SECTION BCS
BODY CONTROL SYSTEM

CONTENTS

PRECAUTION

PRECAUTIONS

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

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

WARNING:

Always observe the following items for preventing accidental activation.

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

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

WARNING:

Always observe the following items for preventing accidental activation.

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

SYSTEM DESCRIPTION

COMPONENT PARTS

BODY CONTROL SYSTEM

BODY CONTROL SYSTEM : Component Parts Location

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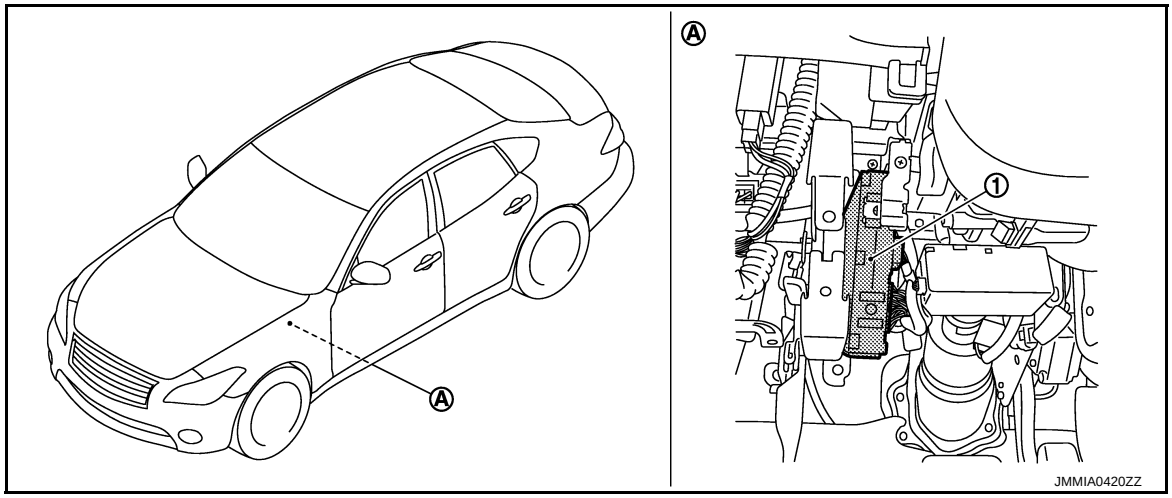

1. BCM
A. Behind of instrument lower panel LH

POWER CONSUMPTION CONTROL SYSTEM

POWER CONSUMPTION CONTROL SYSTEM : Component Parts Location

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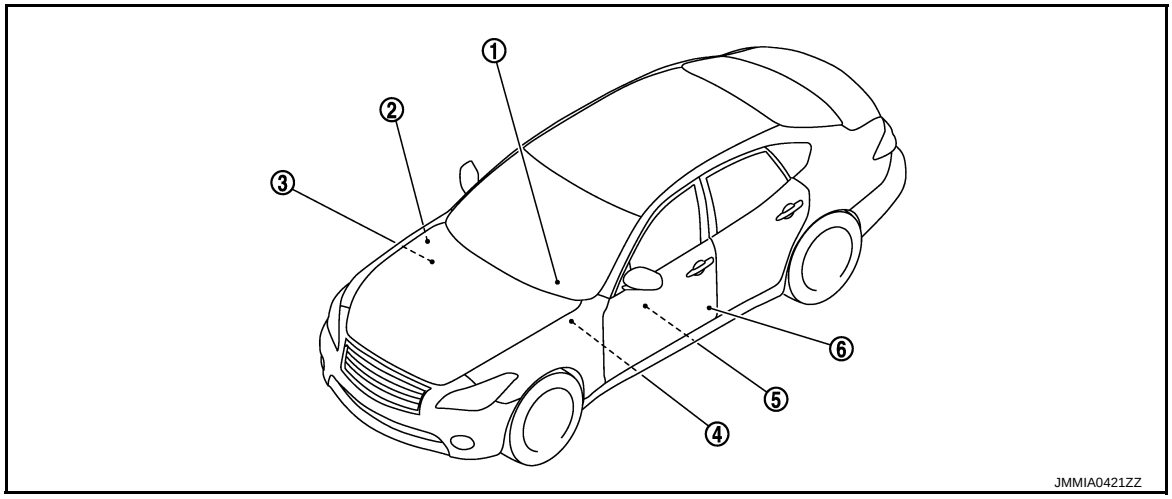

1. Combination meter
2. IPDM E/R
   Refer to PCS-5, "IPDM E/R : Component Parts Location".
3. CAN gateway
   Refer to LAN-111, "Component Parts Location".
4. BCM
   Refer to BCS-4, "BODY CONTROL SYSTEM : Component Parts Location".
5. Driver seat control unit
   Refer to ADP-6, "Component Parts Location".
6. Pre-crash seat belt control unit (driver side)
   Refer to SBC-5, "PRE-CRASH SEAT BELT SYSTEM : Component Parts Location".

SYSTEM

BODY CONTROL SYSTEM

BODY CONTROL SYSTEM : System Description

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OUTLINE

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

BCM CONTROL FUNCTION LIST

System	Reference
Combination switch reading system	BCS-8, "COMBINATION SWITCH READING SYSTEM : System Diagram"
Signal buffer system	BCS-12, "SIGNAL BUFFER SYSTEM : System Diagram"
Power consumption control system	BCS-13, "POWER CONSUMPTION CONTROL SYSTEM : System Diagram"
Auto light system	• EXL-14, "AUTO LIGHT SYSTEM (WITHOUT DTRL) : System Diagram" (Without daytime running light system) • EXL-15, "AUTO LIGHT SYSTEM (WITH DTRL) : System Diagram" (With daytime running light system)
Turn signal and hazard warning lamp system	EXL-20, "TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM : System Diagram"
Headlamp system	• EXL-12, "HEADLAMP SYSTEM (WITHOUT DTRL) : System Diagram" (Without daytime running light system) • EXL-13, "HEADLAMP SYSTEM (WITH DTRL) : System Diagram" (With daytime running light system)
Parking, license plate, side maker and tail lamps system	• EXL-20, "PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMP SYSTEM (WITHOUT DTRL) : System Diagram" (Without daytime running light system) • EXL-21, "PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMP SYSTEM (WITH DTRL) : System Diagram" (With daytime running light system)
Front fog lamp system	EXL-19, "FRONT FOG LAMP SYSTEM : System Diagram"
Exterior lamp battery saver system	EXL-23, "EXTERIOR LAMP BATTERY SAVER SYSTEM : System Diagram"
Daytime running light system	EXL-16, "DAYTIME RUNNING LIGHT SYSTEM : System Diagram"
Interior room lamp control system	INL-6, "INTERIOR ROOM LAMP CONTROL SYSTEM : System Diagram"
Interior room lamp battery saver system	INL-9, "INTERIOR ROOM LAMP BATTERY SAVER SYSTEM : System Diagram"
Illumination control system	INL-10, "ILLUMINATION CONTROL SYSTEM : System Diagram"
Auto light Adjustment system	INL-11, "AUTO LIGHT ADJUSTMENT SYSTEM : System Diagram"
Front wiper and washer system	WW-7, "FRONT WIPER AND WASHER SYSTEM : System Diagram"

System		Reference
Automatic air conditioner		• HAC-19, "AUTOMATIC AIR CONDITIONING SYSTEM (WITH FOREST AIR) : System Diagram" (With Forest Air system) • HAC-26, "AUTOMATIC AIR CONDITIONING SYSTEM (WITHOUT FOREST AIR) : System Diagram" (Without Forest Air system)
Warning chime system		WCS-6, "WARNING CHIME SYSTEM : System Diagram"
Power door lock system		DLK-13, "System Diagram"
Infiniti Vehicle Immobilizer System (IVIS) - NATS		SEC-15, "INFINITI VEHICLE IMMOBILIZER SYSTEM-NATS : System Diagram"
Vehicle security system	Theft warning alarm	SEC-18, "VEHICLE SECURITY SYSTEM : System Diagram"
	Panic alarm	
Rear window defogger system		DEF-5, "System Diagram"
Intelligent Key system/engine start system		DLK-15, "INTELLIGENT KEY SYSTEM : System Diagram"
Trunk lid opener system		DLK-30, "System Diagram"
Power window system		PWC-7, "System Diagram"
Retained accessory power (RAP) system		PWC-7, "System Description"

BODY CONTROL SYSTEM : Fail-safe

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FAIL-SAFE CONTROL BY DTC

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

Display contents of CONSULT	Fail-safe	Cancellation
B2013: ID DISCORD BCM-S/L	Inhibit engine cranking	When communication between BCM and steering lock unit are communicated normally.
B2014: CHAIN OF S/L-BCM	Inhibit engine cranking	When communication between BCM and steering lock unit are communicated normally.
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI-SCANNING	Inhibit engine cranking	Ignition switch ON → OFF
B2196: DONGLE NG	Inhibit engine cranking	Erase DTC
B2198: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2557: VEHICLE SPEED	Inhibit steering lock	When the following CAN signal status (vehicle speed signal) becomes consistent • Vehicle speed signal (ABS) • Vehicle speed signal (Meter)
B2601: SHIFT POSITION	Inhibit steering lock	500 ms after the following signal reception status becomes consistent • P position switch signal • P range signal (CAN)
B2602: SHIFT POSITION	Inhibit steering lock	5 seconds after the following BCM recognition conditions are fulfilled • Ignition switch is in the ON position • P position switch signal: Except P position (battery voltage) • Vehicle speed: 4 km/h (2.5 MPH) or more
B2603: SHIFT POSI STATUS	Inhibit steering lock	500 ms after any of the following BCM recognition conditions are fulfilled • Status 1 - Ignition switch is in the ON position - P position switch signal: Except P position (12 V) - P/N position signal: Except P and N positions (0 V) • Status 2 - Ignition switch is in the ON position - P position switch signal: P position (0 V) - P/N position signal: P or N positions (12 V)

Display contents of CONSULT	Fail-safe	Cancellation
B2604: PNP/CLUTCH SW	Inhibit steering lock	500 ms after any of the following BCM recognition conditions are fulfilled • Status 1 - Ignition switch is in the ON position - P/N position signal: P or N position (12 V) - Shift position signal (CAN): P or N position • Status 2 - Ignition switch is in the ON position - P/N position signal: Except P and N positions (0 V) - Shift position signal (CAN): Except P and N position
B2605: PNP/CLUTCH SW	Inhibit steering lock	500 ms after any of the following BCM recognition conditions are fulfilled • Status 1 - Power position: IGN - P/N position signal: Except P and N positions (0 V) - Interlock/PNP switch signal (CAN): OFF • Status 2 - Ignition switch is in the ON position - P/N position signal: P or N position (12 V) - Interlock/PNP switch signal (CAN): ON
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent • Starter motor relay control signal • Starter relay status signal (CAN)
B2609: S/L STATUS	• Inhibit engine cranking • Inhibit steering lock	When the following steering lock conditions agree • BCM steering lock control status • Steering lock condition No. 1 signal status • Steering lock condition No. 2 signal status
B260B: STEERING LOCK UNIT	Inhibit steering lock	Erase DTC
B260D: STEERING LOCK UNIT	Inhibit steering lock	Erase DTC
B260F: ENG STATE SIG LOST	Inhibit engine cranking	When any of the following conditions are fulfilled • Power position changes to ACC • Receives engine status signal (CAN)
B2612: S/L STATUS	• Inhibit engine cranking • Inhibit steering lock	When any of the following conditions are fulfilled • Steering lock unit status signal (CAN) is received normally • The BCM steering lock control status matches the steering lock status recognized by the steering lock unit status signal (CAN from IPDM E/R)
B2619: BCM	Inhibit engine cranking	1 second after the steering lock unit power supply output control inside BCM becomes normal
B26EF: STRG LCK RELAY OFF	Inhibit engine cranking	When the following conditions are fulfilled • Steering lock relay signal (CAN): ON • Steering lock unit status signal (CAN): ON
B26F0: STRG LCK RELAY ON	Inhibit engine cranking	When the following conditions are fulfilled • Steering lock relay signal (CAN): OFF • Steering lock unit status signal (CAN): OFF
B26F1: IGN RELAY OFF	Inhibit engine cranking	When the following conditions are fulfilled • Ignition switch ON signal (CAN: Transmitted from BCM): ON • Ignition switch ON signal (CAN: Transmitted from IPDM E/R): ON
B26F2: IGN RELAY ON	Inhibit engine cranking	When the following conditions are fulfilled • Ignition switch ON signal (CAN: Transmitted from BCM): OFF • Ignition switch ON signal (CAN: Transmitted from IPDM E/R): OFF
B26F3: START CONT RLY ON	Inhibit engine cranking	When the following conditions are fulfilled • Starter control relay signal (CAN: Transmitted from BCM): OFF • Starter control relay signal (CAN: Transmitted from IPDM E/R): OFF
B26F4: START CONT RLY OFF	Inhibit engine cranking	When the following conditions are fulfilled • Starter control relay signal (CAN: Transmitted from BCM): ON • Starter control relay signal (CAN: Transmitted from IPDM E/R): ON

Display contents of CONSULT	Fail-safe	Cancellation
B26F7: BCM	Inhibit engine cranking by Intelligent Key system	When room antenna and luggage room antenna functions normally
U0415: VEHICLE SPEED	Inhibit steering lock	When vehicle speed signal (Meter) (CAN) is received normally

FAIL-SAFE CONTROL BY RAIN SENSOR MALFUNCTION

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

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

FAIL-SAFE CONTROL OF COMBINATION SWITCH READING FUNCTION CAUSED BY LOW POWER SUPPLY VOLTAGE

If voltage of battery power supply lower, BCM maintains combination switch reading to the status when input voltage is less than approximately 9 V.

NOTE:
When voltage of battery power supply is approximately 9 V or more, combination switch reading function returns to normal operation.

COMBINATION SWITCH READING SYSTEM

COMBINATION SWITCH READING SYSTEM : System Diagram

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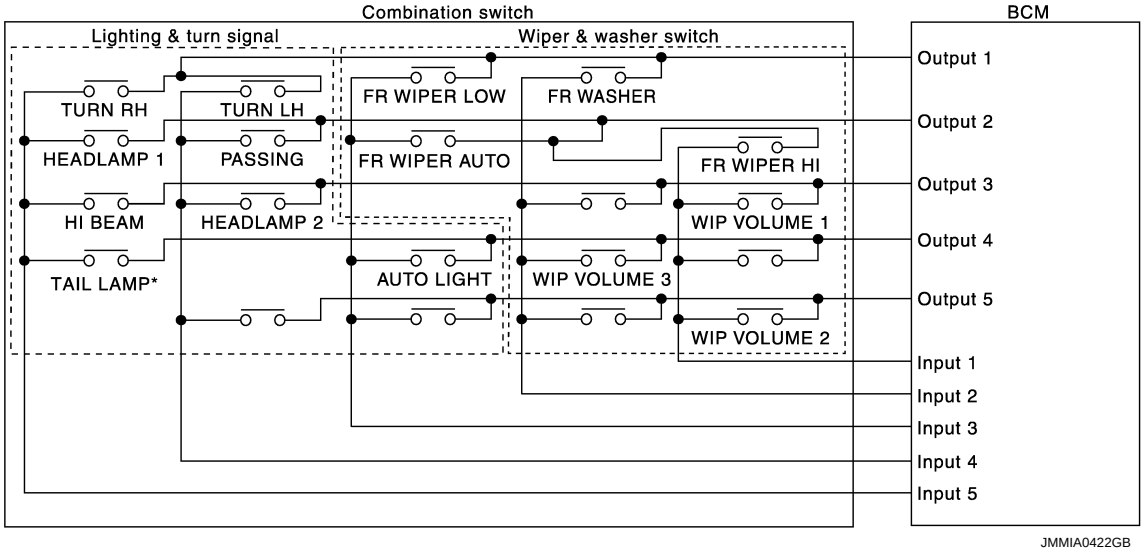

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NOTE:
*: TAIL LAMP switch links lighting switch 1ST and 2ND positions.

COMBINATION SWITCH READING SYSTEM : System Description

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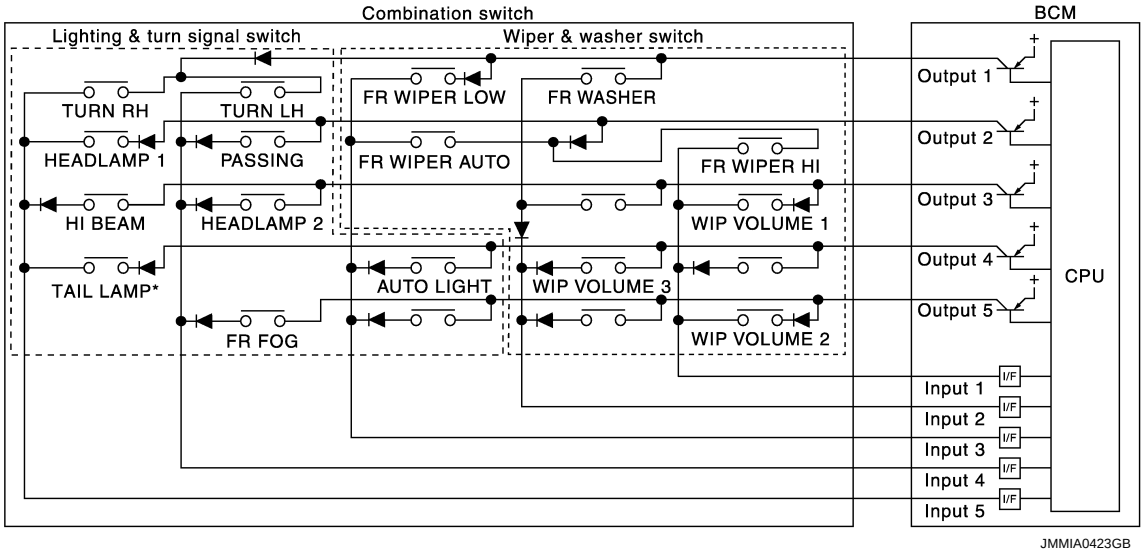
OUTLINE

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

COMBINATION SWITCH MATRIX

Combination switch circuit



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

Combination switch INPUT-OUTPUT system list

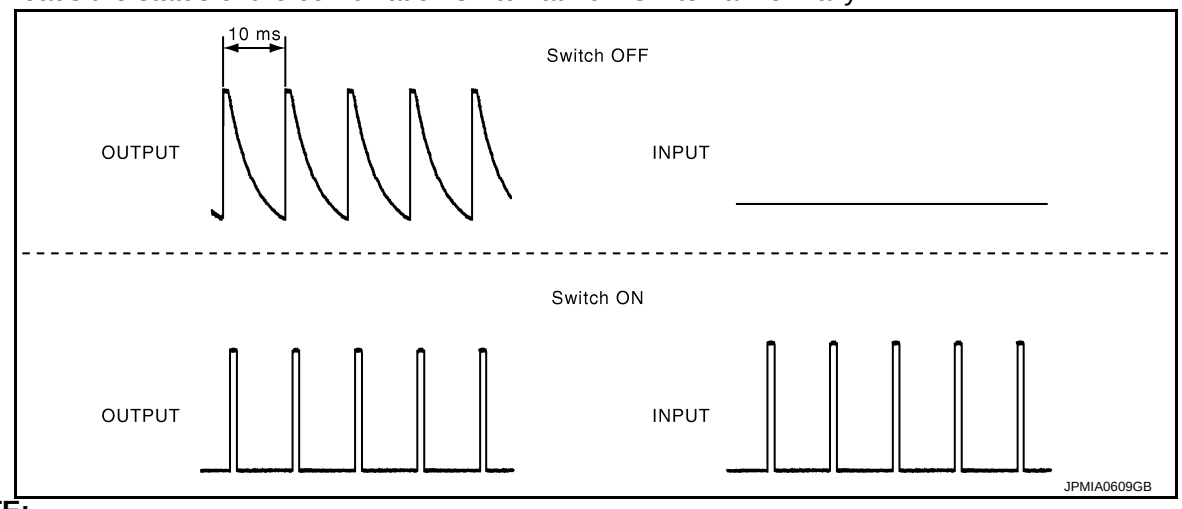
System	INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5
OUTPUT 1	—	FR WASHER	FR WIPER LOW	TURN LH	TURN RH
OUTPUT 2	FR WIPER HI	—	FR WIPER AUTO	PASSING	HEADLAMP 1
OUTPUT 3	WIP VOLUME 1	—	—	HEADLAMP 2	HI BEAM
OUTPUT 4	—	WIP VOLUME 3	AUTO LIGHT	—	TAIL LAMP
OUTPUT 5	WIP VOLUME 2	—	—	FR FOG	—

NOTE:
Headlamp has a dual system switch.

COMBINATION SWITCH READING FUNCTION

Description

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

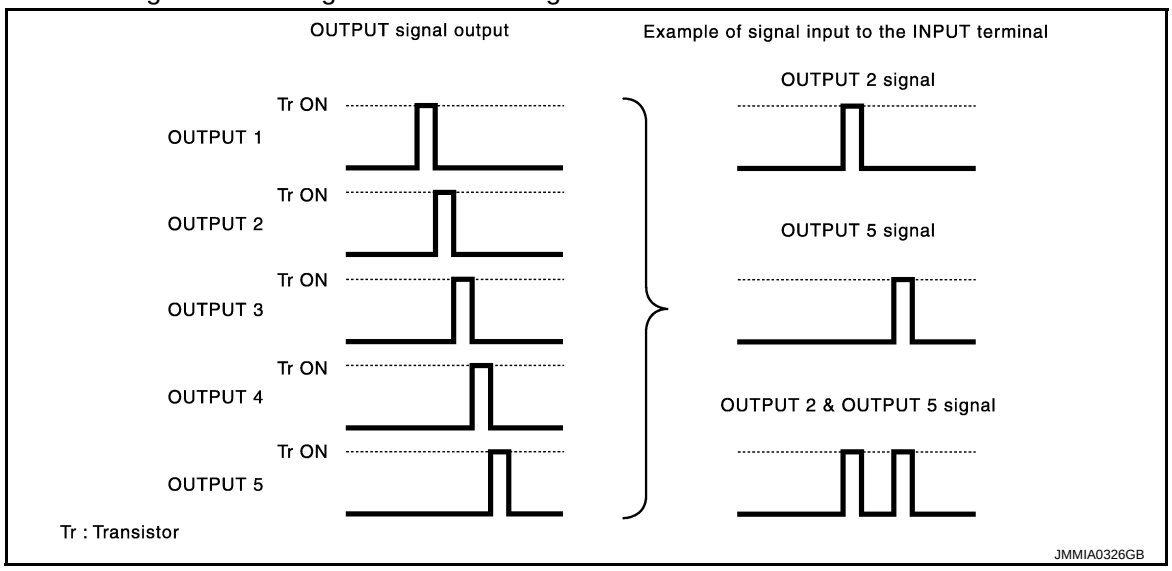


NOTE:
BCM reads the status of the combination switch at 60 ms interval when BCM is controlled at low power consumption control mode.

- 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.

< SYSTEM DESCRIPTION >

- The voltage waveform of OUTPUT corresponding to the formed circuit is input into the interface on INPUT side if any (1 or more) switches are ON.
- It reads this change of the voltage as the status signal of the combination switch.

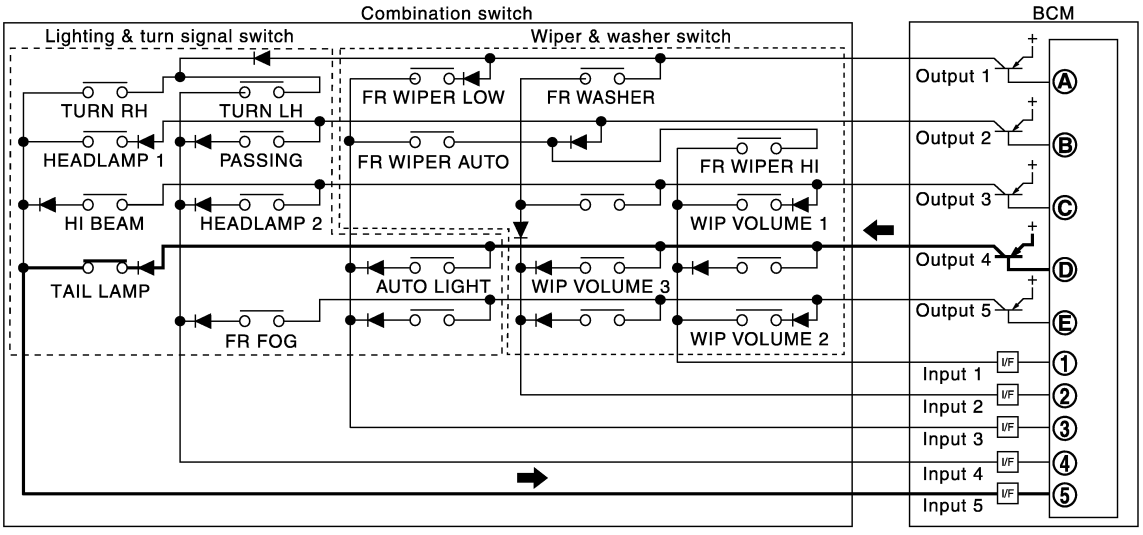


Operation Example

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

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

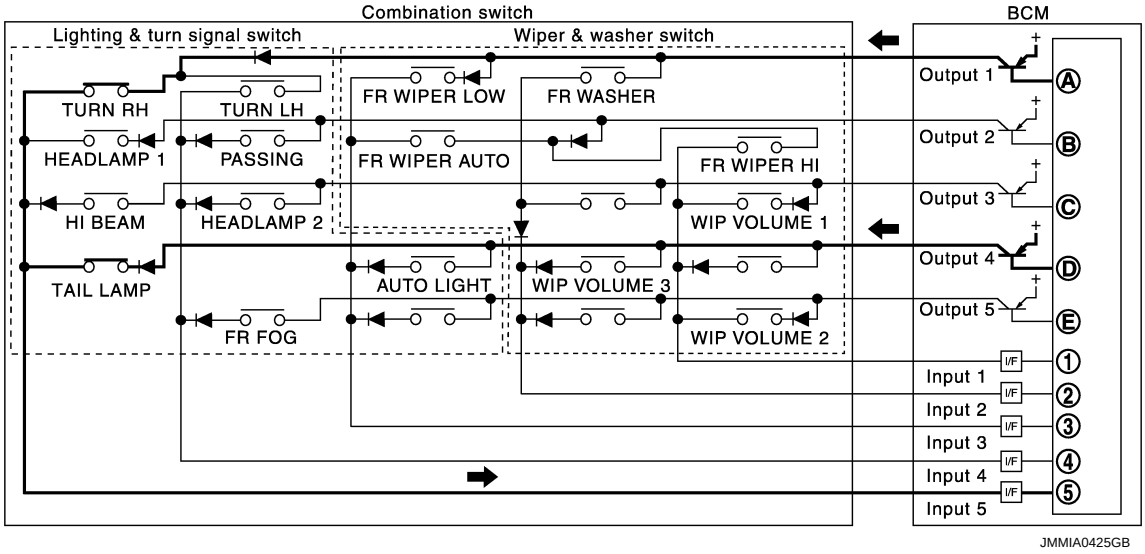
- The circuit between OUTPUT 4 and INPUT 5 is formed when the TAIL LAMP switch is turned ON.



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

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

- The circuits between OUTPUT 1 and INPUT 5 and between OUTPUT 4 and INPUT 5 are formed when the TURN RH switch and TAIL LAMP switch are turned ON.



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

WIPER VOLUME DIAL POSITION

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

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

NOTE:

For details of wiper volume dial position, refer to WW-7, "FRONT WIPER AND WASHER SYSTEM : System Description".

SIGNAL BUFFER SYSTEM

SIGNAL BUFFER SYSTEM : System Diagram

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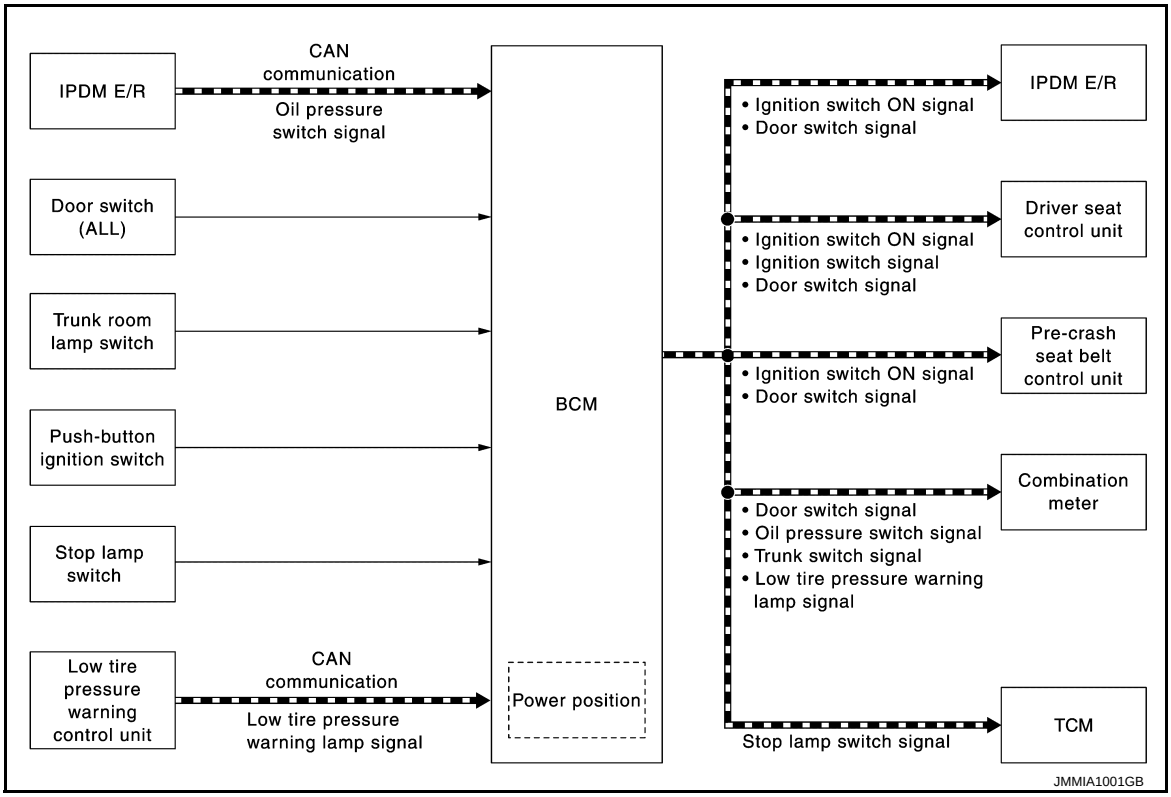

SIGNAL BUFFER SYSTEM : System Description

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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	Push-button ignition switch (Push switch)	• IPDM E/R (CAN) • Driver seat control unit (CAN) • Pre-crash seat belt control unit (CAN)	Inputs the push-button ignition switch (push switch) signal and transmits the ignition switch status judged with BCM via CAN communication.
Door switch signal	Any door switch	• Combination meter (CAN) • IPDM E/R (CAN) • Driver seat control unit (CAN) • Pre-crash seat belt control unit (CAN)	Inputs the door switch signal and transmits it via CAN communication.
Trunk switch signal	Trunk room lamp switch	Combination meter (CAN)	Inputs the trunk room lamp switch signal and transmits trunk switch signal via CAN communication.
Oil pressure switch signal	IPDM E/R (CAN)	Combination meter (CAN)	Transmits the received oil pressure switch signal via CAN communication.
Stop lamp switch signal	Stop lamp switch	TCM (CAN)	Inputs the stop lamp switch 1 signal and stop lamp switch 2 signal, and transmits it via CAN communication.
Low tire pressure warning lamp signal	Low tire pressure warning control unit (CAN)	Combination meter (CAN)	Transmits the received low tire pressure warning signal via CAN communication.

POWER CONSUMPTION CONTROL SYSTEM

POWER CONSUMPTION CONTROL SYSTEM : System Diagram

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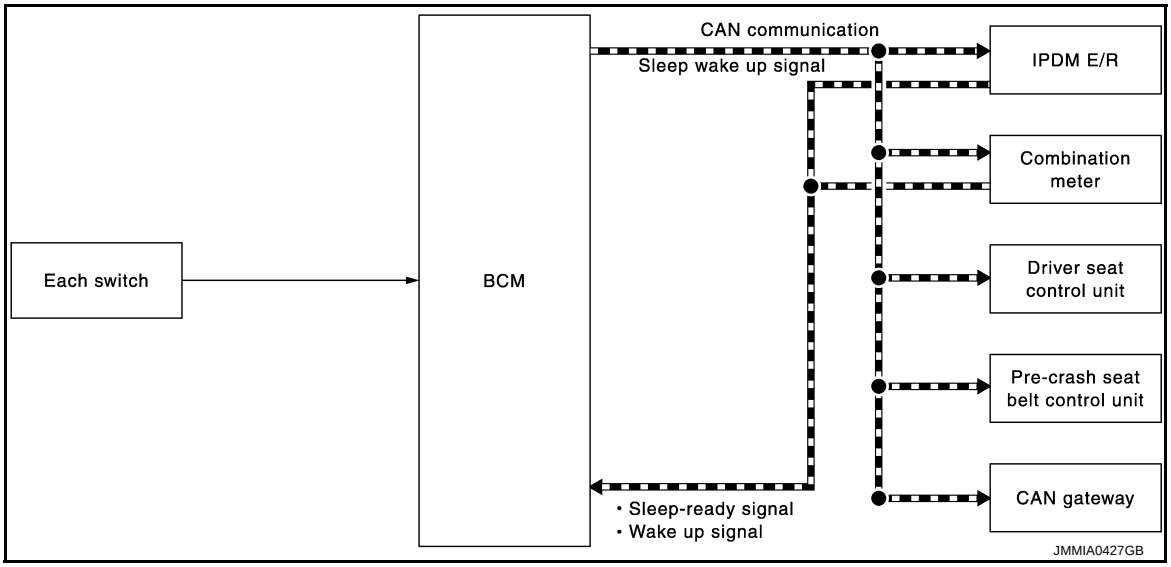

POWER CONSUMPTION CONTROL SYSTEM : System Description

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OUTLINE

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

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

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

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

LOW POWER CONSUMPTION CONTROL WITH BCM

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

Sleep mode activation

- BCM receives the sleep-ready signal (ready) from IPDM E/R 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 perform the low power consumption control when all of the BCM sleep conditions are fulfilled with CAN sleep condition.

Sleep condition

CAN sleep condition	BCM sleep condition
• Receiving the sleep-ready signal (ready) from all units • Ignition switch: OFF • Vehicle security system and panic alarm: Not operation • Warning chime: Not operation • Intelligent Key system buzzer: Not operation • Trunk room lamp switch status: No change • Stop lamp switch: OFF • ICC brake hold relay (with ICC): OFF • Turn signal indicator lamp: Not operation • Exterior lamp: OFF • Door lock status: No change • CONSULT communication status: Not communication • Meter display signal: Non-transmission • Door switch status: No change • Rear window defogger: OFF	• Interior room lamp battery saver: Time out • RAP system: OFF • Infiniti Vehicle Immobilizer System (IVIS) - NATS: Not operation • Remote keyless entry receiver communication status: No communication • LOCK indicator lamp: Not operation • ACC indicator lamp: Not operation • ON indicator lamp: Not operation

Wake-up operation

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

Wake-up condition

BCM wake-up condition	CAN wake-up condition
Trunk lid opener switch: OFF → ON	• Receiving the sleep-ready signal (Not-ready) from any units • Push-button ignition switch (push switch): OFF→ ON • Hazard switch: ON • HI BEAM switch: OFF → ON, ON → OFF • PASSING switch: OFF → ON, ON → OFF • HEADLAMP 1 switch: OFF → ON, ON → OFF • HEADLAMP 2 switch: OFF → ON, ON → OFF • TAIL LAMP switch: OFF → ON • FR FOG switch: OFF → ON, ON → OFF • TURN RH: OFF → ON, ON → OFF • TURN LH: OFF → ON, ON → OFF • Driver door switch: OFF → ON, ON → OFF • Passenger door switch: OFF → ON, ON → OFF • Rear RH door switch: OFF → ON, ON → OFF • Rear LH door switch: OFF → ON, ON → OFF • Trunk room lamp switch: OFF → ON, ON → OFF • Driver door request switch: OFF → ON • Passenger door request switch: OFF → ON • Trunk lid opener request switch: OFF → ON • Stop lamp switch: ON • ICC brake hold relay (with ICC): ON • Remote keyless entry receiver communication: Receiving • Front door lock assembly (driver side) (unlock sensor): OFF → ON, ON → OFF

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

INFOID:0000000006884545

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

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

SYSTEM APPLICATION
BCM can perform the following functions for each system.
NOTE:
It can perform the diagnosis modes except the following for all sub system selection items.

×: Applicable item

System	Sub system selection item	Diagnosis mode		
		Work Support	Data Monitor	Active Test
Door lock	DOOR LOCK	×	×	×
Rear window defogger	REAR DEFOGGER		×	×
Warning chime	BUZZER		×	×
Interior room lamp timer	INT LAMP	×	×	×
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER	×	×	×
—	AIR CONDITONER*		×	×
• Intelligent Key system • Engine start system	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
Body control system	BCM	×		
IVIS - NATS	IMMU	×	×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Trunk lid open	TRUNK		×	
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×
—	AIR PRESSURE MONITOR*	×	×	×

*: This item is not used.

FREEZE FRAME DATA (FFD)
The BCM records the following vehicle condition at the time a particular DTC is detected, and displays on CONSULT.

CONSULT screen item	Indication/Unit	Description	
Vehicle Speed	km/h	Vehicle speed of the moment a particular DTC is detected	
Odo/Trip Meter	km	Total mileage (Odometer value) of the moment a particular DTC is detected	
Vehicle Condition	SLEEP>LOCK	Power position status of the moment a particular DTC is detected	While turning BCM status from low power consumption mode to normal mode (Power supply position is “LOCK”*)
	SLEEP>OFF		While turning BCM status from low power consumption mode to normal mode (Power supply position is “OFF”.)
	LOCK>ACC		While turning power supply position from “LOCK” *to “ACC”
	ACC>ON		While turning power supply position from “ACC” to “IGN”
	RUN>ACC		While turning power supply position from “RUN” to “ACC” (Vehicle is stopping and selector lever is except P position.)
	CRANK>RUN		While turning power supply position from “CRANKING” to “RUN” (From cranking up the engine to run it)
	RUN>URGENT		While turning power supply position from “RUN“ to “ACC” (Emergency stop operation)
	ACC>OFF		While turning power supply position from “ACC” to “OFF”
	OFF>LOCK		While turning power supply position from “OFF” to “LOCK”*
	OFF>ACC		While turning power supply position from “OFF” to “ACC”
	ON>CRANK		While turning power supply position from “IGN” to “CRANKING”
	OFF>SLEEP		While turning BCM status from normal mode (Power supply position is “OFF”.) to low power consumption mode
	LOCK>SLEEP		While turning BCM status from normal mode (Power supply position is “LOCK”*.) to low power consumption mode
	LOCK		Power supply position is “LOCK” (Ignition switch OFF with steering is locked.)*
	OFF		Power supply position is “OFF” (Ignition switch OFF with steering is unlocked.)
	ACC		Power supply position is “ACC” (Ignition switch ACC)
	ON		Power supply position is “IGN” (Ignition switch ON with engine stopped)
	ENGINE RUN		Power supply position is “RUN” (Ignition switch ON with engine running)
	CRANKING		Power supply position is “CRANKING” (At engine cranking)
IGN Counter	0 - 39	The number of times that ignition switch is turned ON after DTC is detected • The number is 0 when a malfunction is detected now. • The number increases like 1 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. • The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.	

NOTE:
*: For models without steering lock unit, power supply position changes from “OFF” to “LOCK” when steering lock conditions are satisfied.

DOOR LOCK

DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)

INFOID:0000000007230378

BCM CONSULT FUNCTION

CONSULT performs the following functions via CAN communication with BCM.

WORK SUPPORT

Monitor item	Description
DOOR LOCK-UNLOCK SET	Selective unlock function mode can be changed to operation with this mode • On: Operate • Off: Non-operation
AUTOMATIC DOOR LOCK SELECT	Automatic door lock function mode can be selected from the following in this mode • VH SPD: All doors are locked when vehicle speed more than 24 km/h (15MPH) • P RANGE: All doors are locked when shifting the selector lever from P position to other than the P position
AUTOMATIC DOOR UNLOCK SELECT	Automatic door unlock function mode can be selected from the following in the mode • MODE 1: All doors are unlocked when the power supply position is changed from ON to OFF • MODE 2: All doors are unlocked when shifting the selector lever from any position other than the P to P position • MODE 3: Driver side door is unlocked when the power supply position is changed from ON to OFF • MODE 4: Driver side door is unlocked when shifting the selector lever from any position other than the P to P position • MODE 5: This item is displayed, but cannot be used • MODE 6: This item is displayed, but cannot be used
AUTOMATIC LOCK/UNLOCK SET	Automatic door lock/unlock function mode can be selected from the following in this mode • Off: Non-operational • Unlock Only: Door unlock operation only • Lock Only: Door lock operation only • Lock/Unlock: Lock and unlock operation

DATA MONITOR

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

ACTIVE TEST

Test item	Description
DOOR LOCK	This test is able to check door lock/unlock operation • The all door lock actuators are locked when “ALL LOCK” on CONSULT screen is touched • The all door lock actuators are unlocked when “ALL UNLK” on CONSULT screen is touched • The front door lock actuator (driver side) is unlocked when “DR UNLK” on CONSULT screen is touched • The front door lock actuator (passenger side) is unlocked when “AS UNLK” on CONSULT screen is touched • The door lock actuator (other) is unlocked when “OTR ULK” on CONSULT screen is touched

REAR WINDOW DEFOGGER

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

INFOID:0000000007230390

Data monitor

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

ACTIVE TEST

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

BUZZER

BUZZER : CONSULT Function (BCM - BUZZER)

INFOID:0000000007230391

CONSULT APPLICATION ITEMS

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

DATA MONITOR

Display item [Unit]	Description
PUSH SW [On/Off]	Status of push-button ignition switch judged by BCM.
UNLK SEN-DR [On/Off]	Status of unlock sensor judged by BCM.
VEH SPEED 1 [km/h]	Value of vehicle speed signal received from combination meter with CAN communication line.
TAIL LAMP SW [On/Off]	Status of lighting switch judged by BCM using the combination switch readout function.
FR FOG SW [On/Off]	Status of front fog lamp switch judged by BCM using the combination switch readout function.
DOOR SW-DR [On/Off]	Status of driver side door switch judged by BCM.
CDL LOCK SW [On/Off]	Status of door lock unlock switch judged by BCM.

ACTIVE TEST

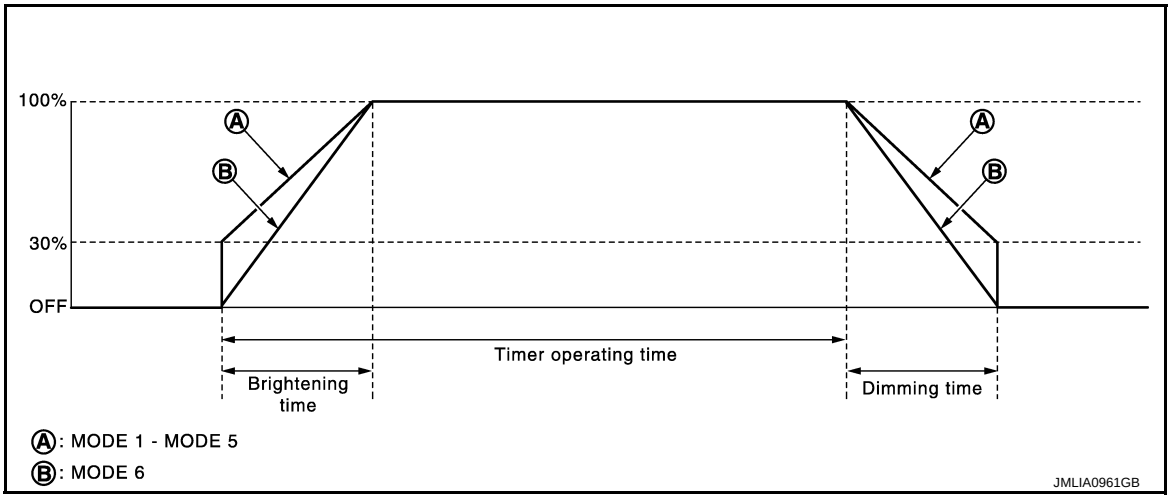
Display item [Unit]	Description
SEAT BELT WARN TEST	The seat belt warning chime operation can be checked by operating the relevant function (On/Off).
LIGHT WARN ALM	The light warning chime operation can be checked by operating the relevant function (On/Off).

INT LAMP

INT LAMP : CONSULT Function (BCM - INT LAMP)

INFOID:0000000007230387

WORK SUPPORT



Service item	Setting item	Setting	
SET I/L D-UNLCK INTCON	On*	With the interior room lamp timer function	
	Off	Without the interior room lamp timer function	
ROOM LAMP TIMER SET	MODE 2	7.5 sec.	Sets the interior room lamp ON time. (Timer operating time)
	MODE 3*	15 sec.	
	MODE 4	30 sec.	
ROOM LAMP ON TIME SET	MODE 1	0.5 sec.	Sets the interior room lamp gradual brightening time.
	MODE 2	1 sec.	
	MODE 3	2 sec.	
	MODE 4	3 sec.	
	MODE 5	0 sec.	
	MODE 6*	Gradually brightens from 0% to 100% brightness in 1 second.	
ROOM LAMP OFF TIME SET	MODE 1	0.5 sec.	Sets the interior room lamp gradual dimming time.
	MODE 2	1 sec.	
	MODE 3	2 sec.	
	MODE 4	3 sec.	
	MODE 5	0 sec.	
	MODE 6*	Gradually dims from 100% to 0% in 1 second.	
R LAMP TIMER LOGIC SET	MODE 1*	Interior room lamp timer activates with synchronizing all doors.	
	MODE 2	Interior room lamp timer activates with synchronizing the driver door only.	

*: Factory setting

DATA MONITOR

Monitor item [Unit]	Description
REQ SW-DR [On/Off]	The switch status input from request switch (driver side)
REQ SW-AS [On/Off]	The switch status input from request switch (passenger side)

Monitor item [Unit]	Description
REQ SW-RR [On/Off]	**NOTE:** The item is indicated, but not monitored.
REQ SW-RL [On/Off]	
PUSH SW [On/Off]	Push switch status received from Intelligent Key unit via CAN communication
UNLK SEN -DR [On/Off]	Driver door unlock status input from unlock sensor
DOOR SW-DR [On/Off]	The switch status input from front door switch (driver side)
DOOR SW-AS [On/Off]	The switch status input from front door switch (passenger side)
DOOR SW-RR [On/Off]	The switch status input from rear door switch RH
DOOR SW- RL [On/Off]	The switch status input from rear door switch LH
DOOR SW- BK [On/Off]	**NOTE:** The item is indicated, but not monitored.
CDL LOCK SW [On/Off]	Lock switch status input from door lock and unlock switch
CDL UNLOCK SW [On/Off]	Unlock switch status input from door lock and unlock switch
KEY CYL LK-SW [On/Off]	Lock switch status received from key cylinder lock/unlock switch
KEY CYL UN-SW [On/Off]	Unlock switch status received from key cylinder lock/unlock switch
TRNK/HAT MNTR [On/Off]	The switch status input from trunk room lamp switch
RKE-LOCK [On/Off]	Lock signal status received from remote keyless entry receiver
RKE-UNLOCK [On/Off]	Unlock signal status received from remote keyless entry receiver

ACTIVE TEST

Test item	Operation	Description
INT LAMP	On	Outputs the interior room lamp control signal to turn the interior room lamps ON. [Map lamp, personal lamp, foot lamp (when applicable lamps switch is in DOOR position.)]
	Off	Stops the interior room lamp control signal to turn the interior room lamps OFF.
STEP LAMP TEST	On	Outputs the step lamp control signal to turn the step lamps ON.
	Off	Stops the step lamp control signal to turn the step lamps ON.

HEADLAMP

HEADLAMP : CONSULT Function (BCM - HEAD LAMP)

INFOID:0000000007230384

WORK SUPPORT

Service item	Setting item	Setting	
CUSTOM A/LIGHT SETTING	MODE 1*	Normal	
	MODE 2	More sensitive setting than normal setting (Turns ON earlier than normal operation.)	
	MODE 3	More sensitive setting than MODE 2 (Turns ON earlier than MODE 2.)	
	MODE 4	Less sensitive setting than normal setting (Turns ON later than normal operation.)	
AUTO LIGHT LOGIC SET*	MODE 1*	With twilight ON custom & with wiper INT, LO and HI	
	MODE 2	With twilight ON custom & with wiper LO and HI	
	MODE 3	With twilight ON custom & without	
	MODE 4	Without twilight ON custom & with wiper INT, LO and HI	
	MODE 5	Without twilight ON custom & with wiper LO and HI	
	MODE 6	Without twilight ON custom & without	
BATTERY SAVER SET	On*	With the exterior lamp battery saver function	
	Off	Without the exterior lamp battery saver function	
ILL DELAY SET	MODE 1*	45 sec.	Sets delay timer function timer operation time. (All doors closed)
	MODE 2	Without the function	
	MODE 3	30 sec.	
	MODE 4	60 sec.	
	MODE 5	90 sec.	
	MODE 6	120 sec.	
	MODE 7	150 sec.	
	MODE 8	180 sec.	

*1: For models with daytime running light system, this item is not displayed.

*2: Factory setting

DATA MONITOR

Monitor item [Unit]	Description
PUSH SW [On/Off]	The switch status input from push-button ignition switch
ENGINE STATE [Stop/Stall/Crank/Run]	The engine status received from ECM via CAN communication
VEH SPEED 1 [km/h]	The value of the vehicle speed received from combination meter via CAN communication

Monitor item [Unit]	Description
TURN SIGNAL R [On/Off]	Each switch status that BCM judges from the combination switch reading function
TURN SIGNAL L [On/Off]	
TAIL LAMP SW [On/Off]	
HI BEAM SW [On/Off]	
HEAD LAMP SW1 [On/Off]	
HEAD LAMP SW2 [On/Off]	
PASSING SW [On/Off]	
AUTO LIGHT SW [On/Off]	
FR FOG SW [On/Off]	
RR FOG SW [On/Off]	**NOTE:** The item is indicated, but not monitored.
DOOR SW-DR [On/Off]	The switch status input from front door switch (driver side)
DOOR SW-AS [On/Off]	The switch status input from front door switch (passenger side)
DOOR SW-RR [On/Off]	The switch status input from rear door switch RH
DOOR SW- RL [On/Off]	The switch status input from rear door switch LH
DOOR SW-BK [On/Off]	**NOTE:** The item is indicated, but not monitored.
OPTICAL SENSOR [On/Off/NG]	**NOTE:** The item is indicated, but not monitored.
OPTICAL SEN (DTCT) [V]	The value of outside brightness voltage input from the optical sensor
OPTICAL SEN (FLIT) [V]	The sensor outside brightness voltage filtered by BCM.

ACTIVE TEST

Test item	Operation	Description
TAIL LAMP	On	Transmits the position light request signal to IPDM E/R via CAN communication to turn the tail lamp ON.
	Off	Stops the tail lamp request signal transmission.
HEAD LAMP	Hi	Transmits the high beam request signal via CAN communication to turn the headlamp (HI).
	Low	Transmits the low beam request signal via CAN communication to turn the headlamp (LO).
	Off	Stops the high & low beam request signal transmission.
FR FOG LAMP	On	Transmits the front fog lights request signal to IPDM E/R via CAN communication to turn the front fog lamp ON.
	Off	Stops the front fog lights request signal transmission.

Test item	Operation	Description
RR FOG LAMP	On	**NOTE:** The item is indicated, but cannot be tested.
	Off	
DAYTIME RUNNING LIGHT*	On	Transmits the daytime running light request signal via CAN communication to turn the headlamp (LO), parking, license plate, side marker and tail lamps ON.
	Off	Stop the daytime running light request signal transmission.
ILL DIM SIGNAL	On	• Transmits the dimmer signal to combination meter via CAN communication and dims combination meter. • Transmits the dimmer signal to AV control unit and dims display.
	Off	Stops the dimmer signal transmission.

*: For models without daytime running light system, This item is displayed but active test is not operated.

WIPER

WIPER : CONSULT Function (BCM - WIPER)

INFOID:0000000007230389

WORK SUPPORT

Service item	Setting item	Description	
RAIN SEN WIP FUNC SET	On*	With rain sensor (Front wiper intermittent time linked with the rain sensor, vehicle speed, and AUTO dial position)	The setting of front wiper AUTO operation can be changed
	Off	Without rain sensor (Front wiper intermittent time linked with the vehicle speed and AUTO dial position)	
DROP WIPE FUNC SET	MODE1	Front wiper drop wipe OFF	The setting of drop wipe operation can be changed
	MODE2*	Front wiper drop wipe ON	
	MODE3	The same setting as MODE1	
	MODE4	The same setting as MODE2	

*: Factory setting

DATA MONITOR

Monitor Item [Unit]	Description
PUSH SW [Off/On]	The switch status input from push-button ignition switch.
VEH SPEED 1 [km/h]	Displays the value of the vehicle speed signal received from combination meter via CAN communication.
FR WIPER HI [Off/On]	Status of each switch judged by BCM using the combination switch reading function
FR WIPER LOW [Off/On]	
FR WASHER SW [Off/On]	
FR WIPER INT [Off/On]	
FR WIPER STOP [Off/On]	Displays the status of the front wiper position signal received from IPDM E/R via CAN communication.
INT VOLUME [1 – 7]	Status of each switch judged by BCM using the combination switch reading function

Monitor Item [Unit]	Description
H/L WASH SW [Off/On]	**NOTE:** This item is indicated, but not monitored
RAIN SENSOR [OFF/LOW/HIGH/SPLASH/NG]	Request signal from rain sensor detected by BCM is displayed

ACTIVE TEST

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

FLASHER

FLASHER : CONSULT Function (BCM - FLASHER)

INFOID:0000000007230385

WORK SUPPORT

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

*: Factory setting

DATA MONITOR

Monitor item [Unit]	Description
REQ SW-DR [On/Off]	The switch status input from the request switch (driver side)
REQ SW-AS [On/Off]	The switch status input from the request switch (passenger side)
PUSH SW [On/Off]	The switch status input from the push-button ignition switch
TURN SIGNAL R [On/Off]	Each switch status that BCM detects from the combination switch reading function
TURN SIGNAL L [On/Off]	
HAZARD SW [On/Off]	The switch status input from the hazard switch
RKE-LOCK [On/Off]	Lock signal status received from the remote keyless entry receiver
RKE-UNLOCK [On/Off]	Unlock signal status received from the remote keyless entry receiver
RKE-PANIC [On/Off]	Panic alarm signal status received from the remote keyless entry receiver

ACTIVE TEST

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

INTELLIGENT KEY

INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)

INFOID:0000000007230379

WORK SUPPORT

Monitor item	Description
INSIDE ANT DIAGNOSIS	This function allows inside key antenna self-diagnosis
LOCK/UNLOCK BY I-KEY	Door lock/unlock function by door request switch mode can be changed to operation in this mode • On: Operate • Off: Non-operation
ENGINE START BY I-KEY	Engine start function mode can be changed to operation with this mode • On: Operate • Off: Non-operation
TRUNK/GLASS HATCH OPEN	Buzzer reminder function mode by trunk lid opener request switch and Intelligent Key can be changed to operation with this mode • On: Operate • Off: Non-operation
PANIC ALARM SET	Panic alarm button pressing time on Intelligent Key remote control button can be selected from the following with this mode • MODE 1: 0.5 sec • MODE 2: Non-operation • MODE 3: 1.5 sec
TRUNK OPEN DELAY	Trunk button pressing on Intelligent Key can be selected as per the following in this mode. • MODE 1: Press and hold • MODE 2: Press twice • MODE 3: Press and hold, or press twice
LO- BATT OF KEY FOB WARN	Intelligent Key low battery warning mode can be changed to operation with this mode • On: Operate • Off: Non-operation
ANTI KEY LOCK IN FUNCTI	Key reminder function mode can be changed to operation with this mode • On: Operate • Off: Non-operation
HAZARD ANSWER BACK	Hazard reminder function mode by door request switch and Intelligent Key button can be selected from the following with this mode • Lock Only: Door lock operation only • Unlock Only: Door unlock operation only • Lock/Unlock: Lock and unlock operation • Off: Non-operation
ANS BACK I-KEY LOCK	Buzzer reminder function (lock operation) mode by door request switch can be selected from the following with this mode • Horn Chirp: Sound horn • Buzzer: Sound Intelligent Key warning buzzer • Off: Non-operation
ANS BACK I-KEY UNLOCK	Buzzer reminder function (unlock operation) mode by door request switch can be changed to operation with this mode • On: Operate • Off: Non-operation
SHORT CRANKING OUTPUT	Starter motor can operate during the times below • 70 msec • 100 msec • 200 msec

Monitor item	Description
CONFIRM KEY FOB ID	It can be checked whether Intelligent Key ID code is registered or not in this mode
AUTO LOCK SET	Auto door lock operation time can be changed in this mode • MODE 1: OFF • MODE 2: 30 sec • MODE 3: 1 minute • MODE 4: 2 minutes • MODE 5: 3 minutes • MODE 6: 4 minutes • MODE 7: 5 minutes
HORN WITH KEYLESS LOCK	Horn reminder function mode by Intelligent Key button can be selected from the following with this mode • On: Operate • Off: Non-operation
PW DOWN SET	Unlock button pressing time on Intelligent Key button can be selected from the following with this mode • MODE 1: 3 sec • MODE 2: Non-operation • MODE 3: 5 sec
WELCOME LIGHT SELECT	Welcome light function mode can be selected from the following with this mode • Puddle/Outside Handle • Room lamp • Head & Tail Lamps (this item is displayed, but cannot be used) • Heart Beat
WELCOME LIGHT OP SET	Welcome light function mode can be changed to operation with this mode • On: Operate • Off: Non-operation
INTELLIGENT KEY SETUP	Intelligent Key interlock function mode can be changed to operation with this mode • On: Operate • Off: Non-operation

SELF-DIAG RESULT

Refer to BCS-57, "DTC Index".

DATA MONITOR

Monitor Item	Condition
REQ SW -DR	Indicates [On/Off] condition of door request switch (driver side)
REQ SW -AS	Indicates [On/Off] condition of door request switch (passenger side)
REQ SW -BD/TR	Indicates [On/Off] condition of trunk lid opener request switch
PUSH SW	Indicates [On/Off] condition of push-button ignition switch
CLUTCH SW	**NOTE:** This item is displayed, but cannot be monitored
BRAKE SW 1	Indicates [On/Off]* condition of stop lamp switch power supply
BRAKE SW 2	Indicates [On/Off] condition of stop lamp switch
DETE/CANCL SW	Indicates [On/Off] condition of P position
SFT PN/N SW	Indicates [On/Off] condition of P or N position
S/L -LOCK	Indicates [On/Off] condition of steering lock unit (LOCK) **NOTE:** For models without steering lock unit, this item is not monitored.
S/L -UNLOCK	Indicates [On/Off] condition of steering lock unit (UNLOCK) **NOTE:** For models without steering lock unit, this item is not monitored.
S/L RELAY -F/B	Indicates [On/Off] condition of steering lock relay **NOTE:** For models without steering lock unit, this item is not monitored.
UNLK SEN -DR	Indicates [On/Off] condition of driver door UNLOCK status

Monitor Item	Condition
PUSH SW -IPDM	Indicates [On/Off] condition of push-button ignition switch
IGN RLY1 -F/B	Indicates [On/Off] condition of ignition relay 1
DETE SW -IPDM	Indicates [On/Off] condition of P position
SFT PN -IPDM	Indicates [On/Off] condition of P or N position
SFT P -MET	Indicates [On/Off] condition of P position
SFT N -MET	Indicates [On/Off] condition of N position
ENGINE STATE	Indicates [Stop/Stall/Crank/Run] condition of engine states
S/L LOCK-IPDM	Indicates [On/Off] condition of steering lock unit (LOCK) **NOTE:** For models without steering lock unit, this item is not monitored.
S/L UNLK-IPDM	Indicates [On/Off] condition of steering lock unit (UNLOCK) **NOTE:** For models without steering lock unit, this item is not monitored.
S/L RELAY-REQ	Indicates [On/Off] condition of steering lock relay **NOTE:** For models without steering lock unit, this item is not monitored.
VEH SPEED 1	Display the vehicle speed signal received from combination meter by numerical value [Km/h]
VEH SPEED 2	Display the vehicle speed signal received from ABS or VDC or TCM by numerical value [Km/h]
DOOR STAT-DR	Indicates [LOCK/READY/UNLK] condition of driver side door status
DOOR STAT-AS	Indicates [LOCK/READY/UNLK] condition of passenger side door status
ID OK FLAG	Indicates [Set/Reset] condition of key ID
PRMT ENG STRT	Indicates [Set/Reset] condition of engine start possibility
PRMT RKE STRT	**NOTE:** This item is displayed, but cannot be monitored
TRNK/HAT MNTR	Indicates [On/Off] condition of trunk room lamp switch
RKE-LOCK	Indicates [On/Off] condition of LOCK signal from Intelligent Key
RKE-UNLOCK	Indicates [On/Off] condition of UNLOCK signal from Intelligent Key
RKE-TR/BD	Indicates [On/Off] condition of trunk open signal from Intelligent Key
RKE-PANIC	Indicates [On/Off] condition of panic alarm button of Intelligent Key
RKE-MODE CHG	Indicates [On/Off] condition of MODE CHANGE signal from Intelligent Key
RKE OPE COUN1	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing
RKE OPE COUN2	**NOTE:** This item is displayed, but cannot be monitored

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

ACTIVE TEST

Test item	Description
BATTERY SAVER	This test is able to check interior room lamp operation • On: Operate • Off: Non-operation
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation • On: Operate • Off: Non-operation
INSIDE BUZZER	This test is able to check warning chime in combination meter operation • Take Out: Take away warning chime sounds when CONSULT screen is touched • Key: Key warning chime sounds when CONSULT screen is touched • Knob: OFF position warning chime sounds when CONSULT screen is touched • Off: Non-operation

Test item	Description
INDICATOR	This test is able to check warning lamp operation • KEY ON: “KEY” Warning lamp illuminates when CONSULT screen is touched • KEY IND: “KEY” Warning lamp blinks when CONSULT screen is touched • Off: Non-operation
INT LAMP	This test is able to check interior room lamp operation • On: Operate • Off: Non-operation
LCD	This test is able to check meter display information • Engine start information displays when “BP N” on CONSULT screen is touched • Engine start information displays when “BP I” on CONSULT screen is touched • Key ID warning displays when “ID NG” on CONSULT screen is touched • Steering lock information displays when “ROTAT” on CONSULT screen is touched **NOTE:** For models without steering lock unit, “ROTAT” is displayed, but cannot be tested. • P position warning displays when “SFT P” on CONSULT screen is touched • INSRT: This item is displayed, but cannot be monitored • BATT: This item is displayed, but cannot be monitored • Take away through window warning displays when “NO KY” on CONSULT screen is touched • Take away warning display when “OUTKEY” on CONSULT screen is touched • OFF position warning display when “LK WN” on CONSULT screen is touched
FLASHER	This test is able to check hazard warning lamp operation The hazard warning lamps are activated after “LH/RH/Off” on CONSULT screen is touched
P RANGE	This test is able to check AT shift selector power supply • On: Operate • Off: Non-operation
ENGINE SW ILLUMI	This test is able to check push-ignition switch illumination operation Push-ignition switch illumination illuminates when “ON” on CONSULT screen is touched
LOCK INDICATOR	This test is able to check LOCK indicator (push-button ignition switch) operation • On: Operate • Off: Non-operation
ACC INDICATOR	This test is able to check ACC indicator (push-button ignition switch) operation • On: Operate • Off: Non-operation
IGNITION ON IND	This test is able to check ON indicator (push-button ignition switch) operation • On: Operate • Off: Non-operation
HORN	This test is able to check horn operation • On: Operate • Off: Non-operation
TRUNK/BACK DOOR	This test is able to check trunk lid open operation • Open: Operate
INTELLIGENT KEY LINK	This test is able to check Intelligent Key interlock function • ID No1: BCM transmits Intelligent Key ID No1 to each control unit • ID No2: BCM transmits Intelligent Key ID No2 to each control unit
INTELLIGENT KEY LINK (CAN)	This test is able to check Intelligent Key interlock function • Off: Non-operation • ID No1: BCM transmits Intelligent Key ID No1 to each control unit via CAN communication line • ID No2: BCM transmits Intelligent Key ID No2 to each control unit via CAN communication line • ID No3: BCM transmits Intelligent Key ID No3 to each control unit via CAN communication line • ID No4: BCM transmits Intelligent Key ID No4 to each control unit via CAN communication line • ID No5: This item is displayed, but cannot be used

COMB SW

COMB SW : CONSULT Function (BCM - COMB SW)

INFOID:0000000006884554

DATA MONITOR

Monitor item [UNIT]	Description
FR WIPER HI [Off/On]	Displays the status of the FR WIPER HI switch in combination switch judged by BCM with the combination switch reading function.
FR WIPER LOW [Off/On]	Displays the status of the FR WIPER LOW switch in combination switch judged by BCM with the combination switch reading function.
FR WASHER SW [Off/On]	Displays the status of the FR WASHER switch in combination switch judged by BCM with the combination switch reading function.
FR WIPER INT [Off/On]	Displays the status of the FR WIPER AUTO switch in combination switch judged by BCM with the combination switch reading function.
INT VOLUME [1 - 7]	Displays the status of wiper volume dial position judged by BCM with the combination switch reading function.
TURN SIGNAL R [Off/On]	Displays the status of the TURN RH switch in combination switch judged by BCM with the combination switch reading function.
TURN SIGNAL L [Off/On]	Displays the status of the TURN LH switch in combination switch judged by BCM with the combination switch reading function.
TAIL LAMP SW [Off/On]	Displays the status of the TAIL LAMP switch in combination switch judged by BCM with the combination switch reading function.
HI BEAM SW [Off/On]	Displays the status of the HI BEAM switch in combination switch judged by BCM with the combination switch reading function.
HEAD LAMP SW 1 [Off/On]	Displays the status of the HEADLAMP 1 switch in combination switch judged by BCM with the combination switch reading function.
HEAD LAMP SW 2 [Off/On]	Displays the status of the HEADLAMP 2 switch in combination switch judged by BCM with the combination switch reading function.
PASSING SW [Off/On]	Displays the status of the PASSING switch in combination switch judged by BCM with the combination switch reading function.
AUTO LIGHT SW [Off/On]	Displays the status of the AUTO LIGHT switch in combination switch judged by BCM with the combination switch reading function.
FR FOG SW [Off/On]	Displays the status of the FR FOG switch in combination switch judged by BCM with the combination switch reading function.
RR FOG SW [Off/On]	**NOTE:** The item is indicated, but not monitored.

BCM

BCM : CONSULT Function (BCM - BCM)

INFOID:0000000006884555

WORK SUPPORT

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

IMMU

IMMU : CONSULT Function (BCM - IMMU)

INFOID:0000000007230382

DATA MONITOR

Monitor item	Content
CONFRM ID ALL	Indicates [YET] at all time. Switches to [DONE] when a registered Intelligent Key backside is contacted to push-button ignition switch.
CONFIRM ID4	
CONFIRM ID3	
CONFIRM ID2	
CONFIRM ID1	
TP 4	Indicates the number of IDs that are registered.
TP 3	
TP 2	
TP 1	
PUSH SW	Indicates [ON/OFF] condition of push-button ignition switch.
KEY SW-SLOT	**NOTE:** This is displayed even when it is not equipped.

ACTIVE TEST

Test item	Description
THEFT IND	This test is able to check security indicator lamp operation. Security indicator lamp is turned on when “ON” on CONSULT screen touched.

WORK SUPPORT

Service item	Description
CONFIRM DONGLE ID	It is possible to check that dongle unit is applied to the vehicle.

BATTERY SAVER

BATTERY SAVER : CONSULT Function (BCM - BATTERY SAVER)

INFOID:0000000007230388

WORK SUPPORT

Service item	Setting item	Setting	
ROOM LAMP TIMER SET	MODE 1*	30 min.	Sets the interior room lamp battery saver timer operating time.
	MODE 2	60 min.	
	MODE 3	15 min.	
BATTERY SAVER SET	On*	With the exterior lamp battery saver function	
	Off	Without the exterior lamp battery saver function	

*:Factory setting

DATA MONITOR

Monitor item [Unit]	Description
REQ SW-DR [On/Off]	The switch status input from request switch (driver side)
REQ SW-AS [On/Off]	The switch status input from front request switch (passenger side)
REQ SW-RR [On/Off]	**NOTE:** The item is indicated, but not monitored.
REQ SW-RL [On/Off]	

Monitor item [Unit]	Description
PUSH SW [On/Off]	Push switch status received from Intelligent Key unit by CAN communication
UNLK SEN-DR [On/Off]	Driver door unlock status input from unlock sensor
DOOR SW-DR [On/Off]	The switch status input from front door switch (driver side)
DOOR SW-AS [On/Off]	The switch status input from front door switch (passenger side)
DOOR SW-RR [On/Off]	The switch status input from rear door switch RH
DOOR SW- RL [On/Off]	The switch status input from rear door switch LH
DOOR SW- BK [On/Off]	**NOTE:** The item is indicated, but not monitored.
CDL LOCK SW [On/Off]	Lock switch status input from door lock and unlock switch
CDL UNLOCK SW [On/Off]	Unlock switch status input from door lock and unlock switch
KEY CYL LK-SW [On/Off]	Lock switch status received from key cylinder lock/unlock switch
KEY CYL UN-SW [On/Off]	Unlock switch status received from key cylinder lock/unlock switch
TRNK/HAT MNTR [On/Off]	The switch status input from trunk room lamp switch
RKE-LOCK [On/Off]	Lock signal status received from remote keyless entry receiver
RKE-UNLOCK [On/Off]	Unlock signal status received from remote keyless entry receiver

ACTIVE TEST

Test item	Operation	Description
BATTERY SAVER	Off	Cuts the interior room lamp power supply to turn interior room lamps OFF.
	On	Outputs the interior room lamp power supply to turn interior room lamps ON.*

*: Each lamp switch is in ON position.

TRUNK

TRUNK : CONSULT Function (BCM - TRUNK)

INFOID:0000000007230380

DATA MONITOR

Monitor Item	Contents
PUSH SW	Indicates [On/Off] condition of push switch
UNLK SEN -DR	Indicates [On/Off] condition of unlock sensor
VEH SPEED 1	Indicates [Km/h] condition of vehicle speed signal from combination meter
KEY CYL SW-TR	Indicates [On/Off] condition of trunk key cylinder switch
TR CANCEL SW	Indicates [On/Off] condition of trunk lid opener cancel switch
TR/BD OPEN SW	Indicates [Km/h] condition of trunk lid opener switch
TRNK/HAT MNTR	Indicates [On/Off] condition of trunk room lamp switch
RKE-TR/BD	Indicates [On/Off] condition of trunk open signal from Intelligent Key

THEFT ALM

THEFT ALM : CONSULT Function (BCM - THEFT)

INFOID:0000000007230381

DATA MONITOR

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

WORK SUPPORT

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

ACTIVE TEST

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

Test Item	Description
HEADLAMP(HI)	This test is able to check headlamps operation. The headlamps are activated for 0.5 seconds after “ON” on CONSULT screen is touched.
FLASHER	This test is able to check hazard warning lamp operation. The hazard warning lamps are activated after “ON” on CONSULT screen is touched.

RETAIND PWR

RETAIND PWR : CONSULT Function (BCM - RETAINED PWR)

INFOID:0000000007230383

Data monitor

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

SIGNAL BUFFER

SIGNAL BUFFER : CONSULT Function (BCM - SIGNAL BUFFER)

INFOID:0000000007215030

DATA MONITOR

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

ACTIVE TEST

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

ECU DIAGNOSIS INFORMATION

BCM

Reference Value

INFOID:0000000006884562

VALUES ON THE DIAGNOSIS TOOL

CONSULT MONITOR ITEM

Monitor Item	Condition	Value/Status
FR WIPER HI	Other than front wiper switch HI	Off
	Front wiper switch HI	On
FR WIPER LOW	Other than front wiper switch LO	Off
	Front wiper switch LO	On
FR WASHER SW	Front washer switch OFF	Off
	Front washer switch ON	On
FR WIPER INT	Other than front wiper switch INT/AUTO	Off
	Front wiper switch INT/AUTO	On
FR WIPER STOP	Front wiper is not in STOP position	Off
	Front wiper is in STOP position	On
INT VOLUME	Wiper volume dial is in a dial position 1 - 7	Wiper volume dial position
TURN SIGNAL R	Other than turn signal switch RH	Off
	Turn signal switch RH	On
TURN SIGNAL L	Other than turn signal switch LH	Off
	Turn signal switch LH	On
TAIL LAMP SW	Other than lighting switch 1ST and 2ND	Off
	Lighting switch 1ST or 2ND	On
HI BEAM SW	Other than lighting switch HI	Off
	Lighting switch HI	On
HEAD LAMP SW 1	Other than lighting switch 2ND	Off
	Lighting switch 2ND	On
HEAD LAMP SW 2	Other than lighting switch 2ND	Off
	Lighting switch 2ND	On
PASSING SW	Other than lighting switch PASS	Off
	Lighting switch PASS	On
AUTO LIGHT SW	Other than lighting switch AUTO	Off
	Lighting switch AUTO	On
FR FOG SW	Front fog lamp switch OFF	Off
	Front fog lamp switch ON	On
RR FOG SW	**NOTE:** The item is indicated, but not monitored.	Off
DOOR SW-DR	Driver door closed	Off
	Driver door opened	On
DOOR SW-AS	Passenger door closed	Off
	Passenger door opened	On
DOOR SW-RR	Rear RH door closed	Off
	Rear RH door opened	On

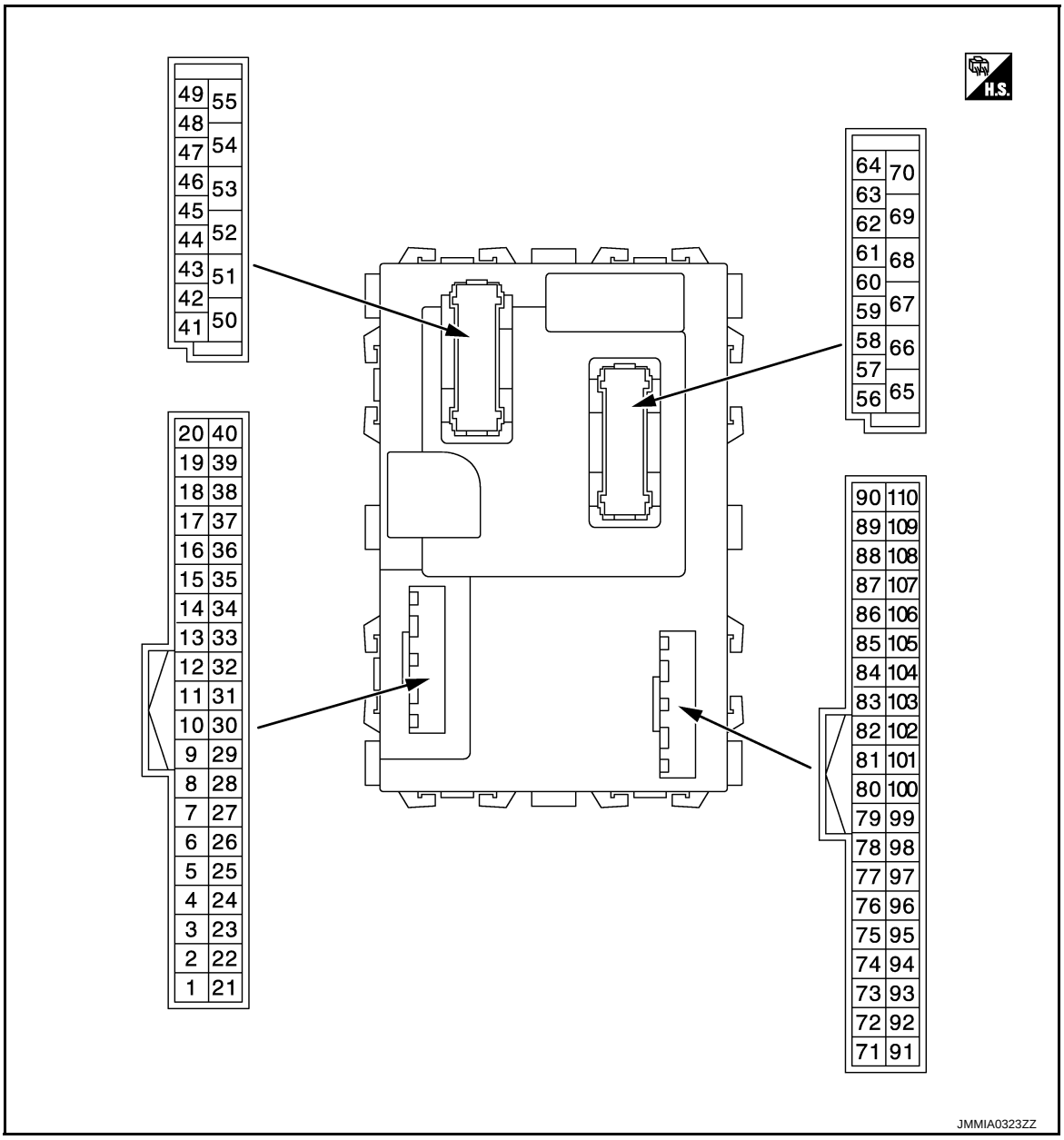
Monitor Item	Condition	Value/Status
DOOR SW-RL	Rear LH door closed	Off
	Rear LH door opened	On
DOOR SW-BK	**NOTE:** The item is indicated, but not monitored.	Off
CDL LOCK SW	Other than power door lock switch LOCK	Off
	Power door lock switch LOCK	On
CDL UNLOCK SW	Other than power door lock switch UNLOCK	Off
	Power door lock switch UNLOCK	On
KEY CYL LK-SW	Other than driver door key cylinder LOCK position	Off
	Driver door key cylinder LOCK position	On
KEY CYL UN-SW	Other than driver door key cylinder UNLOCK position	Off
	Driver door key cylinder UNLOCK position	On
KEY CYL SW-TR	Trunk key cylinder switch OFF position	Off
	Trunk key cylinder switch ON (TRUNK OPEN) position	On
HAZARD SW	Hazard switch is OFF	Off
	Hazard switch is ON	On
REAR DEF SW	Rear window defogger switch OFF	Off
	Rear window defogger switch ON	On
TR CANCEL SW	Trunk lid opener cancel switch OFF	Off
	Trunk lid opener cancel switch ON	On
TR/BD OPEN SW	Trunk lid opener switch OFF	Off
	While the trunk lid opener switch is turned ON	On
TRNK/HAT MNTR	Trunk lid closed	Off
	Trunk lid opened	On
FAN ON SIG	**NOTE:** The item is indicated, but not monitored.	Off
AIR COND SW	**NOTE:** The item is indicated, but not monitored.	Off
RKE-LOCK	LOCK button of the key is not pressed	Off
	LOCK button of the key is pressed	On
RKE-UNLOCK	UNLOCK button of the key is not pressed	Off
	UNLOCK button of the key is pressed	On
RKE-TR/BD	TRUNK OPEN button of the key is not pressed	Off
	TRUNK OPEN button of the key is pressed	On
RKE-PANIC	PANIC button of the key is not pressed	Off
	PANIC button of the key is pressed	On
RKE-MODE CHG	LOCK/UNLOCK button of the key is not pressed and held simultaneously	Off
	LOCK/UNLOCK button of the key is pressed and held simultaneously	On
SHOCK SENSOR	Air bag signal (NORMAL) is detected.	NOMAL
	Air bag signal (AIR BAG OPEN) is detected.	On
	Air bag signal is not detected.	Off
OPTI SEN (DTCT)	Bright outside of the vehicle	Close to 5 V
	Dark outside of the vehicle	Close to 0 V
OPTI SEN (FILT)	Bright outside of the vehicle (Lighting switch AUTO)	Close to 5 V
	Dark outside of the vehicle (Lighting switch AUTO)	Close to 1.50 V

Monitor Item	Condition	Value/Status
OPTICAL SENSOR	**NOTE:** The item is indicated, but not monitored.	Off
RAIN SENSOR	No rain (or very light rain)	Off
	Light rain	LOW
	Heavy rain	HIGH
	When liquid is splashed on the front window	SPLSH
	Rain sensor internal error	NG
REQ SW -DR	Driver door request switch is not pressed	Off
	Driver door request switch is pressed	On
REQ SW -AS	Passenger door request switch is not pressed	Off
	Passenger door request switch is pressed	On
REQ SW -RR	**NOTE:** The item is indicated, but not monitored.	Off
REQ SW -RL	**NOTE:** The item is indicated, but not monitored.	Off
REQ SW -BD/TR	Back door request switch is not pressed	Off
	Back door request switch is pressed	On
PUSH SW	Push-button ignition switch (push switch) is not pressed	Off
	Push-button ignition switch (push switch) is pressed	On
CLUCH SW	**NOTE:** The item is indicated, but not monitored.	Off
BRAKE SW 1	The brake pedal is not depressed	Off
	The brake pedal is depressed	On
BRAKE SW 2	The brake pedal is depressed when No. 7 fuse is blown	Off
	The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal	On
DETE/CANCL SW	Selector lever in P position	Off
	Selector lever in any position other than P	On
SFT PN/N SW	Selector lever in any position other than P and N	Off
	Selector lever in P or N position	On
S/L -LOCK **NOTE:** For models without steering lock unit, this item is not monitored.	Steering is locked	Off
	Steering is unlocked	On
S/L -UNLOCK **NOTE:** For models without steering lock unit, this item is not monitored.	Steering is unlocked	Off
	Steering is locked	On
S/L RELAY-F/B **NOTE:** For models without steering lock unit, this item is not monitored.	Steering is unlocked	Off
	Steering is locked	On
UNLK SEN -DR	Driver door is locked	Off
	Driver door is unlocked	On
PUSH SW -IPDM	Push-button ignition switch (push-switch) is not pressed	Off
	Push-button ignition switch (push-switch) is pressed	On
IGN RLY1 -F/B	Ignition switch in OFF or ACC position	Off
	Ignition switch in ON position	On

Monitor Item	Condition	Value/Status
DETE SW -IPDM	Selector lever in any position other than P	Off
	Selector lever in P position	On
SFT PN -IPDM	Selector lever in any position other than P and N	Off
	Selector lever in P or N position	On
SFT P -MET	Selector lever in any position other than P	Off
	Selector lever in P position	On
SFT N -MET	Selector lever in any position other than N	Off
	Selector lever in N position	On
ENGINE STATE	Engine stopped	Stop
	While the engine stalls	Stall
	At engine cranking	Crank
	Engine running	Run
S/L LOCK-IPDM **NOTE:** For models without steering lock unit, this item is not monitored.	Steering is locked	Off
	Steering is unlocked	On
S/L UNLK-IPDM **NOTE:** For models without steering lock unit, this item is not monitored.	Steering is unlocked	Off
	Steering is locked	On
S/L RELAY-REQ **NOTE:** For models without steering lock unit, this item is not monitored.	Steering is unlocked	Off
	Steering is locked	On
VEH SPEED 1	While driving	Equivalent to speedometer reading
VEH SPEED 2	While driving	Equivalent to speedometer reading
DOOR STAT-DR	Driver door is locked	LOCK
	Wait with selective UNLOCK operation (60 seconds)	READY
	Driver door is unlocked	UNLOCK
DOOR STAT-AS	Passenger door is locked	LOCK
	Wait with selective UNLOCK operation (60 seconds)	READY
	Passenger door is unlocked	UNLOCK
ID OK FLAG	Driver side door is open after ignition switch is turned OFF (Selector lever is in the P position)	Reset
	Ignition switch ON	Set
PRMT ENG STRT	The engine start is prohibited	Reset
	The engine start is permitted	Set
PRMT RKE STRT	**NOTE:** The item is indicated, but not monitored.	Reset
RKE OPE COUN1	During the operation of the key	Operation frequency of the key
RKE OPE COUN2	**NOTE:** The item is indicated, but not monitored.	—
CONFRM ID ALL	The key ID that the key slot receives is not recognized by any key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by any key ID registered to BCM.	Done

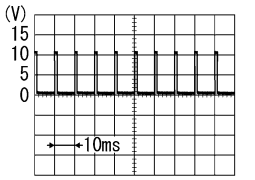
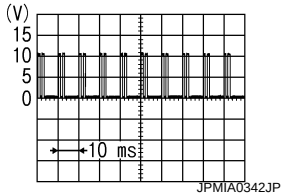
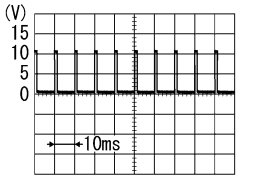
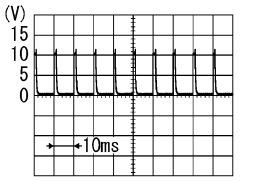
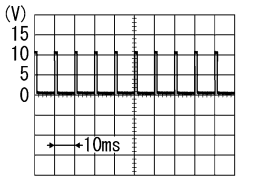
Monitor Item	Condition	Value/Status
CONFIRM ID4	The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the fourth key ID registered to BCM.	Done
CONFIRM ID3	The key ID that the key slot receives is not recognized by the third key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the third key ID registered to BCM.	Done
CONFIRM ID2	The key ID that the key slot receives is not recognized by the second key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the second key ID registered to BCM.	Done
CONFIRM ID1	The key ID that the key slot receives is not recognized by the first key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the first key ID registered to BCM.	Done
NOT REGISTERED	BCM detects registered key ID, or BCM does not detect key ID.	ID OK
	BCM detects non-registration key ID.	ID NG
TP 4	The ID of fourth key is not registered to BCM	Yet
	The ID of fourth key is registered to BCM	Done
TP 3	The ID of third key is not registered to BCM	Yet
	The ID of third key is registered to BCM	Done
TP 2	The ID of second key is not registered to BCM	Yet
	The ID of second key is registered to BCM	Done
TP 1	The ID of first key is not registered to BCM	Yet
	The ID of first key is registered to BCM	Done
AIR PRESS FL	**NOTE:** The item is indicated, but not used.	0kPa
AIR PRESS FR	**NOTE:** The item is indicated, but not used.	0kPa
AIR PRESS RR	**NOTE:** The item is indicated, but not used.	0kPa
AIR PRESS RL	**NOTE:** The item is indicated, but not used.	0kPa
ID REGST FL1	**NOTE:** The item is indicated, but not used.	Done
ID REGST FR1	**NOTE:** The item is indicated, but not used.	Done
ID REGST RR1	**NOTE:** The item is indicated, but not used.	Done
ID REGST RL1	**NOTE:** The item is indicated, but not used.	Done
WARNING LAMP	**NOTE:** The item is indicated, but not used.	Off
BUZZER	**NOTE:** The item is indicated, but not used.	Off

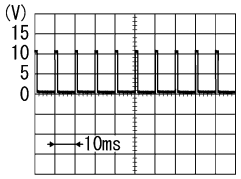
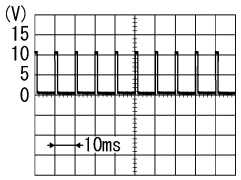
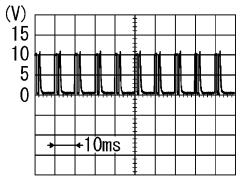
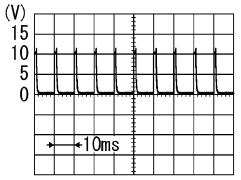
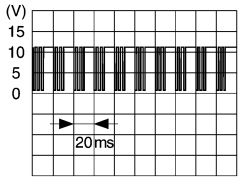
TERMINAL LAYOUT

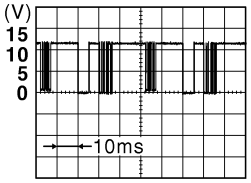
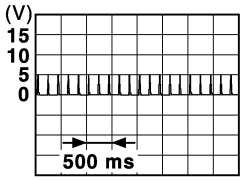
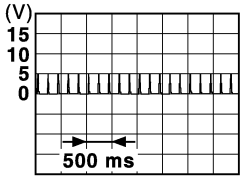
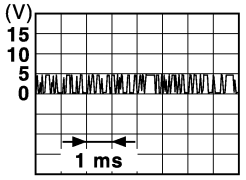


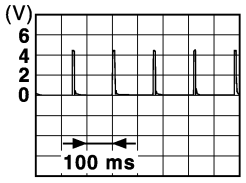
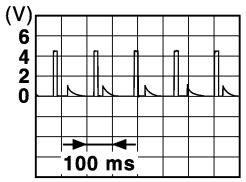
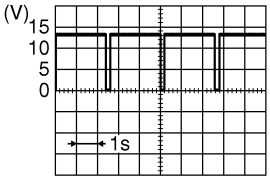
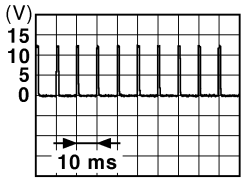
PHYSICAL VALUES

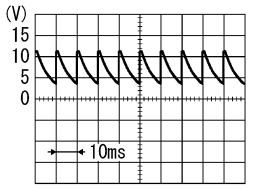
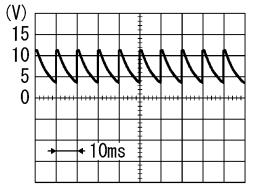
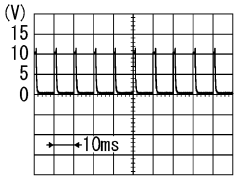
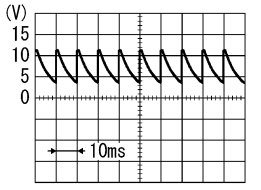
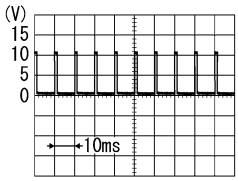
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
1 (G)	Ground	Rear window defogger relay control	Input	Rear window defogger	OFF	Battery voltage
					ON	0 V

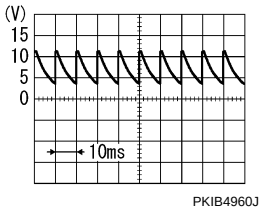
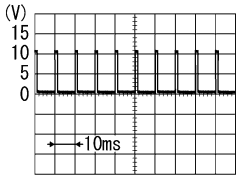
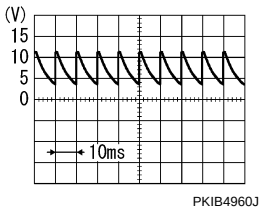
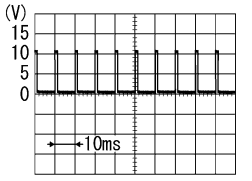
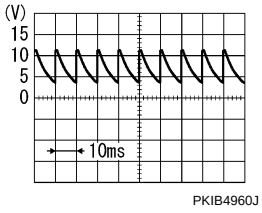
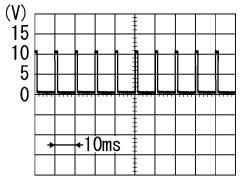
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
2 (BG)	Ground	Combination switch INPUT 5	Input	Combination switch (Wiper volume dial 4)	All switches OFF	0 V
					Turn signal switch RH Lighting switch HI Lighting switch 1ST	 PKIB4958J 1.0 V
					Lighting switch 2ND	 JPMIA0342JP 2.0 V
3 (SB)	Ground	Combination switch INPUT 4	Input	Combination switch (Wiper volume dial 4)	All switches OFF	0 V
					Turn signal switch LH Lighting switch PASS Lighting switch 2ND	 PKIB4958J 1.0 V
					Front fog lamp switch ON	 PKIB4956J 0.8 V
4 (L)	Ground	Combination switch INPUT 3	Input	Combination switch (Wiper volume dial 4)	All switches OFF	0 V
					Front wiper switch LO Front wiper switch MIST Front wiper switch AUTO Lighting switch AUTO	 PKIB4958J 1.0 V

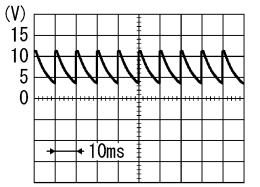
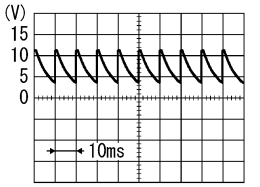
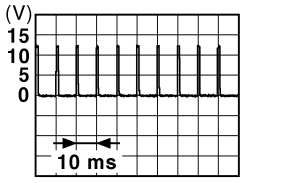
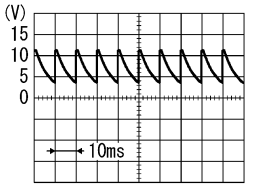
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
5 (G)	Ground	Combination switch INPUT 2	Input	Combination switch	All switches OFF (Wiper volume dial 4)	0 V
					Front washer switch (Wiper volume dial 4)	 PKIB4958J 1.0 V
					Any of the condition below with all switches OFF • Wiper volume dial 1 • Wiper volume dial 5 • Wiper volume dial 6	
6 (P)	Ground	Combination switch INPUT 1	Input	Combination switch	All switches OFF (Wiper volume dial 4)	0 V
					Front wiper switch HI (Wiper volume dial 4)	 PKIB4958J 1.0 V
					Wiper volume dial 3 (All switches OFF)	
					Any of the condition below with all switches OFF • Wiper volume dial 1 • Wiper volume dial 2	 PKIB4952J 1.9 V
					Any of the condition below with all switches OFF • Wiper volume dial 6 • Wiper volume dial 7	 PKIB4956J 0.8 V
8 (V)	Ground	Power window switch communication	Input/ Output	Ignition switch ON		 PKIA7023E 9.0 - 10 V
9 (P)	Ground	Stop lamp switch 1	Input	Stop lamp switch	OFF (Brake pedal is not depressed)	0 V
					ON (Brake pedal is depressed)	Battery voltage

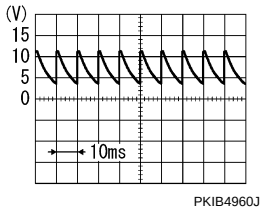
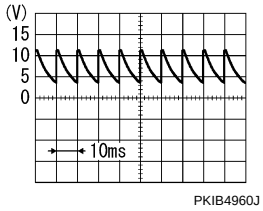
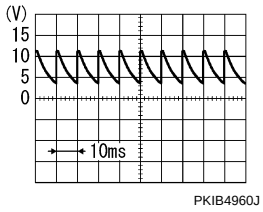
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
11 (R)	Ground	Rain sensor serial link	Input/ Output	Ignition switch OFF		12 V
				Ignition switch ON		 JPMIA0156GB 8.7 V
14 (W)	Ground	Optical sensor	Input	Ignition switch ON	When bright outside of the vehicle	Close to 5 V
					When dark outside of the vehicle	Close to 0 V
16 (SB)	Ground	Dimmer signal	Output	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)	0 V
					The area around the vehicle is dark (Block the light from the optical sensor)	12 V
17 (Y)	Ground	Sensor power supply	Output	Ignition switch	OFF, ACC	0 V
					ON	5 V
18 (B)	Ground	Receiver and sensor ground	Input	Ignition switch ON		0 V
19 (R)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OFF		 JMKIA3838GB
20 (BR)	Ground	Remote keyless entry receiver communication	Input	Ignition switch OFF	Waiting	 JMKIA3838GB
					When operating either button on Intelligent Key	 JMKIA3841GB
21 (P)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.

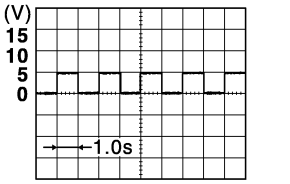
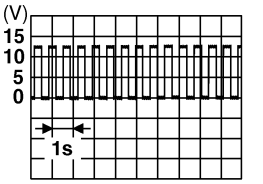
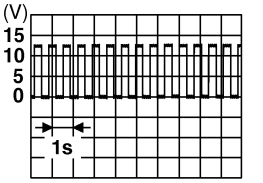
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
22 (GR)	Ground	Remote keyless entry receiver RSSI	Input	Ignition switch OFF	Waiting	 JMKIA5952GB
					When pressing and holding either button on Intelligent Key	 JMKIA5953GB
23 (G)	Ground	Security indicator lamp	Output	Security indicator lamp	ON	0 V
					Blinking (Ignition switch OFF)	 JPMIA0590GB 12.0 V
					OFF	Battery voltage
24*3 (L)	Ground	Dongle link	Input/ Output	Ignition switch OFF		5 V
25 (G)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
26 (G)	Ground	Intelligent Key identification	Output	Ignition switch OFF → ON, after unlocking door by 1st key registered to BCM		5 V
				Ignition switch OFF → ON, after unlocking door by 2nd key registered to BCM		0 V
29 (G)	Ground	Hazard switch	Input	Hazard switch	OFF	12 V
					ON	0 V
30 (O)	Ground	Trunk lid opener switch	Input	Trunk lid opener switch	Pressed	0 V
					Not pressed	 JPMIA0012GB 1.0 - 1.5 V

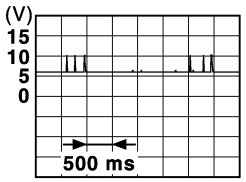
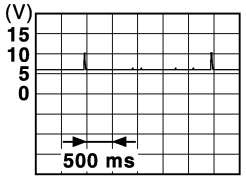
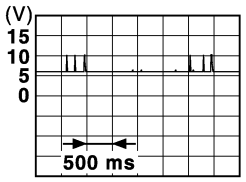
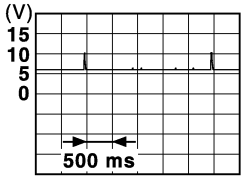
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
31 (W)	Ground	Front door lock assembly driver side (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	 PKIB4960J 7.0 - 8.0 V
					UNLOCK status (Unlock sensor switch ON)	0 V
32 (BR)	Ground	Combination switch OUTPUT 5	Output	Combination switch	All switches OFF (Wiper volume dial 4)	 PKIB4960J 7.0 - 8.0 V
					Front fog lamp switch ON (Wiper volume dial 4)	 PKIB4956J 1.0 V
					Any of the condition below with all switches OFF • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 6 • Wiper volume dial 7	
33 (R)	Ground	Combination switch OUTPUT 4	Output	Combination switch	All switches OFF (Wiper volume dial 4)	 PKIB4960J 7.0 - 8.0 V
					Lighting switch 1ST (Wiper volume dial 4)	 PKIB4958J 1.2 V
					Lighting switch AUTO (Wiper volume dial 4)	
					Any of the condition below with all switches OFF • Wiper volume dial 1 • Wiper volume dial 5 • Wiper volume dial 6	

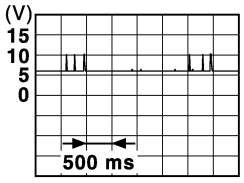
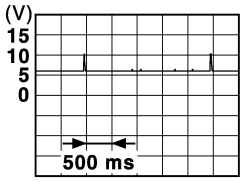
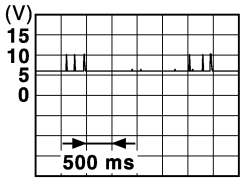
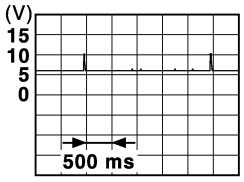
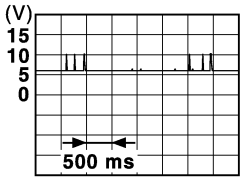
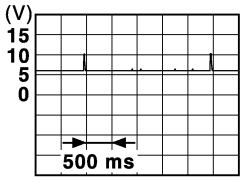
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
34 (V)	Ground	Combination switch OUTPUT 3	Output	Combination switch	All switches OFF (Wiper volume dial 4)	 PKIB4960J 7.0 - 8.0 V
					Lighting switch 2ND (Wiper volume dial 4)	 PKIB4958J 1.2 V
					Lighting switch HI (Wiper volume dial 4)	
					Any of the condition below with all switches OFF • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 3	
35 (Y)	Ground	Combination switch OUTPUT 2	Output	Combination switch (Wiper volume dial 4)	All switches OFF	 PKIB4960J 7.0 - 8.0 V
					Lighting switch 2ND	 PKIB4958J 1.2 V
					Lighting switch PASS	
					Front wiper switch AUTO	
					Front wiper switch HI	
36 (LG)	Ground	Combination switch OUTPUT 1	Output	Combination switch (Wiper volume dial 4)	All switches OFF	 PKIB4960J 7.0 - 8.0 V
					Turn signal switch RH	 PKIB4958J 1.2 V
					Turn signal switch LH	
					Front wiper switch LO	
					Front wiper switch MIST	
					Front washer switch ON	
37 (R)	Ground	P position	Input	Selector lever	P position	0 V
					Any position other than P	12 V

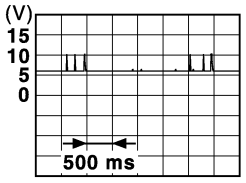
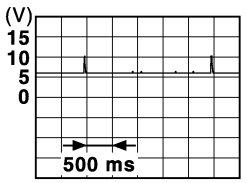
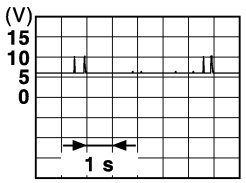
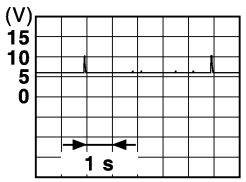
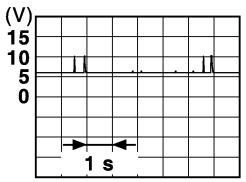
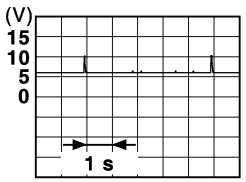
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
39 (L)	Ground	CAN-H	Input/ Output	—		—
40 (P)	Ground	CAN-L	Input/ Output	—		—
41 (W)	Ground	Trunk key cylinder switch	Input	Trunk key cylinder switch	OFF	 PKIB4960J 7.0 - 8.0 V
					ON (TRUNK OPEN)	0 V
42 (R)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (When trunk lid closed)	 PKIB4960J 7.0 - 8.0 V
					ON (When trunk lid opened)	0 V
44 (V)	Ground	Trunk lid opener cancel switch	Input	Trunk lid opener cancel switch	CANCEL	 JPMIA0012GB 0.5 - 1.5 V
					ON	0 V
45 (GR)	Ground	Passenger door switch	Input	Passenger door switch	OFF (When passenger door closed)	 PKIB4960J 7.0 - 8.0 V
					ON (When passenger door opened)	0 V

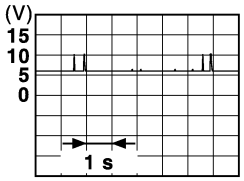
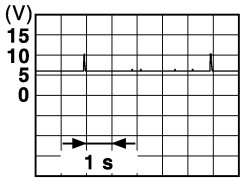
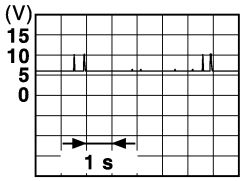
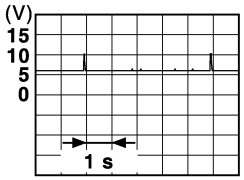
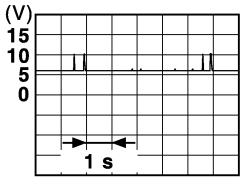
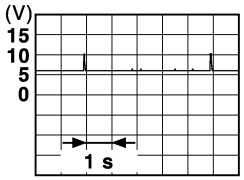
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
46 (BR)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (When rear RH door closed)	 PKIB4960J 7.0 - 8.0 V
					ON (When rear RH door opened)	0 V
47 (LG)	Ground	Driver door switch	Input	Driver door switch	OFF (When driver door closed)	 PKIB4960J 7.0 - 8.0 V
					ON (When driver door opened)	0 V
48 (P)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (When rear LH door closed)	 PKIB4960J 7.0 - 8.0 V
					ON (When rear door LH opened)	0 V
49 (SB)	Ground	Trunk room lamp	Output	Trunk room lamp	OFF	12 V
					ON	0 V
51 (BG)	Ground	Trunk lid opener request switch	Input	Trunk lid opener request switch	ON (Pressed)	0 V
					OFF (Not pressed)	12 V
53 (LG)	Ground	Trunk lid open	Output	Trunk lid	OFF (Not pressed)	0 V
					ON (Pressed)	12 V
55 (BR)	Ground	Rear door UNLOCK	Output	Rear door	UNLOCK (Actuator is activated)	12 V
					Other then UNLOCK (Actuator is not activated)	0 V
56 (R)	Ground	Interior room lamp power supply	Output	Interior room lamp battery saver is activated. (Cuts the interior room lamp power supply)		0 V
				Interior room lamp battery saver is not activated. (Outputs the interior room lamp power supply)		12 V
57 (R)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage

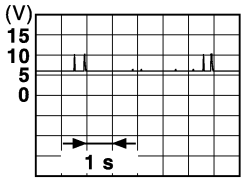
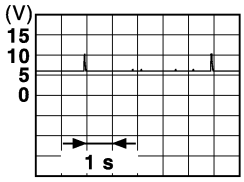
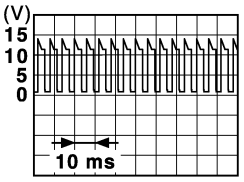
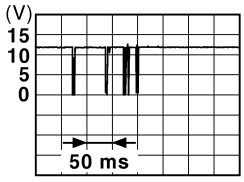
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
58 (L)	Ground	Air bag signal	Input	Ignition switch	OFF	5 V
					ON	 JPMIA1034GB 2.5 V
59 (G)	Ground	Passenger door UNLOCK	Output	Passenger door	UNLOCK (Actuator is activated)	12 V
					Other then UNLOCK (Actuator is not activated)	0 V
60 (G)	Ground	Turn signal LH	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	 PKIC6370E 6.0 V
61 (V)	Ground	Turn signal RH	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	 PKIC6370E 6.0 V
62 (V)	Ground	Step lamp control	Output	Step lamp	ON	0 V
					OFF	12 V
63 (L)	Ground	Interior room lamp control	Output	Interior room lamp	OFF	12 V
					ON	0 V
65 (V)	Ground	All doors, fuel lid LOCK	Output	All doors, fuel lid	LOCK (Actuator is activated)	12 V
					Other then LOCK (Actuator is not activated)	0 V
66 (LG)	Ground	Driver door, fuel lid UNLOCK	Output	Driver door, fuel lid	UNLOCK (Actuator is activated)	12 V
					Other then UNLOCK (Actuator is not activated)	0 V
67 (B)	Ground	Ground	Output	Ignition switch ON		0 V
68 (O)	Ground	P/W power supply (IGN)	Output	Ignition switch ON		12 V
69 (Y)	Ground	P/W power supply (BAT)	Output	Ignition switch OFF		12 V

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
70 (W)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
72 (B)	Ground	Outside handle lamp control	Output	outside handle lamp	OFF	12 V
					ON	0 V
73 (V)	Ground	ON indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
					ON	0 V
75 (G)	Ground	Driver door request switch	Input	Driver door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	12 V
76*1 (BR)	Ground	Push-button ignition switch (push switch)	Input	Push-button ignition switch (push switch)	Pressed	0 V
					Not pressed	12 V
76*2 (SB)	Ground	Passenger door request switch	Input	Passenger door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	12 V
78 (BR)	Ground	Driver door antenna (+)	Output	When the driver door request switch is operated with ignition switch ON	When Intelligent Key is not in the antenna detection area (The distance between Intelligent Key and antenna: Approx. 2 m)	 JMKIA5954GB
					When Intelligent Key is in the antenna detection area (The distance between Intelligent Key and antenna: 80 cm or less)	 JMKIA5955GB
79 (SB)	Ground	Driver door antenna (-)	Output	When the driver door request switch is operated with ignition switch ON	When Intelligent Key is not in the antenna detection area (The distance between Intelligent Key and antenna: Approx. 2 m)	 JMKIA5954GB
					When Intelligent Key is in the antenna detection area (The distance between Intelligent Key and antenna: 80 cm or less)	 JMKIA5955GB

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
80 (LG)	Ground	Passenger door antenna (+)	Output	When the passenger door request switch is operated with ignition switch ON	When Intelligent Key is not in the antenna detection area (The distance between Intelligent Key and antenna: Approx. 2 m)	 JMKIA5954GB
					When Intelligent Key is in the antenna detection area (The distance between Intelligent Key and antenna: 80 cm or less)	 JMKIA5955GB
81 (V)	Ground	Passenger door antenna (-)	Output	When the passenger door request switch is operated with ignition switch ON	When Intelligent Key is not in the antenna detection area (The distance between Intelligent Key and antenna: Approx. 2 m)	 JMKIA5954GB
					When Intelligent Key is in the antenna detection area (The distance between Intelligent Key and antenna: 80 cm or less)	 JMKIA5955GB
82 (V)	Ground	Rear bumper antenna (+)	Output	When the back door request switch is operated with ignition switch ON	When Intelligent Key is not in the antenna detection area (The distance between Intelligent Key and antenna: Approx. 2 m)	 JMKIA5954GB
					When Intelligent Key is in the antenna detection area (The distance between Intelligent Key and antenna: 80 cm or less)	 JMKIA5955GB

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
83 (SB)	Ground	Rear bumper antenna (-)	Output	When the back door request switch is operated with ignition switch ON	When Intelligent Key is not in the antenna detection area (The distance between Intelligent Key and antenna: Approx. 2 m)	 JMKIA5954GB
					When Intelligent Key is in the antenna detection area (The distance between Intelligent Key and antenna: 80 cm or less)	 JMKIA5955GB
84 (BR)	Ground	Room antenna 1 (+) (Instrument center)	Output	Ignition switch ON	When Intelligent Key is not in the antenna detection area	 JMKIA5951GB
					When Intelligent Key is in the antenna detection area	 JMKIA3839GB
85 (Y)	Ground	Room antenna 1 (-) (Instrument center)	Output	Ignition switch ON	When Intelligent Key is not in the antenna detection area	 JMKIA5951GB
					When Intelligent Key is in the antenna detection area	 JMKIA3839GB

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
86 (R)	Ground	Room antenna 2 (+) (Console)	Output	Ignition switch ON	When Intelligent Key is not in the antenna detection area	 JMKIA5951GB
					When Intelligent Key is in the antenna detection area	 JMKIA3839GB
87 (G)	Ground	Room antenna 2 (–) (Console)	Output	Ignition switch ON	When Intelligent Key is not in the antenna detection area	 JMKIA5951GB
					When Intelligent Key is in the antenna detection area	 JMKIA3839GB
88 (V)	Ground	Trunk room antenna (+)	Output	Ignition switch ON	When Intelligent Key is not in the antenna detection area	 JMKIA5951GB
					When Intelligent Key is in the antenna detection area	 JMKIA3839GB

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
89 (SB)	Ground	Trunk room antenna (-)	Output	Ignition switch ON	When Intelligent Key is not in the antenna detection area	 JMKIA5951GB
					When Intelligent Key is in the antenna detection area	 JMKIA3839GB
90 (R)	Ground	Push-button ignition switch illumination power supply	Output	Push-button ignition switch illumination	ON	12 V
					OFF	0 V
91 (GR)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	OFF (Ignition switch OFF)	Battery voltage
					ON	0 V
92 (B)	Ground	Push-button ignition switch illumination ground	Output	Tail lamp	OFF	0 V
					ON	**NOTE:** When the illumination brightening/dimming level is in the neutral position  JPMIA1554GB 6.0 - 7.0 V
93 (V)	Ground	Intelligent Key warning buzzer	Output	Intelligent Key warning buzzer	Sounding	0 V
					Not sounding	12 V
94*2 (Y)	Ground	Steering lock unit communication	Input/ Output	Steering lock	LOCK status	12 V
					LOCK or UNLOCK	 JMKIA0066GB
					For 15 seconds after UNLOCK	12 V
					15 seconds or later after UNLOCK	0 V
95*2 (W)	Ground	Steering lock unit power supply	Output	Ignition switch	OFF or ACC	12 V
					ON	0 V

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
+	–					
96 (SB)	Ground	Accessory relay control	Output	Ignition switch	OFF	0 V
					ACC or ON	12 V
97 (SB)	Ground	Starter relay control	Output	Ignition switch ON	When selector lever is in P or N position	12 V
					When selector lever is not in P or N position	0 V
98 (B)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC	12 V
					ON	0 V
99 (R)	Ground	Ignition relay (F/B) control	Output	Ignition switch	OFF or ACC	0 V
					ON	12 V
100*1 (SB)	Ground	Passenger door request switch	Input	Passenger door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	12 V
100*2 (BR)	Ground	Push-button ignition switch (push switch)	Input	Push-button ignition switch (push switch)	Pressed	0 V
					Not pressed	12 V
102 (BR)	Ground	P/N position	Input	Selector lever	P or N position	12 V
					Except P and N positions	0 V
104 (GR)	Ground	A/T shift selector (detention switch) power supply	Output	Ignition switch ON		12 V
105 (R)	Ground	Stop lamp switch 2	Input	Ignition switch OFF		Battery voltage
106 (B)	Ground	Blower relay control	Output	Ignition switch	OFF or ACC	0 V
					ON	12 V
107*2 (L)	Ground	Steering lock condition No. 1	Input	Steering lock	LOCK status	0 V
					UNLOCK status	12 V
108*2 (P)	Ground	Steering lock condition No. 2	Input	Steering lock	LOCK status	12 V
					UNLOCK status	0 V
109 (Y)	Ground	ACC indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
					ACC	0 V

*1: Without steering lock unit
*2: With steering lock unit
*3: For Canada

Fail-safe

INFOID:0000000006884563

FAIL-SAFE CONTROL BY DTC

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

Display contents of CONSULT	Fail-safe	Cancellation
B2013: ID DISCORD BCM-S/L	Inhibit engine cranking	When communication between BCM and steering lock unit are communicated normally.
B2014: CHAIN OF S/L-BCM	Inhibit engine cranking	When communication between BCM and steering lock unit are communicated normally.
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC

Display contents of CONSULT	Fail-safe	Cancellation
B2195: ANTI-SCANNING	Inhibit engine cranking	Ignition switch ON → OFF
B2196: DONGLE NG	Inhibit engine cranking	Erase DTC
B2198: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2557: VEHICLE SPEED	Inhibit steering lock	When the following CAN signal status (vehicle speed signal) becomes consistent • Vehicle speed signal (ABS) • Vehicle speed signal (Meter)
B2601: SHIFT POSITION	Inhibit steering lock	500 ms after the following signal reception status becomes consistent • P position switch signal • P range signal (CAN)
B2602: SHIFT POSITION	Inhibit steering lock	5 seconds after the following BCM recognition conditions are fulfilled • Ignition switch is in the ON position • P position switch signal: Except P position (battery voltage) • Vehicle speed: 4 km/h (2.5 MPH) or more
B2603: SHIFT POSI STATUS	Inhibit steering lock	500 ms after any of the following BCM recognition conditions are fulfilled • Status 1 - Ignition switch is in the ON position - P position switch signal: Except P position (12 V) - P/N position signal: Except P and N positions (0 V) • Status 2 - Ignition switch is in the ON position - P position switch signal: P position (0 V) - P/N position signal: P or N positions (12 V)
B2604: PNP/CLUTCH SW	Inhibit steering lock	500 ms after any of the following BCM recognition conditions are fulfilled • Status 1 - Ignition switch is in the ON position - P/N position signal: P or N position (12 V) - Shift position signal (CAN): P or N position • Status 2 - Ignition switch is in the ON position - P/N position signal: Except P and N positions (0 V) - Shift position signal (CAN): Except P and N position
B2605: PNP/CLUTCH SW	Inhibit steering lock	500 ms after any of the following BCM recognition conditions are fulfilled • Status 1 - Power position: IGN - P/N position signal: Except P and N positions (0 V) - Interlock/PNP switch signal (CAN): OFF • Status 2 - Ignition switch is in the ON position - P/N position signal: P or N position (12 V) - Interlock/PNP switch signal (CAN): ON
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent • Starter motor relay control signal • Starter relay status signal (CAN)
B2609: S/L STATUS	• Inhibit engine cranking • Inhibit steering lock	When the following steering lock conditions agree • BCM steering lock control status • Steering lock condition No. 1 signal status • Steering lock condition No. 2 signal status
B260B: STEERING LOCK UNIT	Inhibit steering lock	Erase DTC
B260D: STEERING LOCK UNIT	Inhibit steering lock	Erase DTC
B260F: ENG STATE SIG LOST	Inhibit engine cranking	When any of the following conditions are fulfilled • Power position changes to ACC • Receives engine status signal (CAN)

Display contents of CONSULT	Fail-safe	Cancellation
B2612: S/L STATUS	• Inhibit engine cranking • Inhibit steering lock	When any of the following conditions are fulfilled • Steering lock unit status signal (CAN) is received normally • The BCM steering lock control status matches the steering lock status recognized by the steering lock unit status signal (CAN from IPDM E/R)
B2619: BCM	Inhibit engine cranking	1 second after the steering lock unit power supply output control inside BCM becomes normal
B26EF: STRG LCK RELAY OFF	Inhibit engine cranking	When the following conditions are fulfilled • Steering lock relay signal (CAN): ON • Steering lock unit status signal (CAN): ON
B26F0: STRG LCK RELAY ON	Inhibit engine cranking	When the following conditions are fulfilled • Steering lock relay signal (CAN): OFF • Steering lock unit status signal (CAN): OFF
B26F1: IGN RELAY OFF	Inhibit engine cranking	When the following conditions are fulfilled • Ignition switch ON signal (CAN: Transmitted from BCM): ON • Ignition switch ON signal (CAN: Transmitted from IPDM E/R): ON
B26F2: IGN RELAY ON	Inhibit engine cranking	When the following conditions are fulfilled • Ignition switch ON signal (CAN: Transmitted from BCM): OFF • Ignition switch ON signal (CAN: Transmitted from IPDM E/R): OFF
B26F3: START CONT RLY ON	Inhibit engine cranking	When the following conditions are fulfilled • Starter control relay signal (CAN: Transmitted from BCM): OFF • Starter control relay signal (CAN: Transmitted from IPDM E/R): OFF
B26F4: START CONT RLY OFF	Inhibit engine cranking	When the following conditions are fulfilled • Starter control relay signal (CAN: Transmitted from BCM): ON • Starter control relay signal (CAN: Transmitted from IPDM E/R): ON
B26F7: BCM	Inhibit engine cranking by Intelligent Key system	When room antenna and luggage room antenna functions normally
U0415: VEHICLE SPEED	Inhibit steering lock	When vehicle speed signal (Meter) (CAN) is received normally

FAIL-SAFE CONTROL BY RAIN SENSOR MALFUNCTION

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

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

FAIL-SAFE CONTROL OF COMBINATION SWITCH READING FUNCTION CAUSED BY LOW POWER SUPPLY VOLTAGE

If voltage of battery power supply lower, BCM maintains combination switch reading to the status when input voltage is less than approximately 9 V.

NOTE:
When voltage of battery power supply is approximately 9 V or more, combination switch reading function returns to normal operation.

DTC Inspection Priority Chart

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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 • U1010: CONTROL UNIT (CAN)

Priority	DTC
3	• B2192: ID DISCORD BCM-ECM • B2193: CHAIN OF BCM-ECM • B2195: ANTI-SCANNING • B2196: DONGLE NG • B2198: NATS ANTENNA AMP
4	• B2013: ID DISCORD BCM-S/L • B2014: CHAIN OF S/L-BCM • B2555: STOP LAMP • B2556: PUSH-BTN IGN SW • B2557: VEHICLE SPEED • B2601: SHIFT POSITION • B2602: SHIFT POSITION • B2603: SHIFT POSI STATUS • B2604: PNP/CLUTCH SW • B2605: PNP/CLUTCH SW • B2608: STARTER RELAY • B2609: S/L STATUS • B260B: STEERING LOCK UNIT • B260C: STEERING LOCK UNIT • B260D: STEERING LOCK UNIT • B260F: ENG STATE SIG LOST • B2612: S/L STATUS • B2614: BCM • B2615: BCM • B2616: BCM • B2618: BCM • B2619: BCM • B261A: PUSH-BTN IGN SW • B26E9: LOCK MALFUNCTION • B26EF: STRG LCK RELAY OFF • B26F0: STRG LCK RELAY ON • B26F1: IGN RELAY OFF • B26F2: IGN RELAY ON • B26F3: START CONT RLY ON • B26F4: START CONT RLY OFF • B26F5: STRG LCK STS SW • B26F6: BCM • B26F7: BCM • B26FC: KEY REGISTRATION • U0415: VEHICLE SPEED
5	• B2621: INSIDE ANTENNA • B2622: INSIDE ANTENNA • B2623: INSIDE ANTENNA
6	• B2626: OUTSIDE ANTENNA • B2627: OUTSIDE ANTENNA • B2628: OUTSIDE ANTENNA
7	B26E7: TPMS CAN COMM

DTC Index

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NOTE:
The details of time display are as follows.
- CRNT: A malfunction is detected now.
- PAST: A malfunction was detected in the past.

IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data, refer to BCS-15, "COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)".

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warning lamp ON	Reference page
No DTC is detected. further testing may be required.	—	—	—	—
U1000: CAN COMM	—	—	—	BCS-70
U1010: CONTROL UNIT (CAN)	—	—	—	BCS-71
U0415: VEHICLE SPEED	×	—	×	BCS-72
B2013: ID DISCORD BCM-S/L*	×	×	×	SEC-57
B2014: CHAIN OF S/L-BCM*	×	×	×	SEC-58
B2192: ID DISCORD BCM-ECM	×	—	—	SEC-48
B2193: CHAIN OF BCM-ECM	×	—	—	SEC-49
B2195: ANTI-SCANNING	×	—	—	SEC-50
B2196: DONGLE NG	×	—	—	SEC-51
B2198: NATS ANTENNA AMP	×	—	—	SEC-53
B2555: STOP LAMP	—	×	×	SEC-61
B2556: PUSH-BTN IGN SW	—	×	×	SEC-64
B2557: VEHICLE SPEED	×	×	×	SEC-66
B2562: LOW VOLTAGE	—	×	—	BCS-73
B2601: SHIFT POSITION	×	×	×	SEC-67
B2602: SHIFT POSITION	×	×	×	SEC-70
B2603: SHIFT POSI STATUS	×	×	×	SEC-73
B2604: PNP/CLUTCH SW	×	×	×	SEC-77
B2605: PNP/CLUTCH SW	×	×	×	SEC-79
B2608: STARTER RELAY	×	×	×	SEC-81
B2609: S/L STATUS*	×	×	×	SEC-83
B260B: STEERING LOCK UNIT*	×	×	×	SEC-86
B260C: STEERING LOCK UNIT*	—	×	×	SEC-87
B260D: STEERING LOCK UNIT*	×	×	×	SEC-88
B260F: ENG STATE SIG LOST	×	×	×	SEC-89
B2612: S/L STATUS*	×	×	×	SEC-90
B2614: BCM	—	×	×	PCS-55
B2615: BCM	—	×	×	PCS-58
B2616: BCM	—	×	×	PCS-60
B2618: BCM	—	×	×	PCS-62
B2619: BCM*	×	×	×	SEC-93
B261A: PUSH-BTN IGN SW	—	×	×	PCS-63
B2621: INSIDE ANTENNA	—	×	—	DLK-48
B2622: INSIDE ANTENNA	—	×	—	DLK-50
B2623: INSIDE ANTENNA	—	×	—	DLK-52
B2626: OUTSIDE ANTENNA	—	×	—	DLK-54
B2627: OUTSIDE ANTENNA	—	×	—	DLK-56
B2628: OUTSIDE ANTENNA	—	×	—	DLK-58
B26E7: TPMS CAN COMM	—	—	—	BCS-74

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warning lamp ON	Reference page
B26E9: LOCK MALFUNCTION*	—	×	× (Turn ON for 15 seconds)	SEC-94
B26EF: STRG LCK RELAY OFF*	×	×	×	SEC-95
B26F0: STRG LCK RELAY ON*	×	×	×	SEC-97
B26F1: IGN RELAY OFF	×	×	×	PCS-65
B26F2: IGN RELAY ON	×	×	×	PCS-67
B26F3: START CONT RLY ON	×	×	×	SEC-99
B26F4: START CONT RLY OFF	×	×	×	SEC-100
B26F5: STRG LCK STS SW*	—	×	×	SEC-101
B26F6: BCM	—	×	×	PCS-69
B26F7: BCM	×	×	×	SEC-104
B26FC: KEY REGISTRATION	—	×	×	SEC-105

*: For models without steering lock unit this DTC is not applied.

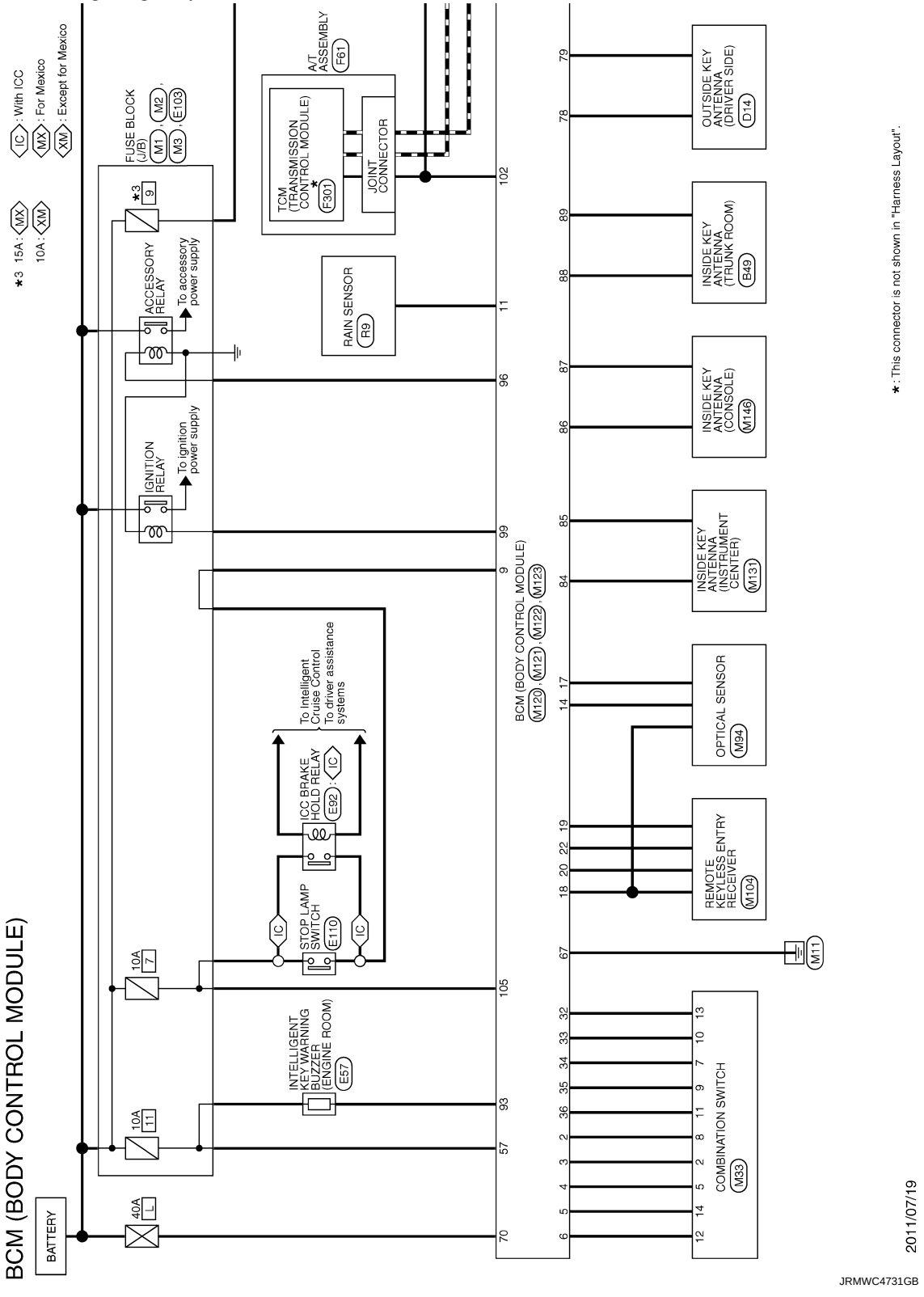
WIRING DIAGRAM

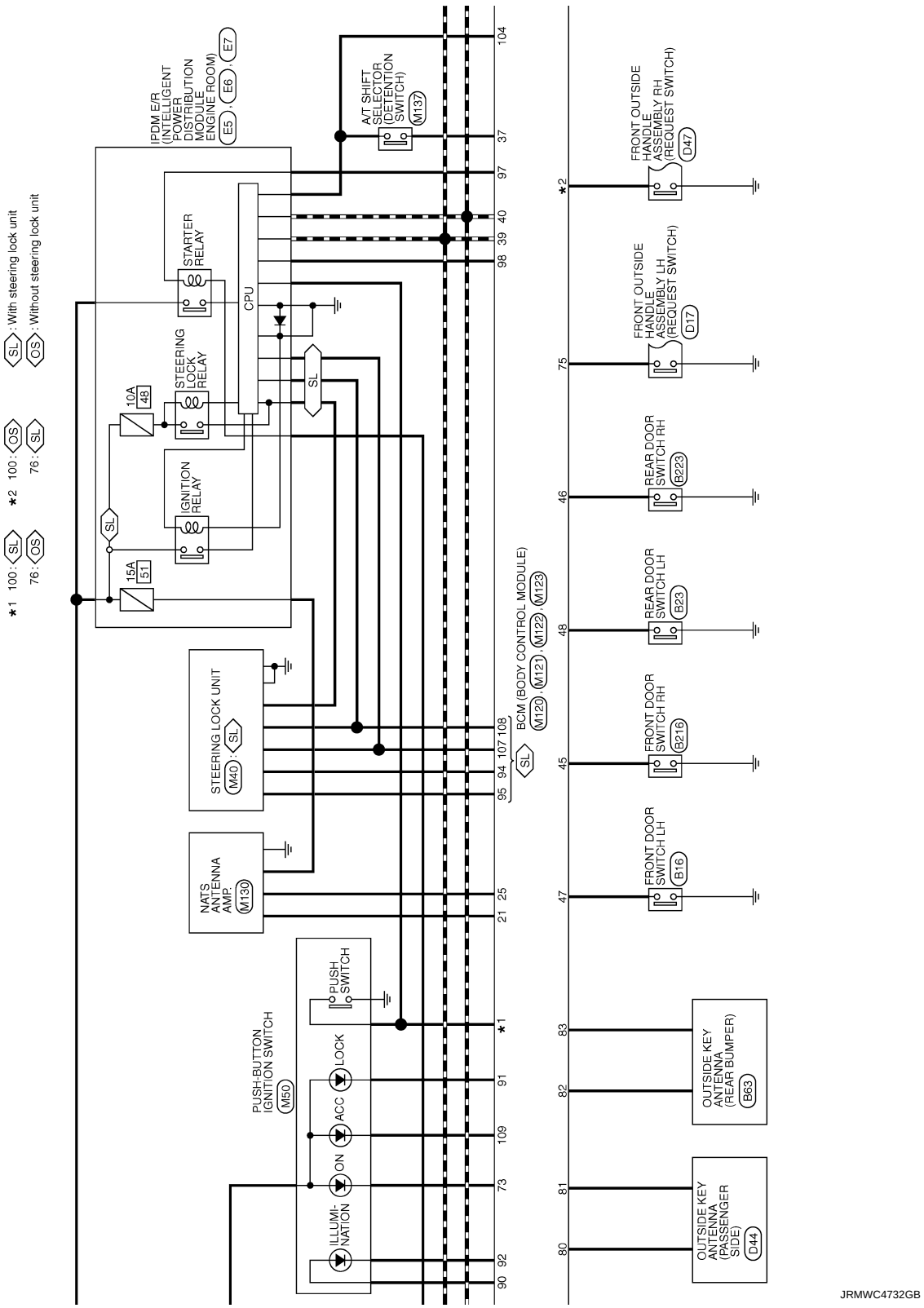
BCM

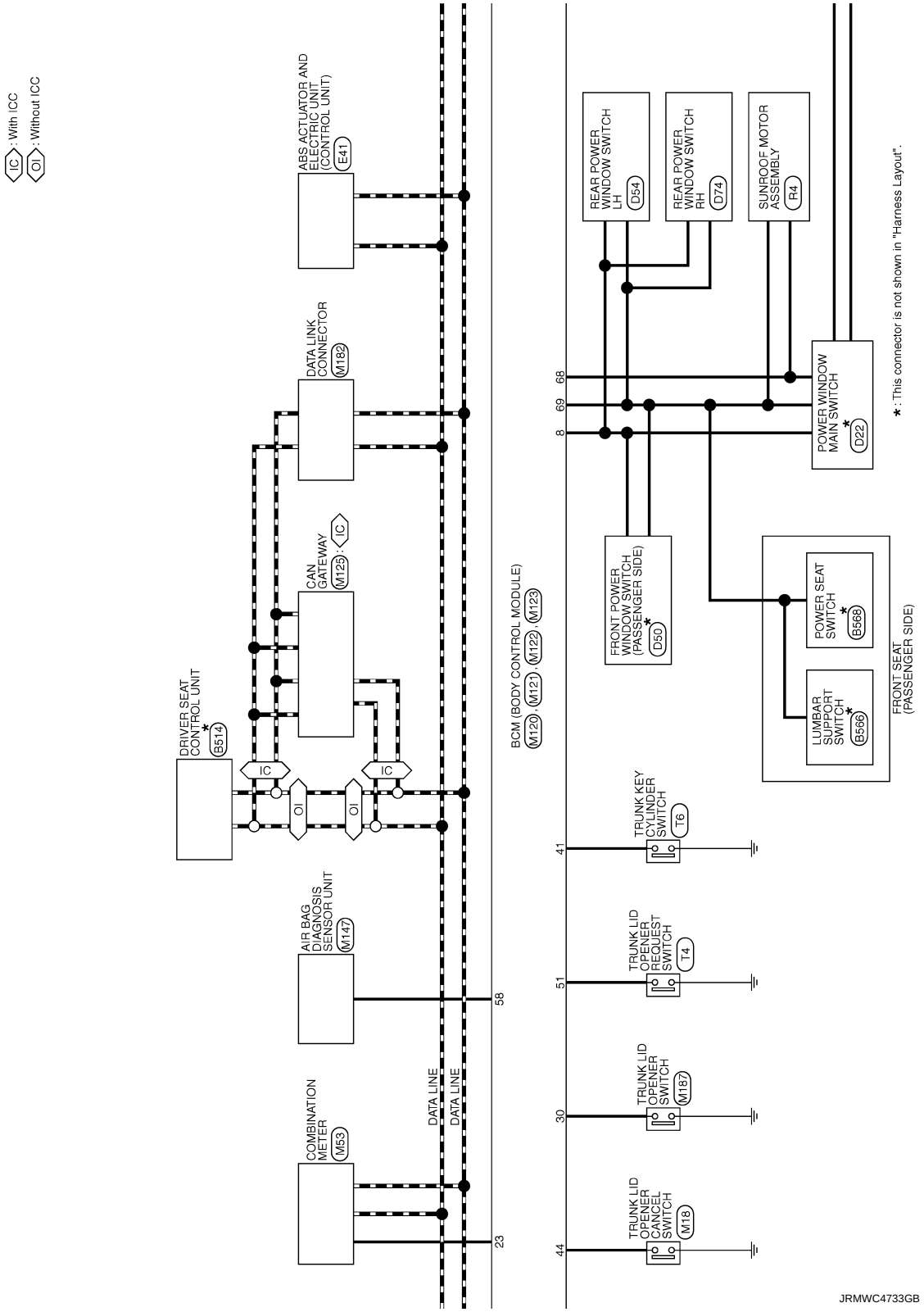
Wiring Diagram

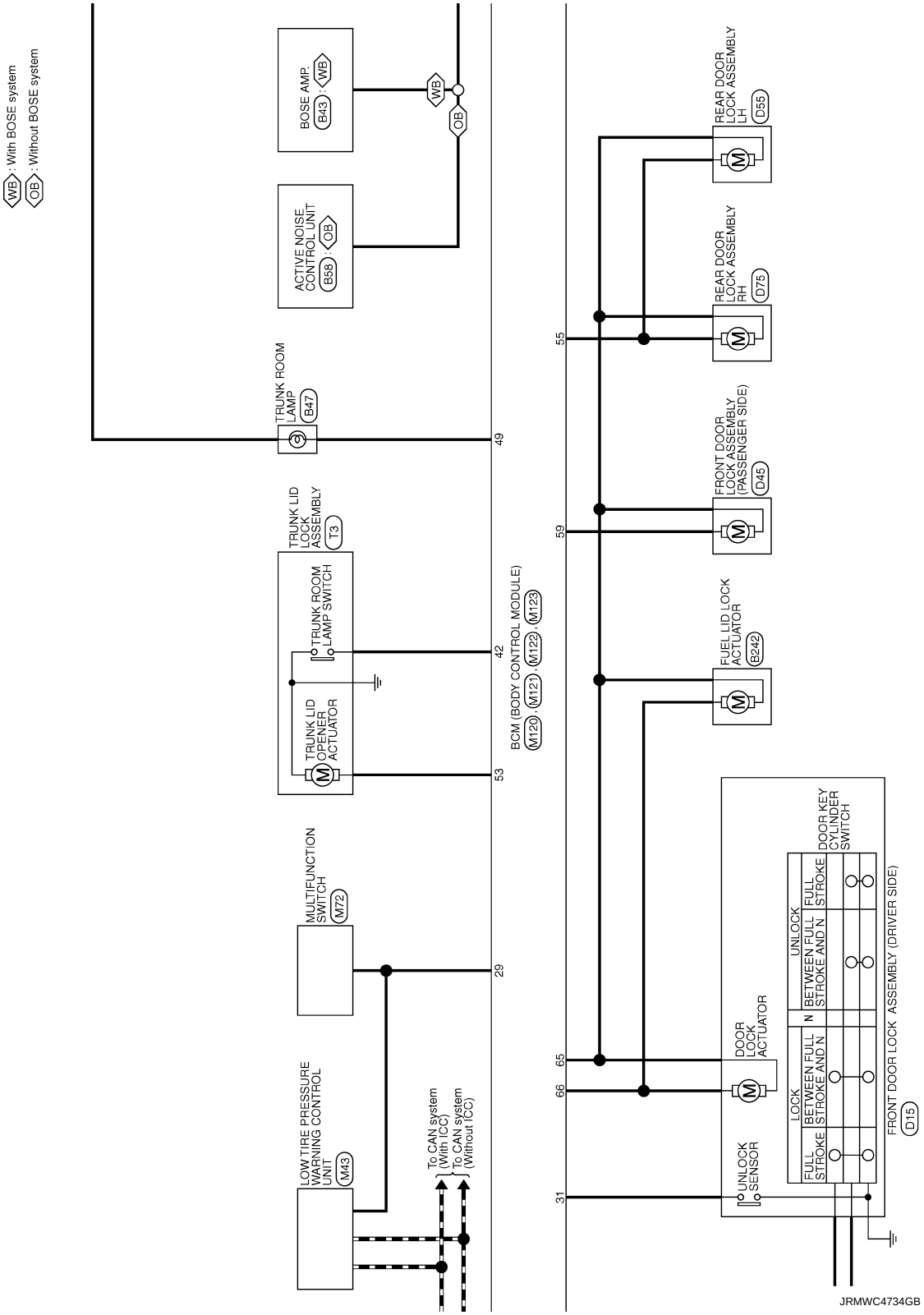
INFOID:0000000006884566

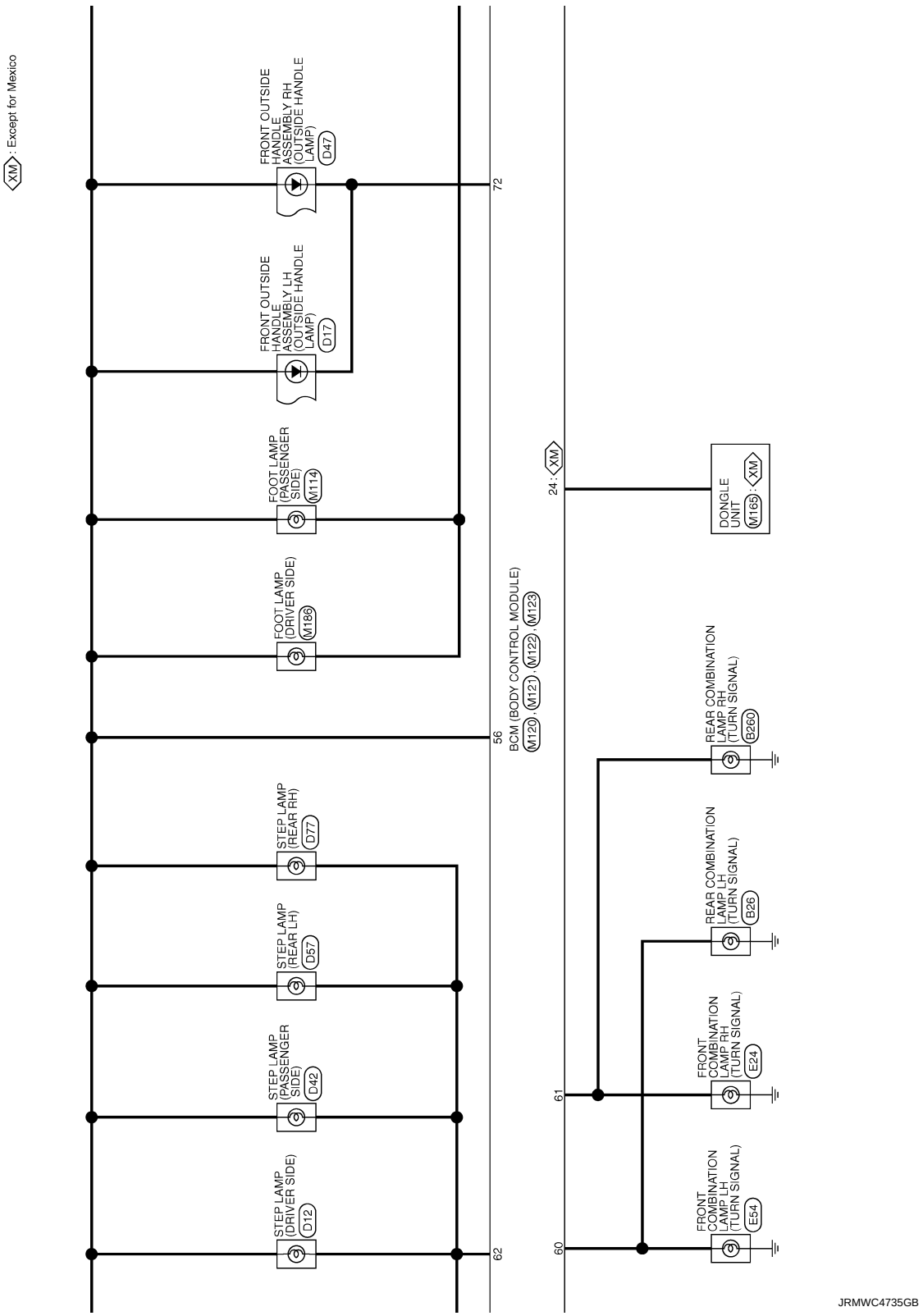
For connector terminal arrangements, harness layouts, and alphabets in a ⬡ (option abbreviation; if not described in wiring diagram), refer to GI-12, "Connector Information".

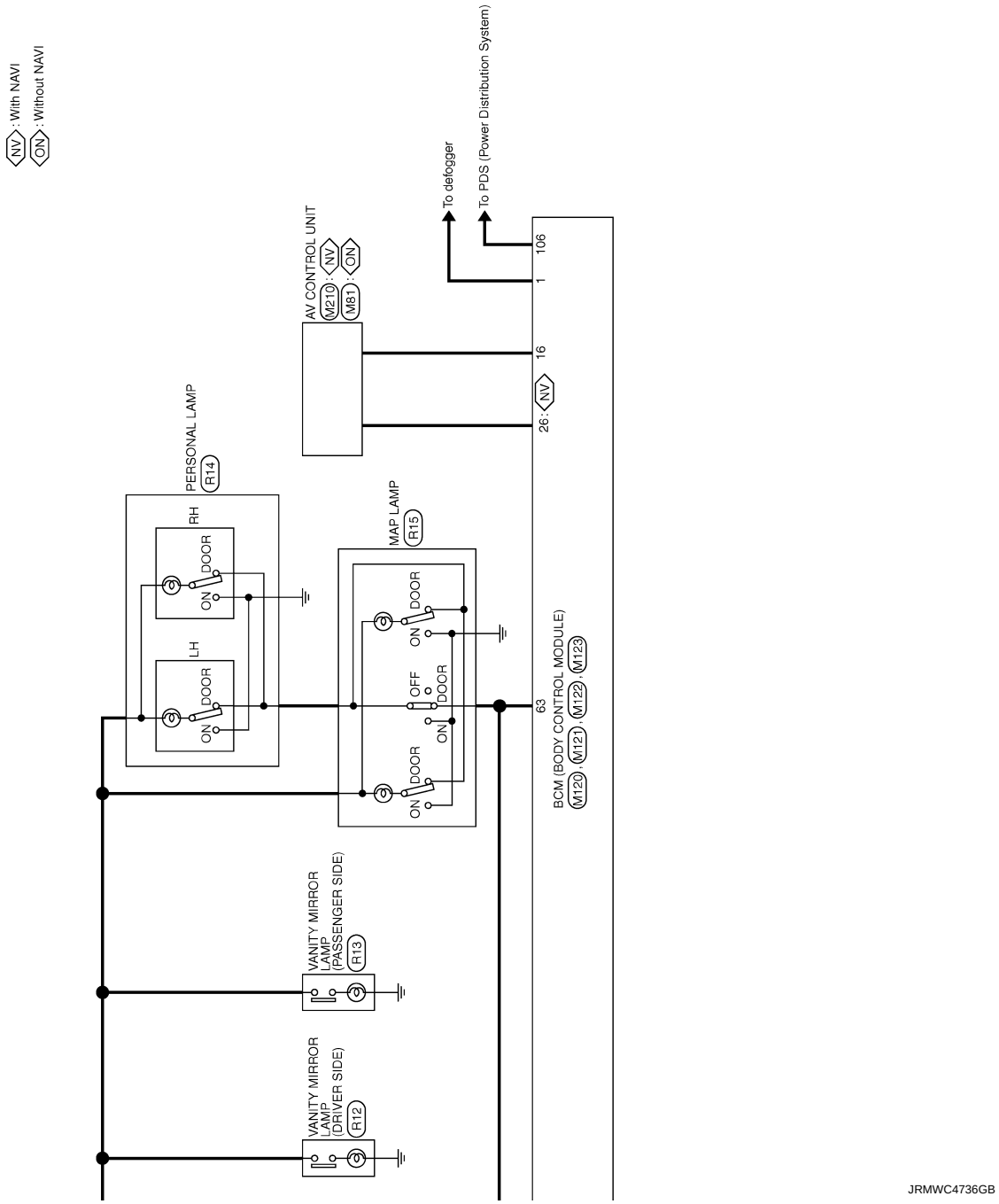



IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) E5, E6, E7
A/T SHIFT SELECTOR (DETENTION SWITCH) M137
STARTER RELAY
CPU
STEERING LOCK RELAY
IGNITION RELAY
10A 48
15A 51
SL
STEERING LOCK UNIT SL M40
NATS ANTENNA AMP. M130
PUSH-BUTTON IGNITION SWITCH M50
PUSH SWITCH
LOCK
ACC
ON
ILLUMI-NATION
BCM (BODY CONTROL MODULE) M120, M121, M122, M123
FRONT OUTSIDE HANDLE ASSEMBLY RH (REQUEST SWITCH) D47
FRONT OUTSIDE HANDLE ASSEMBLY LH (REQUEST SWITCH) D17
REAR DOOR SWITCH RH B223
REAR DOOR SWITCH LH B23
FRONT DOOR SWITCH RH B216
FRONT DOOR SWITCH LH B16
OUTSIDE KEY ANTENNA (REAR BUMPER) B63
OUTSIDE KEY ANTENNA (PASSENGER SIDE) D44
*1 100 : SL 76 : OS
*2 100 : OS 76 : SL
SL : With steering lock unit
OS : Without steering lock unit
JRMWC4732GB


IC : With ICC
OI : Without ICC
ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) E41
DATA LINK CONNECTOR M182
CAN GATEWAY M125 : IC
DRIVER SEAT CONTROL UNIT B514
AIR BAG DIAGNOSIS SENSOR UNIT M147
COMBINATION METER M53
DATA LINE
DATA LINE
BCM (BODY CONTROL MODULE) M120, M121, M122, M123
58
23
REAR POWER WINDOW SWITCH LH D54
REAR POWER WINDOW SWITCH RH D74
SUNROOF MOTOR ASSEMBLY R4
POWER WINDOW MAIN SWITCH D22
FRONT POWER WINDOW SWITCH (PASSENGER SIDE) D50
POWER SEAT SWITCH B568
LUMBAR SUPPORT SWITCH B566
FRONT SEAT (PASSENGER SIDE)
TRUNK KEY CYLINDER SWITCH T6
TRUNK LID OPENER REQUEST SWITCH T4
TRUNK LID OPENER SWITCH M187
TRUNK LID OPENER CANCEL SWITCH M18
68
69
8
41
51
30
44
* : This connector is not shown in "Harness Layout".
JRMWC4733GB


WB : With BOSE system
OB : Without BOSE system
BOSE AMP. B43 WB
ACTIVE NOISE CONTROL UNIT B58 OB
TRUNK ROOM LAMP B47
TRUNK LID LOCK ASSEMBLY T3
TRUNK ROOM LAMP SWITCH
TRUNK LID OPENER ACTUATOR
MULTIFUNCTION SWITCH M72
LOW TIRE PRESSURE WARNING CONTROL UNIT M43
To CAN system (With ICC)
To CAN system (Without ICC)
BCM (BODY CONTROL MODULE) M120, M121, M122, M123
49
42
53
29
55
59
65
66
31
REAR DOOR LOCK ASSEMBLY LH D55
REAR DOOR LOCK ASSEMBLY RH D75
FRONT DOOR LOCK ASSEMBLY (PASSENGER SIDE) D45
FUEL LID LOCK ACTUATOR B242
DOOR LOCK ACTUATOR
UNLOCK SENSOR
FRONT DOOR LOCK ASSEMBLY (DRIVER SIDE) D15
LOCK
UNLOCK
FULL STROKE
BETWEEN FULL STROKE AND N
N
DOOR KEY CYLINDER SWITCH
JRMWC4734GB


XM : Except for Mexico
FRONT OUTSIDE HANDLE ASSEMBLY RH (OUTSIDE HANDLE LAMP) D47
FRONT OUTSIDE HANDLE ASSEMBLY LH (OUTSIDE HANDLE LAMP) D17
FOOT LAMP (PASSENGER SIDE) M114
FOOT LAMP (DRIVER SIDE) M186
STEP LAMP (REAR RH) D77
STEP LAMP (REAR LH) D57
STEP LAMP (PASSENGER SIDE) D42
STEP LAMP (DRIVER SIDE) D12
72
56
62
BCM (BODY CONTROL MODULE)
M120, M121, M122, M123
24 : XM
DONGLE UNIT M165 : XM
REAR COMBINATION LAMP RH (TURN SIGNAL) B260
REAR COMBINATION LAMP LH (TURN SIGNAL) B26
FRONT COMBINATION LAMP RH (TURN SIGNAL) E24
FRONT COMBINATION LAMP LH (TURN SIGNAL) E54
61
60
JRMWC4735GB



JRMWC4736GB

BASIC INSPECTION

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM)

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM) : Description

INFOID:0000000007215491

BEFORE REPLACEMENT

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

NOTE:

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

AFTER REPLACEMENT

CAUTION:

When replacing BCM, always perform “WRITE CONFIGURATION” with CONSULT. Or not doing so, BCM control function does not operate normally.

- **Complete the procedure of “WRITE CONFIGURATION” in order.**
- **Configuration is different for each vehicle model. Confirm configuration of each vehicle model.**
- **If you set incorrect “WRITE CONFIGURATION”, incidents might occur.**

NOTE:

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

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

INFOID:0000000007215492

1. SAVING VEHICLE SPECIFICATION

CONSULT Configuration

Perform “READ CONFIGURATION” to save or print current vehicle specification. Refer to BCS-67, "CONFIGURATION (BCM) : Description".

NOTE:

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

>> GO TO 2.

2. REPLACE BCM

Replace BCM. Refer to BCS-82, "Removal and Installation".

>> GO TO 3.

3. WRITING VEHICLE SPECIFICATION

CONSULT Configuration

Perform “WRITE CONFIGURATION - Config file” or “WRITE CONFIGURATION - Manual selection” to write vehicle specification. Refer to BCS-67, "CONFIGURATION (BCM) : Work Procedure".

>> GO TO 4.

4. INITIALIZE BCM (NATS) (IF EQUIPPED)

Perform BCM initialization. (NATS)

>> WORK END

CONFIGURATION (BCM)

CONFIGURATION (BCM) : Description

INFOID:0000000007215493

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

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

NOTE:

Manual setting item: Items which need selection by vehicle specifications

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

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

CAUTION:

When replacing BCM, always perform “WRITE CONFIGURATION” with CONSULT. Or not doing so, BCM control function does not operate normally.

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

CONFIGURATION (BCM) : Work Procedure

INFOID:0000000007215494

1. WRITING MODE SELECTION

CONSULT Configuration
Select “CONFIGURATION” of BCM.

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

2. PERFORM “WRITE CONFIGURATION - CONFIG FILE”

CONSULT Configuration
Perform “WRITE CONFIGURATION - Config file”.

>> WORK END

3. PERFORM “WRITE CONFIGURATION - MANUAL SELECTION”

CONSULT Configuration

1. Select "WRITE CONFIGURATION - Manual selection".
2. Identify the correct model and configuration list. Refer to BCS-68, "CONFIGURATION (BCM) : Configuration list".
3. Confirm and/or change setting value for each item.
   CAUTION:
   Thoroughly read and understand the vehicle specification. ECU control may not operate normally if the setting is not correct.
   NOTE:
   If items are not displayed, touch “SETTING”. Refer to BCS-68, "CONFIGURATION (BCM) : Configuration list" for written items and setting value.
4. Select "SETTING".
   CAUTION:
   Make sure to select “SETTING” even if the indicated configuration of brand new BCM is same as the desirable configuration. If not, configuration which is set automatically by selecting vehicle model can not be memorized.
5. When "COMMAND FINISHED", select "END".

>> GO TO 4.

4.OPERATION CHECK

Confirm that each function controlled by BCM operates normally.

>> WORK END

CONFIGURATION (BCM) : Configuration list

INFOID:0000000006884571

CAUTION:
Thoroughly read and understand the vehicle specification. ECU control may not operate normally if the setting is not correct.

SETTING ITEM		NOTE
Items	Setting value	
REAR WIPER	WITHOUT	—
A/LIGHT LOGIC	MODE2 ⇔ MODE4	• MODE2: For Canada • MODE4: Except for Canada

⇔: Items which confirm vehicle specifications

TRANSIT MODE CANCEL OPERATION

Description

INFOID:0000000007794634

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

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

Work Procedure

INFOID:0000000007794635

1.TRANSIT MODE CANCEL OPERATION

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

>> GO TO 2.

2.TRANSIT MODE CANCEL CHECK

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

>> WORK END

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM

Description

INFOID:0000000006884572

CAN (Controller Area Network) is a serial communication line for real time applications. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Modern vehicle is equipped with many electronic control unit, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H-line, CAN L-line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.
CAN Communication Signal Chart. Refer to LAN-35, "CAN COMMUNICATION SYSTEM : CAN Communication Signal Chart".

DTC Logic

INFOID:0000000006884573

DTC DETECTION LOGIC

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

Diagnosis Procedure

INFOID:0000000006884574

1.PERFORM SELF DIAGNOSTIC

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

Is DTC “U1000” displayed?

YES >> Refer to LAN-25, "Trouble Diagnosis Flow Chart".
NO >> Refer to GI-44, "Intermittent Incident".

U1010 CONTROL UNIT (CAN)

DTC Logic

INFOID:0000000006884575

DTC DETECTION LOGIC

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

Diagnosis Procedure

INFOID:0000000006884576

1.REPLACE BCM

When DTC “U1010” is detected, replace BCM.

>> Replace BCM. Refer to BCS-82, "Removal and Installation".

U0415 VEHICLE SPEED

Description

INFOID:0000000006884577

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:0000000006884578

DTC DETECTION LOGIC

DTC	CONSULT display description	DTC Detection Condition	Probable cause
U0415	VEHICLE SPEED	When the vehicle speed signal received from the ABS actuator and electric unit (control unit) remains abnormal for 2 seconds or more.	• ABS actuator and electric unit (control unit) • BCM

DTC CONFIRMATION PROCEDURE

1.DTC CONFIRMATION

1. Erase the DTC.
2. Turn ignition switch OFF.
3. Perform the “Self Diagnostic Result” of BCM with CONSULT, when passed 2 seconds or more after the ignition switch is turned ON.

Is any DTC detected?

YES >> Refer to BCS-72, "Diagnosis Procedure".
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000006884579

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

Perform “Self-Diagnostic Result” of ABS actuator and electric unit (control unit) with CONSULT. Refer to BRC-40, "CONSULT Function".

Is any DTC detected?

YES >> Repair or replace the malfunctioning part.
NO >> Replace BCM. Refer to BCS-82, "Removal and Installation".

B2562 LOW VOLTAGE

DTC Logic

INFOID:0000000006884580

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1.DTC CONFIRMATION

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

Is any DTC detected?

YES >> Refer to BCS-73, "Diagnosis Procedure".
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000006884581

1.CHECK POWER SUPPLY CIRCUIT

Check BCM power supply circuit. Refer to BCS-75, "Diagnosis Procedure".

Is the circuit normal?

YES >> Replace BCM. Refer to BCS-82, "Removal and Installation".
NO >> Repair the malfunctioning part.

B26E7 TPMS CAN COMM

DTC Logic

INFOID:0000000006884582

DTC DETECTION LOGIC

DTC	CONSULT display description	DTC Detection Condition	Probable cause
B26E7	TPMS CAN COMM	When ignition switch is ON, BCM cannot received CAN communication signal from low tire pressure warning control unit.	• CAN communication system • Low tire pressure warning control unit • BCM

DTC CONFIRMATION PROCEDURE

1.DTC CONFIRMATION

1. Erase the DTC.
2. Turn ignition switch OFF.
3. Perform the “Self Diagnostic Result” of BCM with CONSULT, when passed 2 seconds or more after the ignition switch is turned ON.

Is any DTC detected?

YES >> Refer to BCS-74, "Diagnosis Procedure".
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000006884583

NOTE:
If DTC “B26E7” detected along with DTC “U1000”, first diagnose the DTC “U1000”. Refer to BCS-70, "Diagnosis Procedure".

1.LOW TIRE PRESSURE WARNING CONTROL UNIT SELF DIAGNOSTIC RESULT

Perform “Self Diagnostic Result” of low tire pressure warning control unit with CONSULT. Refer to WT-10, "CONSULT Function".

Is any DTC detected?

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

2.LOW TIRE PRESSURE WARNING CONTROL UNIT DIAGNOSIS

Perform low tire pressure warning control unit component diagnosis of detected DTC. Refer to WT-16, "DTC Index".

>> GO TO 3.

3.BCM SELF DIAGNOSTIC RESULT

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

Is DTC “B26E7” detected?

YES >> Replace BCM. Refer to BCS-82, "Removal and Installation".
NO >> INSPECTION END

4.REPLACE LOW TIRE PRESSURE WARNING CONTROL UNIT TEMPORARILY

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

>> GO TO 5.

5.BCM SELF-DIAGNOSTIC RESULT

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

Is DTC “B26E7” detected?

YES >> Replace BCM. Refer to BCS-82, "Removal and Installation".
NO >> Replace low tire pressure warning control unit. Refer to WT-58, "Removal and Installation".

POWER SUPPLY AND GROUND CIRCUIT

Diagnosis Procedure

INFOID:0000000006884584

1.CHECK FUSE AND FUSIBLE LINK

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

Signal name	Fuse and fusible link No.
Battery power supply	L
	11

Is the fuse fusing?

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

2.CHECK POWER SUPPLY CIRCUIT

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

Terminals			Voltage (Approx.)
(+)		(−)	
BCM		Ground	
Connector	Terminal		
M122	70		Battery voltage
	57		

Is the measurement value normal?

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

3.CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M122	67		Existed

Does continuity exist?

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

COMBINATION SWITCH OUTPUT CIRCUIT

Diagnosis Procedure

INFOID:0000000006884585

1.CHECK OUTPUT 1 - 5 CIRCUIT FOR OPEN

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

System	BCM		Combination switch		Continuity
	Connector	Terminal	Connector	Terminal	
OUTPUT 1	M120	36	M33	11	Existed
OUTPUT 2		35		9	
OUTPUT 3		34		7	
OUTPUT 4		33		10	
OUTPUT 5		32		13	

Does continuity exist?

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

2.CHECK OUTPUT 1 - 5 CIRCUIT FOR SHORT

Check for continuity between BCM harness connector and ground.

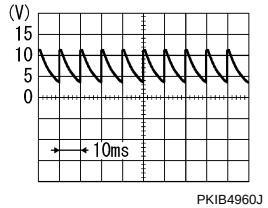
System	BCM			Continuity
	Connector	Terminal		
OUTPUT 1	M120	36	Ground	Not existed
OUTPUT 2		35		
OUTPUT 3		34		
OUTPUT 4		33		
OUTPUT 5		32		

Does continuity exist?

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

3.CHECK BCM OUTPUT VOLTAGE

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

System	Terminals			Voltage (Approx.)
	(+)		(–)	
	BCM			
	Connector	Terminal		
OUTPUT 1	M120	36	Ground	 7.0 - 8.0 V
OUTPUT 2		35		
OUTPUT 3		34		
OUTPUT 4		33		
OUTPUT 5		32		

Is the measurement value normal?

YES >> Replace combination switch.
NO >> Replace BCM. Refer to BCS-82, "Removal and Installation".

COMBINATION SWITCH INPUT CIRCUIT

Diagnosis Procedure

INFOID:0000000006884586

1.CHECK INPUT 1 - 5 CIRCUIT FOR OPEN

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

System	BCM		Combination switch		Continuity
	Connector	Terminal	Connector	Terminal	
INPUT 1	M120	6	M33	12	Existed
INPUT 2		5		14	
INPUT 3		4		5	
INPUT 4		3		2	
INPUT 5		2		8	

Does continuity exist?

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

2.CHECK INPUT 1 - 5 CIRCUIT FOR SHORT

Check for continuity between BCM harness connector and ground.

System	BCM		Ground	Continuity
	Connector	Terminal		
INPUT 1	M120	6	Ground	Not existed
INPUT 2		5		
INPUT 3		4		
INPUT 4		3		
INPUT 5		2		

Does continuity exist?

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

3.CHECK BCM INPUT SIGNAL

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

System	Terminals			Voltage (Approx.)
	(+)		(–)	
	BCM			
	Connector	Terminal		
INPUT 1	M120	6	Ground	Refer to BCS-34, "Reference Value".
INPUT 2		5		
INPUT 3		4		
INPUT 4		3		
INPUT 5		2		

Is the measurement value normal?

Yes >> Replace BCM. Refer to BCS-82, "Removal and Installation".

No >> Replace combination switch.

SYMPTOM DIAGNOSIS

COMBINATION SWITCH SYSTEM SYMPTOMS

Symptom Table

INFOID:0000000006884587

1. Perform “Data Monitor” of CONSULT to check for any malfunctioning item.
2. Check the malfunction combinations.

Malfunction item: ×

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

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

Malfunction combination	Malfunctioning part	Repair or replace
A	Combination switch OUTPUT 1 circuit	Inspect the combination switch output circuit applicable to the malfunctioning part. Refer to BCS-76, "Diagnosis Procedure".
B	Combination switch OUTPUT 2 circuit	
C	Combination switch OUTPUT 3 circuit	
D	Combination switch OUTPUT 4 circuit	
E	Combination switch OUTPUT 5 circuit	
F	Combination switch INPUT 1 circuit	Inspect the combination switch input circuit applicable to the malfunctioning part. Refer to BCS-78, "Diagnosis Procedure".
G	Combination switch INPUT 2 circuit	
H	Combination switch INPUT 3 circuit	
I	Combination switch INPUT 4 circuit	
J	Combination switch INPUT 5 circuit	
K	BCM	Replace BCM. Refer to BCS-82, "Removal and Installation".
L	Combination switch	Replace combination switch.

NORMAL OPERATING CONDITION

Description

INFOID:0000000007794636

TRANSIT MODE

- Transit mode inhibits battery power consumption during transportation or storage of the vehicle.
- BCM is set to transit mode before delivery.
- In transit mode, remote keyless entry function, headlamp ON/OFF function, theft warning alarm function, and other BCM control functions do not operate normally.
- Therefore, cancel operation must be performed so that the vehicle is used in normal status.
- For transit mode cancel operation, refer to BCS-69, "Description".

NOTE:

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

REMOVAL AND INSTALLATION

BCM

Removal and Installation

INFOID:0000000006884588

NOTE:
Before replacing BCM, perform “READ CONFIGURATION” to save or print current vehicle specification. Refer to BCS-66, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM) : Description".

REMOVAL

1. Remove knee protector. Refer to IP-13, "Removal and Installation".
2. Remove screws.
3. Remove BCM and disconnect the connectors.

INSTALLATION

Install in the reverse order of removal.

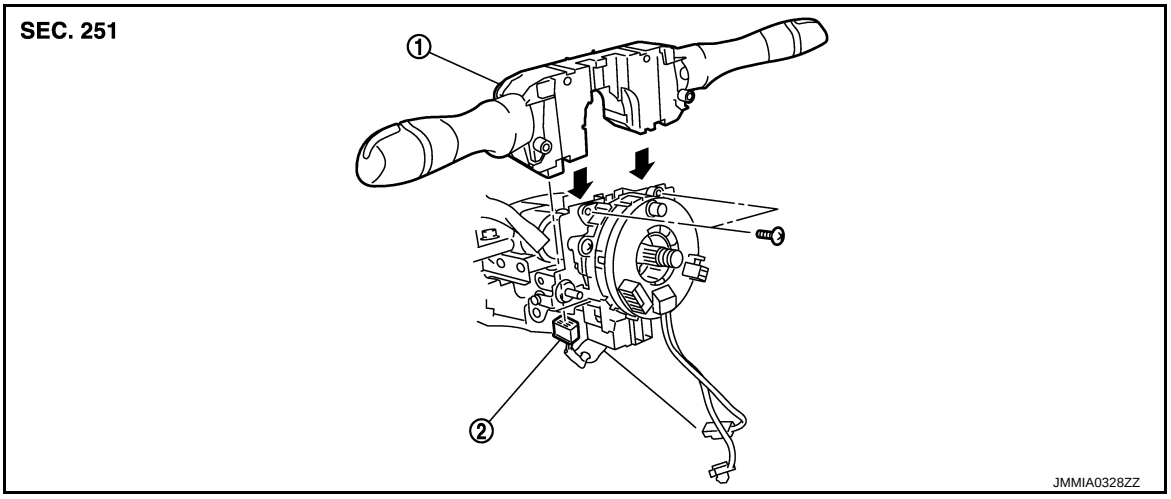
CAUTION:
Be sure to perform “WRITE CONFIGURATION” when replacing BCM. Or not doing so, BCM control function does not operate normally.

NOTE:
Be sure to perform the system initialization (NATS) when replacing BCM. Refer to BCS-66, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM) : Work Procedure".

COMBINATION SWITCH

Exploded View

INFOID:0000000006884589



1. Combination switch
2. Combination switch connector

Removal and Installation

INFOID:0000000006884590

REMOVAL

1. Remove steering column cover. Refer to IP-13, "Removal and Installation".
2. Remove screws.
3. Disconnect the connector.
4. Pull up the combination switch to remove it.

INSTALLATION

Install in the reverse order of removal.