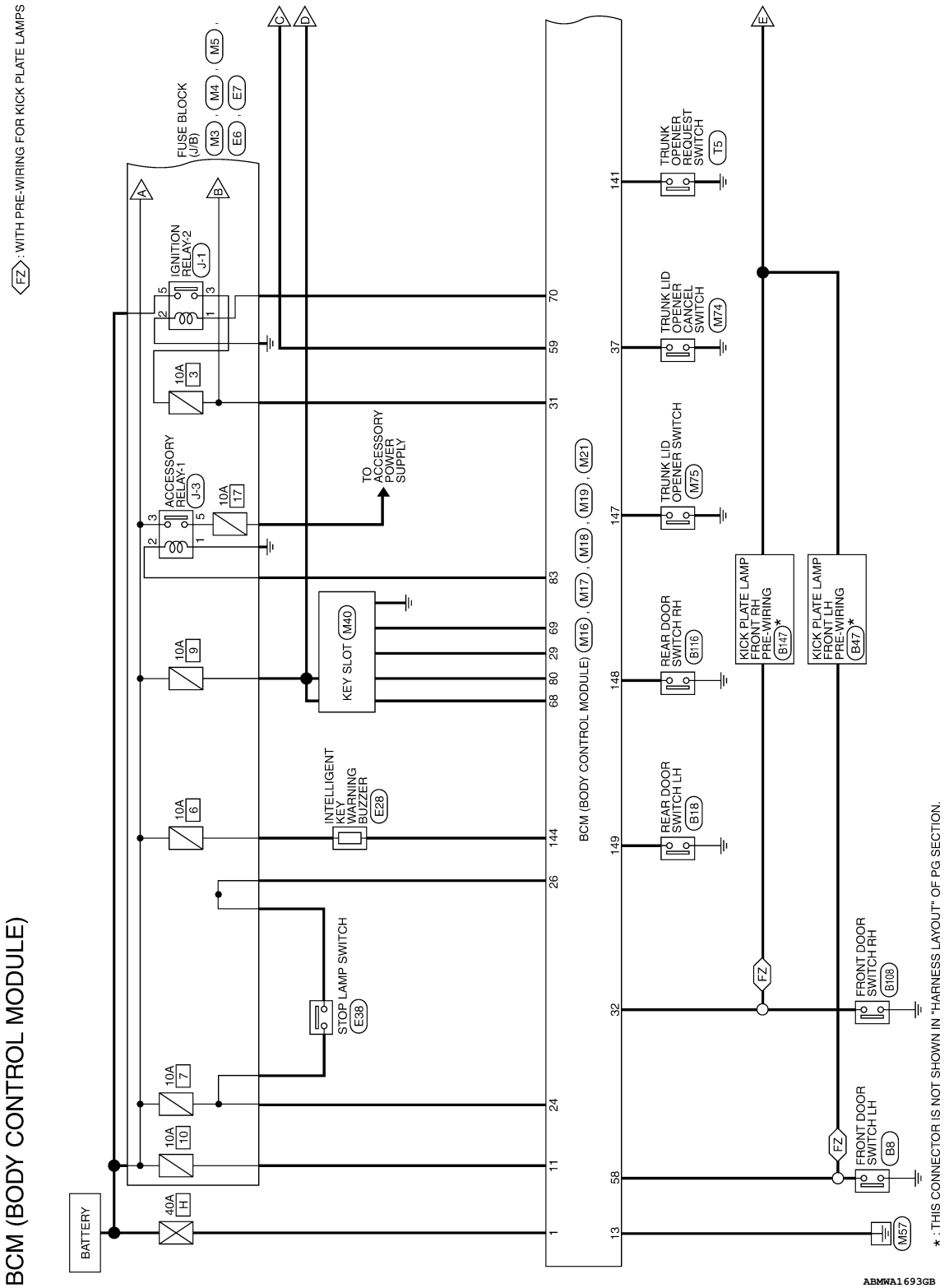
CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
C1729: VHCL SPEED SIG ERR	—	—	×	WT-19
C1734: CONTROL UNIT	—	—	×	WT-20

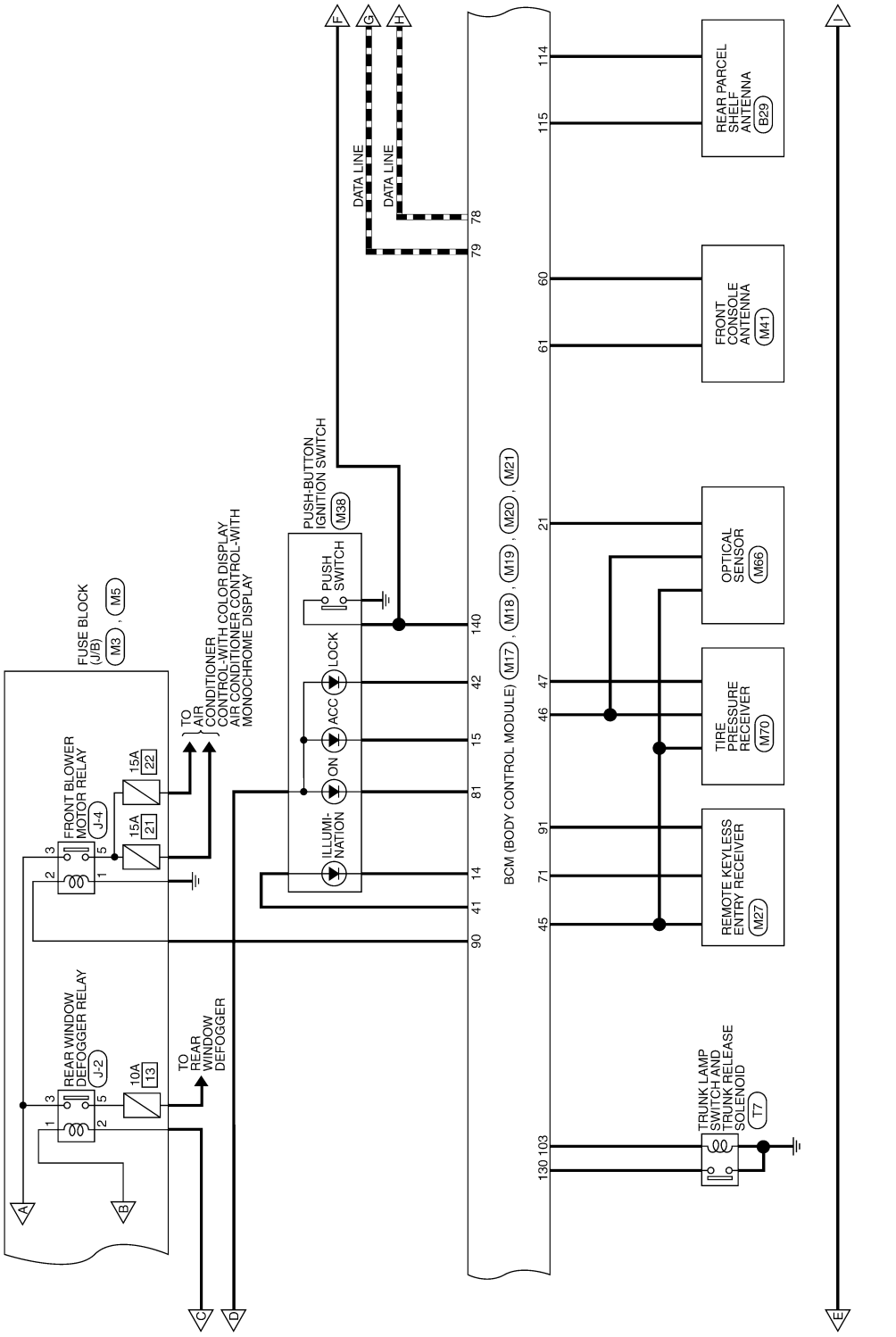
WIRING DIAGRAM

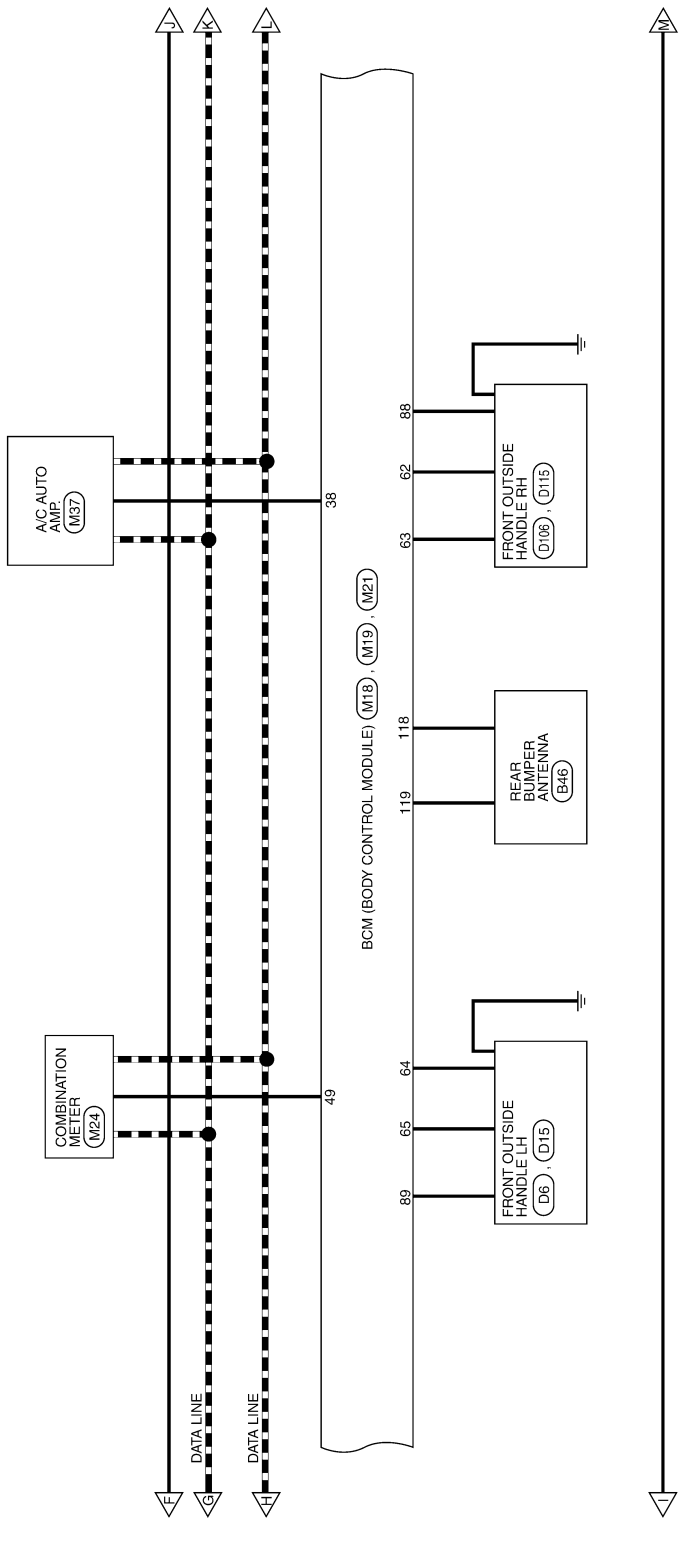
BCM (BODY CONTROL MODULE)

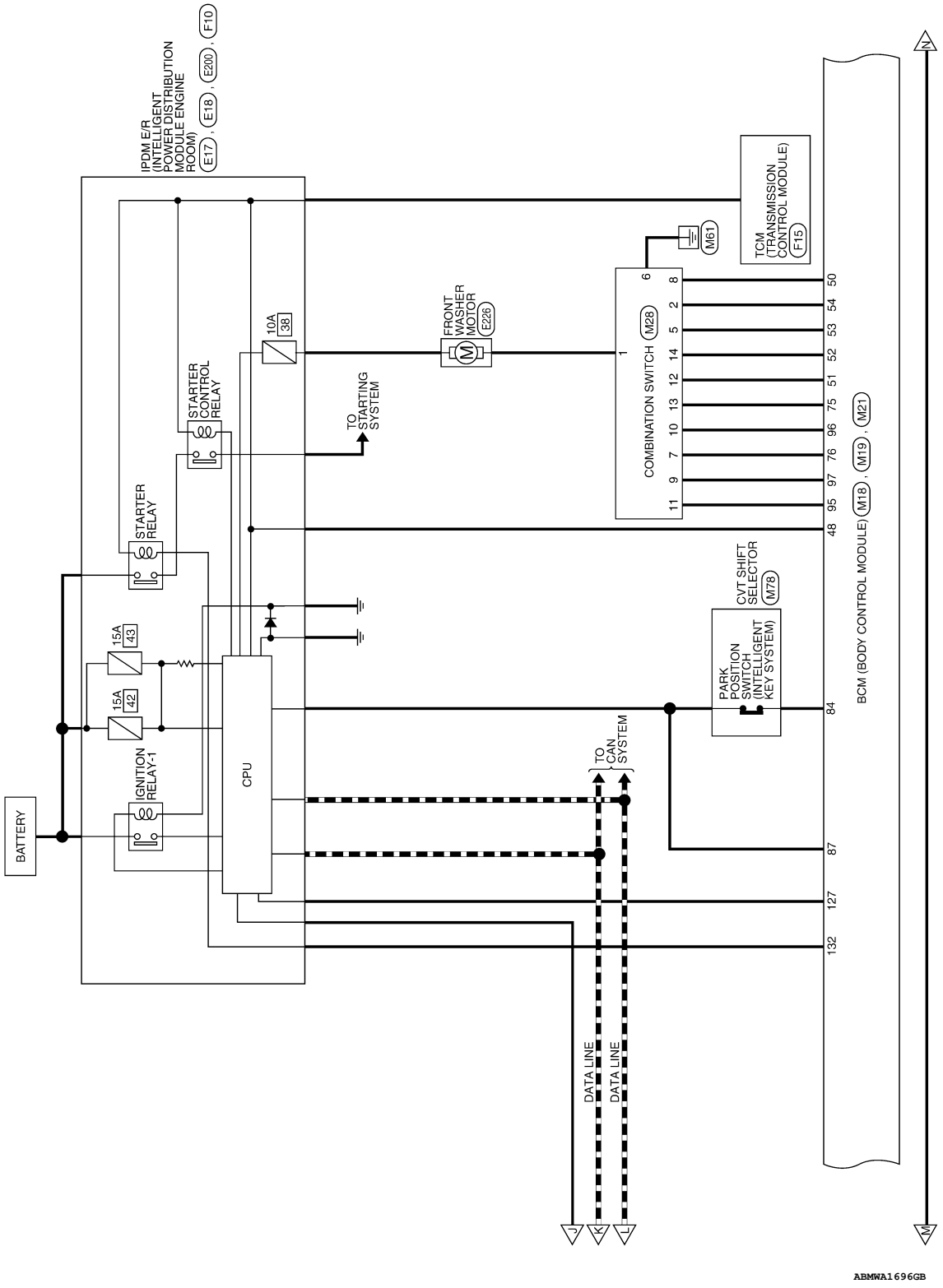
Wiring Diagram

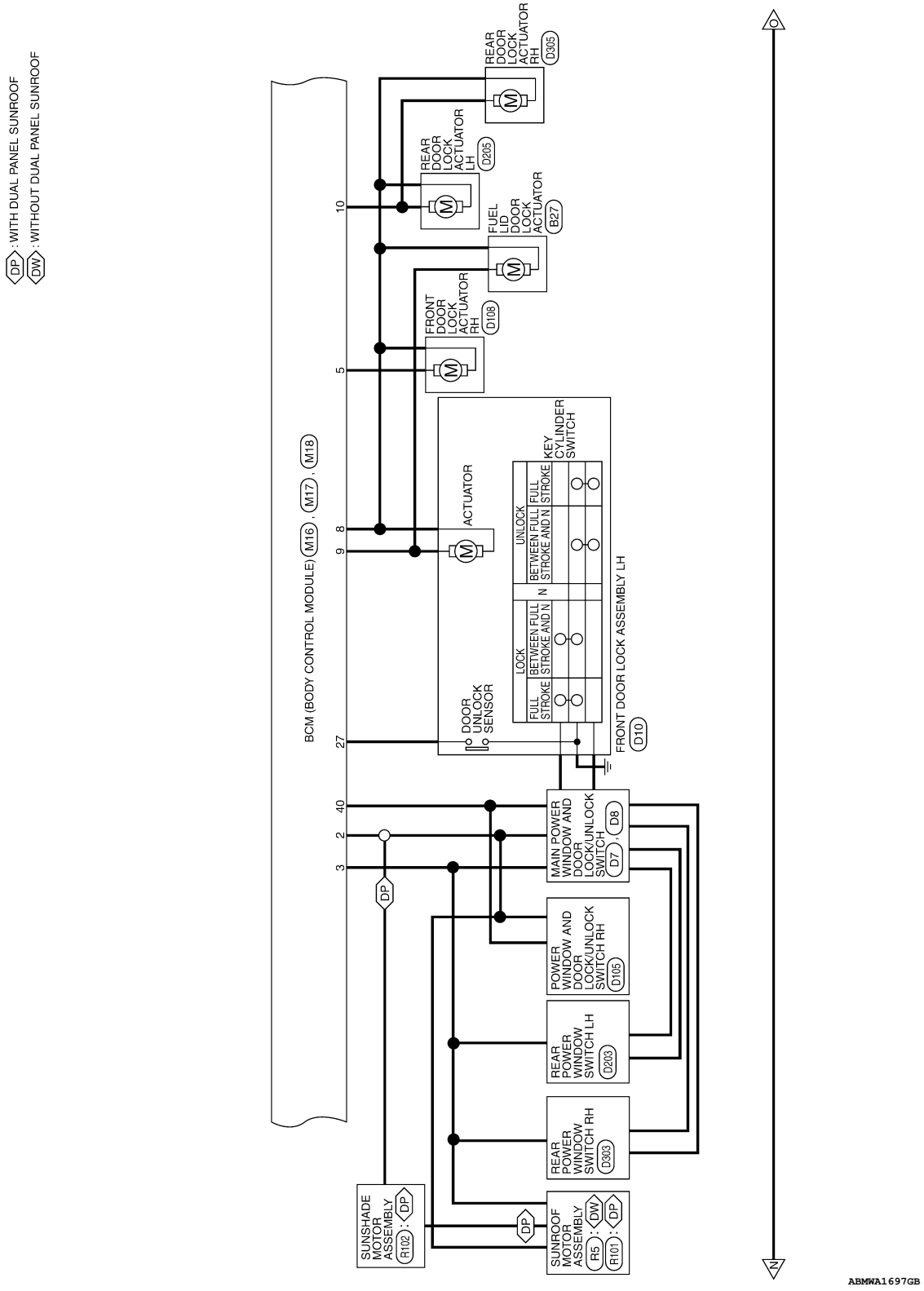
INFOID:0000000008634465

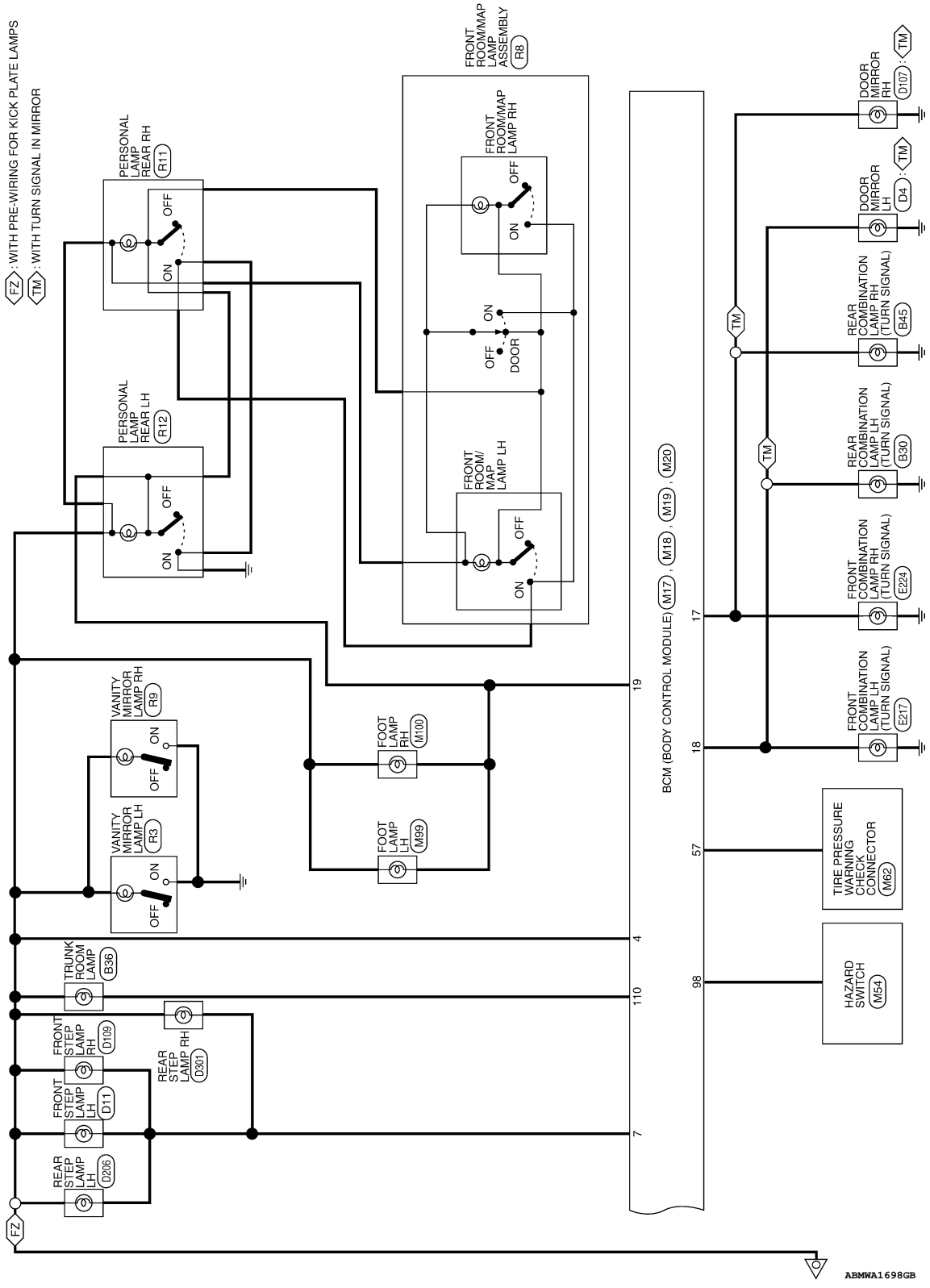



FUSE BLOCK (J/B) M3 , M5
FRONT BLOWER MOTOR RELAY J-4
REAR WINDOW DEFOGGER RELAY J-2
15A 22
15A 21
10A 13
TO AIR CONDITIONER CONTROL-WITH COLOR DISPLAY AIR CONDITIONER CONTROL-WITH MONOCHROME DISPLAY
TO REAR WINDOW DEFOGGER
PUSH-BUTTON IGNITION SWITCH M38
PUSH SWITCH
ILLUMI-NATION
ON
ACC
LOCK
DATA LINE
DATA LINE
BCM (BODY CONTROL MODULE) M17 , M18 , M19 , M20 , M21
REAR PARCEL SHELF ANTENNA B29
FRONT CONSOLE ANTENNA M41
OPTICAL SENSOR M66
TIRE PRESSURE RECEIVER M70
REMOTE KEYLESS ENTRY RECEIVER M27
TRUNK LAMP SWITCH AND TRUNK RELEASE SOLENOID T7
ABMWA1694GB


J
K
L
M
A/C AUTO AMP. (M37)
38
COMBINATION METER (M24)
49
BCM (BODY CONTROL MODULE) (M18), (M19), (M21)
88
62
63
FRONT OUTSIDE HANDLE RH (D106), (D115)
118
119
REAR BUMPER ANTENNA (B46)
64
65
89
FRONT OUTSIDE HANDLE LH (D6), (D15)
DATA LINE
DATA LINE
F
G
H
ABMWA1695GB


IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) (E17), (E18), (E200), (F10)
BATTERY
IGNITION RELAY-1
STARTER RELAY
STARTER CONTROL RELAY
15A 43
15A 42
10A 38
CPU
TO STARTING SYSTEM
FRONT WASHER MOTOR E226
COMBINATION SWITCH (M28)
M61
TCM (TRANSMISSION CONTROL MODULE) F15
CVT SHIFT SELECTOR (M78)
PARK POSITION SWITCH (INTELLIGENT KEY SYSTEM)
TO CAN SYSTEM
DATA LINE
DATA LINE
BCM (BODY CONTROL MODULE) (M18), (M19), (M21)
ABMWA1696GB


DP : WITH DUAL PANEL SUNROOF
DW : WITHOUT DUAL PANEL SUNROOF
BCM (BODY CONTROL MODULE) (M16), (M17), (M18)
10
5
8
9
27
40
2
3
REAR DOOR LOCK ACTUATOR RH (D305)
REAR DOOR LOCK ACTUATOR LH (D205)
FUEL LID DOOR LOCK ACTUATOR (B27)
FRONT DOOR LOCK ACTUATOR RH (D108)
ACTUATOR
KEY CYLINDER SWITCH
UNLOCK
BETWEEN FULL STROKE AND N
FULL STROKE
LOCK
N
DOOR UNLOCK SENSOR
FRONT DOOR LOCK ASSEMBLY LH (D10)
MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH (D7) : (D8)
POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH (D105)
REAR POWER WINDOW SWITCH LH (D203)
REAR POWER WINDOW SWITCH RH (D303)
SUNROOF MOTOR ASSEMBLY (R5) : DW (R101) : DP
SUNSHADE MOTOR ASSEMBLY (R102) : DP
DP
ABMWA1697GB

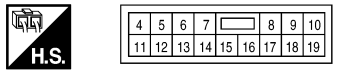

FZ : WITH PRE-WIRING FOR KICK PLATE LAMPS
TM : WITH TURN SIGNAL IN MIRROR
FRONT ROOM/MAP LAMP ASSEMBLY R8
FRONT ROOM/MAP LAMP RH
PERSONAL LAMP REAR RH R11
PERSONAL LAMP REAR LH R12
FRONT ROOM/ MAP LAMP LH
OFF
ON
OFF DOOR
VANITY MIRROR LAMP RH R9
VANITY MIRROR LAMP LH R3
FOOT LAMP RH M100
FOOT LAMP LH M99
TRUNK ROOM LAMP B36
FRONT STEP LAMP RH D109
REAR STEP LAMP RH D301
FRONT STEP LAMP LH D11
REAR STEP LAMP LH D206
BCM (BODY CONTROL MODULE) M17 , M18 , M19 , M20
19
17
18
4
110
57
98
7
DOOR MIRROR RH D107
DOOR MIRROR LH D4
REAR COMBINATION LAMP RH (TURN SIGNAL) B45
REAR COMBINATION LAMP LH (TURN SIGNAL) B30
FRONT COMBINATION LAMP RH (TURN SIGNAL) E224
FRONT COMBINATION LAMP LH (TURN SIGNAL) E217
TIRE PRESSURE WARNING CHECK CONNECTOR M62
HAZARD SWITCH M54
ABMWA1698GB

BCM (BODY CONTROL MODULE) CONNECTORS

Connector No.	M16
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK

Terminal No.	Color of Wire	Signal Name
1	W/B	BATT (F/L)
2	R/Y	P/W POWER SUPPLY PERM
3	L/W	P/W POWER SUPPLY IGN

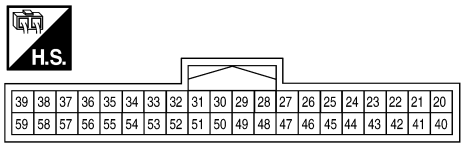
Connector No.	M17
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
4	P/W	R/L POWER SUPPLY
5	G	DOOR UNLOCK OUTPUT AS
6	–	–
7	R/W	STEP LAMP CONT
8	V	DOOR LOCK OUTPUT ALL
9	L	DOOR UNLOCK OUTPUT (DR/FL)

Terminal No.	Color of Wire	Signal Name
10	G	DOOR UNLOCK OUTPUT (RR/RL)
11	Y/R	BAT BCM FUSE
12	–	–
13	B	GND1
14	GR/W	LOW SIDE PUSH LED
15	Y/L	ACC LED
16	–	–
17	G/B	FR FLASHER
18	G/Y	FL FLASHER
19	Y	ROOM LAMP CONT

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GREEN



Terminal No.	Color of Wire	Signal Name
20	–	–
21	P/B	A/L SIGNAL TYPE 1
22	–	–
23	–	–
24	R/W	BRAKE SW1
25	–	–
26	O/L	BRAKE SW2

Terminal No.	Color of Wire	Signal Name
27	O	DOOR LOCK STATUS DR
28	–	–
29	Y	FOB IN SW 1
30	–	–
31	G	IGN F/B
32	R/B	AS DOOR SW 1
33	–	–
34	–	–
35	–	–
36	–	–
37	O	TRUNK CANCEL SW
38	GR/W	REAR DEFOGGER SW
39	–	–
40	Y/G	PW K-LINE
41	W	RING LED
42	R	S/L LOCK LED
43	–	–
44	–	–

Terminal No.	Color of Wire	Signal Name
45	P	GND RF2 A/L
46	V/W	A/L POWER SUPPLY 5V
47	G/O	RF2 TUNER SIGNAL
48	R/G	SHIFT N/P/ NEUTRAL SW
49	L/O	IMMO LED (SECURITY INDICATOR)
50	LG/B	INPUT 5
51	L/W	INPUT 1
52	G/B	INPUT 2
53	LG/R	INPUT 3
54	G/Y	INPUT 4
55	–	–
56	–	–
57	W	TPMS MODE
58	SB	DR DOOR SW
59	G/R	REAR DEFOGGER

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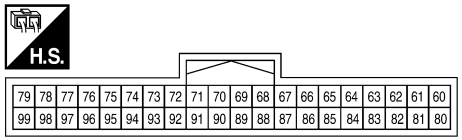
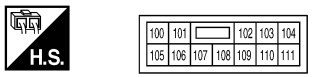
Connector No.	M19
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
60	B/R	ROOM ANT 2 B
61	W/R	ROOM ANT 2 A
62	V	AS DOOR ANT B
63	P	AS DOOR ANT A
64	V	DR DOOR ANT B
65	P	DR DOOR ANT A
66	–	–
67	–	–
68	G/O	FOB READER CLOCK
69	O	FOB READER DATA
70	R/B	IGN REL OUTPUT 2
71	L/O	RF1 TUNER SIGNAL
72	–	–
73	–	–
74	–	–
75	R/Y	OUTPUT 5
76	R/G	OUTPUT 3
77	–	–
78	P	CAN-L
79	L	CAN-H
80	R/L	FOB SLOT ILLUMINATION
81	LG	IGN ON LED
82	–	–
83	L	ACC CONT
84	Y/R	AT DEVICE OUT
85	–	–
86	–	–
87	G/B	SHIFT P/ASCD CANCEL SW
88	R	AS REQUEST SW
89	R	DR REQUEST SW
90	Y	BLOWER FAN RELAY
91	L/R	RF POWER SUPPLY 12V
92	–	–
93	–	–
94	–	–
95	R/W	OUTPUT 1
96	P/B	OUTPUT 4
97	R/B	OUTPUT 2
98	G/O	HAZARD SW
99	–	–

Connector No.	M20
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
100	–	–
101	–	–
102	–	–
103	V	CDL BACK TRUNK
104	–	–
105	–	–
106	–	–
107	–	–
108	–	–
109	–	–
110	V/W	TRUNK LAMP CONT
111	–	–

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Connector No.	M21
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GRAY

Terminal No.	Color of Wire	Signal Name
112	–	–
113	–	–
114	B	TRUNK ANT 1 B
115	W	TRUNK ANT 1 A
116	–	–
117	–	–
118	L/O	BACK DOOR ANT B
119	BR/W	BACK DOOR ANT A
120	–	–
121	–	–
122	–	–
123	–	–
124	–	–
125	–	–
126	–	–
127	BR/W	IGN RELAY OUTPUT
128	–	–
129	–	–
130	W	TRUNK SW
131	–	–
132	R	ST RELAY OUTPUT
133	–	–
134	–	–
135	–	–
136	–	–
137	–	–
138	–	–
139	–	–
140	BR	ENG START SW
141	BR	TRUNK REQUEST SW
142	–	–
143	–	–
144	GR	BUZZER
145	–	–
146	–	–
147	L/R	BACK TRUNK OPENER
148	R/W	RR DOOR SW
149	R/B	RL DOOR SW
150	–	–
151	–	–

Connector No.	M28
Connector Name	COMBINATION SWITCH
Connector Color	WHITE

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

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SYMPTOM DIAGNOSIS

COMBINATION SWITCH SYSTEM SYMPTOMS

Symptom Table

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

Malfunction item: ×

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

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

Malfunction combination	Malfunctioning part	Repair or replace
A	Combination switch INPUT 1 circuit	Inspect the combination switch input circuit applicable to the malfunctioning part. Refer to BCS-37, "Diagnosis Procedure".
B	Combination switch INPUT 2 circuit	
C	Combination switch INPUT 3 circuit	
D	Combination switch INPUT 4 circuit	
E	Combination switch INPUT 5 circuit	
F	Combination switch OUTPUT 1 circuit	Inspect the combination switch output circuit applicable to the malfunctioning part. Refer to BCS-39, "Diagnosis Procedure".
G	Combination switch OUTPUT 2 circuit	
H	Combination switch OUTPUT 3 circuit	
I	Combination switch OUTPUT 4 circuit	
J	Combination switch OUTPUT 5 circuit	
K	BCM	Replace BCM. Refer to BCS-79, "Removal and Installation".
L	Combination switch	Replace the combination switch. Refer to WW-85, "Removal and Installation".

PRECAUTION

PRECAUTIONS

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

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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 SR and SB section of this Service Manual.

WARNING:

- **To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.**
- **Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.**
- **Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.**

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

WARNING:

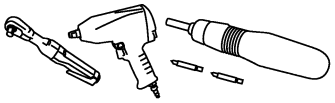
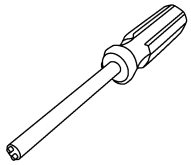
- **When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.**
- **When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.**

PREPARATION

PREPARATION

Commercial Service Tools

INFOID:0000000008634468

Tool name	Description
Power tool  PIIB1407E	Loosening nuts, screws and bolts
One-way screw removal tool  ALMIA0486ZZ	Removing one-way screws

REMOVAL AND INSTALLATION

BCM (BODY CONTROL MODULE)

Removal and Installation

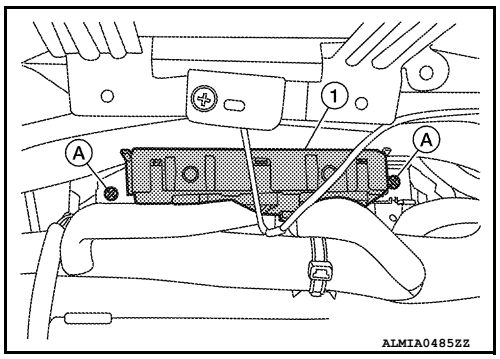
INFOID:0000000008634469

REMOVAL

CAUTION:

Before replacing BCM, perform "READ CONFIGURATION" to save or print current vehicle specification. Refer to BCS-5, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM) : Work Procedure".

1. Remove the combination meter. Refer to MWI-121, "Removal and Installation".
2. Remove the BCM screws (A) using a suitable tool and pull out the BCM (1).
3. Disconnect the harness connector from the BCM (1) and remove.



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- **When replacing BCM, perform "WRITE CONFIGURATION". Refer to BCS-5, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM) : Work Procedure".**
- **When replacing BCM, perform the system initialization (NATS). Refer to the CONSULT operation manual for the initialization procedure.**
- **When replacing BCM, if new BCM does not come with keyfobs attached, all existing keyfobs must be re-registered. Refer to the CONSULT operation manual for the initialization procedure.**