SECTION BCS
BODY CONTROL SYSTEM

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PRECAUTION

PRECAUTIONS

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

INFOID:0000000010262863

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

WARNING:

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

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

WARNING:

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

PREPARATION

PREPARATION

Special Service Tool

INFOID:0000000010338179

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

Tool number (TechMate No.) Tool name	Description
— (J-50190) Signal Tech II  ALEIA0131ZZ	• 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 • Compatible with future sensors • Equipped with a display

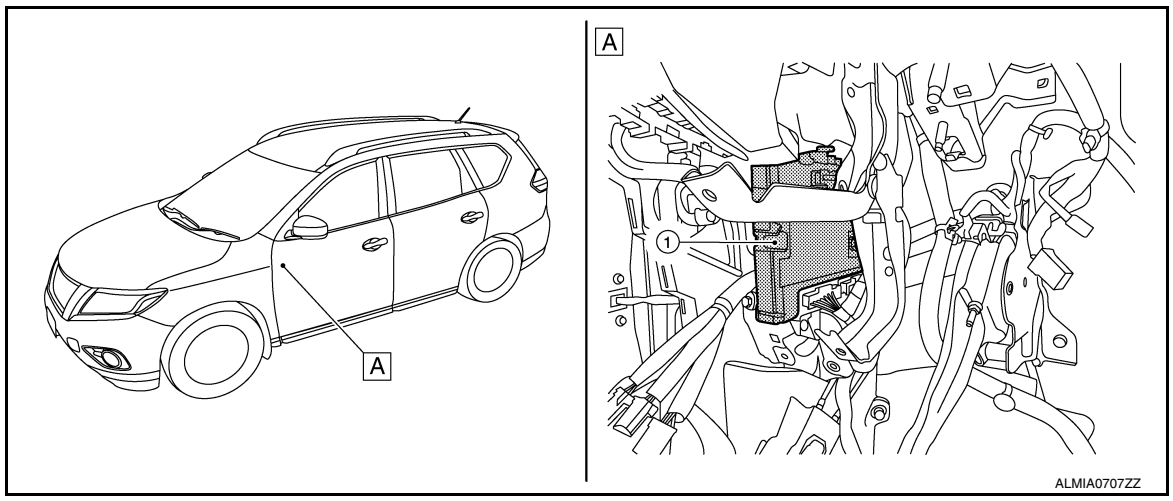
SYSTEM DESCRIPTION

COMPONENT PARTS

BODY CONTROL SYSTEM

BODY CONTROL SYSTEM : Component Parts Location

INFOID:0000000010195899

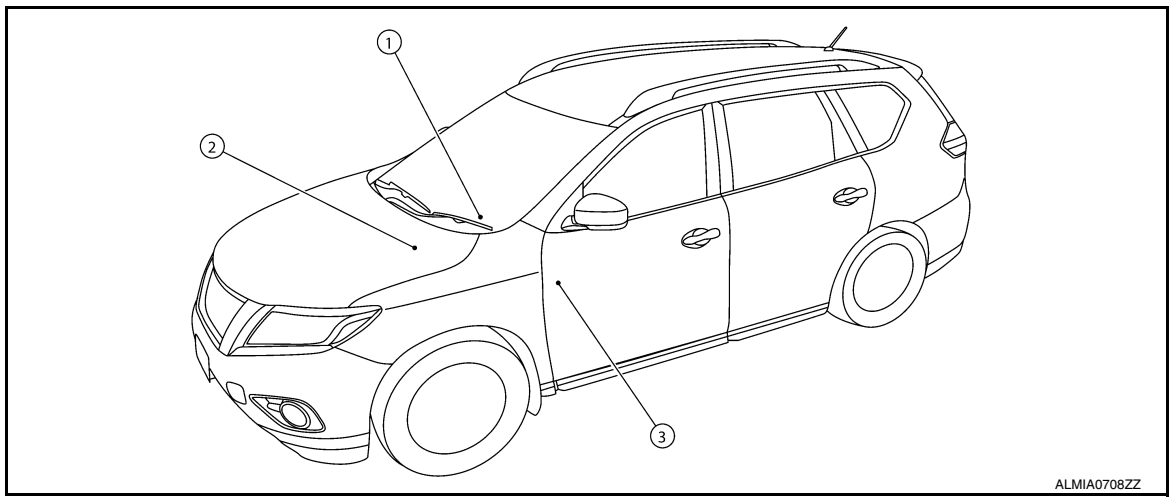


1. BCM
A. Behind instrument panel (LH)

POWER CONSUMPTION CONTROL SYSTEM

POWER CONSUMPTION CONTROL SYSTEM : Component Parts Location

INFOID:0000000010195901



1. Combination meter
Refer to MWI-6, "METER SYSTEM : Component Parts Location".
2. IPDM E/R
Refer to PCS-4, "Component Parts Location".
3. BCM
Refer to BCS-7, "BODY CONTROL SYSTEM : Component Parts Location".

SYSTEM
BODY CONTROL SYSTEM
BODY CONTROL SYSTEM : System Description

INFOID:0000000010195902

OUTLINE

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

BCM FUNCTION LIST

System	Refer to
Combination switch reading system	BCS-9, "COMBINATION SWITCH READING SYSTEM : System Description"
Signal buffer system	BCS-12, "SIGNAL BUFFER SYSTEM : System Description"
Power consumption control system	BCS-13, "POWER CONSUMPTION CONTROL SYSTEM : System Description"
Headlamp system	• EXL-12, "HEADLAMP SYSTEM : System Description" (halogen headlamp) • EXL-142, "HEADLAMP SYSTEM : System Description" (LED headlamp)
Auto light system	• EXL-13, "AUTO LIGHT SYSTEM : System Description" (halogen headlamp) • EXL-143, "AUTO LIGHT SYSTEM : System Description" (LED headlamp)
Daytime light system	• EXL-14, "DAYTIME RUNNING LIGHT SYSTEM : System Description" (halogen headlamp) • EXL-144, "DAYTIME RUNNING LIGHT SYSTEM : System Description" (LED headlamp)
Turn signal and hazard warning lamps system	• EXL-15, "TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM : System Description" (halogen headlamp) • EXL-146, "TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM : System Description" (LED headlamp)
Parking, license plate and tail lamps system	• EXL-15, "PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMP SYSTEM : System Description" (halogen headlamp) • EXL-146, "PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMP SYSTEM : System Description" (LED headlamp)
Front fog lamp system	• EXL-17, "FRONT FOG LAMP SYSTEM : System Description" (halogen headlamp) • EXL-148, "FRONT FOG LAMP SYSTEM : System Description" (LED headlamp)
Exterior lamp battery saver system	• EXL-18, "EXTERIOR LAMP BATTERY SAVER SYSTEM : System Description" (halogen headlamp) • EXL-149, "EXTERIOR LAMP BATTERY SAVER SYSTEM : System Description" (LED headlamp)
Interior room lamp control system	INL-7, "INTERIOR ROOM LAMP CONTROL SYSTEM : System Description"
Interior room lamp battery saver system	INL-9, "INTERIOR ROOM LAMP BATTERY SAVER SYSTEM : System Description"
Front wiper and washer system	WW-8, "FRONT WIPER AND WASHER SYSTEM : System Description"

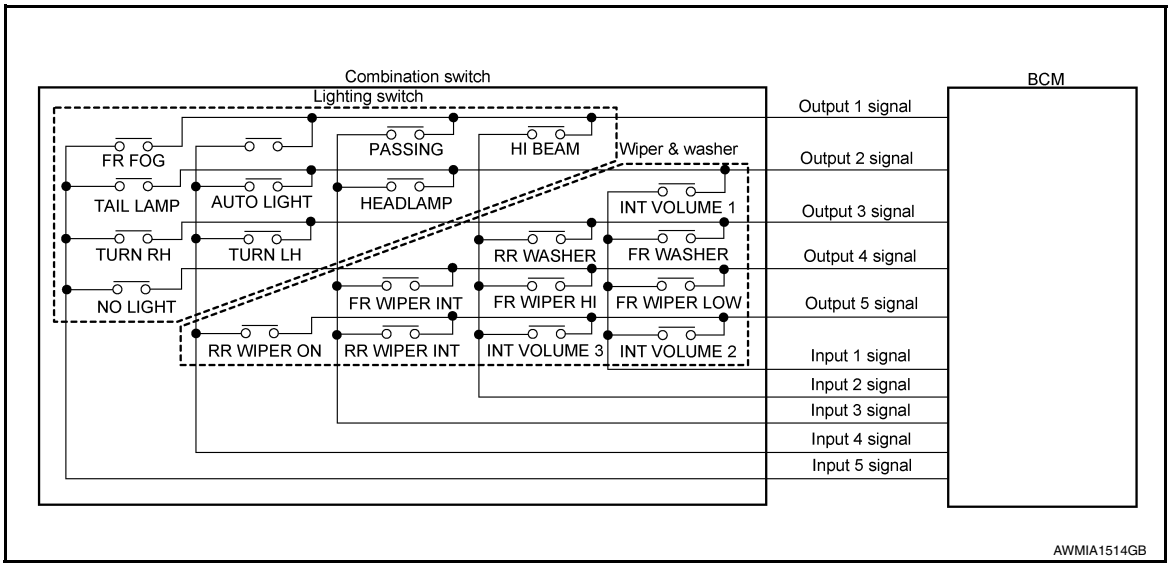
System		Refer to
Rear wiper and washer system		WW-10, "REAR WIPER AND WASHER SYSTEM : System Description"
Warning chime system		WCS-6, "WARNING CHIME SYSTEM : System Description"
Door lock system		DLK-26, "System Description"
Back door open system		DLK-39, "System Description"
Nissan vehicle immobilizer system (NVIS)		SEC-12, "NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS : System Description"
Vehicle security system		SEC-14, "VEHICLE SECURITY SYSTEM : System Description"
Panic alarm		
Rear window defogger system		DEF-6, "System Description"
Intelligent Key system/engine start system	Door lock function	DLK-29, "DOOR LOCK FUNCTION : System Description"
	Back door open function	DLK-31, "BACK DOOR OPEN FUNCTION : System Description"
	Warning function	DLK-35, "WARNING FUNCTION : System Description"
	Engine start function	SEC-9, "INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION : System Description"
Power window system		PWC-8, "System Description"
RAP (retained accessory power) system		BCS-26, "RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)"
TPMS (tire pressure monitoring system)		WT-8, "System Description"

COMBINATION SWITCH READING SYSTEM

COMBINATION SWITCH READING SYSTEM : System Description

INFOID:0000000010195904

SYSTEM DIAGRAM

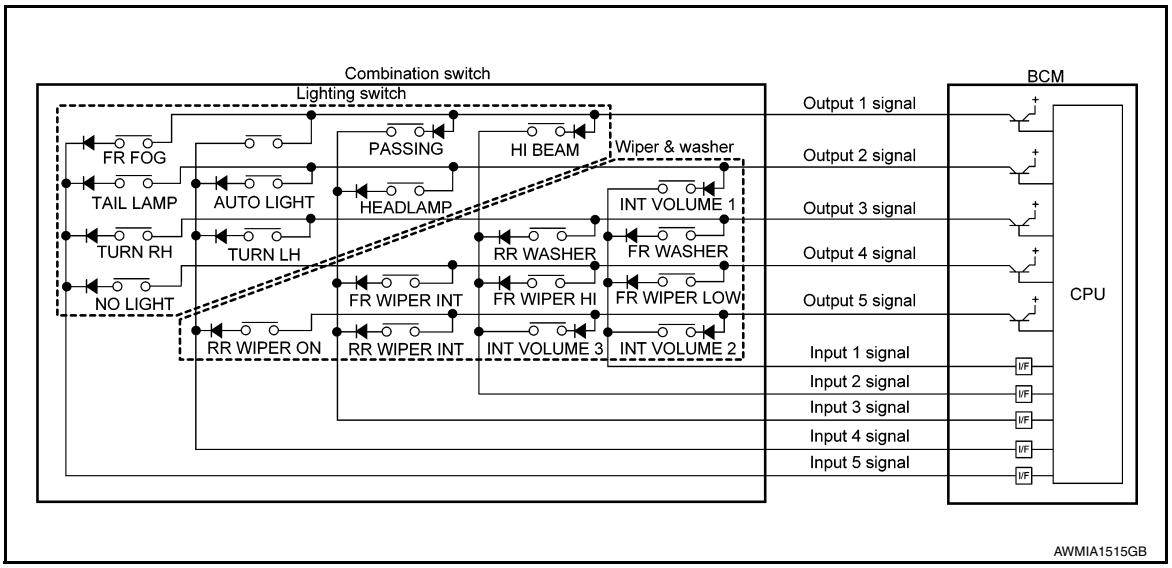


OUTLINE

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

COMBINATION SWITCH MATRIX

Combination switch circuit



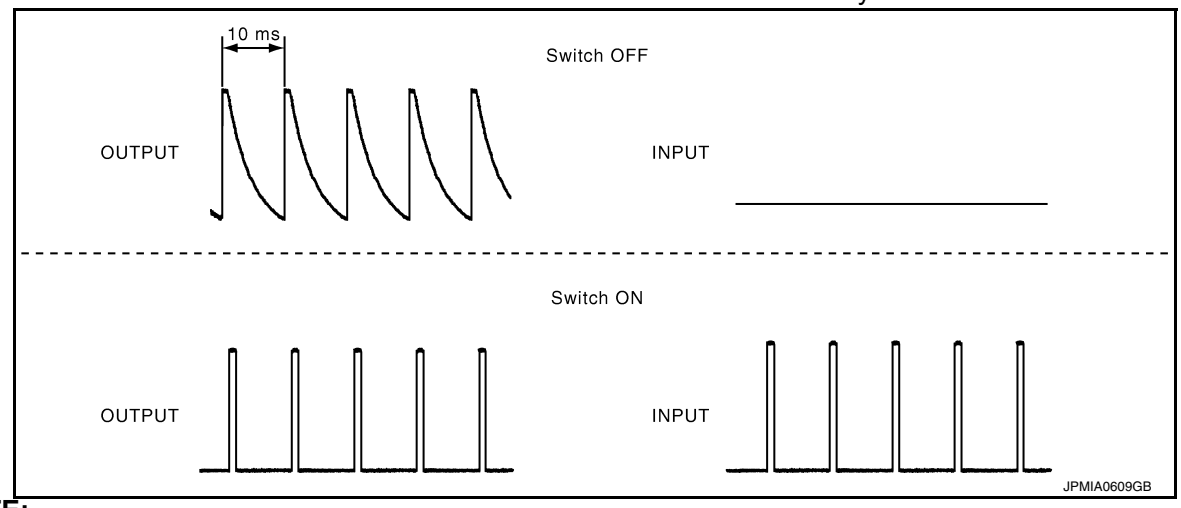
Combination switch INPUT-OUTPUT system list

System	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5
OUTPUT 1	—	HI BEAM	PASSING	—	FR FOG
OUTPUT 2	INT VOLUME 1	—	HEADLAMP	AUTO LIGHT	TAIL LAMP
OUTPUT 3	FR WASHER	RR WASHER	—	TURN LH	TURN RH
OUTPUT 4	FR WIPER LOW	FR WIPER HI	FR WIPER INT	—	NO LIGHT
OUTPUT 5	INT VOLUME 2	INT VOLUME 3	RR WIPER INT	RR WIPER ON	—

COMBINATION SWITCH READING FUNCTION

Description

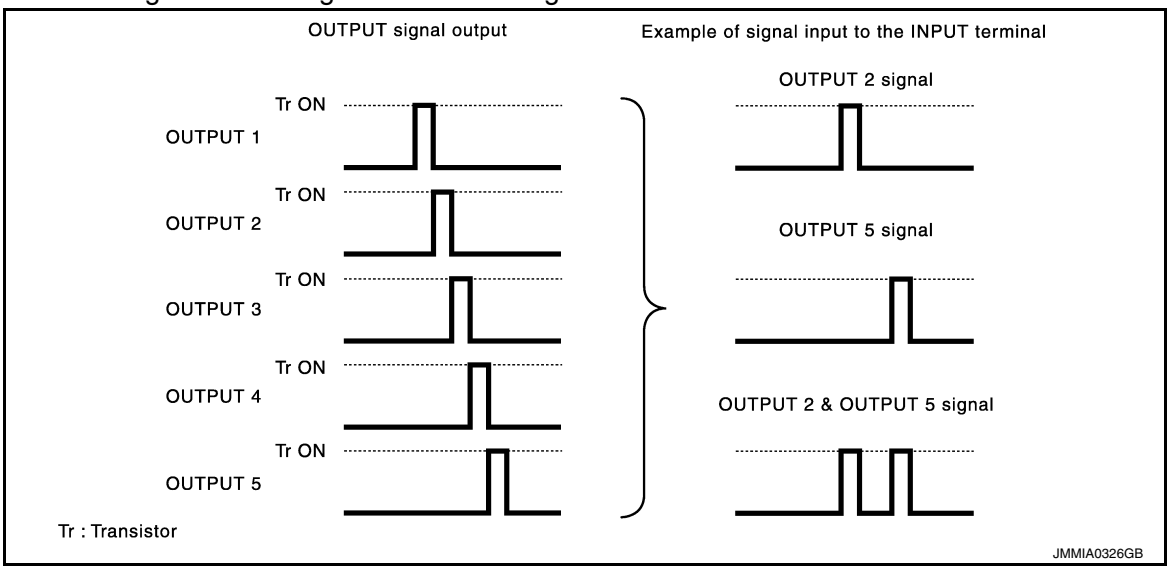
- BCM reads the status of the combination switch at 10 ms intervals normally.



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

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

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

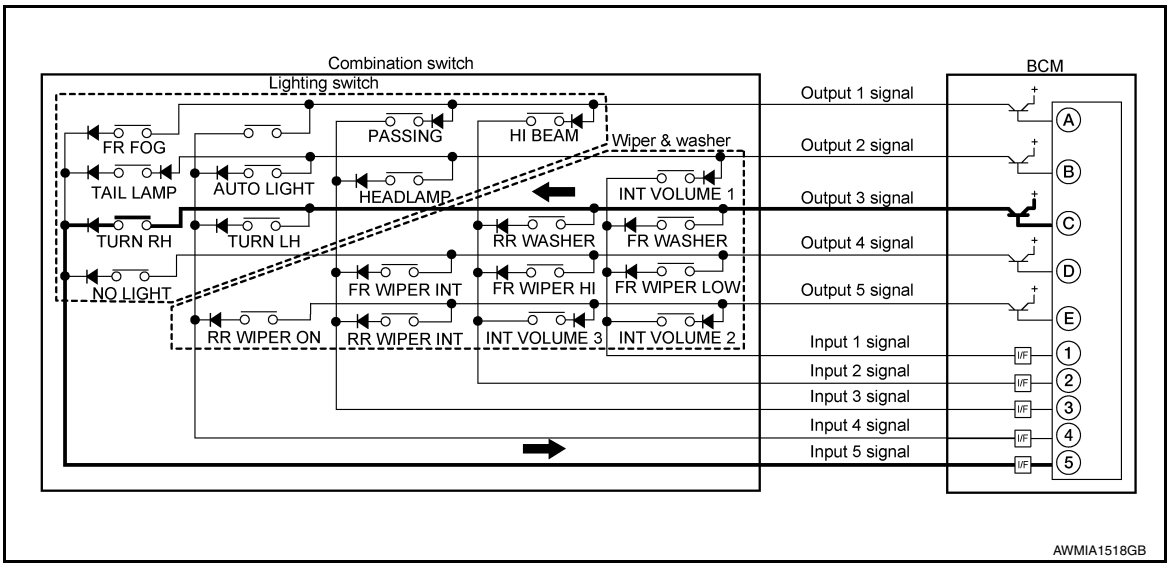


Operation Example

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

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

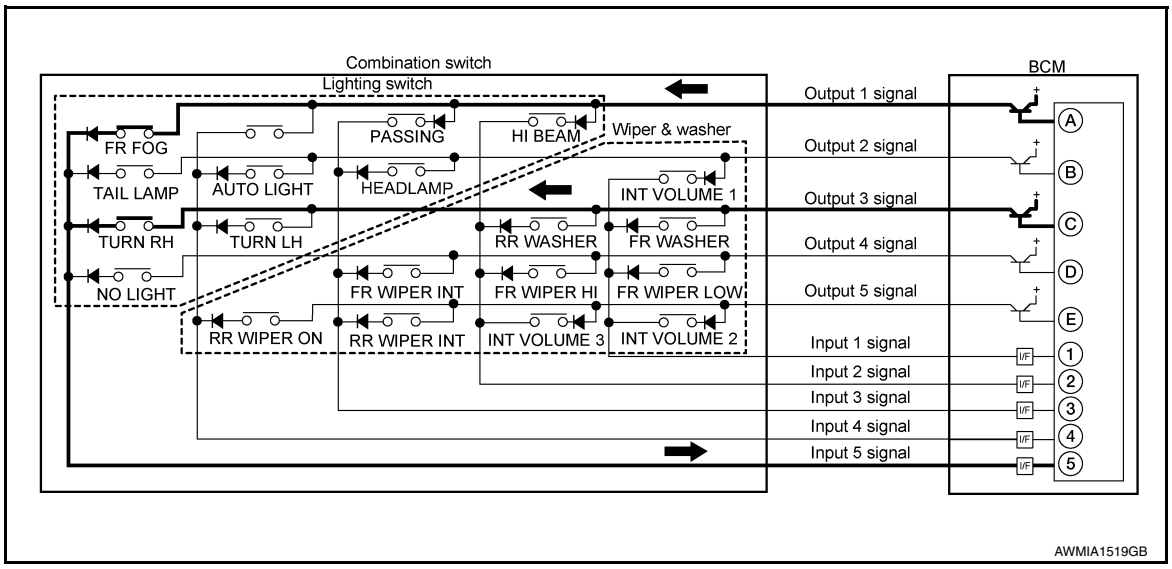
- The circuit between OUTPUT 3 and INPUT 5 is formed when the TURN RH switch is turned ON.



- BCM detects the combination switch status signal “5C” when the signal of OUTPUT 3 is input to INPUT 5.
- BCM judges that the TURN RH switch is ON when the signal “5C” is detected.

Example 2: When some switches (FR FOG, TURN RH) are turned ON

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



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

WIPER INTERMITTENT DIAL POSITION SETTING (FRONT WIPER INTERMITTENT OPERATION)

BCM judges the wiper intermittent dial 1 - 4 by the status of INT VOLUME 1, 2, and 3 switches.

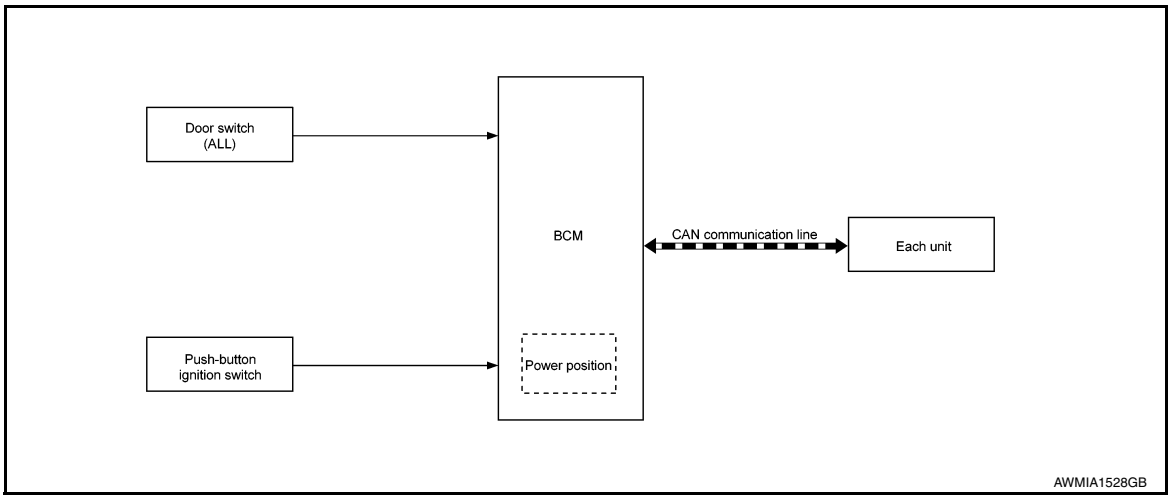
Wiper intermittent dial position	Switch status		
	INT VOLUME 1	INT VOLUME 2	INT VOLUME 3
1	OFF	OFF	OFF
2	ON	OFF	OFF
3	OFF	ON	OFF
4	OFF	OFF	ON

SIGNAL BUFFER SYSTEM

SIGNAL BUFFER SYSTEM : System Description

INFOID:0000000010195906

SYSTEM DIAGRAM



OUTLINE

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

SIGNAL TRANSMISSION FUNCTION LIST

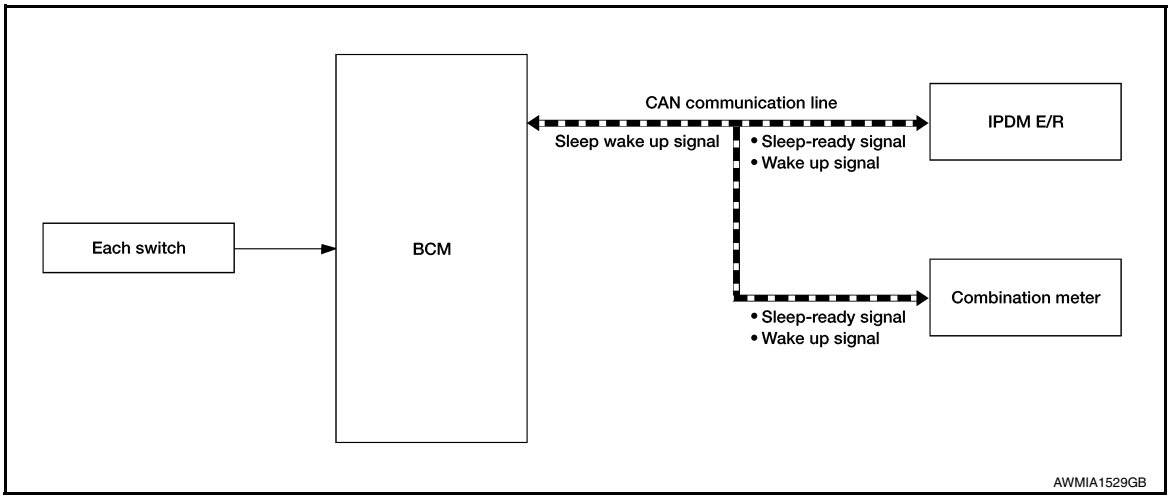
Signal name	Input	Output	Description
• Ignition switch ON signal • Ignition switch signal	Engine switch (push switch)	IPDM E/R (CAN)	Inputs the push-button ignition switch (push switch) signal and transmits the ignition switch status judged with BCM via CAN communication.
Door switch signal	Any door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

POWER CONSUMPTION CONTROL SYSTEM

POWER CONSUMPTION CONTROL SYSTEM : System Description

INFOID:0000000010195908

SYSTEM DIAGRAM



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 each switch 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 wake-up signal. BCM is in CAN communication sleep mode.

- BCM is in the low power consumption mode and performs 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 • Brake switch: OFF • Turn signal indicator lamp: No operation • Exterior lamp: OFF • Door lock status: No change • CONSULT communication status: No communication • Meter display signal: Non-transmission • Door switch status: No change • Rear window defogger: OFF	• Interior room lamp battery saver: Time out • RAP system: OFF • Push-button ignition switch (push switch) illumination: OFF • NATS: No operation • Tire pressure monitoring system: Stop

WAKE-UP OPERATION

- BCM changes from the low power consumption mode to the CAN communication sleep mode when the any of the BCM wake-up conditions are 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 are 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.

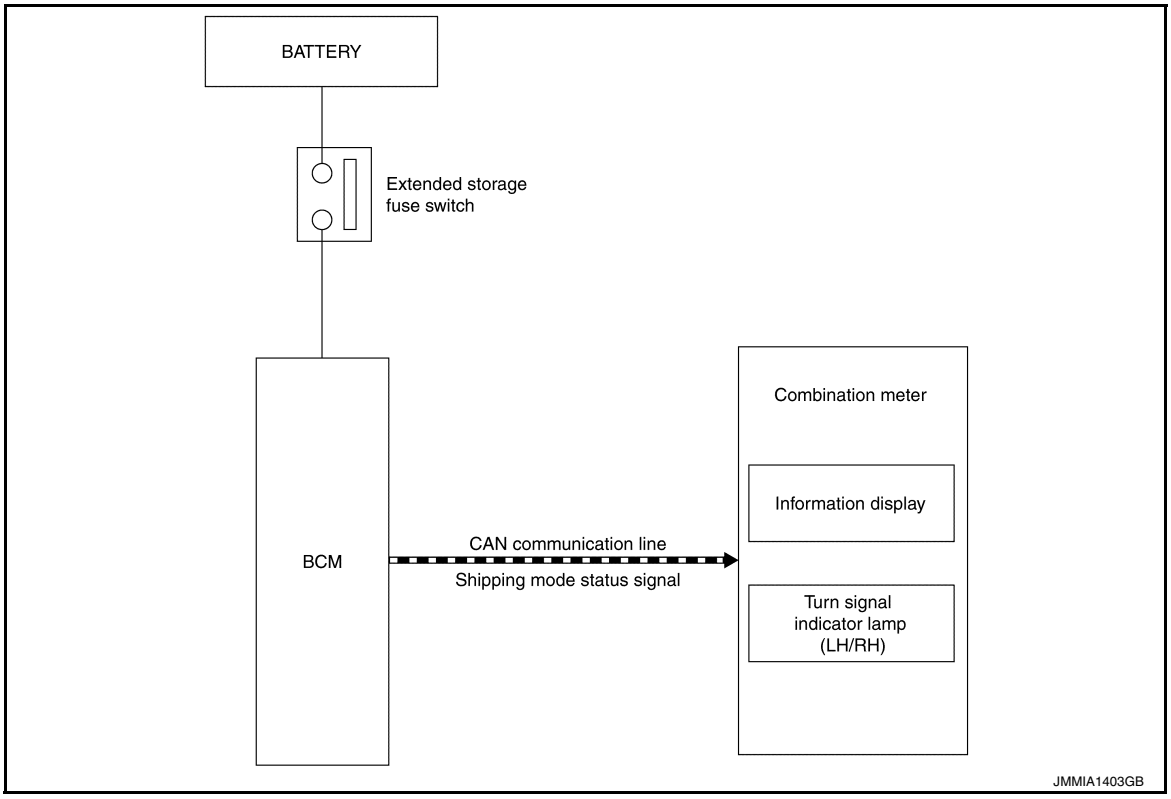
BCM wake-up condition	CAN wake-up condition
• Door lock assembly LH (key cylinder switch): Lock or unlock • Door lock switch: OFF→ON • Door unlock switch: OFF→ON • Back door opener switch: OFF→ON	• Receiving the sleep-ready signal (Not-ready) from any units • Push-button ignition switch (push switch): OFF→ON • Hazard switch: OFF→ON • PASSING switch: OFF→ON, ON→OFF • TAIL LAMP switch: OFF→ON • Driver door switch: OFF→ON, ON→OFF • Passenger door switch: OFF → ON, ON → OFF • Back door switch: OFF→ON, ON→OFF • Driver door request switch: OFF→ON • Passenger door request switch: OFF→ON • Back door request switch: OFF→ON • Stop lamp switch signal: ON

SHIPPING MODE CONTROL SYSTEM

SHIPPING MODE CONTROL SYSTEM : System Description

INFOID:0000000010195971

SYSTEM DIAGRAM



DESCRIPTION

- BCM switches the status (shipping mode or normal mode) by itself according to the extended storage fuse switch condition, and transmits shipping mode status signal to combination meter and each unit via CAN communication.
- When shipping mode function operates, each control unit does not detect DTCs.
- BCM control functions are limited in shipping mode. Refer to BCS-74, "Description".
- The combination meter displays extended storage fuse warning message* on the information display, and turns the turn signal indicator lamp (LH/RH) ON, when BCM is in shipping mode.

*: When shipping mode function operates, “SHIPPING MODE ON PUSH STORAGE FUSE” is displayed.

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

INFOID:0000000010195909

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

Direct Diagnostic Mode	Description
Ecu Identification	The BCM part number is displayed.
Self Diagnostic Result	The BCM self diagnostic results are displayed.
Data Monitor	The BCM input/output data is displayed in real time.
Active Test	The BCM activates outputs to test components.
Work support	The settings for BCM functions can be changed.
Configuration	• The vehicle specification can be read and saved. • The vehicle specification can be written when replacing BCM.
CAN Diag Support Mntr	The result of transmit/receive diagnosis of CAN communication is displayed.

SYSTEM APPLICATION
BCM can perform the following functions.

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

DOOR LOCK

DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)

INFOID:0000000010195910

SELF DIAGNOSTIC RESULT

Refer to BCS-48, "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 back door 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 back door 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 [ALL LOCK/ALL UNLK].

WORK SUPPORT

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

* : Initial setting

REAR DEFOGGER

REAR DEFOGGER : CONSULT Function (BCM - REAR DEFOGGER)

INFOID:0000000010195911

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].

WORK SUPPORT

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

* : Initial setting

BUZZER

BUZZER : CONSULT Function (BCM - BUZZER)

INFOID:0000000010195912

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.
TAIL LAMP SW [On/Off]	Indicates condition of combination switch.
FR FOG SW [On/Off]	Indicates condition of front fog lamp switch.
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.
CDL LOCK SW [On/Off]	Indicates condition of lock signal from door lock and unlock switch.

ACTIVE TEST

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

INT LAMP

INT LAMP : CONSULT Function (BCM - INT LAMP)

INFOID:0000000010195913

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.
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.

Monitor Item [Unit]	Description
DOOR SW-RL [On/Off]	Indicates condition of rear door switch LH.
DOOR SW-BK [On/Off]	Indicates condition of back door 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.
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].

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.

*: Initial setting

HEADLAMP

HEADLAMP : CONSULT Function (BCM - HEADLAMP)

INFOID:0000000010195914

DATA MONITOR

Monitor Item [Unit]	Description
PUSH SW [On/Off]	Indicates condition of push-button ignition switch.
ENGINE STATE [STOP/STALL/CRANK/RUN]	Indicates engine status received from ECM on CAN communication line.
VEH SPEED 1 [km/h]	Indicates vehicle speed signal received from ABS on CAN communication line.
TURN SIGNAL R [On/Off]	Indicates condition of combination switch.
TURN SIGNAL L [On/Off]	
TAIL LAMP SW [On/Off]	
HI BEAM SW [On/Off]	
HEAD LAMP SW [On/Off]	
LIGHT OFF SW [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 back door switch.
OPTI SEN (DTCT) [V]	Indicates outside brightness voltage signal from optical sensor.
OPTI SEN (FILT) [V]	Indicates outside brightness voltage signal from optical sensor filtered by BCM.

ACTIVE TEST

Test Item	Description
FR FOG LAMP	This test is able to check front fog lamp operation [On/Off].
STOP LAMP 1	This test is able to check rear combination lamp stop lamp operation [On/Off].
STOP LAMP 3	This test is able to check high-mounted stop lamp operation [On/Off].

WORK SUPPORT

Support Item	Setting	Description
TWILIGHT ON	MODE2*	Autolamp function ON.
	MODE1	Autolamp function OFF.
CUSTOM A/LIGHT SETTING	MODE4	Less sensitive than normal setting (turns ON later).
	MODE3	More sensitive than MODE2.
	MODE2	More sensitive than normal setting (turns ON earlier).
	MODE1*	Normal setting.
ILL DELAY SET	MODE 8	Autolamp delay timer.
	MODE 7	
	MODE 6	
	MODE 4	
	MODE 5	
	MODE 3	
	MODE 2	
	MODE 1*	

*: Initial setting

WIPER

WIPER : CONSULT Function (BCM - WIPER)

INFOID:0000000010195915

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.
RR WIPER ON [On/Off]	Indicates condition of rear wiper operation of combination switch.
RR WIPER INT [On/Off]	
RR WASHER SW [On/Off]	
RR WIPER STOP [On/Off]	Indicates rear wiper motor auto stop input from rear wiper motor.

ACTIVE TEST

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

WORK SUPPORT

Support Item	Setting	Description
WIPER SPEED SETTING	On	Front wiper intermittent time linked with vehicle speed and wiper intermittent dial position.
	Off*	Front wiper intermittent time is not linked with vehicle speed and wiper intermittent dial position.

*: Initial Setting

FLASHER

FLASHER : CONSULT Function (BCM - FLASHER)

INFOID:0000000010195916

DATA MONITOR

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

ACTIVE TEST

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

INTELLIGENT KEY

INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)

INFOID:0000000010195918

SELF DIAGNOSTIC RESULT

Refer to BCS-48, "DTC Index".

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 back door request switch.
PUSH SW [On/Off]		Indicates condition of push-button ignition switch.
BRAKE SW 1 [On/Off]	×	Indicates condition of brake pedal position switch.
BRAKE SW 2 [On/Off]		Indicates condition of stop lamp switch.
DETE/CANCL SW [On/Off]	×	Indicates condition of park position switch.

Monitor Item [Unit]	Main	Description
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.
NEUTRAL SW -IPDM [On/Off]		Indicates condition of transmission range switch received from IPDM E/R on CAN communication line.
SFT PN -IPDM [On/Off]		Indicates condition of P (park) or N (neutral) position from TCM on CAN communication line.
STARTER RELAY -IPDM [On/Off]		Indicates condition of starter relay received 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.
REVERSE SIGNAL -IPDM [On/Off]		Indicates condition of transmission range switch received from IPDM E/R on CAN communication line.
CRANKING PERMIT -ECM [PERMIT]		Indicates condition of engine start possibility from ECM on CAN communication line.
IS STATUS -ECM [On/Off]		Indicates IS status from ECM on CAN communication line.
STARTER CUT RELAY -ECM [On/Off]		Indicates condition of starter cut relay 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.
IGN REQ -IPDM [On/Off]		Indicates condition of ignition request from IPDM E/R on CAN communication line.
STARTER REQ -IPDM [On/Off]		Indicates condition of starter request received from IPDM E/R on CAN communication line.
DOOR STAT -DR [LOCK/READY/UNLK]	×	Indicates condition of driver side door status.
DOOR STAT -AS [LOCK/READY/UNLK]	×	Indicates condition of passenger side door status.
DOOR STAT -RR [LOCK/READY/UNLK]	×	Indicates condition of rear right side door status.
DOOR STAT -RL [LOCK/READY/UNLK]	×	Indicates condition of rear left side door status.
BK DOOR STATE [LOCK/READY/UNLK]	×	Indicates condition of back 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.
I-KEY OK FLAG [Key ON/Key OFF]	×	Indicates condition of Intelligent Key OK flag.
PRBT ENG STRT [Set/Reset]		Indicates condition of engine start prohibit.
ID AUTHENT CANCEL TIMER [STOP]		Indicates condition of Intelligent Key ID authentication.
ACC BATTERY SAVER [STOP]		Indicates condition of battery saver.
CRNK PRBT TMR [On/Off]		Indicates condition of crank prohibit timer.
AUT CRNK TMR [On/Off]		Indicates condition of automatic engine crank timer from Intelligent Key.
CRNK PRBT TME [sec]		Indicates condition of engine crank prohibit time.
AUTO CRNK TME [sec]		Indicates condition of automatic engine crank time from Intelligent Key.
CRANKING TME [sec]		Indicates condition of engine cranking time 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.
RKE-LOCK [On/Off]		Indicates condition of lock signal from Intelligent Key.
RKE-UNLOCK [On/Off]		Indicates condition of unlock signal from Intelligent Key.

Monitor Item [Unit]	Main	Description
RKE-TR/BD [On/Off]		Indicates condition of back door open signal from Intelligent Key.
RKE-PANIC [On/Off]		Indicates condition of panic signal from Intelligent Key.
RKE-MODE CHG [On/Off]		Indicates condition of mode change signal from Intelligent Key.
RKE PBD [On/Off]		Indicates condition of automatic back door signal from Intelligent Key.

ACTIVE TEST

Test Item	Description
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation [On/Off].
INSIDE BUZZER	This test is able to check combination meter warning chime operation [Take Out/Knob/Key/Off].
INDICATOR	This test is able to check combination meter warning lamp operation [KEY ON/KEY IND/Off].
ENGINE SW ILLUMI	This test is able to check push-button ignition switch START indicator operation [On/Off].
IGNITION RELAY	This test is able to check ignition relay operation [On/Off].

WORK SUPPORT

Support Item	Setting		Description
SHORT CRANKING OUTPUT	Start	70 msec	Starter motor operation duration times.
		100 msec	
		200 msec	
	End		—
INSIDE ANT DIAGNOSIS	—		This function allows inside key antenna self-diagnosis.

COMB SW

COMB SW : CONSULT Function (BCM - COMB SW)

INFOID:0000000010195919

DATA MONITOR

Monitor Item [Unit]	Description
FR WIPER HI [On/Off]	Indicates condition of wiper operation of combination switch.
FR WIPER LOW [On/Off]	
FR WASHER SW [On/Off]	
FR WIPER INT [On/Off]	
INT VOLUME [1 - 7]	Indicates condition of intermittent wiper operation of combination switch.
RR WIPER ON [On/Off]	Indicates condition of rear wiper operation of combination switch.
RR WIPER INT [On/Off]	
RR WASHER SW [On/Off]	
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 [On/Off]	Indicates condition of head lamp switch operation of combination switch.
LIGHT OFF SW [On/Off]	Indicates condition of no light switch 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:0000000010195920

ECU IDENTIFICATION

The BCM part number is displayed.

SELF DIAGNOSTIC RESULT

Refer to BCS-48, "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-61, "CONFIGURATION (BCM) : Description".

CAN DIAG SUPPORT MNTR

Refer to LAN-14, "CAN Diagnostic Support Monitor".

IMMU

IMMU : CONSULT Function (BCM - IMMU)

INFOID:0000000010195921

SELF DIAGNOSTIC RESULT

Refer to BCS-48, "DTC Index".

DATA MONITOR

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

ACTIVE TEST

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

WORK SUPPORT

Support Item	Setting	Description
CONFIRM DONGLE ID	—	Dongle ID can be checked.

BATTERY SAVER

BATTERY SAVER : CONSULT Function (BCM - BATTERY SAVER)

INFOID:0000000010195922

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.
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 back door switch.

Monitor Item [Unit]	Description
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.
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].

TRUNK

TRUNK : CONSULT Function (BCM - TRUNK)

INFOID:0000000010195923

DATA MONITOR

Monitor Item [Unit]	Description
PUSH SW [On/Off]	Indicates condition of push-button ignition switch.
DETECTION SENSOR (BK) [On/Off]	**NOTE:** This item is displayed, but cannot be monitored.
VEH SPEED 1 [km/h]	Indicates vehicle speed signal received from ABS on CAN communication line.
BACK DOOR OPENER SW [On/Off]	Indicates condition of back door opener switch.
RKE-TR/BD [On/Off]	Indicates condition of back door open signal from Intelligent Key.

THEFT ALM

THEFT ALM : CONSULT Function (BCM - THEFT ALM)

INFOID:0000000010195924

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 back door request switch.
PUSH SW [On/Off]	Indicates condition of push-button ignition 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 back door 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.
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 back door open signal from Intelligent Key.

ACTIVE TEST

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

WORK SUPPORT

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

RETAINED PWR

RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)

INFOID:0000000010195925

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:0000000010195926

DATA MONITOR

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

AIR PRESSURE MONITOR

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

INFOID:0000000010195927

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

SELF DIAGNOSTIC RESULT

NOTE:
Before performing Self Diagnostic Result, be sure to register the sensor ID or the actual malfunction may be different from that displayed on CONSULT.
Refer to BCS-48, "DTC Index".

DATA MONITOR

Monitor Item [Unit]	Description
AIR PRESS FL [kPa, kg/cm^2 or Psi]	Indicates air pressure of front LH tire.
AIR PRESS FR [kPa, kg/cm^2 or Psi]	Indicates air pressure of front RH tire.
AIR PRESS RR [kPa, kg/cm^2 or Psi]	Indicates air pressure of rear RH tire.
AIR PRESS RL [kPa, kg/cm^2 or Psi]	Indicates air pressure of rear LH tire.
ID REGST FL1 [Done/Yet]	Indicates ID registration status of front LH sensor.
ID REGST FR1 [Done/Yet]	Indicates ID registration status of front RH sensor.
ID REGST RR1 [Done/Yet]	Indicates ID registration status of rear RH sensor.
ID REGST RL1 [Done/Yet]	Indicates ID registration status of rear LH sensor.
WARNING LAMP [Off/On]	Indicates condition of low tire pressure warning lamp in combination meter.
BUZZER [Off/On]	Indicates condition of buzzer in combination meter.

ACTIVE TEST

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

WORK SUPPORT

Support Item	Description
ID READ	The registered ID number is displayed.
ID REGIST	Refer to WT-21, "Description".

ECU DIAGNOSIS INFORMATION

BCM

Reference Value

INFOID:0000000010195928

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

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
ACC BATTERY SAVER	When battery saver is OFF.	STOP
AIR PRESS FL	Front left tire air pressure value	kPa, kg/cm^2, psi
AIR PRESS FR	Front right tire air pressure value	kPa, kg/cm^2, psi
AIR PRESS RL	Rear left tire air pressure value	kPa, kg/cm^2, psi
AIR PRESS RR	Rear right tire air pressure value	kPa, kg/cm^2, psi
AUT CRNK TMR	When the remote engine start timer is OFF.	Off
	When the remote engine start timer is ON.	On
AUTO CRNK TME	Remote engine start timer duration.	sec
AUTO LIGHT SW	Lighting switch OFF	Off
	Lighting switch AUTO	On
BACK DOOR OPENER SW	Back door opener switch OFF	Off
	Back door opener switch pressed	On
BK DOOR STATE	Back door LOCK status	LOCK
	Back door UNLOCK status	UNLK
	Wait with selective UNLOCK operation (5 seconds)	READY
BRAKE SW 1	Brake pedal released	On
	Brake pedal depressed	Off
BRAKE SW 2	Brake pedal released	Off
	Brake pedal depressed	On
BUZZER	Buzzer in combination meter OFF	Off
	Buzzer in combination meter ON	On
CDL LOCK SW	Door lock/unlock switch does not operate	Off
	Press door lock/unlock switch to the LOCK side	On
CDL UNLOCK SW	Door lock/unlock switch does not operate	Off
	Press door lock/unlock switch to the UNLOCK side	On
CRANKING PERMIT - ECM	When engine start is permitted	PERMIT
CRANKING TME	Engine start timer duration.	sec
CRNK PRBT TME	Engine start prohibit timer duration.	sec
CRNK PRBT TMR	When the engine start prohibit timer is OFF.	Off
	When the engine start prohibit timer is ON.	On

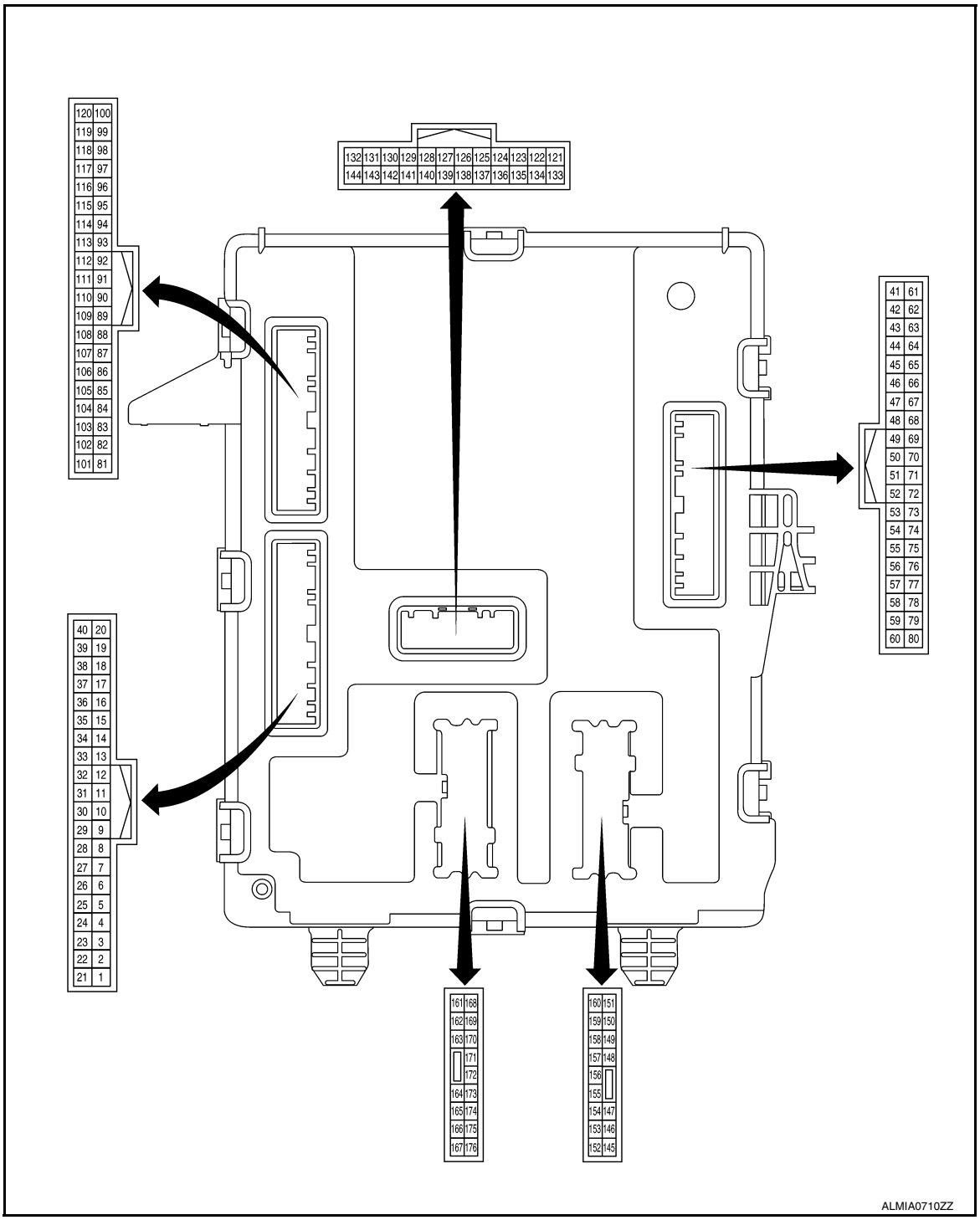
Monitor Item	Condition	Value/Status
DETE/CANCL SW	When selector lever is in P position	Off
	When selector lever is in any position other than P	On
DOOR STAT-AS	Passenger door LOCK status	LOCK
	Passenger door UNLOCK status	UNLK
	Wait with selective UNLOCK operation (5 seconds)	READY
DOOR STAT-DR	Driver door LOCK status	LOCK
	Driver door UNLOCK status	UNLK
	Wait with selective UNLOCK operation (5 seconds)	READY
DOOR STAT-RL	Rear left door LOCK status	LOCK
	Rear left door UNLOCK status	UNLK
	Wait with selective UNLOCK operation (5 seconds)	READY
DOOR STAT-RR	Rear right door LOCK status	LOCK
	Rear right door UNLOCK status	UNLK
	Wait with selective UNLOCK operation (5 seconds)	READY
DOOR SW-AS	Front door RH closed	Off
	Front door RH opened	On
DOOR SW-BK	Back door closed	Off
	Back door opened	On
DOOR SW-DR	Front door LH closed	Off
	Front door LH opened	On
DOOR SW-RL	Rear door LH closed	Off
	Rear door LH opened	On
DOOR SW-RR	Rear door RH closed	Off
	Rear door RH opened	On
ENGINE STATE	Engine stopped	STOP
	While the engine stalls	STALL
	At engine cranking	CRANK
	Engine running	RUN
FAN ON SIG	Blower motor fan switch OFF	Off
	Blower motor fan switch ON	On
FR FOG SW	Front fog lamp switch OFF	Off
	Front fog lamp switch ON	On
FR WASHER SW	Front washer switch OFF	Off
	Front washer switch ON	On
FR WIPER LOW	Front wiper switch OFF	Off
	Front wiper switch LO	On
FR WIPER HI	Front wiper switch OFF	Off
	Front wiper switch HI	On
FR WIPER INT	Front wiper switch OFF	Off
	Front wiper switch INT	On
FR WIPER STOP	Any position other than front wiper stop position	Off
	Front wiper stop position	On
HAZARD SW	When hazard switch is not pressed	Off
	When hazard switch is pressed	On

Monitor Item	Condition	Value/Status
HEAD LAMP SW	Headlamp switch OFF	Off
	Headlamp switch ON	On
HI BEAM SW	High beam switch OFF	Off
	High beam switch HI	On
ID AUTHENT CANCEL TIMER	When I-Key authentication is OFF.	STOP
ID OK FLAG	Ignition switch ON	Reset
	Ignition switch OFF	Set
ID REGST FL1	ID registration of front left tire incomplete	YET
	ID registration of front left tire complete	DONE
ID REGST FR1	ID registration of front right tire incomplete	YET
	ID registration of front right tire complete	DONE
ID REGST RL1	ID registration of rear left tire incomplete	YET
	ID registration of rear left tire complete	DONE
ID REGST RR1	ID registration of rear right tire incomplete	YET
	ID registration of rear right tire complete	DONE
IGN REQ -IPDM	Ignition switch OFF	Off
	Ignition switch ON	On
IGN RLY1 F/B	Ignition switch OFF	Off
	Ignition switch ON	On
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	1 - 7
IS STATUS -ECM	IS status OFF	Off
	IS status ON	On
I-KEY OK FLAG	I-Key OFF	Key OFF
	I-Key ON	Key ON
KEY CYL LK-SW	Door key cylinder LOCK position	Off
	Door key cylinder other than LOCK position	On
KEY CYL UN-SW	Door key cylinder UNLOCK position	Off
	Door key cylinder other than UNLOCK position	On
LIGHT OFF SW	Headlamp switch ON	Off
	Headlamp switch OFF	On
NEUTRAL SW-IPDM	Selector lever N (Neutral) position	Off
	Selector lever any position except N (Neutral)	On
OPTI SEN (DTCT)	Bright outside of the vehicle	Close to 5V
	Dark outside of the vehicle	Close to 0V
OPTI SEN (FILT)	Bright outside of the vehicle	Close to 5V
	Dark outside of the vehicle	Close to 0V
PASSING SW	Other than lighting switch PASS	Off
	Lighting switch PASS	On
PRBT ENG STRT	When the engine start is prohibited	Reset
	When the engine start is permitted	Set
PRMT ENG STRT	When the engine start is prohibited	Reset
	When the engine start is permitted	Set
PRMT RKE STRT	When the engine start is prohibited	Reset
	When the engine start is permitted	Set

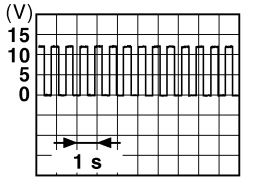
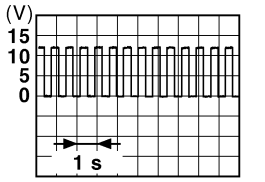
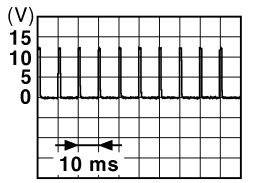
Monitor Item	Condition	Value/Status
PUSH SW	Return ignition switch to LOCK position	Off
	Press ignition switch	On
PUSH SW-IPDM	When engine switch (push switch) is not pressed	Off
	When engine switch (push switch) is pressed	On
REAR DEF SW	Rear window defogger switch OFF	Off
	Rear window defogger switch ON	On
REQ SW-AS	When passenger door request switch is not pressed	Off
	When passenger door request switch is pressed	On
REQ SW-BD/TR	When back door request switch is not pressed	Off
	When back door request switch is pressed	On
REQ SW-DR	When driver door request switch is not pressed	Off
	When driver door request switch is pressed	On
REVERSE SIGNAL - IPDM	Selector lever R (Reverse) position	Off
	Selector lever any position except R (Reverse)	On
RKE-LOCK	When LOCK button of Intelligent Key is not pressed	Off
	When LOCK button of Intelligent Key is pressed	On
RKE-MODE CHG	When LOCK/UNLOCK button of Intelligent Key is not pressed and held simultaneously	Off
	When LOCK/UNLOCK button of Intelligent Key is pressed and held simultaneously	On
RKE OPE COUN1	Operation frequency of Intelligent Key	0-19
RKE OPE COUN2	Operation frequency of Intelligent Key	0-19
RKE-PANIC	When PANIC button of Intelligent Key is not pressed	Off
	When PANIC button of Intelligent Key is pressed	On
RKE PBD	I-Key automatic back door button not pressed	Off
	I-Key automatic back door button pressed	On
RKE-TR/BD	When BACK DOOR OPEN button of Intelligent Key is not pressed	Off
	When BACK DOOR OPEN 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
RR WASHER SW	Rear washer switch OFF	Off
	Rear washer switch ON	On
RR WIPER INT	Rear wiper switch OFF	Off
	Rear wiper switch INT	On
RR WIPER ON	Rear wiper switch OFF	Off
	Rear wiper switch ON	On
RR WIPER STOP	Any position other than rear wiper stop position	Off
	Rear wiper stop position	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
STARTER CUT RELAY - ECM	Starter cut relay OFF	Off
	Starter cut relay ON	On
STARTER RELAY -IPDM	Starter relay OFF	Off
	Starter relay ON	On

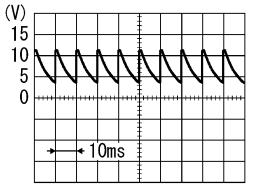
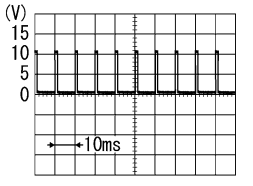
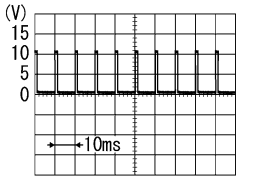
Monitor Item	Condition	Value/Status
STARTER REQ -IPDM	Starter OFF	Off
	Starter ON	On
TAIL LAMP SW	Lighting switch OFF	Off
	Lighting switch ON	On
TURN SIGNAL L	Turn signal switch OFF	Off
	Turn signal switch LH	On
TURN SIGNAL R	Turn signal switch OFF	Off
	Turn signal switch RH	On
VEH SPEED 1	While driving, equivalent to speedometer reading	mph, km/h
VEH SPEED 2	While driving, equivalent to speedometer reading	mph, km/h
WARNING LAMP	Low tire pressure warning lamp in combination meter OFF	Off
	Low tire pressure warning lamp in combination meter ON	On

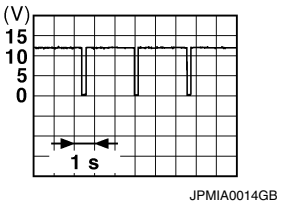
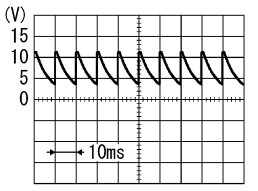
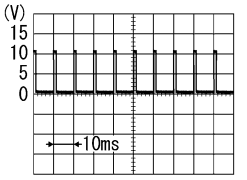
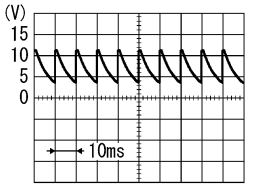
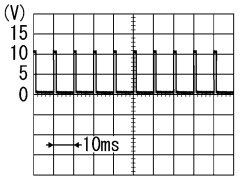
TERMINAL LAYOUT

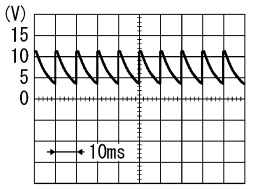
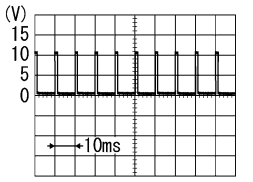
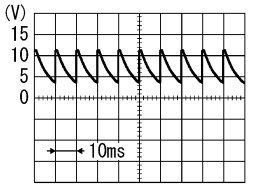
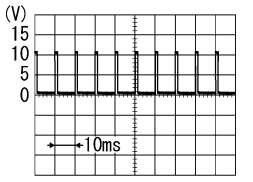
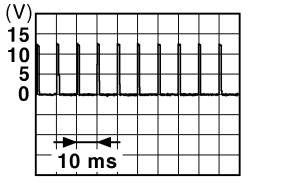


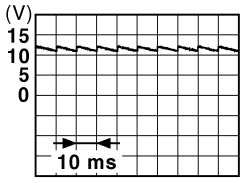
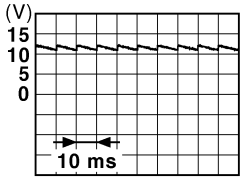
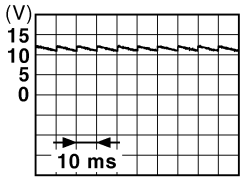
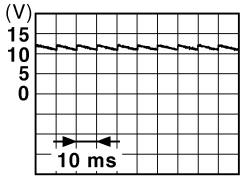
PHYSICAL VALUES

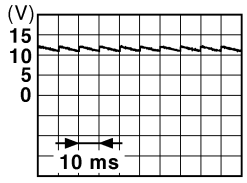
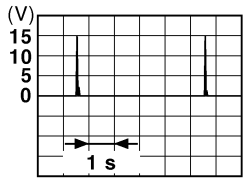
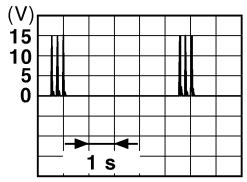
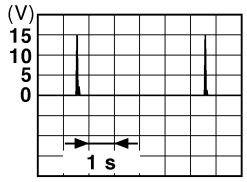
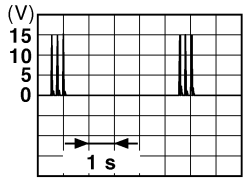
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
2 (LA/G)	Ground	Door mirror LH turn signal lamp output	Output	Push-button ignition switch ON	Turn signal switch OFF	0V
					Turn signal switch LH	 PKID0926E 6.5 V
3 (LA/Y)	Ground	Door mirror RH turn signal lamp output	Output	Push-button ignition switch ON	Turn signal switch OFF	0V
					Turn signal switch RH	 PKID0926E 6.5 V
4 (P)	Ground	Room lamp relay control	Output	Push-button ignition switch OFF	Interior room lamp battery saver operation timed out	Battery voltage
					Any time prior to interior room lamp battery saver operation timed out	0V
5 (R)	Ground	CAN L	Input/ Output	—		—
6 (L)	Ground	CAN H	Input/ Output	—		—
8 (L)	Ground	CAN H	Input/ Output	—		—
9 (R)	Ground	CAN L	Input/ Output	—		—
10 (BG)	Ground	Main power window and door lock/unlock switch lock signal	Input	Main power window and door lock/unlock switch (door lock/unlock switch)	Lock	Battery voltage
					Unlock	0V
11 (Y)	Ground	Hazard switch	Input	Hazard switch	Pressed	0 V
					Released	 JPMIA0012GB 1.1V

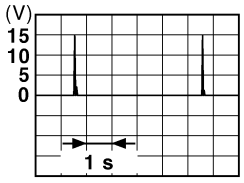
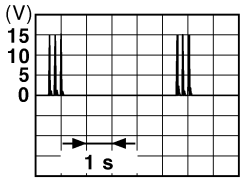
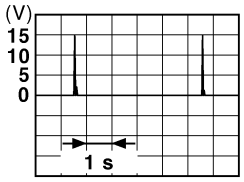
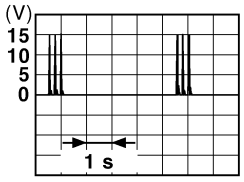
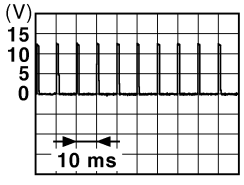
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
12 (W)	Ground	Auto light power supply 5V	Output	Push-button ignition switch	OFF	0V
					ON	5V
16 (P)	Ground	Audio dongle	Input/ Output	Push-button ignition switch	OFF	5V
17 (L)	Ground	CVT shift selector park position switch power	Output	Selector lever	P position	0V
					Except P position	Battery voltage
19 (LG)	Ground	Auto light signal	Input	Push-button ignition switch ON	Outside of vehicle is bright	Close to 5V
					Outside of vehicle is dark	Close to 0V
23 (G)	Ground	Power window relay control	Output	Push-button ignition switch	OFF	Battery voltage
					ON	0V
24 (LA/R)	Ground	Rear window defogger relay control	Output	Rear window defogger	Not activated	Battery voltage
					Activated	0V
25 (BR)	Ground	Accessory relay-1 control	Output	Push-button ignition switch	OFF	Battery voltage
					ON	0V
27 (Y)	Ground	Ignition relay-1 control	Output	Push-button ignition switch	OFF	Battery voltage
					ON	0V
28 (LA/W)	Ground	Front blower motor relay control	Output	Push-button ignition switch	OFF	Battery voltage
					ON	0V
30 (V)	Ground	Auto light reference ground	Output	Push-button ignition switch	ON	0V
33 (LG)	Ground	Combination switch output 5	Output	Combination switch (Wiper intermittent dial 1)	OFF	 PKIB4960J 7.0 – 8.0V
					INT VOLUME 2	 PKIB4958J 1.2V
					INT VOLUME 3	
					RR WIPER INT	
					RR WIPER ON	
34 (Y)	Ground	Combination switch input 5	Input	Combination switch (Wiper intermittent dial 1)	OFF	0V
					FR FOG	 PKIB4958J 1.0V
					TAIL LAMP	
					TURN RH	
					NO LIGHT	

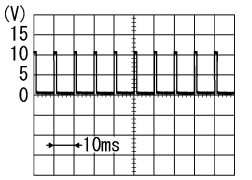
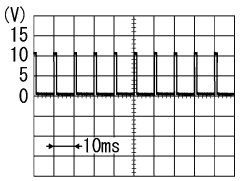
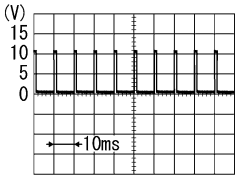
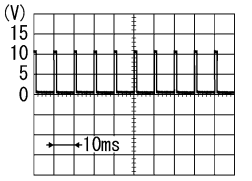
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
35 (BG)	Ground	Security indicator	Output	Security indicator	ON	0V
					Blinking	 JPMIA0014GB 11.3V
					OFF	Battery voltage
36 (G)	Ground	Combination switch output 3	Output	Combination switch (Wiper intermittent dial 1)	OFF	 PKIB4960J 7.0 – 8.0V
					FR WASHER RR WASHER TURN LH TURN RH	 PKIB4958J 1.2V
37 (GR)	Ground	Combination switch output 4	Output	Combination switch (Wiper intermittent dial 1)	OFF	 PKIB4960J 7.0 – 8.0V
					FR WIPER LOW FR WIPER HI FR WIPER INT NO LIGHT	 PKIB4958J 1.2V

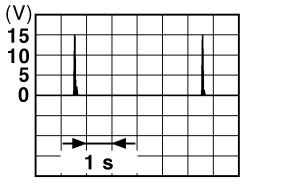
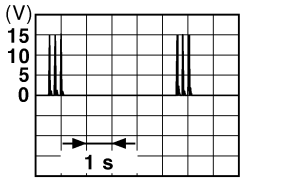
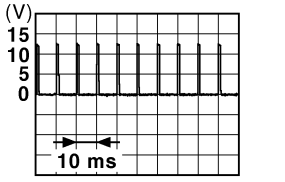
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
38 (V)	Ground	Combination switch output 1	Output	Combination switch (Wiper intermittent dial 1)	OFF	 PKIB4960J 7.0 – 8.0V
					HI BEAM PASSING FR FOG	 PKIB4958J 1.2V
39 (W)	Ground	Combination switch output 2	Output	Combination switch (Wiper intermittent dial 4)	OFF	 PKIB4960J 7.0 – 8.0V
					INT VOLUME 1 HEADLAMP AUTO LIGHT TAIL LAMP	 PKIB4958J 1.2V
40 (SB)	Ground	Main power window and door lock/unlock switch unlock signal	Input	Main power window and door lock/unlock switch (door lock/unlock switch)	Unlock	Battery voltage
					Lock	0V
46 (R)	Ground	Back door request switch	Input	Back door opener switch (request switch)	ON (pressed)	0V
					OFF (released)	 JPMIA0016GB 1.0V

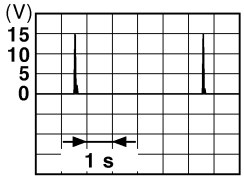
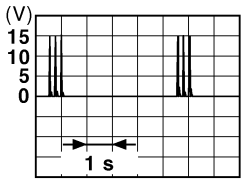
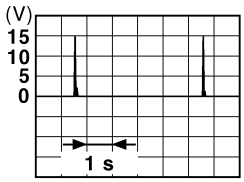
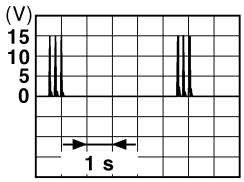
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
50 (W)	Ground	Right rear door switch	Input	Rear door switch RH	OFF (door closed)	 JPMIA0011GB 11.8V
					ON (door open)	0V
51 (LG)	Ground	Back door switch	Input	Back door lock assembly (door ajar switch)	OFF (door closed)	 JPMIA0011GB 11.8V
					ON (door open)	0V
52 (R)	Ground	Left rear door switch	Input	Rear door switch LH	OFF (door closed)	 JPMIA0011GB 11.8V
					ON (door open)	0V
53 (SB)	Ground	Passenger door switch	Input	Front door switch RH	OFF (door closed)	 JPMIA0011GB 11.8 V
					ON (door open)	0V
55 (LA/G)	Ground	Rear wiper autostop switch	Input	Push-button ignition switch ON	Rear wiper stop position	Battery voltage
					Any position other than rear wiper stop	0V
56 (Y)	Ground	Back door open switch	Input	Back door opener switch	Switch released	Battery voltage
					Switch pressed	0V

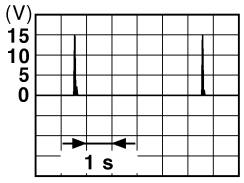
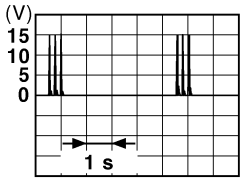
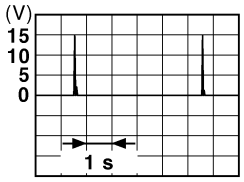
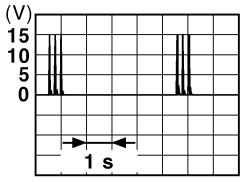
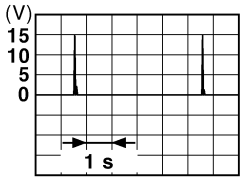
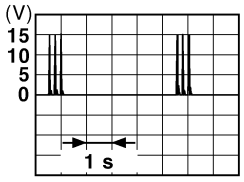
Terminal No. (Wire color) (+)	Terminal No. (Wire color) (-)	Description: Signal name	Description: Input/ Output	Condition		Value (Approx.)
57 (SB)	Ground	Driver door switch	Input	Front door switch LH	OFF (door closed)	 JPMIA0011GB 11.8V
					ON (door open)	0V
60 (L)	Ground	CAN H	Input/ Output	—		—
61 (BR)	Ground	Outside key antenna (rear bumper) B	Output	Back door request switch operated with push-button ignition switch OFF	Intelligent Key in antenna detection area	 JMKIA0062GB
					Intelligent Key not in antenna detection area	 JMKIA0063GB
62 (Y)	Ground	Inside key antenna (console) B	Output	Push-button ignition switch OFF	Intelligent Key in antenna detection area	 JMKIA0062GB
					Intelligent Key not in antenna detection area	 JMKIA0063GB

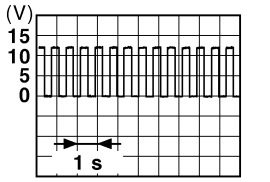
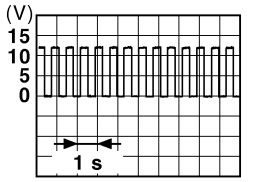
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
63 (L)	Ground	Inside key antenna (console) A	Output	Push-button ignition switch OFF	Intelligent Key in antenna detection area	 JMKIA0062GB
					Intelligent Key not in antenna detection area	 JMKIA0063GB
64 (G)	Ground	Outside key antenna (rear bumper) A	Output	Back door request switch operated with push-button ignition switch OFF	Intelligent Key in antenna detection area	 JMKIA0062GB
					Intelligent Key not in antenna detection area	 JMKIA0063GB
79 (LA/W)	Ground	High-mounted stop lamp output	Output	Brake pedal	Released	0V
					Depressed	Battery voltage
80 (P)	Ground	CAN L	Input/ Output	—		—
82 (W)	Ground	Passenger request switch	Input	Front outside handle assembly RH request switch	ON (pressed)	0V
					OFF (released)	 JPMIA0016GB 1.0V

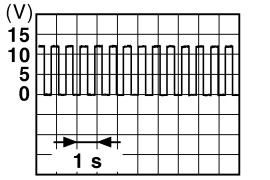
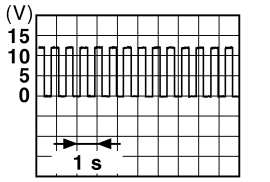
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
84 (BR)	Ground	Combination switch input 2	Input	Combination switch (Wiper intermittent dial 1)	OFF	0V
					HI BEAM RR WASHER FR WIPER HI INT VOLUME 3	 PKIB4958J 1.0V
85 (SB)	Ground	Combination switch input 1	Input	Combination switch (Wiper intermittent dial 1)	OFF	0V
					INT VOLUME 1 FR WASHER FR WIPER LOW INT VOLUME 2	 PKIB4958J 1.0V
86 (P)	Ground	Combination switch input 3	Input	Combination switch (Wiper intermittent dial 1)	OFF	0V
					PASSING HEADLAMP FR WIPER INT RR WIPER INT	 PKIB4958J 1.0V
87 (BG)	Ground	Combination switch input 4	Input	Combination switch (Wiper intermittent dial 1)	OFF	0V
					AUTO LIGHT TURN LH RR WIPER ON	 PKIB4958J 1.0V
88 (W)	Ground	Start switch backlight LED	Output	Push-button ignition switch illumination	ON	5.5V
					OFF	0V
92 (BR)	Ground	Front door lock assembly LH key cylinder switch lock signal	Input	Key cylinder switch	OFF (neutral)	Battery voltage
					ON (lock)	0V
93 (P)	Ground	Front door lock assembly LH key cylinder switch unlock signal	Input	Key cylinder switch	OFF (neutral)	Battery voltage
					ON (unlock)	0V
94 (G)	Ground	CVT shift selector park position switch signal	Input	Selector lever	P position	0V
					Except P position	Battery voltage
95 (V)	Ground	Shorting input	Input	Push-button ignition switch	OFF	Battery voltage

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
100 (V)	Ground	Outside key antenna (driver side) A	Output	Front outside handle assembly LH request switch operated with push-button ignition switch OFF	Intelligent Key in antenna detection area	 JMKIA0062GB
					Intelligent Key not in antenna detection area	 JMKIA0063GB
101 (Y)	Ground	Push-button ignition switch	Input	Push-button ignition switch	Pressed	0V
					Not pressed	Battery voltage
104 (R)	Ground	Front door lock assembly LH knob switch unlock signal	Input	Door lock knob	OFF (lock)	Battery voltage
					ON (unlock)	0V
105 (Y)	Ground	Driver request switch	Input	Front outside handle assembly LH request switch	ON (pressed)	0V
					OFF (released)	 JPMIA0016GB 1.0V
106 (W)	Ground	Audio unit/AV control unit accessory power supply	Input	Push-button ignition switch	ON	Battery voltage
110 (BG)	Ground	Dimmer signal output (MR output)	Output	Push-button ignition switch ON	Either of the following conditions • Lighting switch OFF • The area around the vehicle is bright (Shine a light on the optical sensor)	0V
					The area around the vehicle is dark (Block the light from the optical sensor)	Battery voltage
114 (Y)	Ground	NATS antenna amp. B	Output	During waiting	Intelligent Key backside is contacted to push-button ignition switch, turn ignition switch ON.	Just after pressing push-button ignition switch. Pointer of analog volt meter should move.

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
115 (W)	Ground	NATS antenna amp. A	Output	During waiting	Intelligent Key backside is contacted to push-button ignition switch, turn ignition switch ON.	Just after pressing push-button ignition switch. Pointer of analog volt meter should move.
116 (BG)	Ground	Inside key antenna (instrument center) B	Output	Push-button ignition switch OFF	Intelligent Key in antenna detection area	 JMKIA0062GB
					Intelligent Key not in antenna detection area	 JMKIA0063GB
117 (GR)	Ground	Inside key antenna (instrument center) A	Output	Push-button ignition switch OFF	Intelligent Key in antenna detection area	 JMKIA0062GB
					Intelligent Key not in antenna detection area	 JMKIA0063GB

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
118 (SB)	Ground	Outside key antenna (passenger side) B	Output	Front outside handle assembly RH request switch operated with push-button ignition switch OFF	Intelligent Key in antenna detection area	 JMKIA0062GB
					Intelligent Key not in antenna detection area	 JMKIA0063GB
119 (P)	Ground	Outside key antenna (passenger side) A	Output	Front outside handle assembly RH request switch operated with push-button ignition switch OFF	Intelligent Key in antenna detection area	 JMKIA0062GB
					Intelligent Key not in antenna detection area	 JMKIA0063GB
120 (BR)	Ground	Outside key antenna (driver side) B	Output	Front outside handle assembly LH request switch operated with push-button ignition switch OFF	Intelligent Key in antenna detection area	 JMKIA0062GB
					Intelligent Key not in antenna detection area	 JMKIA0063GB
125 (LG)	Ground	Stop lamp switch signal	Input	Brake pedal	Released	0V
					Depressed	Battery voltage

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
126 (W)	Ground	Brake pedal position switch signal	Input	Brake pedal	Released	0V
					Depressed	Battery voltage
132 (Y)	Ground	Intelligent Key warning buzzer output	Output	Intelligent Key warning buzzer	Sounding	0V
					Not sounding	Battery voltage
135 (BR)	Ground	Front combination lamp LH turn signal lamp output	Output	Push-button ignition switch ON	Turn signal switch OFF	0V
					Turn signal switch LH	 PKID0926E 6.5 V
136 (GR)	Ground	Front combination lamp RH turn signal lamp output	Output	Push-button ignition switch ON	Turn signal switch OFF	0V
					Turn signal switch RH	 PKID0926E 6.5 V
139 (G)	Ground	Starter cut relay control	Output	Push-button ignition switch	OFF	Battery voltage
					ON	0V
145 (LA/V)	Ground	Back door lock assembly opener motor open	Output	Back door opener switch pressed	Open (motor activated)	Battery voltage
				Back door opener switch released	Closed (motor not activated)	0V
147 (LA/R)	Ground	Rear wiper output	Output	Rear wiper	OFF	0V
					ON	Battery voltage
148 (W)	Ground	Rear door lock actuator LH and RH actuator unlock	Output	Main power window and door lock/unlock switch (door lock/unlock switch)	Unlock (actuator activated)	Battery voltage
					Lock (actuator not activated)	0V
149 (L)	Ground	Rear door lock actuator LH and RH actuator lock	Output	Main power window and door lock/unlock switch (door lock/unlock switch)	Lock (actuator activated)	Battery voltage
					Unlock (actuator not activated)	0V
151 (R)	Ground	Luggage lamp control (pwm)	Output	Room lamp relay	OFF	Battery voltage
					ON	0V
153 (LA/W)	Ground	Rear combination lamp RH stop lamp output	Output	Brake pedal	Released	0V
					Depressed	Battery voltage

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
157 (GR)	Ground	Rear combination lamp LH turn signal/hazard lamp output	Output	Push-button ignition switch ON	Turn signal switch OFF	0V
					Turn signal switch LH	 PKID0926E 6.5 V
158 (LA/Y)	Ground	Rear combination lamp LH stop lamp output	Output	Brake pedal	Released	0V
					Depressed	Battery voltage
160 (P)	Ground	Rear combination lamp RH turn signal/hazard lamp output	Output	Push-button ignition switch ON	Turn signal switch OFF	0V
					Turn signal switch RH	 PKID0926E 6.5 V
161 (W)	Ground	BCM power supply	Input	Push-button ignition switch	OFF	Battery voltage
162 (SB)	Ground	Interior lamp control (pwm)	Output	Map lamp and/or personal lamp 2nd row	OFF	Battery voltage
					DOOR	0V
163 (L)	Ground	Front door lock actuator RH actuator unlock	Output	Main power window and door lock/unlock switch (door lock/unlock switch)	Unlock (actuator activated)	Battery voltage
					Lock (actuator not activated)	0V
165 (V)	Ground	Front door lock actuator LH and RH actuator lock	Output	Main power window and door lock/unlock switch (door lock/unlock switch)	Lock (actuator activated)	Battery voltage
					Unlock (actuator not activated)	0V
167 (LA/V)	Ground	Power door lock battery power supply	Input	Push-button ignition switch	OFF	Battery voltage
168 (BG)	Ground	Turn signal/hazard battery power supply	Input	Push-button ignition switch	OFF	Battery voltage
169 (GR)	Ground	Stop lamp battery power supply	Input	Push-button ignition switch	OFF	Battery voltage
170 (B)	Ground	Ground1	Input	Push-button ignition switch	ON	0V
171 (B)	Ground	Ground2	Input	Push-button ignition switch	ON	0V

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
172 (G)	Ground	Front door lock assembly LH actuator unlock	Output	Main power window and door lock/unlock switch (door lock/unlock switch)	Unlock (actuator activated)	Battery voltage
					Lock (actuator not activated)	0V
175 (R)	Ground	Power door lock2 battery power supply	Input	Push-button ignition switch	OFF	Battery voltage
176 (LG)	Ground	Rear wiper battery power supply	Input	Push-button ignition switch	OFF	Battery voltage

Fail Safe

INFOID:0000000010195929

CONSULT Display	Fail-safe	Cancellation
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2562: LOW VOLTAGE	Inhibit engine cranking	100 ms after the power supply voltage increases to more than 8.8 V
B260F: ECM CAN COMM	Inhibit engine cranking	When any of the following conditions are fulfilled: • Ignition switch changes to ON • Receives engine status signal (CAN)
B261E: FUEL MIS CONFIG	Inhibit engine cranking	BCM initialization

DTC Inspection Priority Chart

INFOID:0000000010195930

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

Priority	DTC
1	• B2562: LOW VOLTAGE
2	• U1000: CAN COMM CIRCUIT • U1010: CONTROL UNIT (CAN)
3	• B2192: ID DISCORD BCM-ECM • B2193: CHAIN OF BCM-ECM • B2196: DONGLE NG • B2198: NATS ANTENNA AMP
4	• B2556: ENG START SW • B2557: VEHICLE SPEED • B2602: SHIFT P DIAG • B260F: ECM CAN COMM • B2614: ACC RELAY REQ F/B • B2615: BLOWER RELAY CIRC • B2616: IGN RELAY2 REQ F/B • B261A: ENGINE SW • B261E: FUEL MIS CONFIG • B26FC: KEYFOB MISS REGISTRATION • B27D1: ST CUT RELAY OFF STUCK FAIL • B27D2: ST CUT RELAY ON STUCK FAIL • 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 • C1716: [PRESSDATA ERR] FL • C1717: [PRESSDATA ERR] FR • C1718: [PRESSDATA ERR] RR • C1719: [PRESSDATA ERR] RL • C1730: FLAT TIRE FL • C1731: FLAT TIRE FR • C1732: FLAT TIRE RR • C1733: FLAT TIRE RL • C1734: CONTROL UNIT • C1735: IGN CIRCUIT OPEN • C1765: WSSP DATA FAIL FL • C1766: WSSP DATA FAIL FR • C1767: WSSP DATA FAIL RL • C1768: WSSP DATA FAIL RR • C1769: CONFIG SETTING • C1770: G SENSOR FAIL FL • C1771: G SENSOR FAIL FR • C1772: G SENSOR FAIL RR • C1773: G SENSOR FAIL RL
6	• B2621: INSIDE ANTENNA 1 • B2622: INSIDE ANTENNA 2

DTC Index

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NOTE:

Details of time display

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

CONSULT display	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-64, "Description"
U1010: CONTROL UNIT (CAN)	—	—	—	BCS-65, "DTC Logic"
U0415: VEHICLE SPEED SIG	—	—	—	BCS-66, "Description"
B2192: ID DISCORD BCM-ECM	×	—	—	SEC-73, "DTC Logic"
B2193: CHAIN OF BCM-ECM	×	—	—	SEC-74, "DTC Logic"
B2196: DONGLE NG	—	—	—	SEC-75, "Description"
B2198: NATS ANTENNA AMP.	—	—	—	SEC-77, "DTC Logic"
B2556: ENG START SW	—	×	—	SEC-79, "DTC Logic"
B2557: VEHICLE SPEED	—	×	—	SEC-81, "DTC Logic"
B2562: LOW VOLTAGE	×	—	—	BCS-67, "DTC Logic"
B2602: SHIFT P DIAG	—	×	—	SEC-82, "DTC Logic"

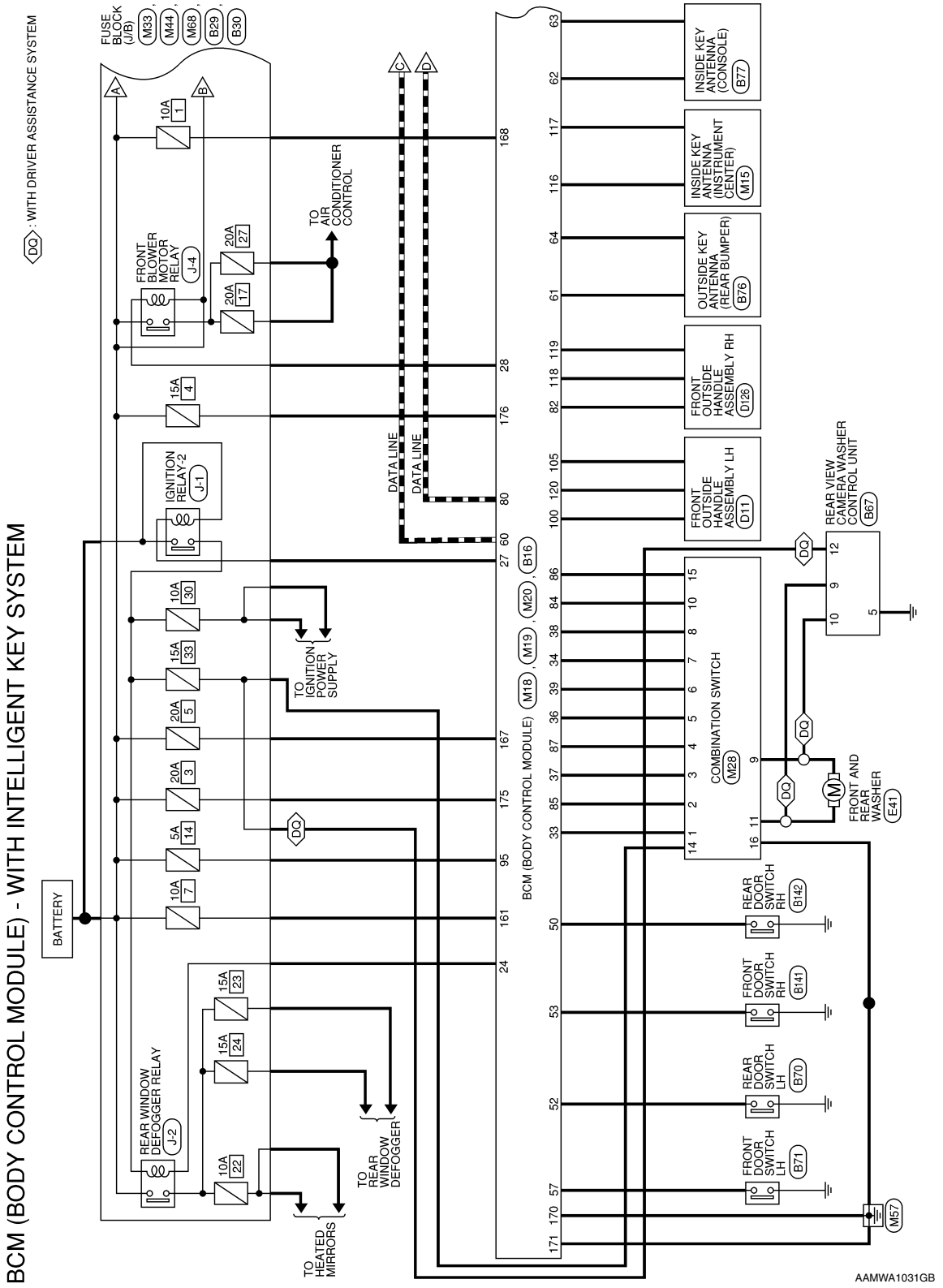
CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
B260F: ECM CAN COMM	×	×	—	SEC-85, "Description"
B2614: ACC RELAY REQ F/B	—	×	—	PCS-64, "DTC Logic"
B2615: BLOWER RELAY CIRC	—	×	—	PCS-66, "DTC Logic"
B2616: IGN RELAY2 REQ F/B	—	×	—	PCS-68, "DTC Logic"
B261A: PUSH-BTN IGN SW	—	×	—	PCS-70, "DTC Logic"
B261E: FUEL MIS CONFIG	×	× (Turn ON for 15 seconds)	—	SEC-87, "Description"
B2621: INSIDE ANTENNA 1	—	—	—	DLK-137, "DTC Logic"
B2622: INSIDE ANTENNA 2	—	—	—	DLK-139, "DTC Logic"
B26FC: KEYFOB MISS REGISTRATION	—	—	—	SEC-89, "DTC Logic"
B27D1: ST CUT RELAY OFF STUCK FAIL	—	—	—	SEC-90, "DTC Logic"
B27D2: ST CUT RELAY ON STUCK FAIL	—	—	—	SEC-93, "DTC Logic"
C1704: LOW PRESSURE FL	—	—	×	WT-24, "DTC Logic"
C1705: LOW PRESSURE FR	—	—	×	
C1706: LOW PRESSURE RR	—	—	×	
C1707: LOW PRESSURE RL	—	—	×	
C1708: [NO DATA] FL	—	—	×	WT-26, "DTC Logic"
C1709: [NO DATA] FR	—	—	×	
C1710: [NO DATA] RR	—	—	×	
C1711: [NO DATA] RL	—	—	×	
C1716: [PRESSDATA ERR] FL	—	—	×	WT-29, "DTC Logic"
C1717: [PRESSDATA ERR] FR	—	—	×	
C1718: [PRESSDATA ERR] RR	—	—	×	
C1719: [PRESSDATA ERR] RL	—	—	×	
C1729: VHCL SPEED SIG ERR	—	—	×	WT-31, "DTC Logic"
C1730: FLAT TIRE FL	—	—	×	WT-32, "DTC Logic"
C1731: FLAT TIRE FR	—	—	×	
C1732: FLAT TIRE RR	—	—	×	
C1733: FLAT TIRE RL	—	—	×	
C1734: CONTROL UNIT	—	—	×	WT-34, "DTC Logic"
C1735: IGN CIRCUIT OPEN	—	—	×	WT-36, "DTC Logic"
C1765: WSSP DATA FAIL FL	—	—	×	WT-38, "DTC Description"
C1766: WSSP DATA FAIL FR	—	—	×	
C1767: WSSP DATA FAIL RL	—	—	×	
C1768: WSSP DATA FAIL RR	—	—	×	
C1769: CONFIG SETTING	—	—	×	WT-39, "DTC Description"
C1770: G SENSOR FAIL FL	—	—	×	WT-40, "DTC Description"
C1771: G SENSOR FAIL FR	—	—	×	
C1772: G SENSOR FAIL RR	—	—	×	
C1773: G SENSOR FAIL RL	—	—	×	

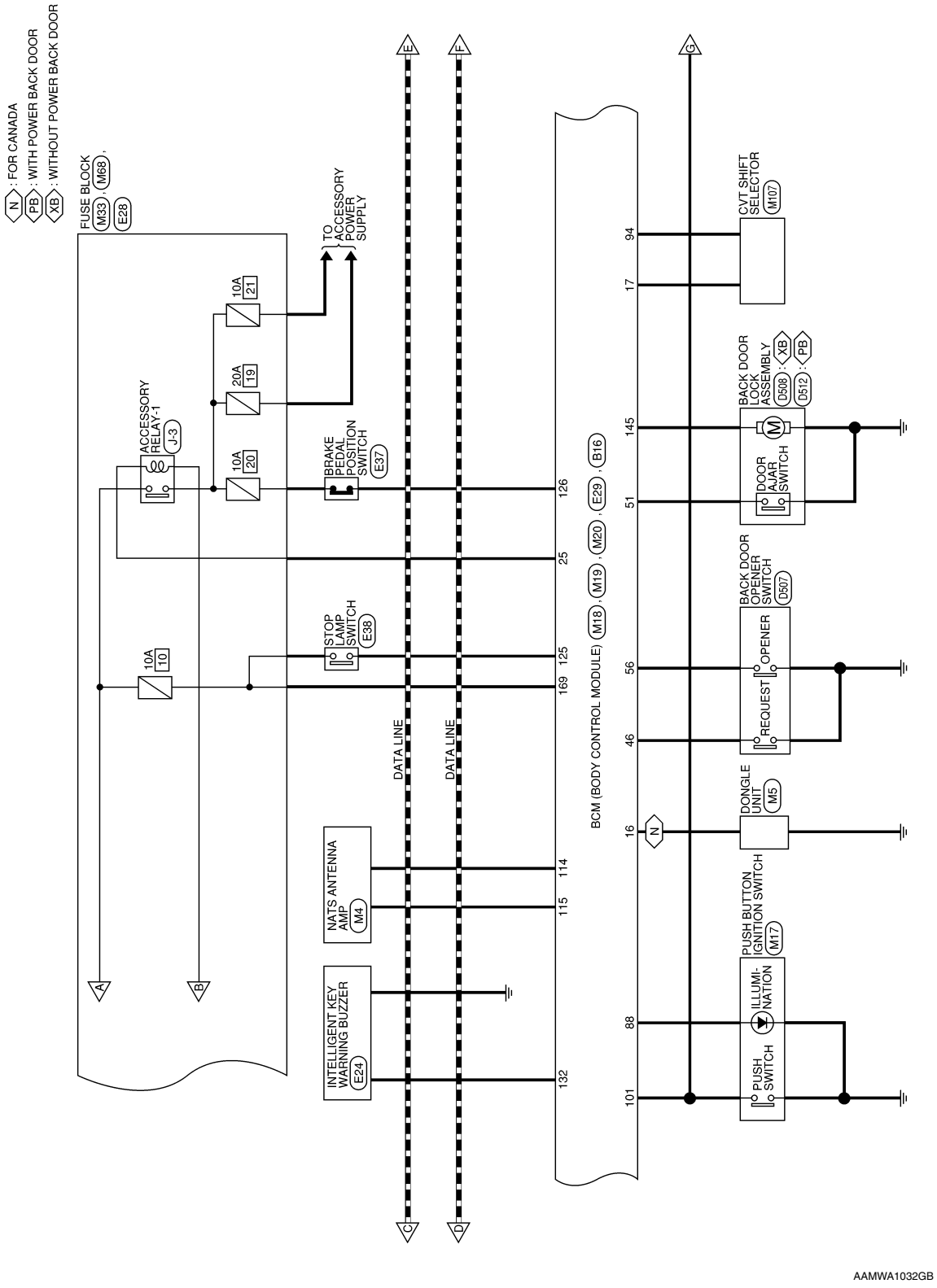
WIRING DIAGRAM

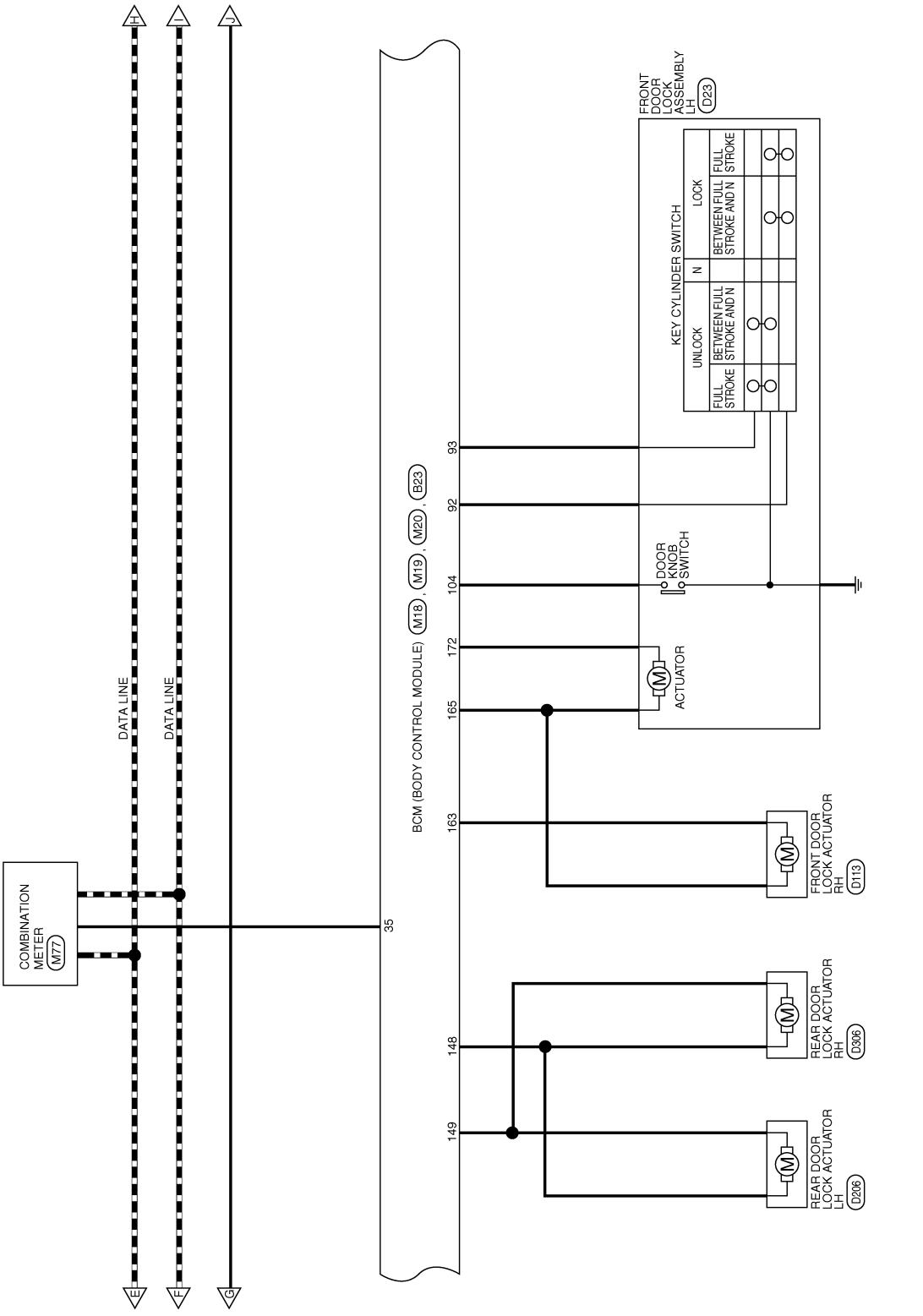
BCM

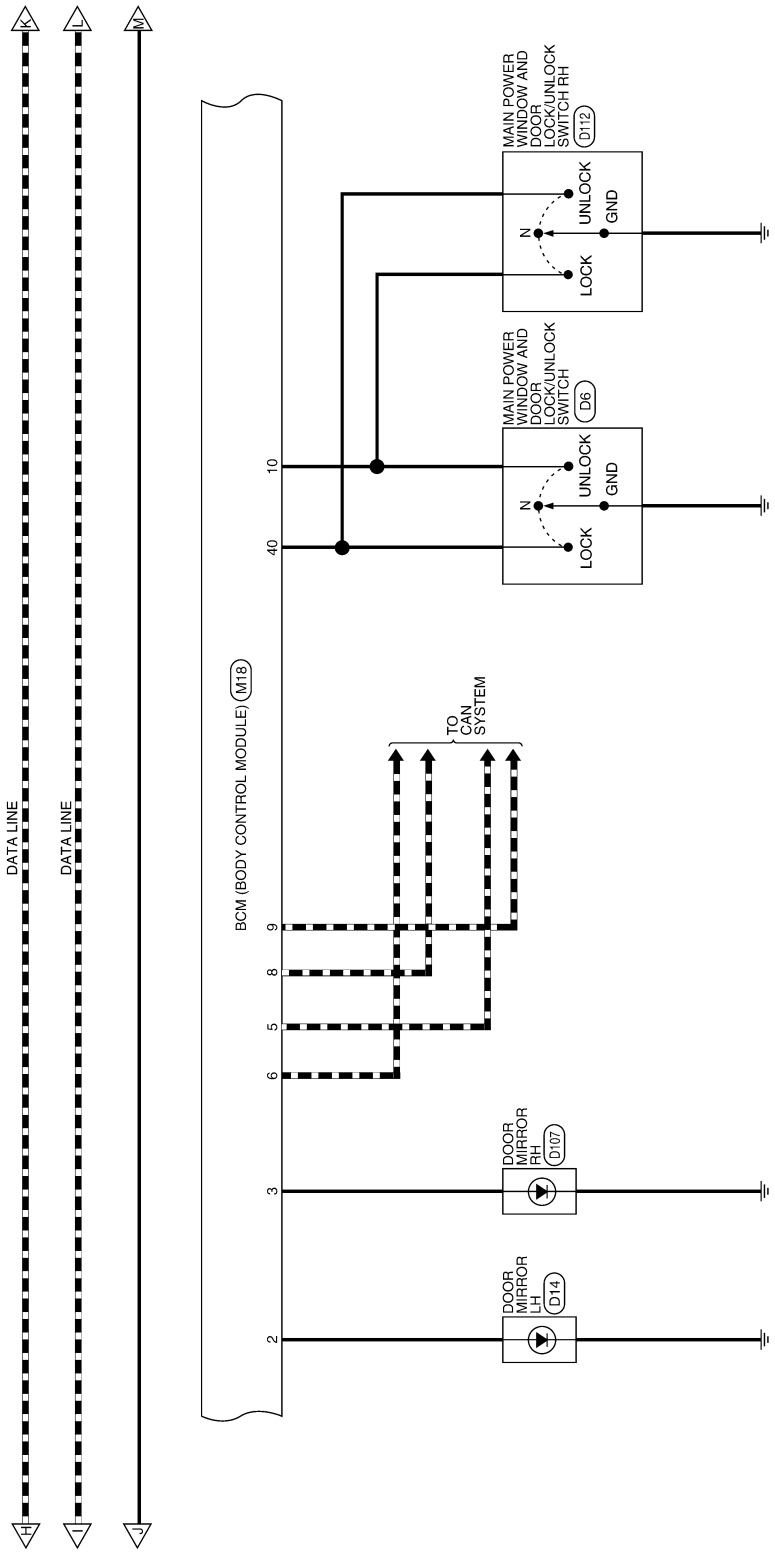
Wiring Diagram

INFOID:0000000010195932

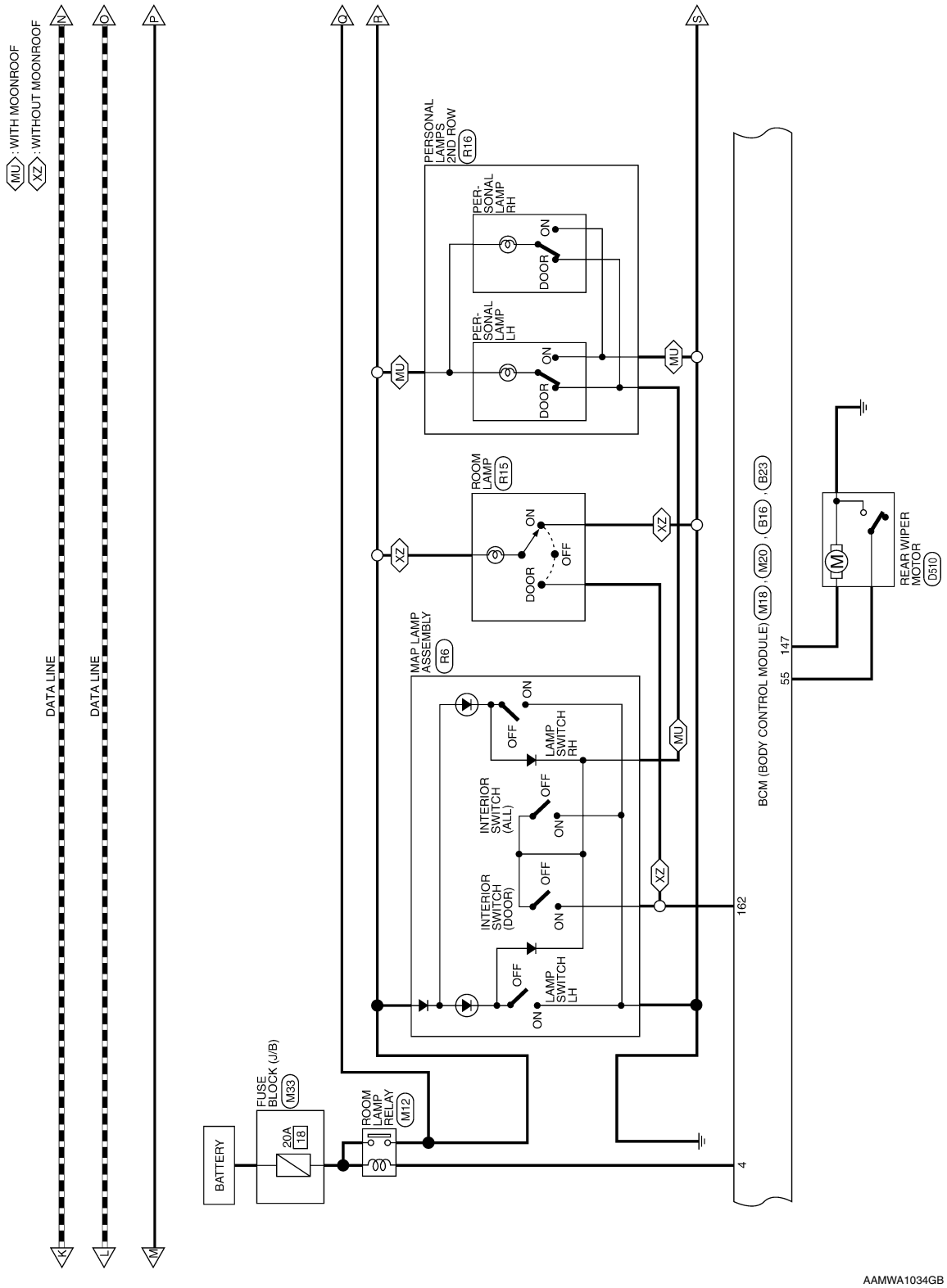


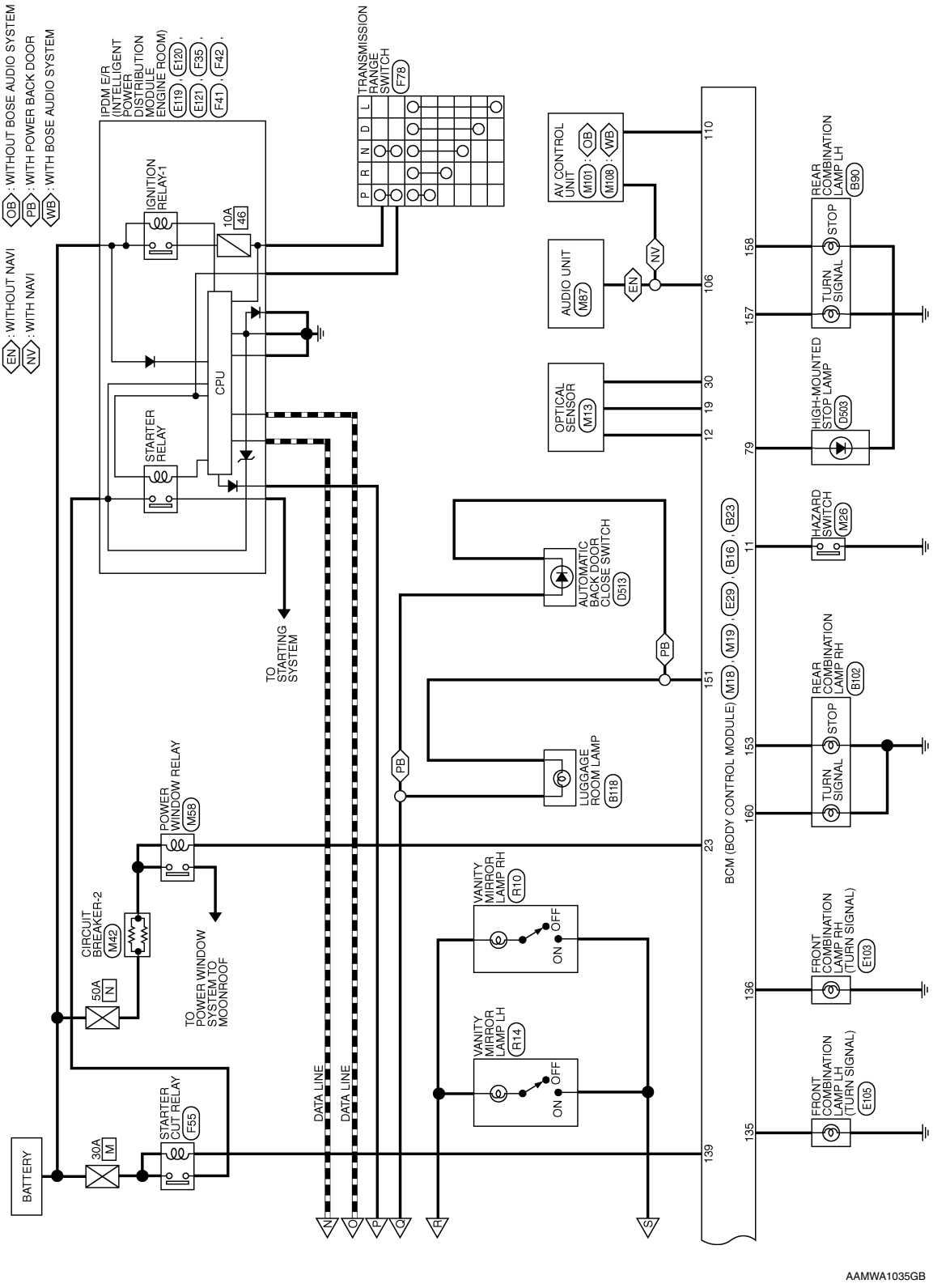

N : FOR CANADA
PB : WITH POWER BACK DOOR
XB : WITHOUT POWER BACK DOOR
FUSE BLOCK (M33), (M68), E28
TO ACCESSORY POWER SUPPLY
10A 21
20A 19
10A 20
ACCESSORY RELAY-1 J-3
BRAKE PEDAL POSITION SWITCH E37
10A 10
STOP LAMP SWITCH E38
DATA LINE
DATA LINE
NATS ANTENNA AMP. M4
INTELLIGENT KEY WARNING BUZZER E24
BCM (BODY CONTROL MODULE) (M18), (M19), (M20), (E29), (B16)
126
25
125
169
114
115
132
94
17
145
51
56
46
16
88
101
CVT SHIFT SELECTOR M107
BACK DOOR LOCK ASSEMBLY D508 : XB D512 : PB
DOOR AJAR SWITCH
BACK DOOR OPENER SWITCH D507
OPENER
REQUEST
DONGLE UNIT M5
PUSH BUTTON IGNITION SWITCH M17
ILLUMI-NATION
PUSH SWITCH
A
B
C
D
E
F
G
AAMWA1032GB


COMBINATION METER M77
DATA LINE
DATA LINE
BCM (BODY CONTROL MODULE) M18, M19, M20, B23
35
93
92
104
172
165
163
148
149
FRONT DOOR LOCK ASSEMBLY LH D23
KEY CYLINDER SWITCH
UNLOCK
FULL STROKE
BETWEEN FULL STROKE AND N
N
LOCK
BETWEEN FULL STROKE AND N
FULL STROKE
DOOR KNOB SWITCH
ACTUATOR
FRONT DOOR LOCK ACTUATOR RH D113
REAR DOOR LOCK ACTUATOR RH D306
REAR DOOR LOCK ACTUATOR LH D206
E
F
G
AAMWA1033GB



AAMWA1045GB


MU : WITH MOONROOF
XZ : WITHOUT MOONROOF
DATA LINE
DATA LINE
PERSONAL LAMPS 2ND ROW R16
PER-SONAL LAMP RH
PER-SONAL LAMP LH
DOOR
ON
OFF
ROOM LAMP R15
MAP LAMP ASSEMBLY R6
LAMP SWITCH RH
LAMP SWITCH LH
INTERIOR SWITCH (ALL)
INTERIOR SWITCH (DOOR)
BCM (BODY CONTROL MODULE) M18, M20, B16, B23
147
55
162
4
REAR WIPER MOTOR D510
BATTERY
FUSE BLOCK (J/B) M33
20A
18
ROOM LAMP RELAY M12
AAMWA1034GB


OB : WITHOUT BOSE AUDIO SYSTEM
PB : WITH POWER BACK DOOR
WB : WITH BOSE AUDIO SYSTEM
EN : WITHOUT NAVI
NV : WITH NAVI
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) (E119), (E120), (E121), (F35), (F41), (F42)
IGNITION RELAY-1
10A 46
CPU
STARTER RELAY
TRANSMISSION RANGE SWITCH F78
P R N D L
AV CONTROL UNIT (M101) : OB (M108) : WB
AUDIO UNIT M87
OPTICAL SENSOR M13
AUTOMATIC BACK DOOR CLOSE SWITCH D513
LUGGAGE ROOM LAMP B118
TO STARTING SYSTEM
POWER WINDOW RELAY M58
CIRCUIT BREAKER-2 M42
50A N
TO POWER WINDOW SYSTEM TO MOONROOF
STARTER CUT RELAY F55
30A M
BATTERY
DATA LINE
DATA LINE
VANITY MIRROR LAMP RH R10
VANITY MIRROR LAMP LH R14
ON OFF
BCM (BODY CONTROL MODULE) (M18), (M19), (E29), (B16), (B23)
110 106 30 19 12 158 157 79 11 151 153 160 23 136 135 139
REAR COMBINATION LAMP LH B90
STOP TURN SIGNAL
HIGH-MOUNTED STOP LAMP D503
HAZARD SWITCH M26
REAR COMBINATION LAMP RH B102
FRONT COMBINATION LAMP RH (TURN SIGNAL) E103
FRONT COMBINATION LAMP LH (TURN SIGNAL) E105
N O P Q R S
AAMWA1035GB

BCM (BODY CONTROL MODULE) - WITH INTELLIGENT KEY SYSTEM CONNECTORS

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

H.S.

20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21

Terminal No.	Color of Wire	Signal Name
1	–	–
2	LG/G	O DI FR LEFT D
3	LA/Y	O DI FR RIGHT D
4	P	O SPARE4 RL N
5	R	CAN-L
6	L	CAN-H
7	–	–
8	L	CAN-H
9	R	CAN-L
10	BG	I DOORLOCK SW
11	Y	I HAZARD SW D
12	W	O PWR AUTOLIGHT SENSOR
13	–	–
14	–	–
15	–	–
16	P	DONGLE UART
17	L	O PWR ATDVC
18	–	–
19	LG	I AUTOLIGHT SENSOR
20	–	–
21	–	–
22	–	–
23	G	O WL AUTHORIZATION RL
24	LA/R	O DEFROSTER RL D
25	BR	O BAT TEMP1 RL
26	–	–
27	Y	O IGN1 RL
28	LA/W	O IGN2 RL
29	–	–
30	V	O GND AUTOLIGHT SENSOR
31	–	–
32	–	–
33	LG	I CSW 5
34	Y	O CSW 5
35	BG	O SECURITY LED
36	G	I CSW 3
37	GR	I CSW 4
38	V	I CSW 1
39	W	I CSW 2
40	SB	I DOORUNLOCK SW

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

H.S.

100	99	98	97	96	95	94	93	92	91	90	89	88	87	86	85	84	83	82	81
120	119	118	117	116	115	114	113	112	111	110	109	108	107	106	105	104	103	102	101

Terminal No.	Color of Wire	Signal Name
81	–	–
82	W	I SES FR HANDLE BUTTON SW (WITH IKEY)
83	–	–
84	BR	O CSW 2
85	SB	O CSW 1
86	P	O CSW 3
87	BG	O CSW 4
88	W	O START SW BACKLIGHT LED
89	–	–
90	–	–
91	–	–
92	BR	I KEY CYLINDER LOCK SW
93	P	I KEY CYLINDER UNLOCK SW
94	G	I AT LOCKED IN PARK SW
95	V	I SHORTING PIN
96	–	–
97	–	–
98	–	–
99	–	–

Terminal No.	Color of Wire	Signal Name
100	V	SES EXT DR ANTENNA A
101	Y	I START SW
102	–	–
103	–	–
104	R	I DR KNOB SW
105	Y	I SES DR HANDLE BUTTON SW
106	W	O AUTO ACC2
107	–	–
108	–	–
109	–	–
110	BG	O MR OUTPUT
111	–	–
112	–	–
113	–	–
114	Y	O IMMOBILIZER KAZASHI A (WITH IKEY)
115	W	O IMMOBILIZER KAZASHI A (WITH IKEY)
116	BG	SES INT FRONT ANTENNA B (WITH IKEY)
117	GR	SES INT FRONT ANTENNA A (WITH IKEY)
118	SB	SES EXT AS ANTENNA B (WITH IKEY)
119	P	SES EXT AS ANTENNA A (WITH IKEY)
120	BR	SES EXT DR ANTENNA B (WITH IKEY)

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

H.S.

167	166	165	164	163	162	161
176	175	174	173	172	171	170	169	168

Terminal No.	Color of Wire	Signal Name
161	W	I PWR ECU
162	SB	O PWM ROOMLAMP 1
163	L	O AS LOCK OR UNLOCK D
164	–	–
165	V	O DR OR FR LOCK D
166	–	–
167	LA/V	I PWR DOORLOCK1
168	BG	I PWR FLASHERS
169	GR	I PWR STOP LAMP
170	B	I GND1
171	B	I GND2
172	G	O FR OR DR UNLOCK D
173	–	–
174	–	–
175	R	I PWR DOORLOCK2
176	LG	I PWR WIPER

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Connector No.	M28
Connector Name	COMBINATION SWITCH
Connector Color	WHITE

H.S.

8	7	6	5	4	3	2	1
16	15	14	13	12	11	10	9

Terminal No.	Color of Wire	Signal Name
1	LG	–
2	SB	–
3	GR	–
4	BG	–
5	G	–
6	W	–
7	Y	–
8	V	–
9	G	–
10	BR	–
11	Y	–
12	–	–
13	–	–
14	LG	–
15	P	–
16	GR	–

Connector No.	E29
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK

H.S.

132	131	130	129	128	127	126	125	124	123	122	121
144	143	142	141	140	139	138	137	136	135	134	133

Terminal No.	Color of Wire	Signal Name
121	–	–
122	–	–
123	–	–
124	–	–
125	LG	I BRAKE SW2
126	W	I BRAKE SW1
127	–	–
128	–	–
129	–	–
130	–	–
131	–	–
132	Y	O BUZZER
133	–	–
134	–	–
135	BR	O DI FR LEFT E
136	GR	O DI FR RIGHT E
137	–	–
138	–	–
139	G	O STCUT RL
140	–	–
141	–	–
142	–	–
143	–	–
144	–	–

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Connector No.	B16
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GREEN

H.S.

60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41
80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61

Terminal No.	Color of Wire	Signal Name
41	–	–
42	–	–
43	–	–
44	–	–
45	–	–
46	R	I SES BACKDOOR BUTTON SW
47	–	–
48	–	–
49	–	–
50	W	I RR DOOR SW
51	LG	I TGATE SW
52	R	I RL DOOR SW
53	SB	I AS DOOR2 SW
54	–	–
55	LA/G	I RR AUTOSTOP SW
56	Y	I TGATE OPENER SW

Terminal No.	Color of Wire	Signal Name
57	SB	I DR DOOR2 SW
58	–	–
59	–	–
60	L	CAN-H
61	BR	SES EXT REAR ANTENNA B
62	Y	SES INT MIDDLE ANTENNA B
63	L	SES INT MIDDLE ANTENNA A
64	G	SES EXT REAR ANTENNA A
65	–	–
66	–	–
67	–	–
68	–	–
69	–	–
70	–	–
71	–	–
72	–	–
73	–	–
74	–	–
75	–	–
76	–	–
77	–	–
78	–	–
79	LA/W	O STOP LAMP3
80	P	CAN-L

Connector No.	B23
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GRAY

H.S.

151	150	149	148		147	146	145
160	159	158	157	156	155	154	153	152

Terminal No.	Color of Wire	Signal Name
145	LA/V	O TGATE OPENER
146	–	–
147	LA/R	O RR WIPER
148	W	O RR UNLOCK B
149	L	O RR LOCK B
150	–	–
151	R	O PWM ROOMLAMP 5
152	–	–
153	LA/W	O STOP LAMP1
154	–	–
155	–	–
156	–	–
157	GR	O DI RR LEFT B
158	LA/Y	O STOP LAMP2 NISSAN EUR
159	–	–
160	P	O DI RR RIGHT B

AAMIA2136GB

BASIC INSPECTION

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM)

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM) : Description

INFOID:0000000010195933

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).**
- **When replacing BCM, perform “Configuration” of CAN gateway.**

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

INFOID:0000000010195934

1. SAVING VEHICLE SPECIFICATION (BCM)

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. SAVING VEHICLE SPECIFICATION (CAN GATEWAY)

CONSULT

Perform “READ CONFIGURATION” to save or print current vehicle specification. Refer to LAN-75, "CONSULT Function".

NOTE:

If “READ CONFIGURATION” cannot be used, use the “WRITE CONFIGURATION - Manual selection” after replacing BCM.

>> GO TO 3.

3. REPLACE BCM

Replace BCM. Refer to BCS-75, "Removal and Installation".

>> GO TO 4.

4. WRITING VEHICLE SPECIFICATION (BCM)

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-61, "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-61, "CONFIGURATION (BCM) : Work Procedure".

>> GO TO 5.

5. INITIALIZE BCM (NATS)

Perform BCM initialization. (NATS)

>> GO TO 6.

6. WRITING VEHICLE SPECIFICATION (CAN GATEWAY FUNCTION)

CONSULT
Perform “WRITE CONFIGURATION – Config file” or “WRITE CONFIGURATION – Manual selection” to write vehicle specification. Refer to LAN-77, "Work Procedure".

>> Work End.

CONFIGURATION (BCM)

CONFIGURATION (BCM) : Description

INFOID:0000000010195935

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:0000000010195936

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-62, "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 cannot 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:0000000010195937

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

MANUAL SETTING ITEM	
Items	Setting value
I-KEY	WITH ⇔ WITHOUT
DTRL	WITH ⇔ WITHOUT
AUTO DOOR UNLOCK TIMING	WITH I-KEY ⇔ W/O I-KEY

⇔: Items which confirm vehicle specifications

SHIPPING MODE CANCEL OPERATION

Work Procedure

INFOID:0000000010338484

1.SHIPPING MODE CANCEL OPERATION

1. Turn ignition switch OFF.
2. Push in (switch on) the extended storage fuse switch. Refer to PG-73, "How To Check".
3. Turn ignition switch ON.
4. Turn ignition switch OFF and wait at least 2 seconds.

>> GO TO 2.

2.SHIPPING MODE CANCEL CHECK

1. Turn ignition switch ON.
2. Check that extended storage fuse warning message is not displayed on information display.

>> Work End.

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description

INFOID:0000000010195940

Refer to LAN-8, "System Description".

DTC Logic

INFOID:0000000010195941

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:0000000010195942

1. PERFORM SELF DIAGNOSTIC

1. Turn ignition switch ON and wait for 2 second 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-41, "Intermittent Incident".

U1010 CONTROL UNIT (CAN)

DTC Logic

INFOID:0000000010195943

DTC DETECTION LOGIC

CONSULT Display	DTC Detection Condition	Possible Cause
CAN COMM CIRCUIT [U1010]	BCM detected internal CAN communication circuit malfunction.	BCM

Diagnosis Procedure

INFOID:0000000010195944

1. REPLACE BCM

When DTC U1010 is detected, replace BCM.

>> Replace BCM. Refer to BCS-75, "Removal and Installation".

U0415 VEHICLE SPEED SIG

Description

INFOID:0000000010195945

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:0000000010195946

DTC DETECTION LOGIC

NOTE:

- If DTC U0415 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-64, "DTC Logic".
- If DTC U0415 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-65, "DTC Logic".

CONSULT Display	DTC Detection Condition	Possible Cause
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 system • Combination meter system • CAN bus harness

DTC CONFIRMATION PROCEDURE

1. DTC CONFIRMATION

1. Erase the DTC.
2. Turn ignition switch OFF.
3. Perform Self Diagnostic Result 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-48, "DTC Index".
NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000010195947

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

Perform Self Diagnostic Result of ABS with CONSULT. Refer to BRC-44, "CONSULT Function".

Is any DTC detected?

YES >> Perform the trouble diagnosis related to the detected DTC. Refer to BRC-55, "DTC 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-80, "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-21, "CONSULT Function (METER/M&A)".

Is any DTC detected?

YES >> Perform the trouble diagnosis related to the detected DTC. Refer to MWI-30, "DTC Index".
NO >> Refer to GI-41, "Intermittent Incident".

B2562 LOW VOLTAGE

DTC Logic

INFOID:0000000010195948

DTC DETECTION LOGIC

CONSULT Display	DTC Detection Condition	Possible cause
LOW VOLTAGE [B2562]	When the power supply voltage to BCM remains less than 8.8V for 120 seconds or more.	• Harness or connector (power supply circuit) • Vehicle battery

DTC CONFIRMATION PROCEDURE

1. DTC CONFIRMATION

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

Is any DTC detected?

YES >> Refer to BCS-67, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000010195949

1. CHECK BATTERY VOLTAGE

Check battery voltage.

Is battery voltage less than 8.8V?

YES >> Charge battery and retest. Refer to CHG-11, "Work Flow (With EXP-800 NI or GR8-1200 NI)" or CHG-14, "Work Flow (Without EXP-800 NI or GR8-1200 NI)".
NO >> GO TO 2.

2. CHECK POWER SUPPLY AND GROUND CIRCUIT

Check BCM power supply and ground circuit. Refer to BCS-68, "Diagnosis Procedure".

Is the inspection result normal?

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

3. BCM SELF DIAGNOSTIC RESULT

Perform Self Diagnostic Result of BCM with CONSULT. Refer to BCS-24, "BCM : CONSULT Function (BCM - BCM)".

Is DTC B2562 CRNT?

YES >> Replace BCM. Refer to BCS-75, "Removal and Installation".
NO >> Refer to GI-41, "Intermittent Incident".

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000010195952

Regarding Wiring Diagram information, refer to BCS-50, "Wiring Diagram".

1. CHECK FUSE

Check that the following fuse is not blown.

Terminal No.	Signal name	Fuse No.
161	BCM power supply	7 (10A)

Is the fuse blown?

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

2. CHECK POWER SUPPLY CIRCUIT

1. Disconnect BCM connector M20.
2. Check voltage between BCM connector M20 and ground.

BCM		Ground	Voltage (Approx.)
Connector	Terminal		
M20	161	—	Battery voltage

Is the inspection result normal?

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

3. CHECK GROUND CIRCUIT

Check continuity between BCM connector M20 and ground.

BCM		Ground	Continuity
Connector	Terminal		
M20	170	—	Yes
	171		

Is the inspection result normal?

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

COMBINATION SWITCH INPUT CIRCUIT

Diagnosis Procedure

INFOID:0000000010195953

Regarding Wiring Diagram information, refer to BCS-50, "Wiring Diagram".

1. CHECK INPUT 1 - 5 SYSTEM CIRCUIT FOR OPEN

1. Turn ignition switch OFF.
2. Disconnect BCM connector M18 and combination switch connector.
3. Check continuity between BCM connector M18 and combination switch connector M28.

Signal	BCM		Combination switch		Continuity
	Connector	Terminal	Connector	Terminal	
INPUT 1	M18	38	M28	8	Yes
INPUT 2		39		6	
INPUT 3		36		5	
INPUT 4		37		3	
INPUT 5		33		1	

Is the inspection result normal?

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

2. CHECK INPUT 1 - 5 SYSTEM CIRCUIT FOR SHORT

Check continuity between BCM connector M18 and ground.

Signal	BCM		Ground	Continuity
	Connector	Terminal		
INPUT 1	M18	38	Ground	No
INPUT 2		39		
INPUT 3		36		
INPUT 4		37		
INPUT 5		33		

Is the inspection result normal?

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

3. CHECK BCM OUTPUT VOLTAGE

1. Connect BCM connector M18 and combination switch connector.
2. Turn ignition switch ON.
3. Check voltage between BCM connector M18 and ground.

Signal	BCM		Ground	Voltage
	Connector	Terminal		
INPUT 1	M18	38	—	Refer to BCS-28, "Reference Value".
INPUT 2		39		
INPUT 3		36		
INPUT 4		37		
INPUT 5		33		

Is the inspection result normal?

YES >> Replace the combination switch. Refer to BCS-76, "Removal and Installation".
NO >> Replace BCM. Refer to BCS-75, "Removal and Installation".

COMBINATION SWITCH OUTPUT CIRCUIT

Diagnosis Procedure

INFOID:0000000010195954

Regarding Wiring Diagram information, refer to BCS-50, "Wiring Diagram".

1. CHECK OUTPUT 1 - 5 SYSTEM CIRCUIT FOR OPEN

1. Turn ignition switch OFF.
2. Disconnect BCM connector M19 and combination switch connector.
3. Check continuity between BCM connector M19 and combination switch connector M28.

Signal	BCM		Combination switch		Continuity
	Connector	Terminal	Connector	Terminal	
OUTPUT 1	M19	85	M28	2	Yes
OUTPUT 2		84		10	
OUTPUT 3		86		15	
OUTPUT 4		87		4	
OUTPUT 5		34		7	

Is the inspection result normal?

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

2. CHECK OUTPUT 1 - 5 SYSTEM CIRCUIT FOR SHORT

Check continuity between BCM connector M19 and ground.

Signal	BCM		Ground	Continuity
	Connector	Terminal		
OUTPUT 1	M19	85	Ground	No
OUTPUT 2		84		
OUTPUT 3		86		
OUTPUT 4		87		
OUTPUT 5		34		

Is the inspection result normal?

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

3. CHECK BCM INPUT VOLTAGE

1. Connect BCM connector M19 and combination switch connector.
2. Turn ignition switch ON.
3. Check voltage between BCM connector M19 and ground.

Signal	BCM		Ground	Voltage
	Connector	Terminal		
OUTPUT 1	M19	85	—	Refer to BCS-28, "Reference Value".
OUTPUT 2		84		
OUTPUT 3		86		
OUTPUT 4		87		
OUTPUT 5		34		

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-75, "Removal and Installation".
NO >> Replace the combination switch. Refer to BCS-76, "Removal and Installation".

SYMPTOM DIAGNOSIS

COMBINATION SWITCH SYSTEM SYMPTOMS

Symptom Table

INFOID:0000000010195955

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	RR WIPER ON	RR WIPER INT	RR WASHER SW	TURN SIGNAL R	TURN SIGNAL L	TAIL LAMP SW	HI BEAM SW	HEAD LAMP SW	LIGHT OFF SW	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 K																

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

Malfunction combination	Malfunctioning part	Repair or replace
A	Combination switch INPUT 1 circuit	Inspect the combination switch input circuit applicable to the malfunctioning part. Refer to BCS-69, "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-71, "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-75, "Removal and Installation".
L	Combination switch	Replace the combination switch. Refer to BCS-76, "Removal and Installation".

NORMAL OPERATING CONDITION

Description

INFOID:0000000010337002

SHIPPING MODE

- Shipping mode inhibits battery power consumption during transportation or storage of the vehicle. Vehicle is set to shipping mode before being shipped from the factory.
- When ignition switch is OFF, BCM operates shipping mode.
- BCM control function is limited in shipping mode. Remote keyless entry function is not operated during the shipping mode.
- For shipping mode cancel operation, refer to BCS-63, "Work Procedure".

NOTE:
Do not cancel shipping mode during storage of the vehicle. Always cancel shipping mode before delivery of the vehicle to customer.

REMOVAL AND INSTALLATION

BCM (BODY CONTROL MODULE)

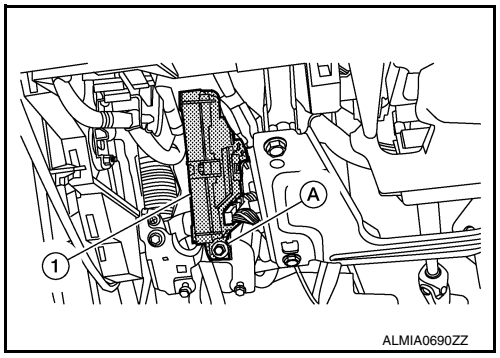
Removal and Installation

INFOID:0000000010195956

CAUTION:
Before replacing the BCM, perform "READ CONFIGURATION" to save or print current vehicle specification. Refer to BCS-60, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM) : Work Procedure".

REMOVAL

1. Disconnect the negative battery terminal. Refer to PG-77, "Removal and Installation".
2. Remove the instrument lower panel LH. Refer to IP-22, "Removal and Installation".
3. Remove the bolt (A), then pull out the BCM (1).



4. Disconnect the harness connectors from the BCM and remove.

INSTALLATION

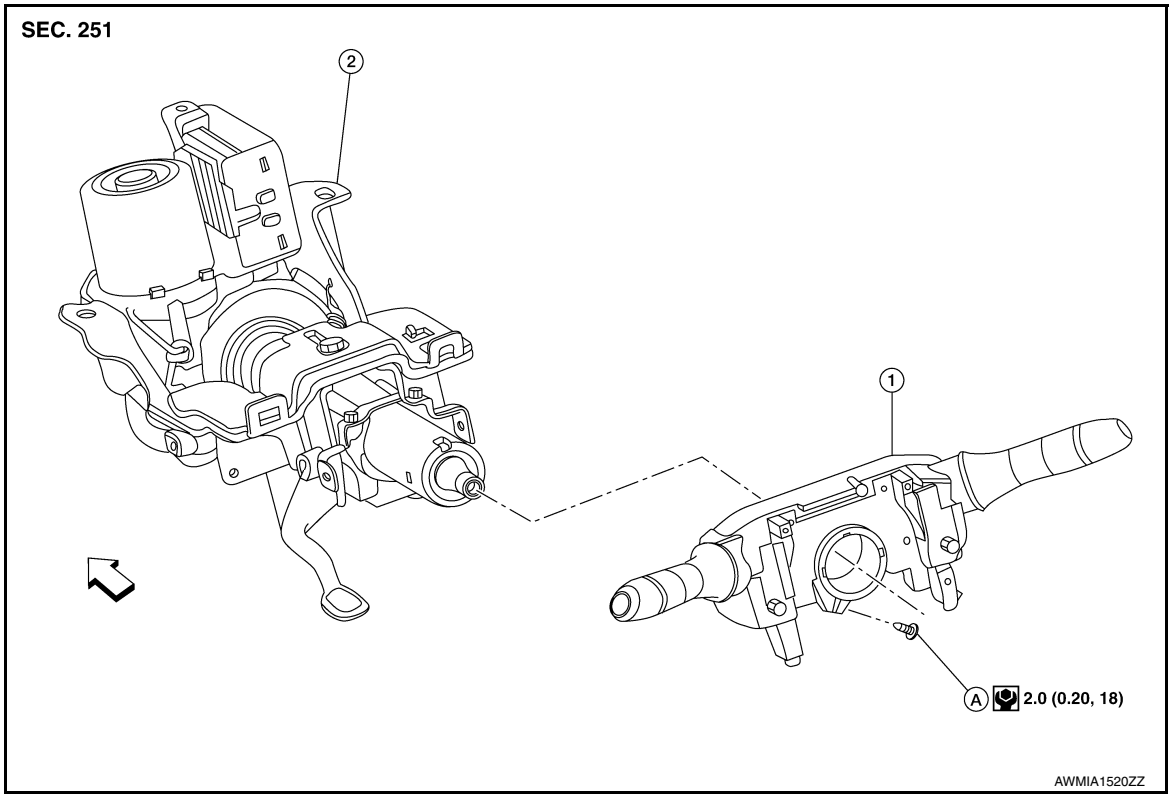
Installation is in the reverse order of removal.

CAUTION:
- **When replacing BCM, perform "WRITE CONFIGURATION" Refer to BCS-61, "CONFIGURATION (BCM) : Work Procedure".**
- **When replacing BCM, perform the system initialization (NATS). Refer to the CONSULT immobilizer mode and follow the on-screen instructions.**
- **When replacing BCM, if new BCM does not come with keyfobs attached, all existing keyfobs must be re-registered. Refer to the CONSULT immobilizer mode and follow the on screen instructions.**

COMBINATION SWITCH

Exploded View

INFOID:0000000010195957



1. Combination switch
2. Steering column
A. Screw

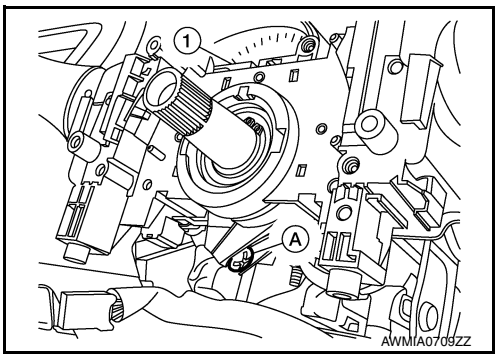
⇦ Front

Removal and Installation

INFOID:0000000010195958

REMOVAL

1. Remove the steering angle sensor. Refer to BRC-139, "Removal and Installation".
2. Disconnect harness connector from combination switch.
3. Remove screw (A) and combination switch (1).



INSTALLATION

Installation is in the reverse order of removal.

PRECAUTION

PRECAUTIONS

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

INFOID:0000000010262864

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

WARNING:

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

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

WARNING:

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

PREPARATION

PREPARATION

Special Service Tool

INFOID:0000000010430555

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

Tool number (TechMate No.) Tool name	Description
— (J-50190) Signal Tech II  ALEIA0131ZZ	• 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 • Compatible with future sensors • Equipped with a display

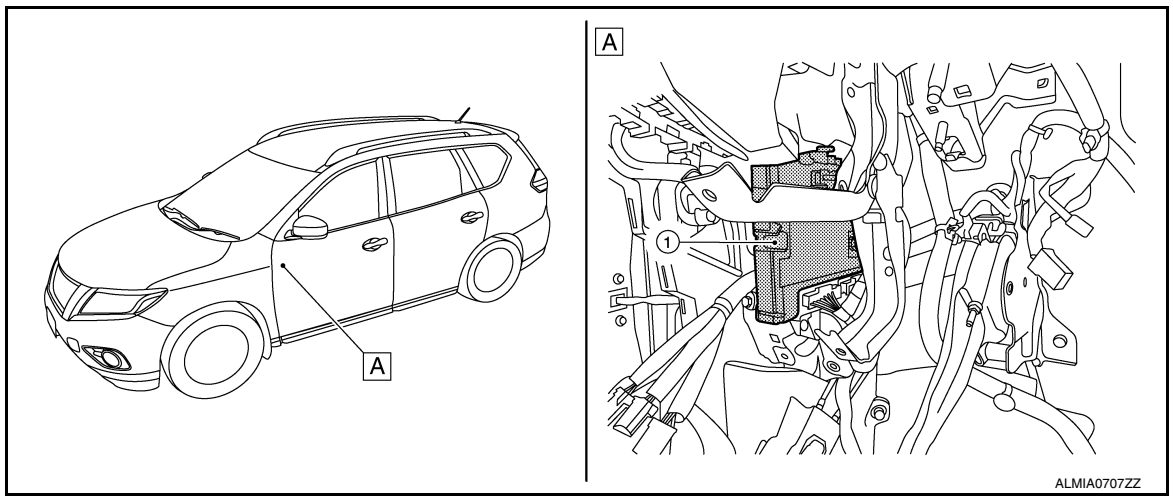
SYSTEM DESCRIPTION

COMPONENT PARTS

BODY CONTROL SYSTEM

BODY CONTROL SYSTEM : Component Parts Location

INFOID:0000000010256046

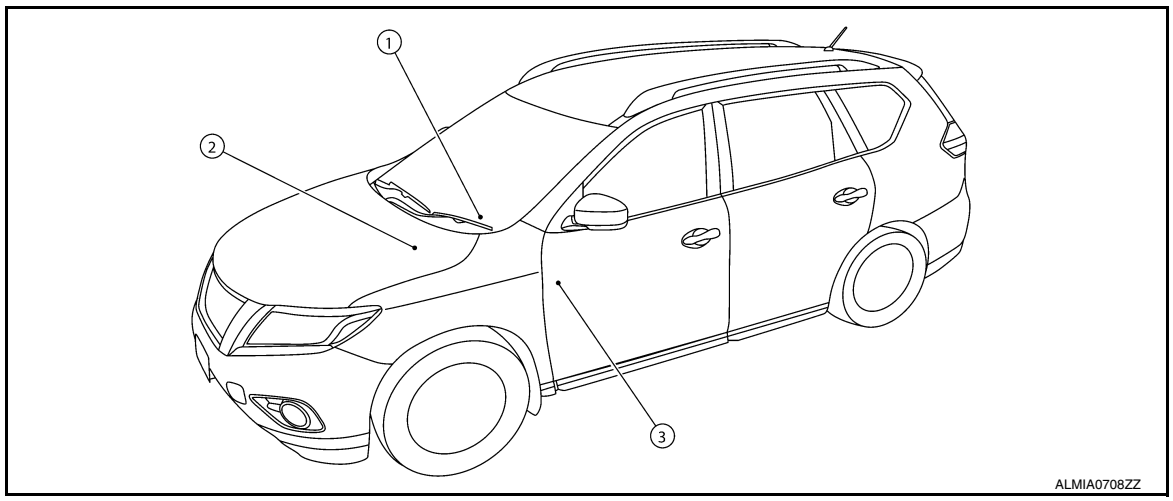


1. BCM
A. Behind instrument panel (LH)

POWER CONSUMPTION CONTROL SYSTEM

POWER CONSUMPTION CONTROL SYSTEM : Component Parts Location

INFOID:0000000010256048



1. Combination meter
Refer to MWI-6, "METER SYSTEM : Component Parts Location".
2. IPDM E/R
Refer to PCS-4, "Component Parts Location".
3. BCM
Refer to BCS-79, "BODY CONTROL SYSTEM : Component Parts Location".

SYSTEM
BODY CONTROL SYSTEM
BODY CONTROL SYSTEM : System Description

INFOID:0000000010256049

OUTLINE

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

BCM FUNCTION LIST

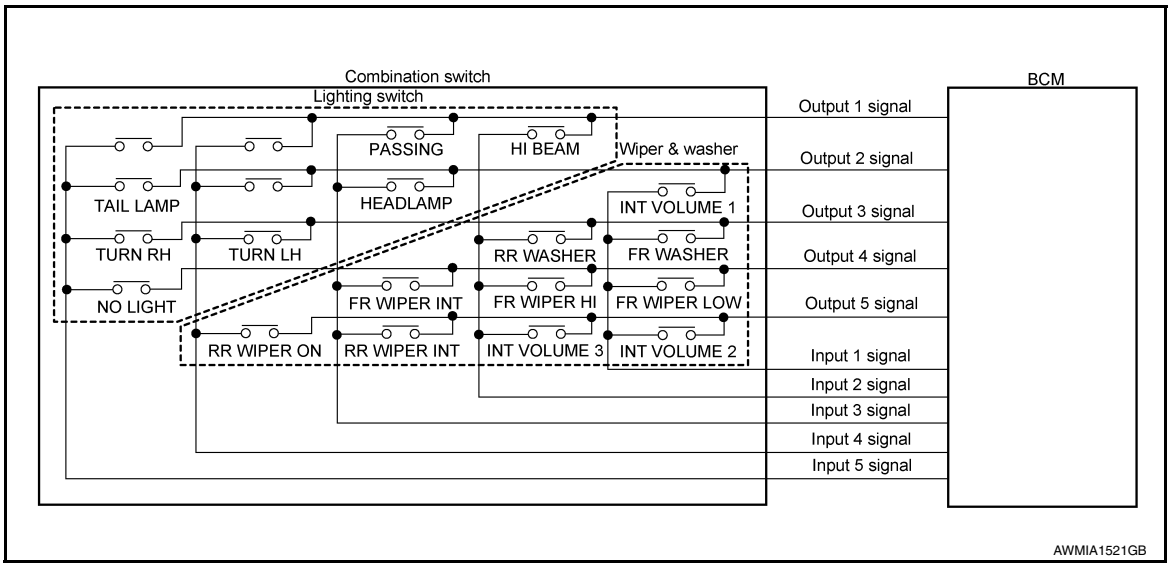
System	Refer to
Combination switch reading system	BCS-81, "COMBINATION SWITCH READING SYSTEM : System Description"
Signal buffer system	BCS-84, "SIGNAL BUFFER SYSTEM : System Description"
Power consumption control system	BCS-84, "POWER CONSUMPTION CONTROL SYSTEM : System Description"
Headlamp system	EXL-12, "HEADLAMP SYSTEM : System Description" (halogen headlamp)
Daytime light system	EXL-14, "DAYTIME RUNNING LIGHT SYSTEM : System Description" (halogen headlamp)
Turn signal and hazard warning lamps system	EXL-15, "TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM : System Description" (halogen headlamp)
Parking, license plate and tail lamps system	EXL-15, "PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMP SYSTEM : System Description" (halogen headlamp)
Exterior lamp battery saver system	EXL-18, "EXTERIOR LAMP BATTERY SAVER SYSTEM : System Description" (halogen headlamp)
Interior room lamp control system	INL-7, "INTERIOR ROOM LAMP CONTROL SYSTEM : System Description"
Interior room lamp battery saver system	INL-9, "INTERIOR ROOM LAMP BATTERY SAVER SYSTEM : System Description"
Front wiper and washer system	WW-8, "FRONT WIPER AND WASHER SYSTEM : System Description"
Rear wiper and washer system	WW-10, "REAR WIPER AND WASHER SYSTEM : System Description"
Warning chime system	WCS-6, "WARNING CHIME SYSTEM : System Description"
Door lock system	DLK-287, "POWER DOOR LOCK SYSTEM : System Description"
Back door open system	
Nissan vehicle immobilizer system (NVIS)	SEC-117, "NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS : System Description"
Vehicle security system	SEC-118, "VEHICLE SECURITY SYSTEM : System Description"
Panic alarm	
Rear window defogger system	DEF-6, "System Description"
Power window system	PWC-8, "System Description"
RAP (retained accessory power) system	BCS-94, "RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)"
TPMS (tire pressure monitoring system)	WT-8, "System Description"

COMBINATION SWITCH READING SYSTEM

COMBINATION SWITCH READING SYSTEM : System Description

INFOID:0000000010256051

SYSTEM DIAGRAM

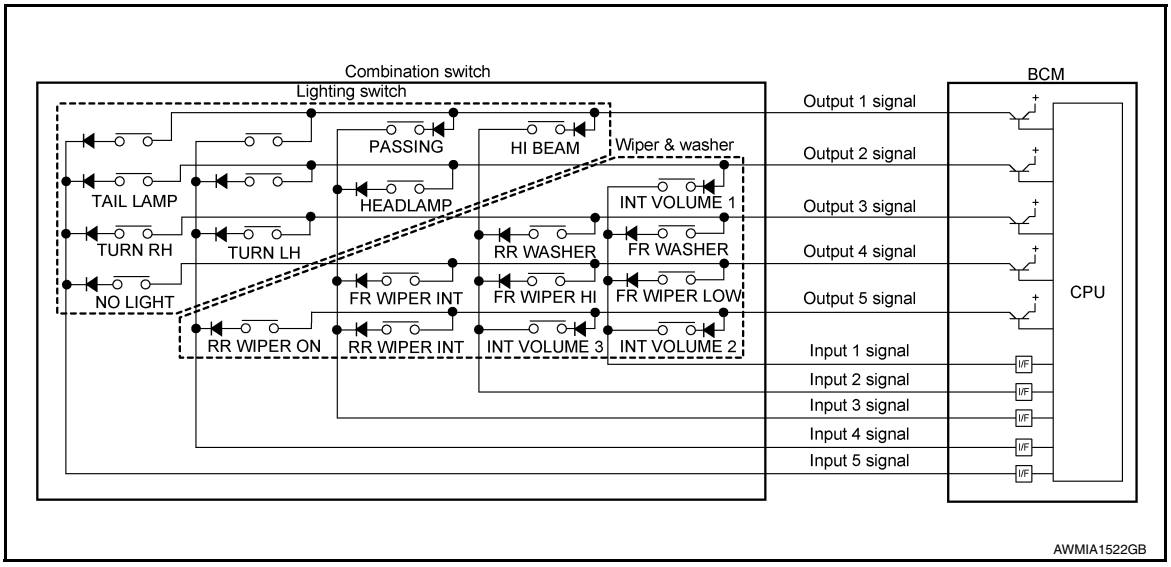


OUTLINE

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

COMBINATION SWITCH MATRIX

Combination switch circuit



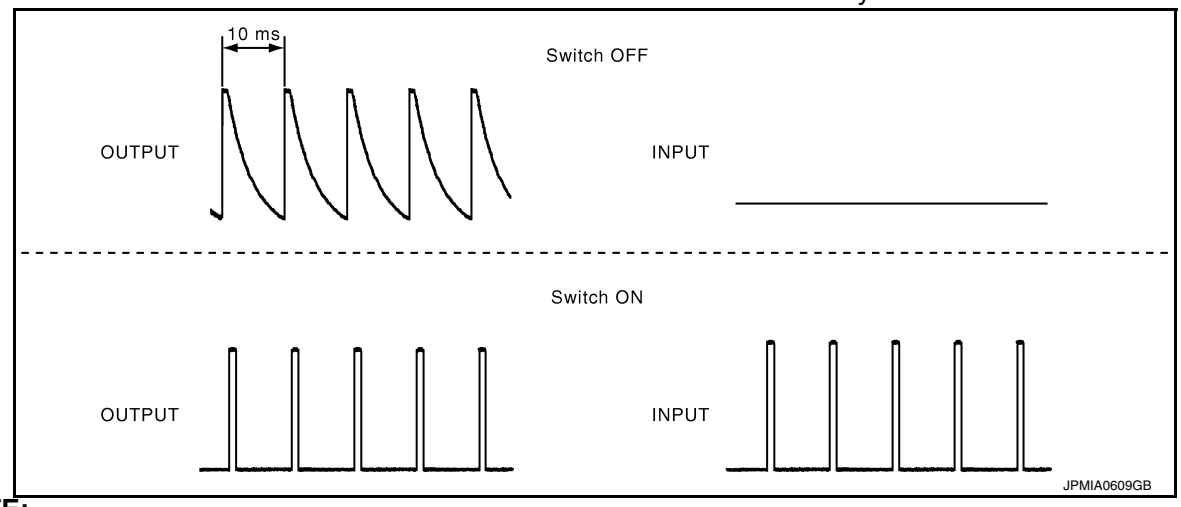
Combination switch INPUT-OUTPUT system list

System	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5
OUTPUT 1	—	HI BEAM	PASSING	—	—
OUTPUT 2	INT VOLUME 1	—	HEADLAMP	—	TAIL LAMP
OUTPUT 3	FR WASHER	RR WASHER	—	TURN LH	TURN RH
OUTPUT 4	FR WIPER LOW	FR WIPER HI	FR WIPER INT	—	NO LIGHT
OUTPUT 5	INT VOLUME 2	INT VOLUME 3	RR WIPER INT	RR WIPER ON	—

COMBINATION SWITCH READING FUNCTION

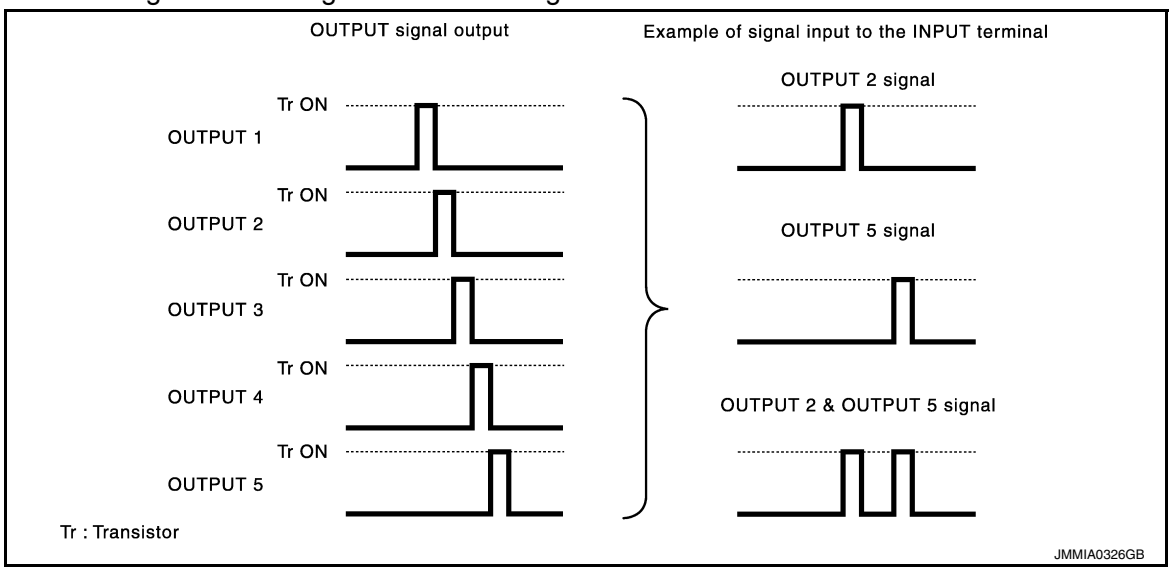
Description

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



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

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

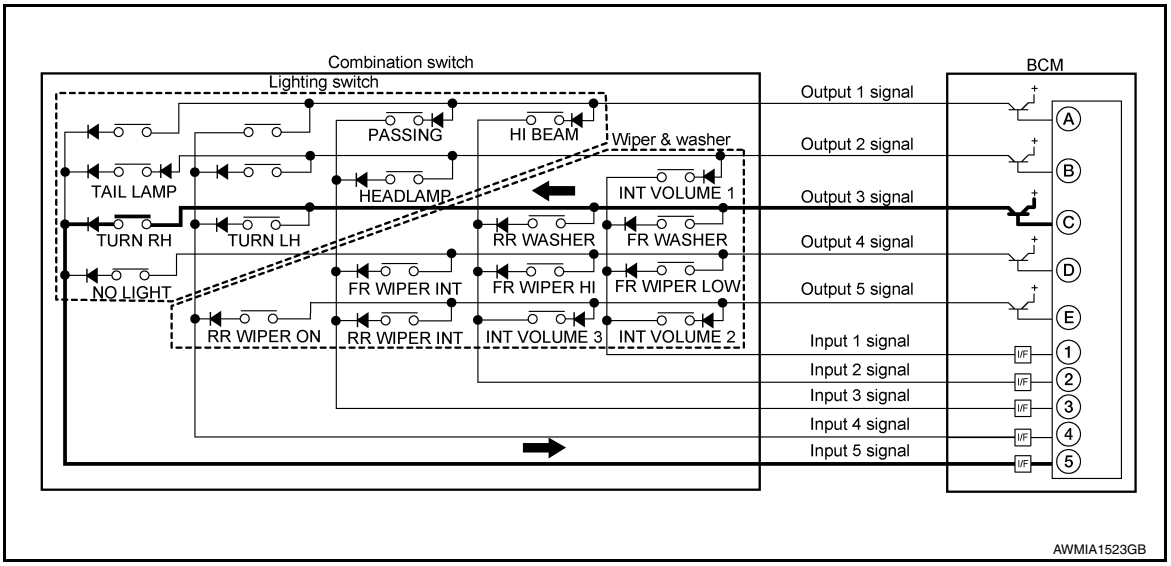


Operation Example

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

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

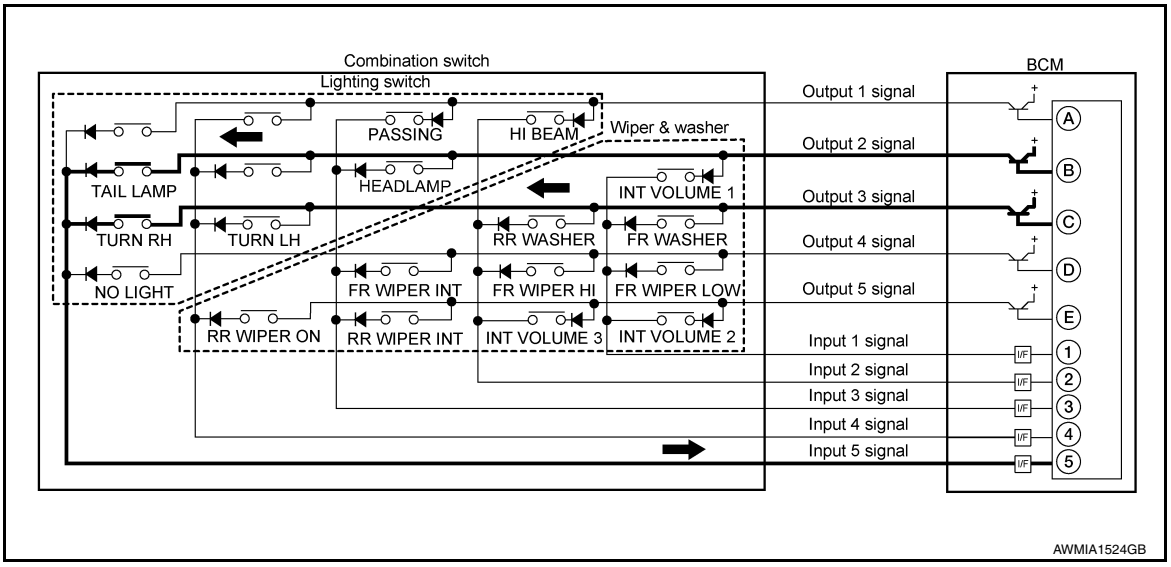
• The circuit between OUTPUT 3 and INPUT 5 is formed when the TURN RH switch is turned ON.



• BCM detects the combination switch status signal “5C” when the signal of OUTPUT 3 is input to INPUT 5.
• BCM judges that the TURN RH switch is ON when the signal “5C” is detected.

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

• The circuits between OUTPUT 2 and INPUT 5 and between OUTPUT 3 and INPUT 5 are formed when the TAIL LAMP switch and TURN RH switch are turned ON.



• BCM detects the combination switch status signal “5BC” when the signals of OUTPUT 2 and OUTPUT 3 are input to INPUT 5.
• BCM judges that the TAIL LAMP switch and TURN RH switch are ON when the signal “5BC” is detected.

WIPER INTERMITTENT DIAL POSITION SETTING (FRONT WIPER INTERMITTENT OPERATION)

BCM judges the wiper intermittent dial 1 - 4 by the status of INT VOLUME 1, 2, and 3 switches.

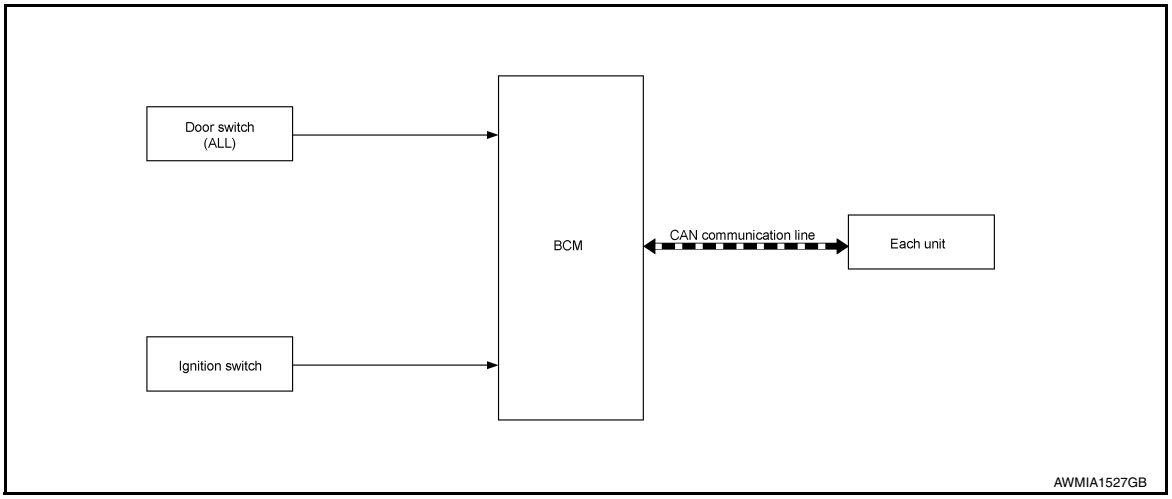
Wiper intermittent dial position	Switch status		
	INT VOLUME 1	INT VOLUME 2	INT VOLUME 3
1	OFF	OFF	OFF
2	ON	OFF	OFF
3	OFF	ON	OFF
4	OFF	OFF	ON

SIGNAL BUFFER SYSTEM

SIGNAL BUFFER SYSTEM : System Description

INFOID:0000000010256053

SYSTEM DIAGRAM



OUTLINE

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

SIGNAL TRANSMISSION FUNCTION LIST

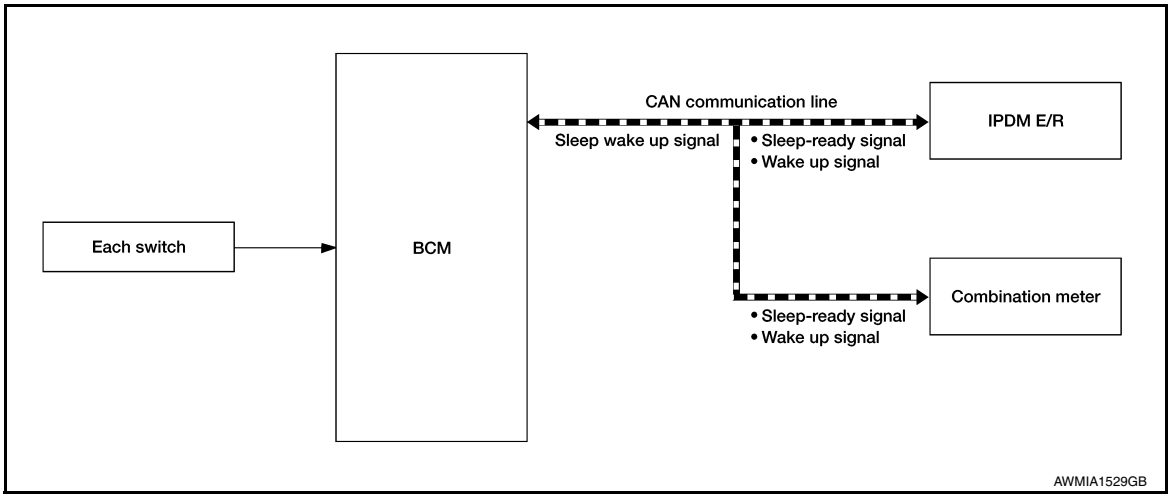
Signal name	Input	Output	Description
• Ignition switch ON signal • Ignition switch signal	Ignition switch	IPDM E/R (CAN)	Inputs the ignition switch signal and transmits the ignition switch status judged with BCM via CAN communication.
Door switch signal	Any door switch	• Combination meter (CAN) • IPDM E/R (CAN)	Inputs the door switch signal and transmits it via CAN communication.

POWER CONSUMPTION CONTROL SYSTEM

POWER CONSUMPTION CONTROL SYSTEM : System Description

INFOID:0000000010256055

SYSTEM DIAGRAM



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 each switch 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 wake-up signal. BCM is in CAN communication sleep mode.
- BCM is in the low power consumption mode and performs 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 • Brake switch: OFF • Turn signal indicator lamp: No operation • Exterior lamp: OFF • Door lock status: No change • CONSULT communication status: No communication • Meter display signal: Non-transmission • Door switch status: No change • Rear window defogger: OFF	• Interior room lamp battery saver: Time out • RAP system: OFF • NATS: No operation • Tire pressure monitoring system: Stop

WAKE-UP OPERATION

- BCM changes from the low power consumption mode to the CAN communication sleep mode when the any of the BCM wake-up conditions are 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 are 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.

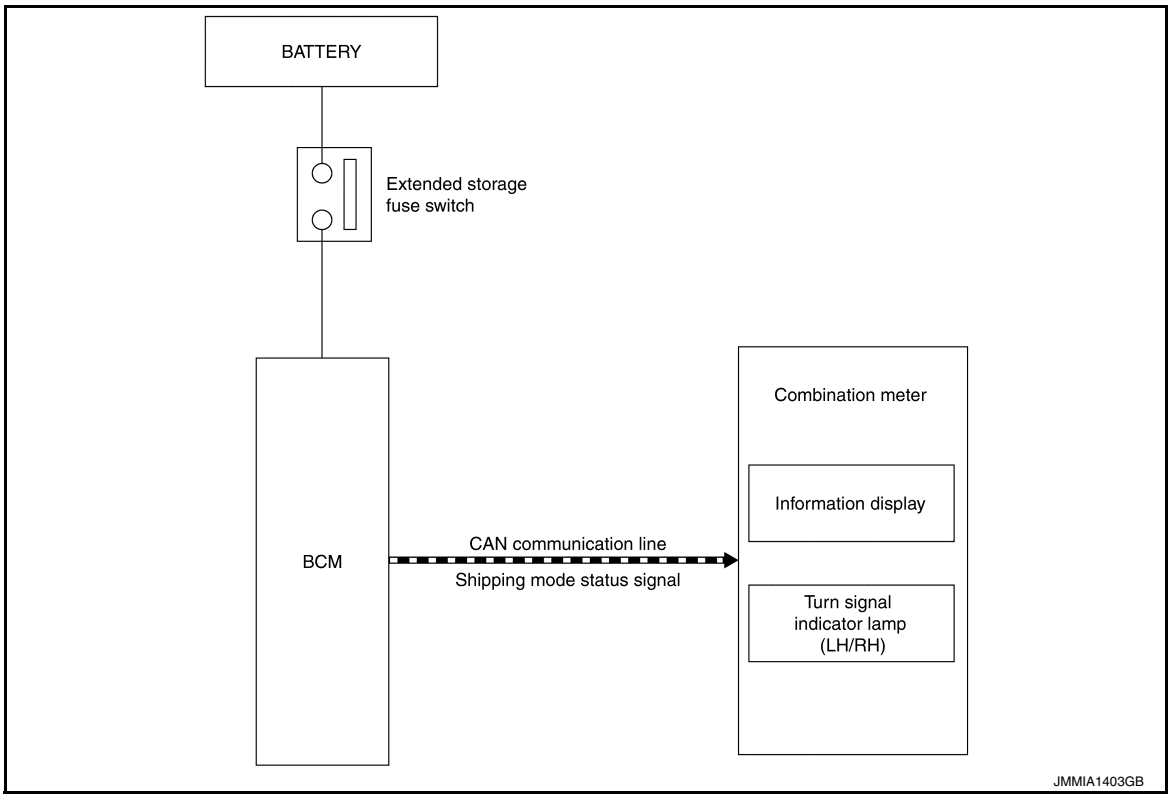
BCM wake-up condition	CAN wake-up condition
• Door lock assembly LH (key cylinder switch): Lock or unlock • Door lock switch: OFF→ON • Door unlock switch: OFF→ON • Back door opener switch: OFF→ON	• Receiving the sleep-ready signal (Not-ready) from any units • Ignition switch: OFF→ON • Hazard switch: 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 • Back door switch: OFF→ON, ON→OFF • Stop lamp switch signal: ON

SHIPPING MODE CONTROL SYSTEM

SHIPPING MODE CONTROL SYSTEM : System Description

INFOID:0000000010256056

SYSTEM DIAGRAM



DESCRIPTION

- BCM switches the status (shipping mode or normal mode) by itself according to the extended storage fuse switch condition, and transmits shipping mode status signal to combination meter and each unit via CAN communication.
- When shipping mode function operates, each control unit does not detect DTCs.
- BCM control functions are limited in shipping mode. Refer to BCS-134, "Description".
- The combination meter displays extended storage fuse warning message* on the information display, and turns the turn signal indicator lamp (LH/RH) ON, when BCM is in shipping mode.

*: When shipping mode function operates, “SHIPPING MODE ON PUSH STORAGE FUSE” is displayed.

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

INFOID:0000000010256057

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

Direct Diagnostic Mode	Description
Ecu Identification	The BCM part number is displayed.
Self Diagnostic Result	The BCM self diagnostic results are displayed.
Data Monitor	The BCM input/output data is displayed in real time.
Active Test	The BCM activates outputs to test components.
Work support	The settings for BCM functions can be changed.
Configuration	• The vehicle specification can be read and saved. • The vehicle specification can be written when replacing BCM.
CAN Diag Support Mntr	The result of transmit/receive diagnosis of CAN communication is displayed.

SYSTEM APPLICATION
BCM can perform the following functions.

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

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

INFOID:0000000010256058

SELF DIAGNOSTIC RESULT

Refer to BCS-108, "DTC Index".

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.
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 back door 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 [ALL LOCK/ALL UNLK].

WORK SUPPORT

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

* : Initial setting

REAR DEFOGGER

REAR DEFOGGER : CONSULT Function (BCM - REAR DEFOGGER)

INFOID:0000000010256059

DATA MONITOR

Monitor Item [Unit]	Description
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].

WORK SUPPORT

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

* : Initial setting

BUZZER

BUZZER : CONSULT Function (BCM - BUZZER)

INFOID:0000000010256060

DATA MONITOR

Monitor Item [Unit]	Description
TAIL LAMP SW [On/Off]	Indicates condition of combination switch.
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.
CDL LOCK SW [On/Off]	Indicates condition of lock signal from door lock and unlock switch.

ACTIVE TEST

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

INT LAMP

INT LAMP : CONSULT Function (BCM - INT LAMP)

INFOID:0000000010256061

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.
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 back door 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.
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].

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.

*: Initial setting

MULTI REMOTE ENT

MULTI REMOTE ENT : CONSULT Function (BCM - MULTI REMOTE ENT)

INFOID:0000000010256113

WORK SUPPORT

Support Item	Setting	Description
REMO CONT ID CONFIR	—	Keyfob ID code registration is displayed.

HEADLAMP

HEADLAMP : CONSULT Function (BCM - HEADLAMP)

INFOID:0000000010256062

DATA MONITOR

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 [On/Off]	
LIGHT OFF SW [On/Off]	
PASSING 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 back door switch.

ACTIVE TEST

Test Item	Description
DAYTIME RUNNING LIGHT	This test is able to check daytime running lamp operation [On/Off].
ILL DIM SIGNAL	This test is able to check head lamp illumination dimming operation [On/Off].

WIPER

WIPER : CONSULT Function (BCM - WIPER)

INFOID:0000000010256063

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]	

Monitor Item [Unit]	Description
FR WIPER STOP [On/Off]	Indicates front wiper auto stop signal received from IPDM E/R on CAN communication line.
INT VOLUME [1 – 4]	Indicates condition of intermittent wiper operation of combination switch.
RR WIPER ON [On/Off]	Indicates condition of rear wiper operation of combination switch.
RR WIPER INT [On/Off]	
RR WASHER SW [On/Off]	
RR WIPER STOP [On/Off]	Indicates rear wiper motor auto stop input from rear wiper motor.

ACTIVE TEST

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

WORK SUPPORT

Support Item	Setting	Description
WIPER SPEED SETTING	On	Front wiper intermittent time linked with vehicle speed and wiper intermittent dial position.
	Off*	Front wiper intermittent time is not linked with vehicle speed and wiper intermittent dial position.

*: Initial Setting

FLASHER

FLASHER : CONSULT Function (BCM - FLASHER)

INFOID:0000000010256064

DATA MONITOR

Monitor Item [Unit]	Description
TURN SIGNAL R [On/Off]	Indicates condition of turn signal function of combination switch.
TURN SIGNAL L [On/Off]	
HAZARD SW [On/Off]	Indicates condition of hazard switch.
RKE-LOCK [On/Off]	Indicates condition of lock signal from Intelligent Key.
RKE-UNLOCK [On/Off]	Indicates condition of unlock signal from Intelligent Key.
RKE-PANIC [On/Off]	Indicates condition of panic alarm signal from Intelligent Key.

ACTIVE TEST

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

COMB SW

COMB SW : CONSULT Function (BCM - COMB SW)

INFOID:0000000010256067

DATA MONITOR

Monitor Item [Unit]	Description
FR WIPER HI [On/Off]	Indicates condition of wiper operation of combination switch.
FR WIPER LOW [On/Off]	
FR WASHER SW [On/Off]	
FR WIPER INT [On/Off]	
INT VOLUME [1 - 4]	Indicates condition of intermittent wiper operation of combination switch.
RR WIPER ON [On/Off]	Indicates condition of rear wiper operation of combination switch.
RR WIPER INT [On/Off]	
RR WASHER SW [On/Off]	
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 [On/Off]	Indicates condition of head lamp switch operation of combination switch.
LIGHT OFF SW [On/Off]	Indicates condition of no light switch operation of combination switch.
PASSING SW [On/Off]	Indicates condition of passing switch operation of combination switch.

BCM

BCM : CONSULT Function (BCM - BCM)

INFOID:0000000010256068

ECU IDENTIFICATION
The BCM part number is displayed.

SELF DIAGNOSTIC RESULT
Refer to BCS-108, "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-121, "CONFIGURATION (BCM) : Description".

CAN DIAG SUPPORT MNTR
Refer to LAN-14, "CAN Diagnostic Support Monitor".

IMMU

IMMU : CONSULT Function (BCM - IMMU)

INFOID:0000000010256069

SELF DIAGNOSTIC RESULT
Refer to BCS-108, "DTC Index".

ACTIVE TEST

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

WORK SUPPORT

Support Item	Setting	Description
CONFIRM DONGLE ID	—	Dongle ID can be checked.

BATTERY SAVER

BATTERY SAVER : CONSULT Function (BCM - BATTERY SAVER)

INFOID:0000000010256070

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.
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 back door 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.
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].

TRUNK

TRUNK : CONSULT Function (BCM - TRUNK)

INFOID:0000000010256071

DATA MONITOR

Monitor Item [Unit]	Description
BACK DOOR OPENER SW [On/Off]	Indicates condition of back door opener switch.

THEFT ALM

THEFT ALM : CONSULT Function (BCM - THEFT ALM)

INFOID:0000000010256072

DATA MONITOR

Monitored Item	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.
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 back door 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.
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
FLASHER	This test is able to check turn signal lamp operation [LH/RH/Off].
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].

WORK SUPPORT

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

RETAINED PWR

RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)

INFOID:0000000010256073

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.

AIR PRESSURE MONITOR

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

INFOID:0000000010256075

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 sensor IDs
- Display tire pressure reported by the TPMS sensor
- Read TPMS DTCs
- Register TPMS sensor IDs

SELF DIAGNOSTIC RESULT

NOTE:
Before performing Self Diagnostic Result, be sure to register the sensor ID or the actual malfunction may be different from that displayed on CONSULT.
Refer to BCS-108, "DTC Index".

DATA MONITOR

Monitor Item [Unit]	Description
AIR PRESS FL [kPa, kg/cm^2 or Psi]	Indicates air pressure of front LH tire.
AIR PRESS FR [kPa, kg/cm^2 or Psi]	Indicates air pressure of front RH tire.
AIR PRESS RR [kPa, kg/cm^2 or Psi]	Indicates air pressure of rear RH tire.
AIR PRESS RL [kPa, kg/cm^2 or Psi]	Indicates air pressure of rear LH tire.
ID REGST FL1 [Done/Yet]	Indicates ID registration status of front LH sensor.
ID REGST FR1 [Done/Yet]	Indicates ID registration status of front RH sensor.
ID REGST RR1 [Done/Yet]	Indicates ID registration status of rear RH sensor.
ID REGST RL1 [Done/Yet]	Indicates ID registration status of rear LH sensor.

Monitor Item [Unit]	Description
WARNING LAMP [Off/On]	Indicates condition of low tire pressure warning lamp in combination meter.
BUZZER [Off/On]	Indicates condition of buzzer in combination meter.

ACTIVE TEST

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

WORK SUPPORT

Support Item	Description
ID READ	The registered ID number is displayed.
ID REGIST	Refer to WT-21, "Description".

ECU DIAGNOSIS INFORMATION

BCM

Reference Value

INFOID:0000000010256076

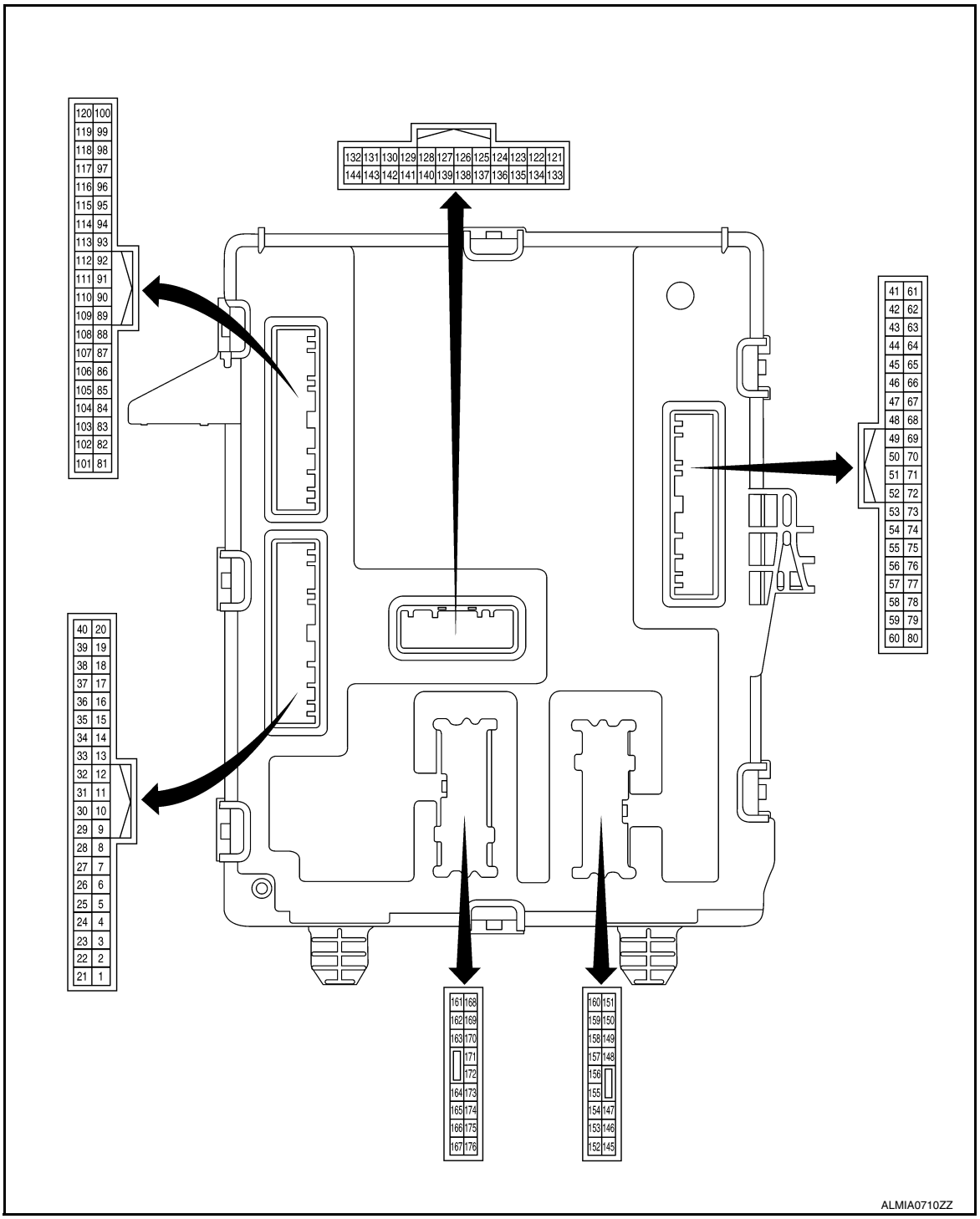
NOTE:
The Signal Tech II Tool (J-50190) can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.
- Activate and display TPMS sensor IDs
- Display tire pressure reported by the TPMS sensor
- Read TPMS DTCs
- Register TPMS sensor IDs

VALUES ON THE DIAGNOSIS TOOL

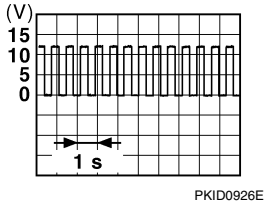
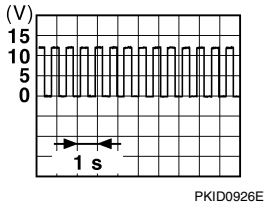
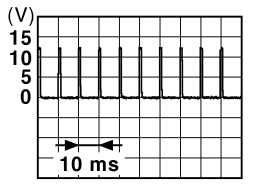
Monitor Item	Condition	Value/Status
AIR PRESS FL	Front left tire air pressure value	kPa, kg/cm^2, psi
AIR PRESS FR	Front right tire air pressure value	kPa, kg/cm^2, psi
AIR PRESS RL	Rear left tire air pressure value	kPa, kg/cm^2, psi
AIR PRESS RR	Rear right tire air pressure value	kPa, kg/cm^2, psi
BUZZER	Buzzer in combination meter OFF	Off
	Buzzer in combination meter ON	On
CDL LOCK SW	Door lock/unlock switch does not operate	Off
	Press door lock/unlock switch to the LOCK side	On
CDL UNLOCK SW	Door lock/unlock switch does not operate	Off
	Press door lock/unlock switch to the UNLOCK side	On
DOOR SW-AS	Front door RH closed	Off
	Front door RH opened	On
DOOR SW-BK	Back door closed	Off
	Back door opened	On
DOOR SW-DR	Front door LH closed	Off
	Front door LH opened	On
DOOR SW-RL	Rear door LH closed	Off
	Rear door LH opened	On
DOOR SW-RR	Rear door RH closed	Off
	Rear door RH opened	On
FR WASHER SW	Front washer switch OFF	Off
	Front washer switch ON	On
FR WIPER LOW	Front wiper switch OFF	Off
	Front wiper switch LO	On
FR WIPER HI	Front wiper switch OFF	Off
	Front wiper switch HI	On
FR WIPER INT	Front wiper switch OFF	Off
	Front wiper switch INT	On
FR WIPER STOP	Any position other than front wiper stop position	Off
	Front wiper stop position	On
HAZARD SW	When hazard switch is not pressed	Off
	When hazard switch is pressed	On

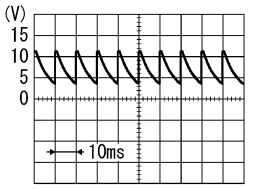
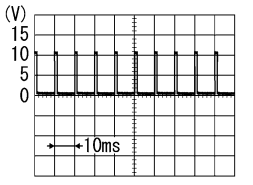
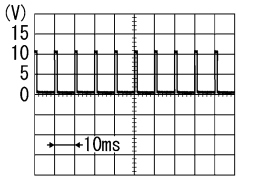
Monitor Item	Condition	Value/Status
HEAD LAMP SW	Headlamp switch OFF	Off
	Headlamp switch ON	On
HI BEAM SW	High beam switch OFF	Off
	High beam switch HI	On
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 4	1 - 4
KEY CYL LK-SW	Door key cylinder LOCK position	Off
	Door key cylinder other than LOCK position	On
KEY CYL UN-SW	Door key cylinder UNLOCK position	Off
	Door key cylinder other than UNLOCK position	On
LIGHT OFF SW	Headlamp switch ON	Off
	Headlamp switch OFF	On
PASSING SW	Other than lighting switch PASS	Off
	Lighting switch PASS	On
REAR DEF SW	Rear window defogger switch OFF	Off
	Rear window defogger switch ON	On
RR WASHER SW	Rear washer switch OFF	Off
	Rear washer switch ON	On
RR WIPER INT	Rear wiper switch OFF	Off
	Rear wiper switch INT	On
RR WIPER ON	Rear wiper switch OFF	Off
	Rear wiper switch ON	On
RR WIPER STOP	Any position other than rear wiper stop position	Off
	Rear wiper stop position	On
RKE-LOCK	When LOCK button of keyfob is not pressed	Off
	When LOCK button of keyfob is pressed	On
RKE-PANIC	When PANIC button of keyfob is not pressed	Off
	When PANIC button of keyfob is pressed	On
RKE-UNLOCK	When UNLOCK button of keyfob is not pressed	Off
	When UNLOCK button of keyfob is pressed	On
TAIL LAMP SW	Lighting switch OFF	Off
	Lighting switch ON	On
TURN SIGNAL L	Turn signal switch OFF	Off
	Turn signal switch LH	On
TURN SIGNAL R	Turn signal switch OFF	Off
	Turn signal switch RH	On
WARNING LAMP	Low tire pressure warning lamp in combination meter OFF	Off
	Low tire pressure warning lamp in combination meter ON	On

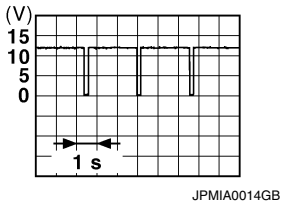
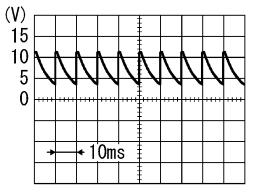
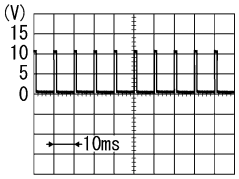
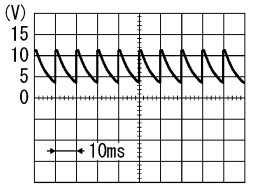
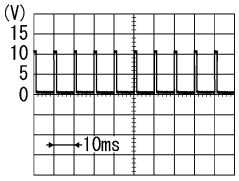
TERMINAL LAYOUT

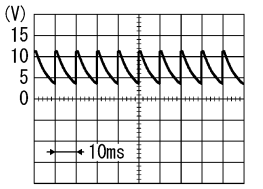
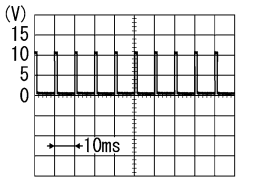
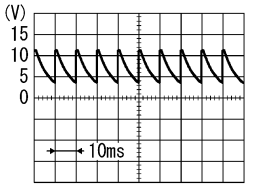
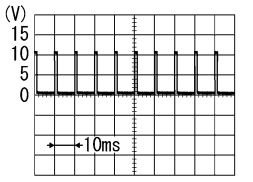
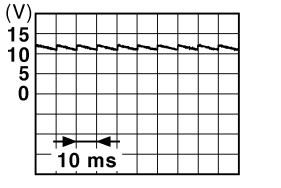


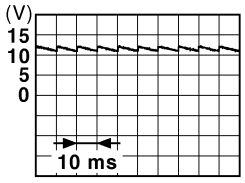
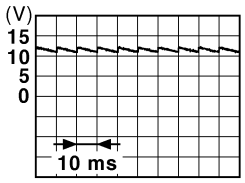
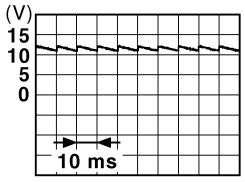
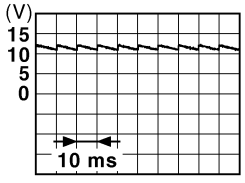
PHYSICAL VALUES

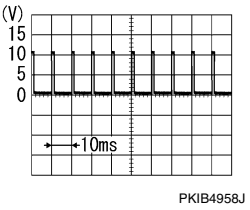
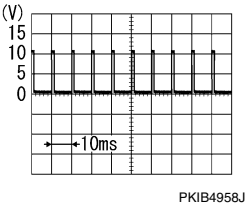
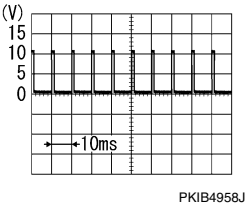
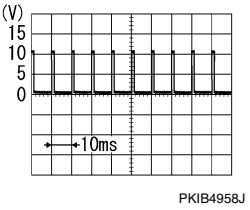
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
2 (LA/G)	Ground	Door mirror LH turn signal lamp output	Output	Ignition switch ON	Turn signal switch OFF	0V
					Turn signal switch LH	 PKID0926E 6.5 V
3 (LA/Y)	Ground	Door mirror RH turn signal lamp output	Output	Ignition switch ON	Turn signal switch OFF	0V
					Turn signal switch RH	 PKID0926E 6.5 V
4 (P)	Ground	Room lamp relay control	Output	Ignition switch OFF	Interior room lamp battery saver operation timed out	Battery voltage
					Any time prior to interior room lamp battery saver operation timed out	0V
5 (R)	Ground	CAN L	Input/ Output	—		—
6 (L)	Ground	CAN H	Input/ Output	—		—
8 (L)	Ground	CAN H	Input/ Output	—		—
9 (R)	Ground	CAN L	Input/ Output	—		—
10 (BG)	Ground	Main power window and door lock/unlock switch lock signal	Input	Main power window and door lock/unlock switch (door lock/unlock switch)	Lock	Battery voltage
					Unlock	0V
11 (Y)	Ground	Hazard switch	Input	Hazard switch	Pressed	0 V
					Released	 JPMIA0012GB 1.1V

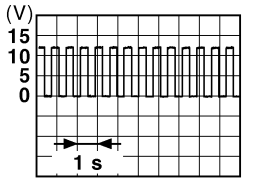
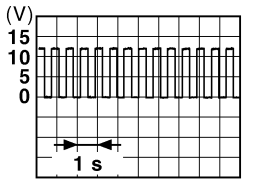
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
(+)	(-)					
12 (W)	Ground	Auto light power supply 5V	Output	Ignition switch	OFF	0V
					ON	5V
16 (P)	Ground	Audio dongle	Input/ Output	Ignition switch	OFF	5V
17 (L)	Ground	CVT shift selector park position switch power	Output	Selector lever	P position	0V
					Except P position	Battery voltage
19 (LG)	Ground	Auto light signal	Input	Ignition switch ON	Outside of vehicle is bright	Close to 5V
					Outside of vehicle is dark	Close to 0V
23 (G)	Ground	Power window relay control	Output	Ignition switch	OFF	Battery voltage
					ON	0V
24 (LA/R)	Ground	Rear window defogger relay control	Output	Rear window defogger	Not activated	Battery voltage
					Activated	0V
25 (BR)	Ground	Accessory relay-1 control	Output	Ignition switch	OFF	Battery voltage
					ON	0V
27 (Y)	Ground	Ignition relay-1 control	Output	Ignition switch	OFF	Battery voltage
					ON	0V
28 (LA/W)	Ground	Front blower motor relay control	Output	Ignition switch	OFF	Battery voltage
					ON	0V
30 (V)	Ground	Auto light reference ground	Output	Ignition switch	ON	0V
33 (LG)	Ground	Combination switch output 5	Output	Combination switch (Wiper intermittent dial 1)	OFF	 PKIB4960J 7.0 – 8.0V
					INT VOLUME 2	 PKIB4958J 1.2V
					INT VOLUME 3	
					RR WIPER INT	
					RR WIPER ON	
34 (Y)	Ground	Combination switch input 5	Input	Combination switch (Wiper intermittent dial 1)	OFF	0V
					TAIL LAMP	 PKIB4958J 1.0V
					TURN RH	
					NO LIGHT	

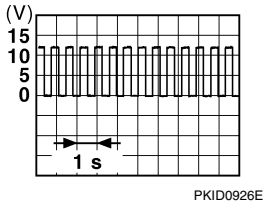
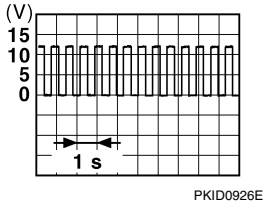
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
35 (BG)	Ground	Security indicator	Output	Security indicator	ON	0V
					Blinking	 JPMIA0014GB 11.3V
					OFF	Battery voltage
36 (G)	Ground	Combination switch output 3	Output	Combination switch (Wiper intermittent dial 1)	OFF	 PKIB4960J 7.0 – 8.0V
					FR WASHER RR WASHER TURN LH	 PKIB4958J 1.2V
					TURN RH	
37 (GR)	Ground	Combination switch output 4	Output	Combination switch (Wiper intermittent dial 1)	OFF	 PKIB4960J 7.0 – 8.0V
					FR WIPER LOW FR WIPER HI FR WIPER INT	 PKIB4958J 1.2V
					NO LIGHT	

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
38 (V)	Ground	Combination switch output 1	Output	Combination switch (Wiper intermittent dial 1)	OFF	 PKIB4960J 7.0 – 8.0V
					HI BEAM PASSING	 PKIB4958J 1.2V
					FR FOG	
39 (W)	Ground	Combination switch output 2	Output	Combination switch (Wiper intermittent dial 4)	OFF	 PKIB4960J 7.0 – 8.0V
					INT VOLUME 1 HEADLAMP	 PKIB4958J 1.2V
					TAIL LAMP	
40 (SB)	Ground	Main power window and door lock/unlock switch unlock signal	Input	Main power window and door lock/unlock switch (door lock/unlock switch)	Unlock	Battery voltage
					Lock	0V
50 (W)	Ground	Right rear door switch	Input	Rear door switch RH	OFF (door closed)	 JPMIA0011GB 11.8V
					ON (door open)	0V

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
51 (LG)	Ground	Back door switch	Input	Back door lock assembly (door ajar switch)	OFF (door closed)	 JPMIA0011GB 11.8V
					ON (door open)	0V
52 (R)	Ground	Left rear door switch	Input	Rear door switch LH	OFF (door closed)	 JPMIA0011GB 11.8V
					ON (door open)	0V
53 (SB)	Ground	Passenger door switch	Input	Front door switch RH	OFF (door closed)	 JPMIA0011GB 11.8 V
					ON (door open)	0V
55 (LA/G)	Ground	Rear wiper autostop switch	Input	Ignition switch ON	Rear wiper stop position	Battery voltage
					Any position other than rear wiper stop	0V
56 (Y)	Ground	Back door open switch	Input	Back door opener switch	Switch released	Battery voltage
					Switch pressed	0V
57 (SB)	Ground	Driver door switch	Input	Front door switch LH	OFF (door closed)	 JPMIA0011GB 11.8V
					ON (door open)	0V
60 (L)	Ground	CAN H	Input/ Output	—		—
79 (LA/W)	Ground	High-mounted stop lamp output	Output	Brake pedal	Released	0V
					Depressed	Battery voltage
80 (P)	Ground	CAN L	Input/ Output	—		—

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
81 (L)	Ground	Key switch signal	Input	Ignition switch	Ignition key inserted into ignition key cylinder	Battery voltage
					Ignition key removed from ignition key cylinder	0 V
82 (LA/R)	Ground	Ignition switch start signal	Input	Ignition switch	OFF	0 V
					START	Battery voltage
84 (BR)	Ground	Combination switch input 2	Input	Combination switch (Wiper intermittent dial 1)	OFF	0V
					HI BEAM	 PKIB4958J 1.0V
					RR WASHER	
					FR WIPER HI	
					INT VOLUME 3	
85 (SB)	Ground	Combination switch input 1	Input	Combination switch (Wiper intermittent dial 1)	OFF	0V
					INT VOLUME 1	 PKIB4958J 1.0V
					FR WASHER	
					FR WIPER LOW	
					INT VOLUME 2	
86 (P)	Ground	Combination switch input 3	Input	Combination switch (Wiper intermittent dial 1)	OFF	0V
					PASSING	 PKIB4958J 1.0V
					HEADLAMP	
					FR WIPER INT	
					RR WIPER INT	
87 (BG)	Ground	Combination switch input 4	Input	Combination switch (Wiper intermittent dial 1)	OFF	0V
					TURN LH	 PKIB4958J 1.0V
					RR WIPER ON	
92 (BR)	Ground	Front door lock assembly LH key cylinder switch lock signal	Input	Key cylinder switch	OFF (neutral)	Battery voltage
					ON (lock)	0V
93 (P)	Ground	Front door lock assembly LH key cylinder switch unlock signal	Input	Key cylinder switch	OFF (neutral)	Battery voltage
					ON (unlock)	0V

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
94 (G)	Ground	CVT shift selector park position switch signal	Input	Selector lever	P position	0V
					Except P position	Battery voltage
95 (V)	Ground	Shorting input	Input	Ignition switch	OFF	Battery voltage
104 (R)	Ground	Front door lock assembly LH knob switch unlock signal	Input	Door lock knob	OFF (lock)	Battery voltage
					ON (unlock)	0V
105 (Y)	Ground	Ignition switch ON signal	Input	Ignition switch	OFF	0 V
					ON	Battery voltage
106 (W)	Ground	Audio unit/AV control unit accessory power supply	Input	Ignition switch	ON	Battery voltage
109 (P)	Ground	Immobilizer one way communication (clock) signal	Input/ Output	Ignition switch ON	While waiting	Ignition switch ON: pointer of tester should move.
113 (LG)	Ground	Immobilizer two way communication signal	Input/ Output	Ignition switch ON	While waiting	Ignition switch ON: pointer of tester should move.
125 (LG)	Ground	Stop lamp switch signal	Input	Brake pedal	Released	0V
					Depressed	Battery voltage
126 (W)	Ground	Brake pedal position switch signal	Input	Brake pedal	Released	0V
					Depressed	Battery voltage
135 (BR)	Ground	Front combination lamp LH turn signal lamp output	Output	Ignition switch ON	Turn signal switch OFF	0V
					Turn signal switch LH	 PKID0926E 6.5 V
136 (GR)	Ground	Front combination lamp RH turn signal lamp output	Output	Ignition switch ON	Turn signal switch OFF	0V
					Turn signal switch RH	 PKID0926E 6.5 V
139 (G)	Ground	Starter cut relay control	Output	Ignition switch	OFF	Battery voltage
					ON	0V
145 (LA/V)	Ground	Back door lock assembly opener motor open	Output	Back door opener switch pressed	Open (motor activated)	Battery voltage
				Back door opener switch released	Closed (motor not activated)	0V
147 (LA/R)	Ground	Rear wiper output	Output	Rear wiper	OFF	0V
					ON	Battery voltage

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
148 (W)	Ground	Rear door lock actuator LH and RH actuator unlock	Output	Main power window and door lock/unlock switch (door lock/unlock switch)	Unlock (actuator activated)	Battery voltage
					Lock (actuator not activated)	0V
149 (L)	Ground	Rear door lock actuator LH and RH actuator lock	Output	Main power window and door lock/unlock switch (door lock/unlock switch)	Lock (actuator activated)	Battery voltage
					Unlock (actuator not activated)	0V
151 (R)	Ground	Luggage lamp control (pwm)	Output	Room lamp relay	OFF	Battery voltage
					ON	0V
153 (LA/W)	Ground	Rear combination lamp RH stop lamp output	Output	Brake pedal	Released	0V
					Depressed	Battery voltage
157 (GR)	Ground	Rear combination lamp LH turn signal/hazard lamp output	Output	Ignition switch ON	Turn signal switch OFF	0V
					Turn signal switch LH	 PKID0926E 6.5 V
158 (LA/Y)	Ground	Rear combination lamp LH stop lamp output	Output	Brake pedal	Released	0V
					Depressed	Battery voltage
160 (P)	Ground	Rear combination lamp RH turn signal/hazard lamp output	Output	Ignition switch ON	Turn signal switch OFF	0V
					Turn signal switch RH	 PKID0926E 6.5 V
161 (W)	Ground	BCM power supply	Input	Ignition switch	OFF	Battery voltage
162 (SB)	Ground	Interior lamp control (pwm)	Output	Map lamp and/or personal lamp 2nd row	OFF	Battery voltage
					DOOR	0V
163 (L)	Ground	Front door lock actuator RH actuator unlock	Output	Main power window and door lock/unlock switch (door lock/unlock switch)	Unlock (actuator activated)	Battery voltage
					Lock (actuator not activated)	0V

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
165 (V)	Ground	Front door lock actuator LH and RH actuator lock	Output	Main power window and door lock/unlock switch (door lock/unlock switch)	Lock (actuator activated)	Battery voltage
					Unlock (actuator not activated)	0V
167 (LA/V)	Ground	Power door lock battery power supply	Input	Ignition switch	OFF	Battery voltage
168 (BG)	Ground	Turn signal/hazard battery power supply	Input	Ignition switch	OFF	Battery voltage
169 (GR)	Ground	Stop lamp battery power supply	Input	Ignition switch	OFF	Battery voltage
170 (B)	Ground	Ground1	Input	Ignition switch	ON	0V
171 (B)	Ground	Ground2	Input	Ignition switch	ON	0V
172 (G)	Ground	Front door lock assembly LH actuator unlock	Output	Main power window and door lock/unlock switch (door lock/unlock switch)	Unlock (actuator activated)	Battery voltage
					Lock (actuator not activated)	0V
175 (R)	Ground	Power door lock2 battery power supply	Input	Ignition switch	OFF	Battery voltage
176 (LG)	Ground	Rear wiper battery power supply	Input	Ignition switch	OFF	Battery voltage

Fail Safe

INFOID:0000000010256077

CONSULT Display	Fail-safe	Cancellation
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2562: LOW VOLTAGE	Inhibit engine cranking	100 ms after the power supply voltage increases to more than 8.8 V
B260F: ECM CAN COMM	Inhibit engine cranking	When any of the following conditions are fulfilled • Ignition switch changes to ON • Receives engine status signal (CAN)
B261E: FUEL MIS CONFIG	Inhibit engine cranking	BCM initialization

DTC Inspection Priority Chart

INFOID:0000000010256078

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

Priority	DTC
1	• B2562: LOW VOLTAGE
2	• U1000: CAN COMM CIRCUIT • U1010: CONTROL UNIT (CAN)
3	• B2192: ID DISCORD BCM-ECM • B2193: CHAIN OF BCM-ECM • B2196: DONGLE NG • B2198: NATS ANTENNA AMP

Priority	DTC
4	• B2557: VEHICLE SPEED • B2602: SHIFT P DIAG • B260F: ECM CAN COMM • B2614: ACC RELAY REQ F/B • B2615: BLOWER RELAY CIRC • B2616: IGN RELAY2 REQ F/B • B261A: ENGINE SW • B261E: FUEL MIS CONFIG • B27D1: ST CUT RELAY OFF STUCK FAIL • B27D2: ST CUT RELAY ON STUCK FAIL • C1729: VHCL SPEED SIG ERR • U0415: VEHICLE SPEED SIG
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 • C1716: [PRESSDATA ERR] FL • C1717: [PRESSDATA ERR] FR • C1718: [PRESSDATA ERR] RR • C1719: [PRESSDATA ERR] RL • C1730: FLAT TIRE FL • C1731: FLAT TIRE FR • C1732: FLAT TIRE RR • C1733: FLAT TIRE RL • C1734: CONTROL UNIT • C1735: IGN CIRCUIT OPEN • C1765: WSSP DATA FAIL FL • C1766: WSSP DATA FAIL FR • C1767: WSSP DATA FAIL RL • C1768: WSSP DATA FAIL RR • C1769: CONFIG SETTING • C1770: G SENSOR FAIL FL • C1771: G SENSOR FAIL FR • C1772: G SENSOR FAIL RR • C1773: G SENSOR FAIL RL

DTC Index

INFOID:0000000010256079

NOTE:

Details of time display

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

CONSULT display	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-124, "Description"
U1010: CONTROL UNIT (CAN)	—	—	—	BCS-125, "DTC Logic"
U0415: VEHICLE SPEED SIG	—	—	—	BCS-126, "Description"
B2192: ID DISCORD BCM-ECM	×	—	—	SEC-163, "DTC Logic"

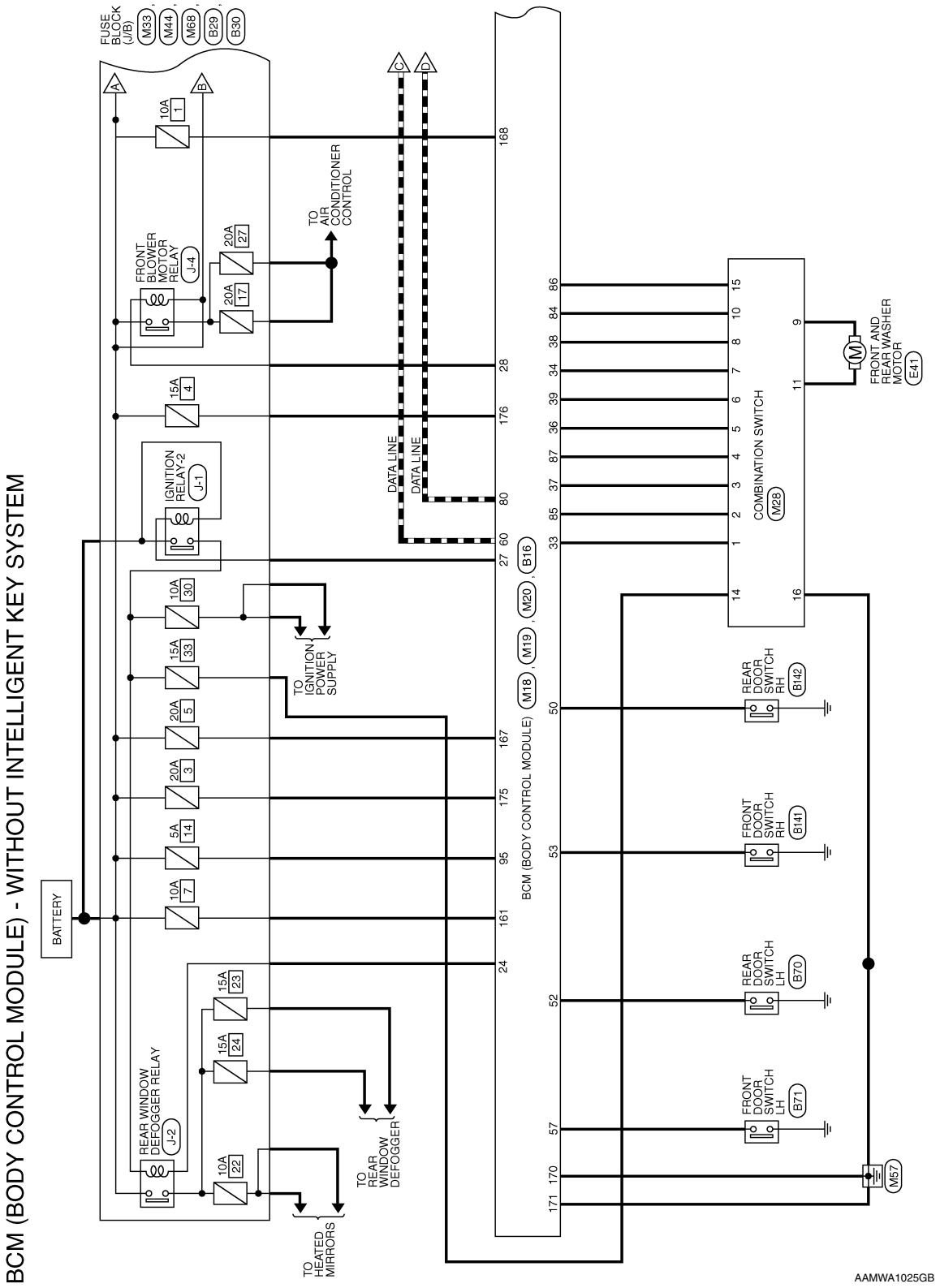
CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
B2193: CHAIN OF BCM-ECM	×	—	—	SEC-164, "DTC Logic"
B2196: DONGLE NG	—	—	—	SEC-165, "Description"
B2198: NATS ANTENNA AMP.	—	—	—	SEC-167, "DTC Logic"
B2557: VEHICLE SPEED	—	×	—	SEC-170, "DTC Logic"
B2562: LOW VOLTAGE	×	—	—	BCS-127, "DTC Logic"
B2602: SHIFT P DIAG	—	×	—	SEC-171, "DTC Logic"
B260F: ECM CAN COMM	×	×	—	SEC-174, "Description"
B2614: ACC RELAY REQ F/B	—	×	—	PCS-64, "DTC Logic"
B2615: BLOWER RELAY CIRC	—	×	—	PCS-66, "DTC Logic"
B2616: IGN RELAY2 REQ F/B	—	×	—	PCS-68, "DTC Logic"
B261A: PUSH-BTN IGN SW	—	×	—	PCS-70, "DTC Logic"
B261E: FUEL MIS CONFIG	×	× (Turn ON for 15 seconds)	—	SEC-176, "Description"
B27D1: ST CUT RELAY OFF STUCK FAIL	—	—	—	SEC-178, "DTC Logic"
B27D2: ST CUT RELAY ON STUCK FAIL	—	—	—	SEC-181, "DTC Logic"
C1704: LOW PRESSURE FL	—	—	×	WT-24, "DTC Logic"
C1705: LOW PRESSURE FR	—	—	×	
C1706: LOW PRESSURE RR	—	—	×	
C1707: LOW PRESSURE RL	—	—	×	
C1708: [NO DATA] FL	—	—	×	WT-26, "DTC Logic"
C1709: [NO DATA] FR	—	—	×	
C1710: [NO DATA] RR	—	—	×	
C1711: [NO DATA] RL	—	—	×	
C1716: [PRESSDATA ERR] FL	—	—	×	WT-29, "DTC Logic"
C1717: [PRESSDATA ERR] FR	—	—	×	
C1718: [PRESSDATA ERR] RR	—	—	×	
C1719: [PRESSDATA ERR] RL	—	—	×	
C1729: VHCL SPEED SIG ERR	—	—	×	WT-31, "DTC Logic"
C1730: FLAT TIRE FL	—	—	×	WT-32, "DTC Logic"
C1731: FLAT TIRE FR	—	—	×	
C1732: FLAT TIRE RR	—	—	×	
C1733: FLAT TIRE RL	—	—	×	
C1734: CONTROL UNIT	—	—	×	WT-34, "DTC Logic"
C1735: IGN CIRCUIT OPEN	—	—	×	WT-36, "DTC Logic"
C1765: WSSP DATA FAIL FL	—	—	×	WT-38, "DTC Description"
C1766: WSSP DATA FAIL FR	—	—	×	
C1767: WSSP DATA FAIL RL	—	—	×	
C1768: WSSP DATA FAIL RR	—	—	×	
C1769: CONFIG SETTING	—	—	×	WT-39, "DTC Description"
C1770: G SENSOR FAIL FL	—	—	×	WT-40, "DTC Description"
C1771: G SENSOR FAIL FR	—	—	×	
C1772: G SENSOR FAIL RR	—	—	×	
C1773: G SENSOR FAIL RL	—	—	×	

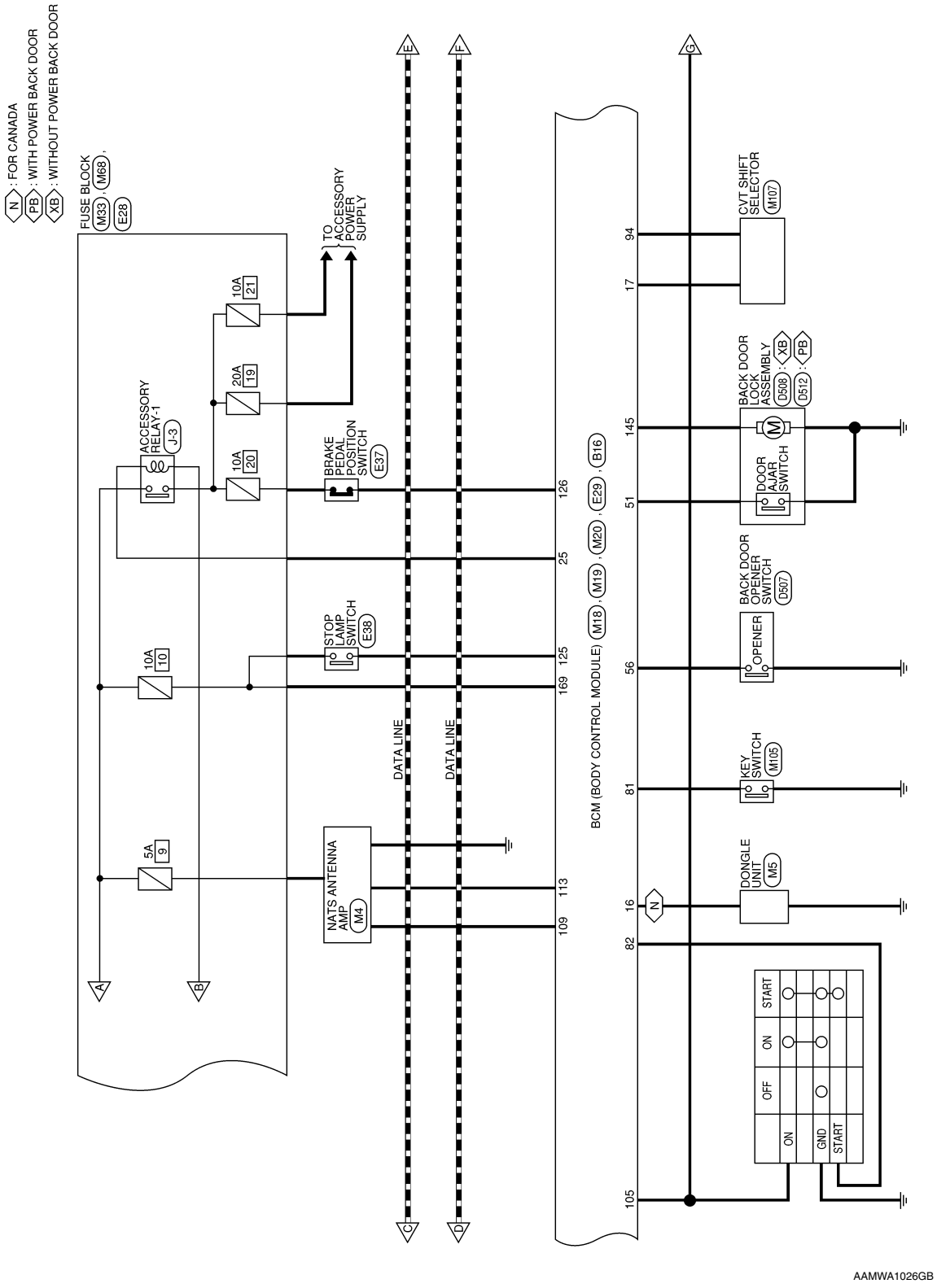
WIRING DIAGRAM

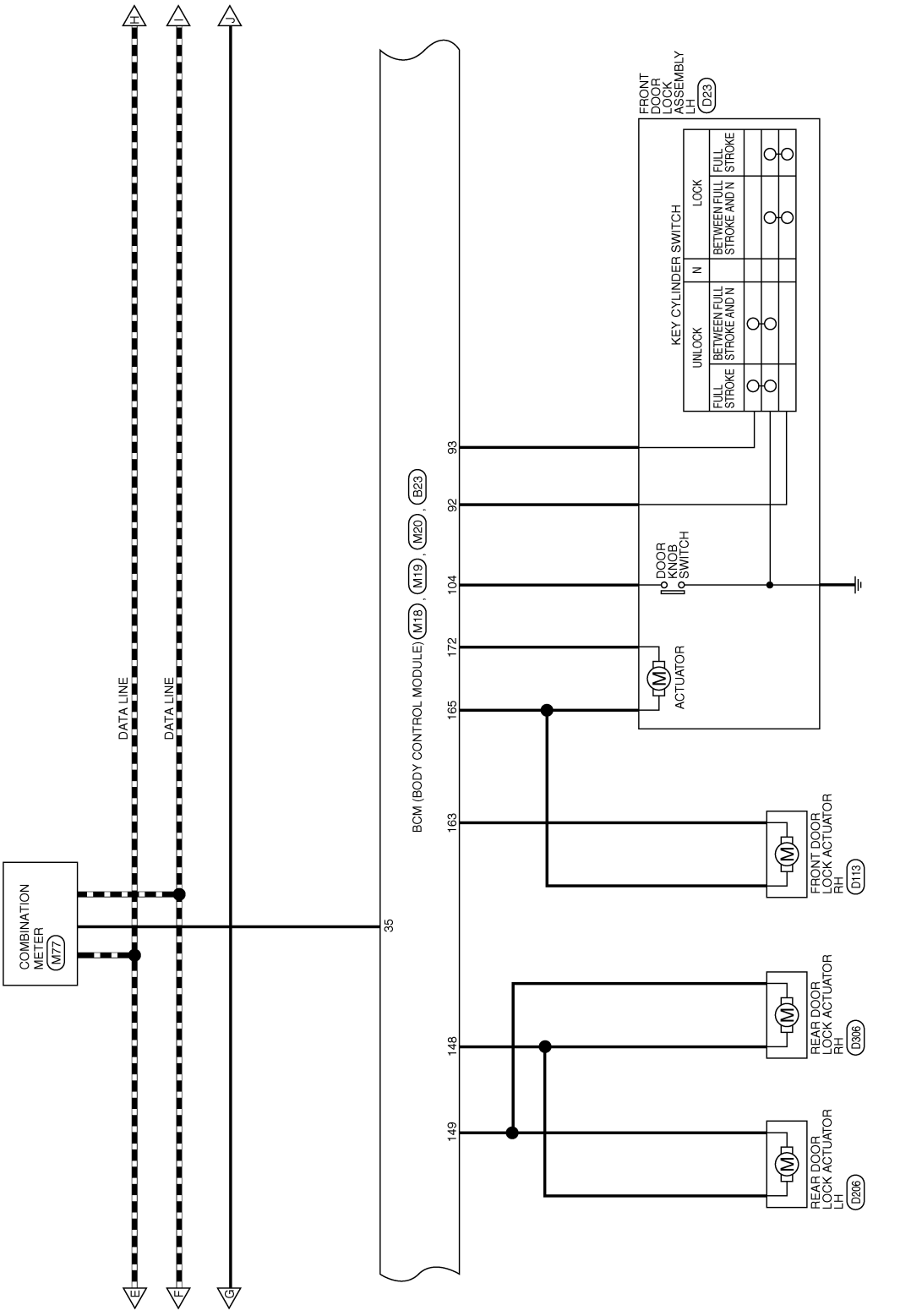
BCM

Wiring Diagram

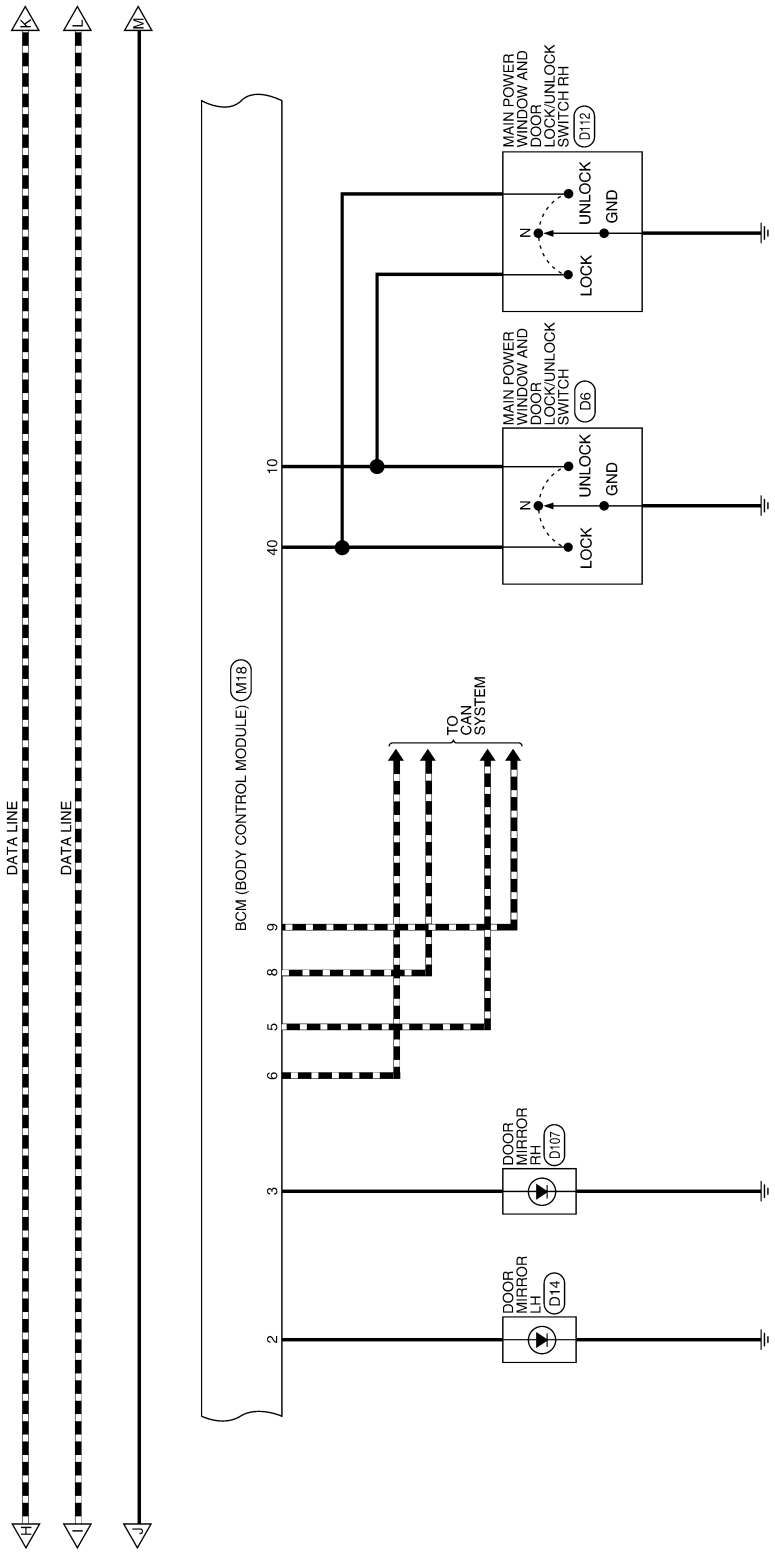
INFOID:0000000010256080



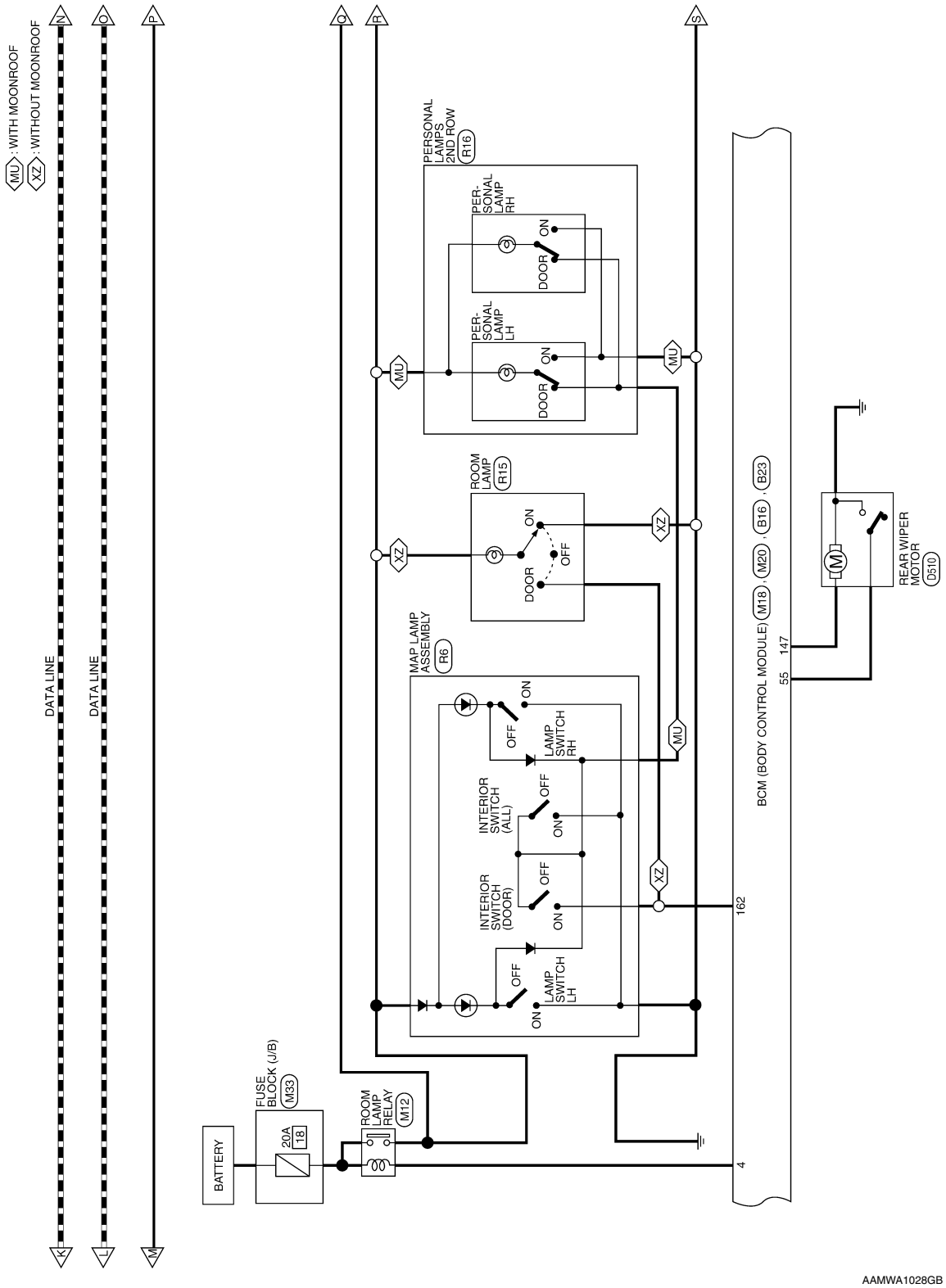

N : FOR CANADA
PB : WITH POWER BACK DOOR
XB : WITHOUT POWER BACK DOOR
FUSE BLOCK (M33), (M68), E28
TO ACCESSORY POWER SUPPLY
10A 21
20A 19
10A 20
ACCESSORY RELAY-1 J-3
BRAKE PEDAL POSITION SWITCH E37
STOP LAMP SWITCH E38
10A 10
5A 9
NATS ANTENNA AMP M4
DATA LINE
DATA LINE
BCM (BODY CONTROL MODULE) (M18), (M19), (M20), (E29), (B16)
126
25
125
169
113
109
94
17
145
51
56
81
16
82
105
CVT SHIFT SELECTOR M107
BACK DOOR LOCK ASSEMBLY D508 : XB D512 : PB
DOOR AJAR SWITCH
BACK DOOR OPENER SWITCH D507
OPENER
KEY SWITCH M105
DONGLE UNIT M5
N
A
B
C
D
E
F
G
OFF
ACC
ON
START
GND
START
AAMWA1026GB

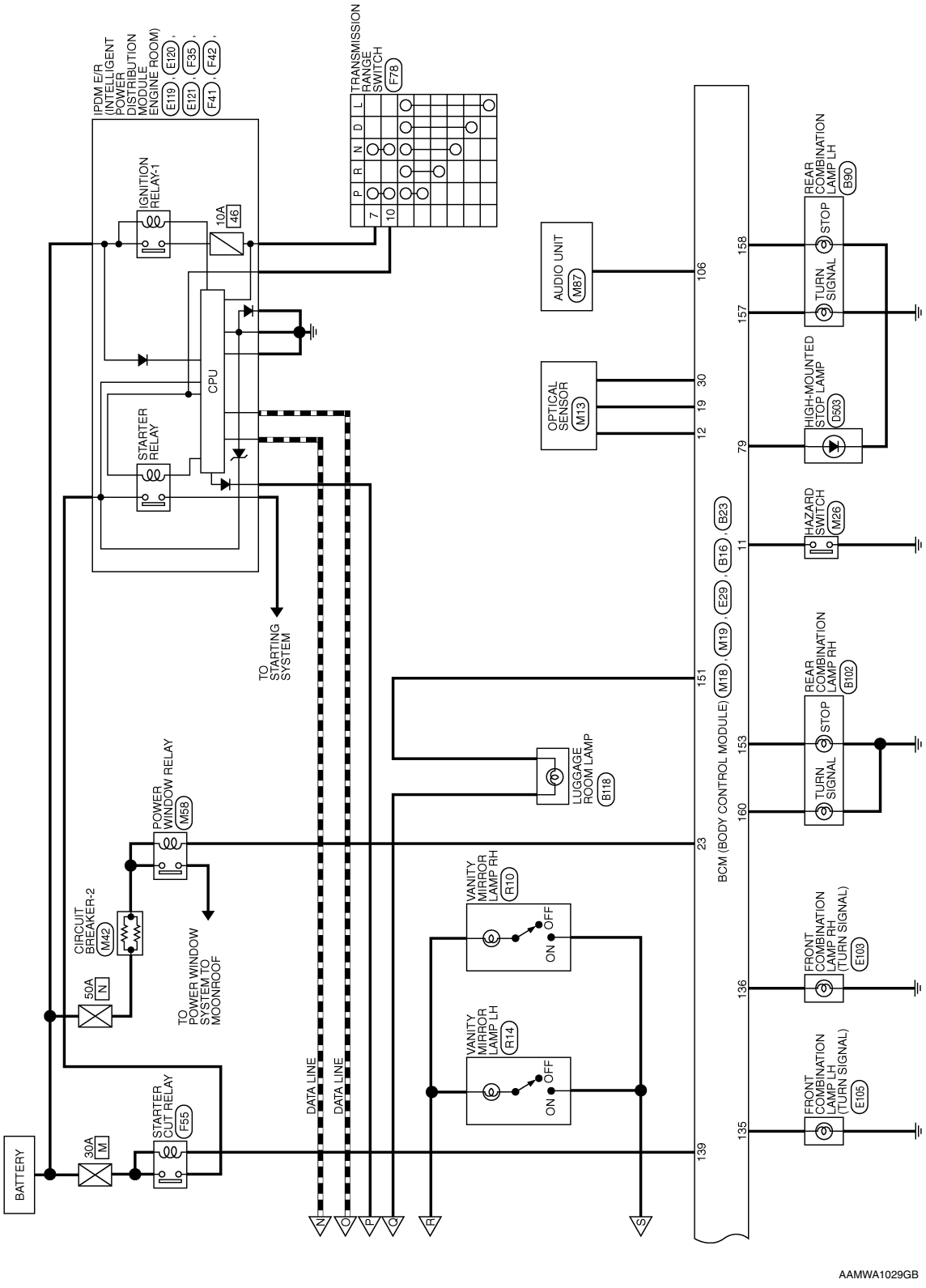


AAMWA1027GB



AAMWA1046GB


MU : WITH MOONROOF
XZ : WITHOUT MOONROOF
DATA LINE
DATA LINE
PERSONAL LAMPS 2ND ROW R16
PER-SONAL LAMP RH
PER-SONAL LAMP LH
DOOR
ON
OFF
ROOM LAMP R15
MAP LAMP ASSEMBLY R6
LAMP SWITCH RH
LAMP SWITCH LH
INTERIOR SWITCH (ALL)
INTERIOR SWITCH (DOOR)
BCM (BODY CONTROL MODULE) M18, M20, B16, B23
147
55
162
4
REAR WIPER MOTOR D510
BATTERY
FUSE BLOCK (J/B) M33
20A
18
ROOM LAMP RELAY M12
AAMWA1028GB


IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) E119, E120, E121, F35, F41, F42
IGNITION RELAY-1
10A 46
CPU
STARTER RELAY
TRANSMISSION RANGE SWITCH F78
P R N D L
7 10
TO STARTING SYSTEM
AUDIO UNIT M87
OPTICAL SENSOR M13
BCM (BODY CONTROL MODULE) M18, M19, E29, B16, B23
106 30 19 12 151 23 139
REAR COMBINATION LAMP LH B90
STOP TURN SIGNAL
158 157
HIGH-MOUNTED STOP LAMP D503
79
HAZARD SWITCH M26
11
REAR COMBINATION LAMP RH B102
153 160
FRONT COMBINATION LAMP RH (TURN SIGNAL) E103
136
FRONT COMBINATION LAMP LH (TURN SIGNAL) E105
135
LUGGAGE ROOM LAMP B118
POWER WINDOW RELAY M58
CIRCUIT BREAKER-2 M42
50A N
TO POWER WINDOW SYSTEM TO MOONROOF
VANITY MIRROR LAMP RH R10
VANITY MIRROR LAMP LH R14
ON OFF
DATA LINE
DATA LINE
STARTER CUT RELAY F55
30A M
BATTERY
N O P Q R S
AAMWA1029GB

BCM (BODY CONTROL MODULE) - WITHOUT INTELLIGENT KEY SYSTEM CONNECTORS

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

H.S.

20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	

Terminal No.	Color of Wire	Signal Name
1	–	–
2	LG/G	O DI FR LEFT D
3	LA/Y	O DI FR RIGHT D
4	P	O SPARE4 RL N
5	R	CAN-L
6	L	CAN-H
7	–	–
8	L	CAN-H
9	R	CAN-L
10	BG	I DOORLOCK SW
11	Y	I HAZARD SW D
12	W	O PWR AUTOLIGHT SENSOR
13	–	–
14	–	–
15	–	–
16	P	DONGLE UART
17	L	O PWR ATDVC
18	–	–
19	LG	I AUTOLIGHT SENSOR
20	–	–
21	–	–
22	–	–
23	G	O WL AUTHORIZATION RL
24	LA/R	O DEFROSTER RL D
25	BR	O BAT TEMP1 RL
26	–	–
27	Y	O IGN1 RL
28	LA/W	O IGN2 RL
29	–	–
30	V	O GND AUTOLIGHT SENSOR
31	–	–
32	–	–
33	LG	I CSW 5
34	Y	O CSW 5
35	BG	O SECURITY LED
36	G	I CSW 3
37	GR	I CSW 4
38	V	I CSW 1
39	W	I CSW 2
40	SB	I DOORUNLOCK SW

AAMIA2127GB

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

H.S.

100	99	98	97	96	95	94	93	92	91	90	89	88	87	86	85	84	83	82	81
120	119	118	117	116	115	114	113	112	111	110	109	108	107	106	105	104	103	102	101

Terminal No.	Color of Wire	Signal Name
81	L	I KEY SW
82	LA/R	I STARTER SW (WO IKEY)
83	–	–
84	BR	O CSW 2
85	SB	O CSW 1
86	P	O CSW 3
87	BG	O CSW 4
88	–	–
89	–	–
90	–	–
91	–	–
92	BR	I KEY CYLINDER LOCK SW
93	P	I KEY CYLINDER UNLOCK SW
94	G	I AT LOCKED IN PARK SW
95	V	I SHORTING PIN

Terminal No.	Color of Wire	Signal Name
96	–	–
97	–	–
98	–	–
99	–	–
100	–	–
101	–	–
102	–	–
103	–	–
104	R	I DR KNOB SW
105	Y	I SES DR HANDLE BUTTON SW
106	W	O AUTO ACC2
107	–	–
108	–	–
109	P	CLK IMMOBILIZER
110	BG	O MR OUTPUT
111	–	–
112	–	–
113	LG	O DATA IMMOBILIZER
114	–	–
115	–	–
116	–	–
117	–	–
118	–	–
119	–	–
120	–	–

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

H.S.

167	166	165	164				163	162	161
176	175	174	173	172	171	170	169	168	

Terminal No.	Color of Wire	Signal Name
161	W	I PWR ECU
162	SB	O PWM ROOMLAMP 1
163	L	O AS LOCK OR UNLOCK D
164	–	–
165	V	O DR OR FR LOCK D
166	–	–
167	LA/V	I PWR DOORLOCK1
168	BG	I PWR FLASHERS
169	GR	I PWR STOP LAMP
170	B	I GND1
171	B	I GND2
172	G	O FR OR DR UNLOCK D
173	–	–
174	–	–
175	R	I PWR DOORLOCK2
176	LG	I PWR WIPER

AAMIA2128GB

Connector No.	M28
Connector Name	COMBINATION SWITCH
Connector Color	WHITE

H.S.

8	7	6	5	4	3	2	1
16	15	14	13	12	11	10	9

Terminal No.	Color of Wire	Signal Name
1	LG	–
2	SB	–
3	GR	–
4	BG	–
5	G	–
6	W	–
7	Y	–
8	V	–
9	G	–
10	BR	–
11	Y	–
12	–	–
13	–	–
14	LG	–
15	P	–
16	GR	–

Connector No.	E29
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK

H.S.

132	131	130	129	128	127	126	125	124	123	122	121
144	143	142	141	140	139	138	137	136	135	134	133

Terminal No.	Color of Wire	Signal Name
121	–	–
122	–	–
123	–	–
124	–	–
125	LG	I BRAKE SW2
126	W	I BRAKE SW1
127	–	–
128	–	–
129	–	–
130	–	–
131	–	–
132	–	–
133	–	–
134	–	–
135	BR	O DI FR LEFT E
136	GR	O DI FR RIGHT E
137	–	–
138	–	–
139	G	O STCUT RL
140	–	–
141	–	–
142	–	–
143	–	–
144	–	–

AAMIA2129GB

Connector No.	B16
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GREEN

H.S.

60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41
80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61

Terminal No.	Color of Wire	Signal Name
41	–	–
42	–	–
43	–	–
44	–	–
45	–	–
46	–	–
47	–	–
48	–	–
49	–	–
50	W	I RR DOOR SW
51	LG	I TGATE SW
52	R	I RL DOOR SW
53	SB	I AS DOOR2 SW
54	–	–
55	LA/G	I RR AUTOSTOP SW
56	Y	I TGATE OPENER SW

Terminal No.	Color of Wire	Signal Name
57	SB	I DR DOOR2 SW
58	–	–
59	–	–
60	L	CAN-H
61	–	–
62	–	–
63	–	–
64	–	–
65	–	–
66	–	–
67	–	–
68	–	–
69	–	–
70	–	–
71	–	–
72	–	–
73	–	–
74	–	–
75	–	–
76	–	–
77	–	–
78	–	–
79	LA/W	O STOP LAMP3
80	P	CAN-L

Connector No.	B23
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GRAY

H.S.

151	150	149	148		147	146	145
160	159	158	157	156	155	154	153	152

Terminal No.	Color of Wire	Signal Name
145	LA/V	O TGATE OPENER
146	–	–
147	LA/R	O RR WIPER
148	W	O RR UNLOCK B
149	L	O RR LOCK B
150	–	–
151	R	O PWM ROOMLAMP 5
152	–	–
153	LA/W	O STOP LAMP1
154	–	–
155	–	–
156	–	–
157	GR	O DI RR LEFT B
158	LA/Y	O STOP LAMP2 NISSAN EUR
159	–	–
160	P	O DI RR RIGHT B

AAMIA2130GB

BASIC INSPECTION

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM)

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM) : Description

INFOID:0000000010256081

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).**
- **When replacing BCM, perform “Configuration” of CAN gateway.**

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

INFOID:0000000010256082

1.SAVING VEHICLE SPECIFICATION (BCM)

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.SAVING VEHICLE SPECIFICATION (CAN GATEWAY)

CONSULT

Perform “READ CONFIGURATION” to save or print current vehicle specification. Refer to LAN-75, "CONSULT Function".

NOTE:

If “READ CONFIGURATION” cannot be used, use the “WRITE CONFIGURATION - Manual selection” after replacing BCM.

>> GO TO 3.

3.REPLACE BCM

Replace BCM. Refer to BCS-135, "Removal and Installation".

>> GO TO 4.

4.WRITING VEHICLE SPECIFICATION (BCM)

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-121, "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-121, "CONFIGURATION (BCM) : Work Procedure".

>> GO TO 5.

5. INITIALIZE BCM (NATS)

Perform BCM initialization. (NATS)

>> GO TO 6.

6. WRITING VEHICLE SPECIFICATION (CAN GATEWAY FUNCTION)

CONSULT
Perform “WRITE CONFIGURATION – Config file” or “WRITE CONFIGURATION – Manual selection” to write vehicle specification. Refer to LAN-77, "Work Procedure".

>> Work End.

CONFIGURATION (BCM)

CONFIGURATION (BCM) : Description

INFOID:0000000010256083

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:0000000010256084

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-122, "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 cannot 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:0000000010256085

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

MANUAL SETTING ITEM	
Items	Setting value
I-KEY	WITH ⇔ WITHOUT
DTRL	WITH ⇔ WITHOUT
AUTO DOOR UNLOCK TIMING	WITH I-KEY ⇔ W/O I-KEY

⇔: Items which confirm vehicle specifications

SHIPPING MODE CANCEL OPERATION

Work Procedure

INFOID:0000000010341545

1.SHIPPING MODE CANCEL OPERATION

1. Turn ignition switch OFF.
2. Push in (switch on) the extended storage fuse switch. Refer to PG-73, "How To Check".
3. Turn ignition switch ON.
4. Turn ignition switch OFF and wait at least 2 seconds.

>> GO TO 2.

2.SHIPPING MODE CANCEL CHECK

1. Turn ignition switch ON.
2. Check that extended storage fuse warning message is not displayed on information display.

>> Work End.

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description

INFOID:0000000010256088

Refer to LAN-8, "System Description".

DTC Logic

INFOID:0000000010256089

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:0000000010256090

1. PERFORM SELF DIAGNOSTIC

1. Turn ignition switch ON and wait for 2 second 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-41, "Intermittent Incident".

U1010 CONTROL UNIT (CAN)

DTC Logic

INFOID:0000000010256091

DTC DETECTION LOGIC

CONSULT Display	DTC Detection Condition	Possible Cause
CAN COMM CIRCUIT [U1010]	BCM detected internal CAN communication circuit malfunction.	BCM

Diagnosis Procedure

INFOID:0000000010256092

1. REPLACE BCM

When DTC U1010 is detected, replace BCM.

>> Replace BCM. Refer to BCS-135, "Removal and Installation".

U0415 VEHICLE SPEED SIG

Description

INFOID:0000000010256093

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:0000000010256094

DTC DETECTION LOGIC

NOTE:

- If DTC U0415 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-124, "DTC Logic".
- If DTC U0415 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-125, "DTC Logic".

CONSULT Display	DTC Detection Condition	Possible Cause
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 system • Combination meter system • CAN bus harness

DTC CONFIRMATION PROCEDURE

1. DTC CONFIRMATION

1. Erase the DTC.
2. Turn ignition switch OFF.
3. Perform Self Diagnostic Result 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-108, "DTC Index".
NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000010256095

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

Perform Self Diagnostic Result of ABS with CONSULT. Refer to BRC-44, "CONSULT Function".

Is any DTC detected?

YES >> Perform the trouble diagnosis related to the detected DTC. Refer to BRC-55, "DTC 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-80, "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-21, "CONSULT Function (METER/M&A)".

Is any DTC detected?

YES >> Perform the trouble diagnosis related to the detected DTC. Refer to MWI-30, "DTC Index".
NO >> Refer to GI-41, "Intermittent Incident".

B2562 LOW VOLTAGE

DTC Logic

INFOID:0000000010256096

DTC DETECTION LOGIC

CONSULT Display	DTC Detection Condition	Possible cause
LOW VOLTAGE [B2562]	When the power supply voltage to BCM remains less than 8.8V for 120 seconds or more.	• Harness or connector (power supply circuit) • Vehicle battery

DTC CONFIRMATION PROCEDURE

1. DTC CONFIRMATION

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

Is any DTC detected?

YES >> Refer to BCS-127, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000010256097

1. CHECK BATTERY VOLTAGE

Check battery voltage.

Is battery voltage less than 8.8V?

YES >> Charge battery and retest. Refer to CHG-11, "Work Flow (With EXP-800 NI or GR8-1200 NI)" or CHG-14, "Work Flow (Without EXP-800 NI or GR8-1200 NI)".
NO >> GO TO 2.

2. CHECK POWER SUPPLY AND GROUND CIRCUIT

Check BCM power supply and ground circuit. Refer to BCS-128, "Diagnosis Procedure".

Is the inspection result normal?

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

3. BCM SELF DIAGNOSTIC RESULT

Perform Self Diagnostic Result of BCM with CONSULT. Refer to BCS-92, "BCM : CONSULT Function (BCM - BCM)".

Is DTC B2562 CRNT?

YES >> Replace BCM. Refer to BCS-135, "Removal and Installation".
NO >> Refer to GI-41, "Intermittent Incident".

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000010256100

Regarding Wiring Diagram information, refer to BCS-110, "Wiring Diagram".

1. CHECK FUSE

Check that the following fuse is not blown.

Terminal No.	Signal name	Fuse No.
161	BCM power supply	7 (10A)

Is the fuse blown?

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

2. CHECK POWER SUPPLY CIRCUIT

1. Disconnect BCM connector M20.
2. Check voltage between BCM connector M20 and ground.

BCM		Ground	Voltage (Approx.)
Connector	Terminal		
M20	161	—	Battery voltage

Is the inspection result normal?

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

3. CHECK GROUND CIRCUIT

Check continuity between BCM connector M20 and ground.

BCM		Ground	Continuity
Connector	Terminal		
M20	170	—	Yes
	171		

Is the inspection result normal?

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

COMBINATION SWITCH INPUT CIRCUIT

Diagnosis Procedure

INFOID:0000000010256101

Regarding Wiring Diagram information, refer to BCS-110, "Wiring Diagram".

1. CHECK INPUT 1 - 5 SYSTEM CIRCUIT FOR OPEN

1. Turn ignition switch OFF.
2. Disconnect BCM connector M18 and combination switch connector.
3. Check continuity between BCM connector M18 and combination switch connector M28.

Signal	BCM		Combination switch		Continuity
	Connector	Terminal	Connector	Terminal	
INPUT 1	M18	38	M28	8	Yes
INPUT 2		39		6	
INPUT 3		36		5	
INPUT 4		37		3	
INPUT 5		33		1	

Is the inspection result normal?

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

2. CHECK INPUT 1 - 5 SYSTEM CIRCUIT FOR SHORT

Check continuity between BCM connector M18 and ground.

Signal	BCM		Ground	Continuity
	Connector	Terminal		
INPUT 1	M18	38	Ground	No
INPUT 2		39		
INPUT 3		36		
INPUT 4		37		
INPUT 5		33		

Is the inspection result normal?

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

3. CHECK BCM OUTPUT VOLTAGE

1. Connect BCM connector M18 and combination switch connector.
2. Turn ignition switch ON.
3. Check voltage between BCM connector M18 and ground.

Signal	BCM		Ground	Voltage
	Connector	Terminal		
INPUT 1	M18	38	—	Refer to BCS-96, "Reference Value".
INPUT 2		39		
INPUT 3		36		
INPUT 4		37		
INPUT 5		33		

Is the inspection result normal?

YES >> Replace the combination switch. Refer to BCS-136, "Removal and Installation".
NO >> Replace BCM. Refer to BCS-135, "Removal and Installation".

COMBINATION SWITCH OUTPUT CIRCUIT

Diagnosis Procedure

INFOID:0000000010256102

Regarding Wiring Diagram information, refer to BCS-110, "Wiring Diagram".

1. CHECK OUTPUT 1 - 5 SYSTEM CIRCUIT FOR OPEN

1. Turn ignition switch OFF.
2. Disconnect BCM connector M19 and combination switch connector.
3. Check continuity between BCM connector M19 and combination switch connector M28.

Signal	BCM		Combination switch		Continuity
	Connector	Terminal	Connector	Terminal	
OUTPUT 1	M19	85	M28	2	Yes
OUTPUT 2		84		10	
OUTPUT 3		86		15	
OUTPUT 4		87		4	
OUTPUT 5		34		7	

Is the inspection result normal?

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

2. CHECK OUTPUT 1 - 5 SYSTEM CIRCUIT FOR SHORT

Check continuity between BCM connector M19 and ground.

Signal	BCM		Ground	Continuity
	Connector	Terminal		
OUTPUT 1	M19	85	Ground	No
OUTPUT 2		84		
OUTPUT 3		86		
OUTPUT 4		87		
OUTPUT 5		34		

Is the inspection result normal?

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

3. CHECK BCM INPUT VOLTAGE

1. Connect BCM connector M19 and combination switch connector.
2. Turn ignition switch ON.
3. Check voltage between BCM connector M19 and ground.

Signal	BCM		Ground	Voltage
	Connector	Terminal		
OUTPUT 1	M19	85	—	Refer to BCS-96, "Reference Value".
OUTPUT 2		84		
OUTPUT 3		86		
OUTPUT 4		87		
OUTPUT 5		34		

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-135, "Removal and Installation".
NO >> Replace the combination switch. Refer to BCS-136, "Removal and Installation".

SYMPTOM DIAGNOSIS

COMBINATION SWITCH SYSTEM SYMPTOMS

Symptom Table

INFOID:0000000010256103

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	RR WIPER ON	RR WIPER INT	RR WASHER SW	TURN SIGNAL R	TURN SIGNAL L	TAIL LAMP SW	HI BEAM SW	HEAD LAMP SW	LIGHT OFF SW	PASSING 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 K														

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

Malfunction combination	Malfunctioning part	Repair or replace
A	Combination switch INPUT 1 circuit	Inspect the combination switch input circuit applicable to the malfunctioning part. Refer to BCS-129, "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-131, "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-135, "Removal and Installation".
L	Combination switch	Replace the combination switch. Refer to BCS-136, "Removal and Installation".

NORMAL OPERATING CONDITION

Description

INFOID:0000000010337003

SHIPPING MODE

- Shipping mode inhibits battery power consumption during transportation or storage of the vehicle. Vehicle is set to shipping mode before being shipped from the factory.
- When ignition switch is OFF, BCM operates shipping mode.
- BCM control function is limited in shipping mode. Remote keyless entry function is not operated during the shipping mode.
- For shipping mode cancel operation, refer to BCS-123, "Work Procedure".

NOTE:
Do not cancel shipping mode during storage of the vehicle. Always cancel shipping mode before delivery of the vehicle to customer.

REMOVAL AND INSTALLATION

BCM (BODY CONTROL MODULE)

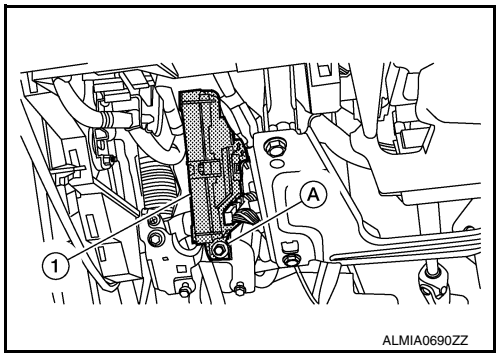
Removal and Installation

INFOID:0000000010256104

CAUTION:
Before replacing the BCM, perform "READ CONFIGURATION" to save or print current vehicle specification. Refer to BCS-120, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM) : Work Procedure".

REMOVAL

1. Disconnect the negative battery terminal. Refer to PG-77, "Removal and Installation".
2. Remove the instrument lower panel LH. Refer to IP-22, "Removal and Installation".
3. Remove the bolt (A), then pull out the BCM (1).



4. Disconnect the harness connectors from the BCM and remove.

INSTALLATION

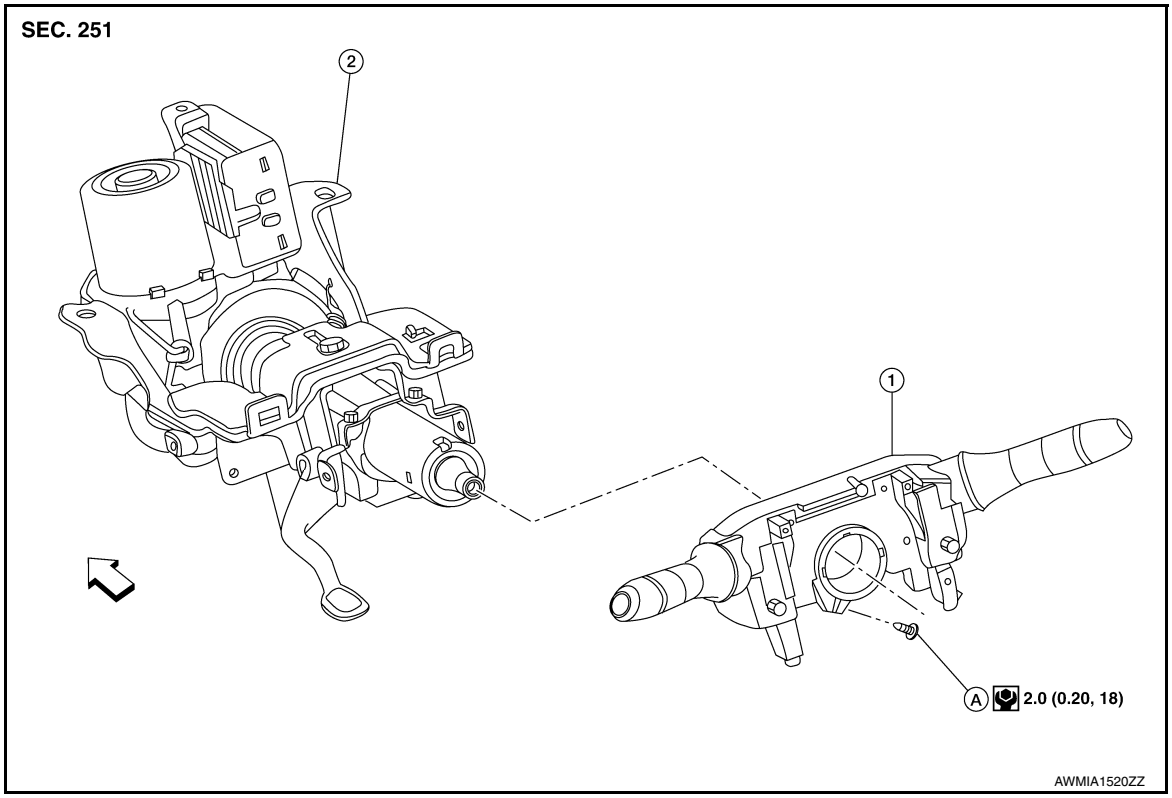
Installation is in the reverse order of removal.

CAUTION:
- **When replacing BCM, perform "WRITE CONFIGURATION" Refer to BCS-121, "CONFIGURATION (BCM) : Work Procedure".**
- **When replacing BCM, perform the system initialization (NATS). Refer to the CONSULT immobilizer mode and follow the on-screen instructions.**
- **When replacing BCM, if new BCM does not come with keyfobs attached, all existing keyfobs must be re-registered. Refer to the CONSULT immobilizer mode and follow the on screen instructions.**

COMBINATION SWITCH

Exploded View

INFOID:0000000010256105



1. Combination switch
2. Steering column
A. Screw

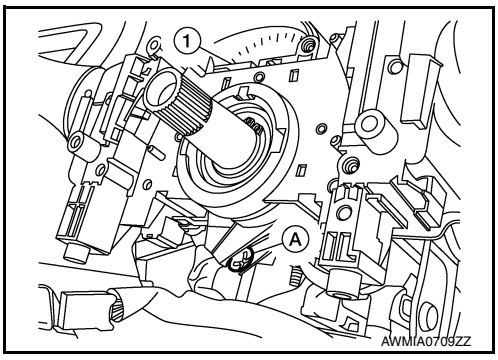
⇦ Front

Removal and Installation

INFOID:0000000010256106

REMOVAL

1. Remove the steering angle sensor. Refer to BRC-139, "Removal and Installation".
2. Disconnect harness connector from combination switch.
3. Remove screw (A) and combination switch (1).



INSTALLATION

Installation is in the reverse order of removal.