# SECTION BCS
# BODY CONTROL SYSTEM

## CONTENTS

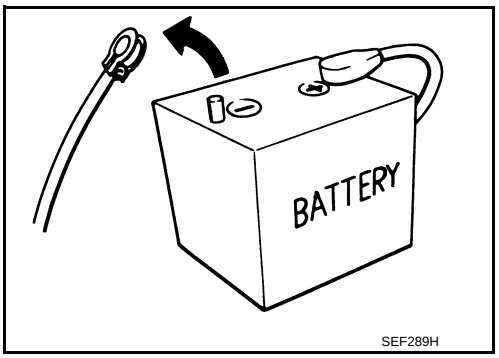
# PRECAUTION

## PRECAUTIONS

### Precautions for Removing Battery Terminal

INFOID:0000000010842517

- With the adoption of Auto ACC function, ACC power is automatically supplied by operating the intelligent key or remote keyless entry or by opening/closing the driver side door. In addition, ACC power is supplied even after the ignition switch is turned to the OFF position, i.e. ACC power is supplied for a certain fixed time.
- When disconnecting the 12V battery terminal, turn off the ACC power before disconnecting the 12V battery terminal, observing “How to disconnect 12V battery terminal” described below.
  **NOTE:**
  Some ECUs operate for a certain fixed time even after ignition switch is turned OFF and ignition power supply is stopped. If the battery terminal is disconnected before ECU stops, accidental DTC detection or ECU data damage may occur.
- For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch.
  **NOTE:**
  If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.
- After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC.
  **NOTE:**
  The removal of 12V battery may cause a DTC detection error.




#### HOW TO DISCONNECT 12V BATTERY TERMINAL

Disconnect 12V battery terminal according to Instruction 1 or Instruction 2 described below.
For vehicles parked by ignition switch OFF, refer to Instruction 2.

INSTRUCTION 1

1. Open the hood.
2. Turn key switch to the OFF position with the driver side door opened.
3. Get out of the vehicle and close the driver side door.
4. Wait at least 3 minutes. For vehicle with the engine listed below, remove the battery terminal after a lapse of the specified time.

| | |
|---|---|
| D4D engine | : 20 minutes |
| HRA2DDT | : 12 minutes |
| K9K engine | : 4 minutes |
| M9R engine | : 4 minutes |
| R9M engine | : 4 minutes |
| V9X engine | : 4 minutes |

**CAUTION:**
**While waiting, never operate the vehicle such as locking, opening, and closing doors. Violation of this caution results in the activation of ACC power supply according to the Auto ACC function.**

5. Remove 12V battery terminal.
   **CAUTION:**
   **After installing 12V battery, always check self-diagnosis results of all ECUs and erase DTC.**

INSTRUCTION 2 (FOR VEHICLES PARKED BY IGNITION SWITCH OFF)

1. Unlock the door with intelligent key or remote keyless entry.
   **NOTE:**
   At this moment, ACC power is supplied.
2. Open the driver side door.
3. Open the hood.
4. Close the driver side door.
5. Wait at least 3 minutes.

**CAUTION:**
**While waiting, never operate the vehicle such as locking, opening, and closing doors. Violation of this caution results in the activation of ACC power supply according to the Auto ACC function.**

6. Remove 12V battery terminal.
   **CAUTION:**
   **After installing 12V battery, always check self-diagnosis results of all ECUs and erase DTC.**

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

INFOID:0000000010842518

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

**WARNING:**
**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.**

## Precaution Necessary for Steering Wheel Rotation After Battery Disconnect

INFOID:0000000010842519

**CAUTION:**
**Comply with the following cautions to prevent any error and malfunction.**
- **Before removing and installing any control units, first turn the ignition power source and accessory power source to the OFF, then disconnect both battery cables.**
- **After finishing work, confirm that all control unit connectors are connected properly, then re-connect both battery cables.**
- **Always use CONSULT to perform self-diagnosis as a part of each function inspection after finishing work. If a DTC is detected, perform trouble diagnosis according to self-diagnosis results.**

For vehicle with steering lock unit, if the battery is disconnected or discharged, the steering wheel will lock and cannot be turned.
If turning the steering wheel is required with the battery disconnected or discharged, follow the operation procedure below before starting the repair operation.

### OPERATION PROCEDURE

1. Connect both battery cables.
   **NOTE:**
   Supply power using jumper cables if battery is discharged.
2. Open driver door.
3. Turn the ignition switch to the ON position.
   (At this time, the steering lock will be released.)
4. Turn the ignition switch to OFF position with driver door open.

5. Wait for 3 minutes or longer with driver door open.
   **NOTE:**
   - Do not close driver door because the steering wheel locks when driver door is closed.
   - The auto acc function is adapted to this vehicle. For this reason, even when the ignition switch is turned to OFF position, the accessory power source does not turned OFF and continues to be supplied for a certain amount of time.
6. Disconnect both battery cables. The steering lock will remain released with both battery cables disconnected and the steering wheel can be turned.
7. Perform the necessary repair operation.
8. When the repair work is completed, re-connect both battery cables. With the brake pedal released, turn the ignition switch from OFF position to ON position, then to LOCK position. (The steering wheel will lock when the ignition switch is turned to LOCK position.)
9. Perform self-diagnosis check of all control units using CONSULT.

# SYSTEM DESCRIPTION

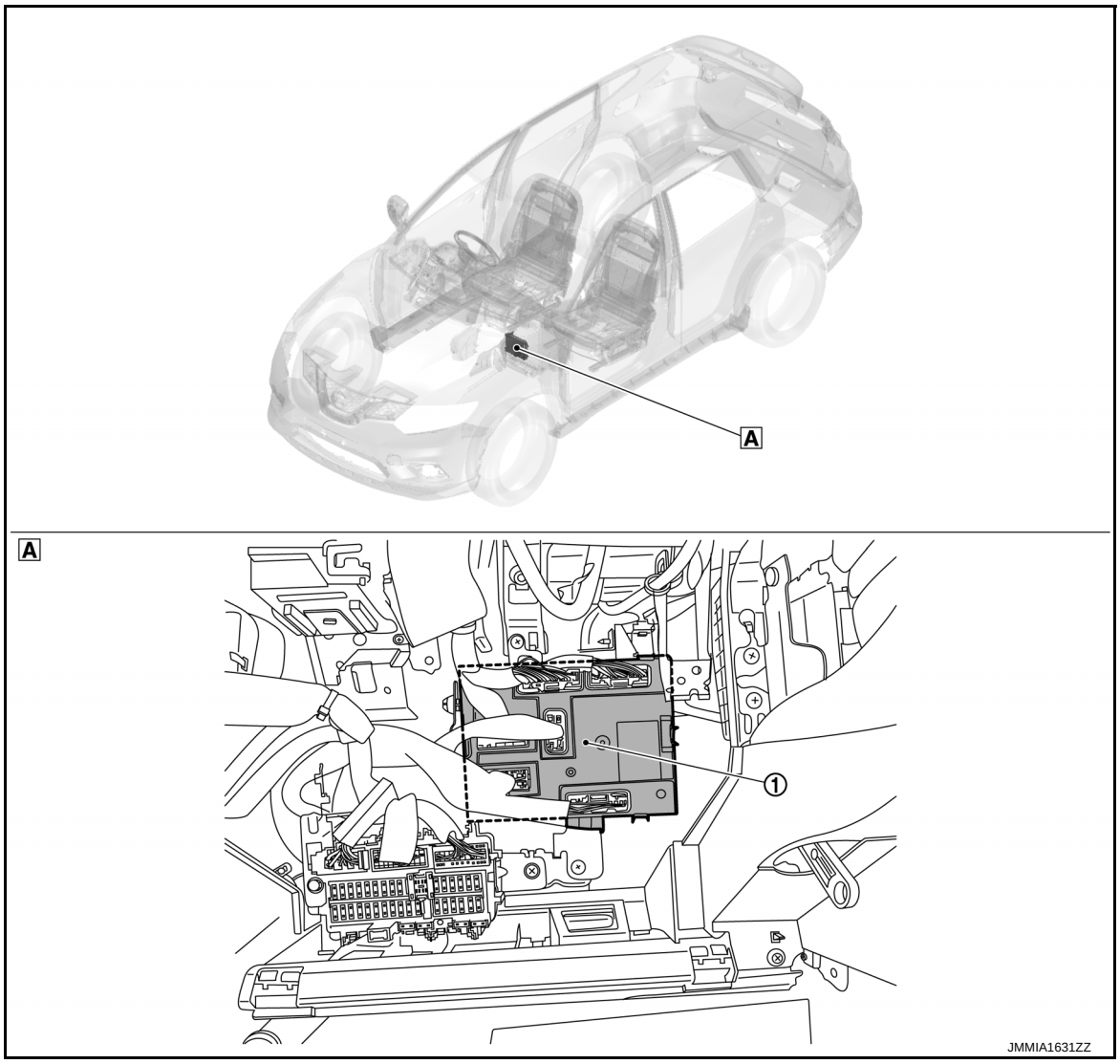
## COMPONENT PARTS

## BODY CONTROL SYSTEM

### BODY CONTROL SYSTEM : Component Parts Location

INFOID:0000000010688574

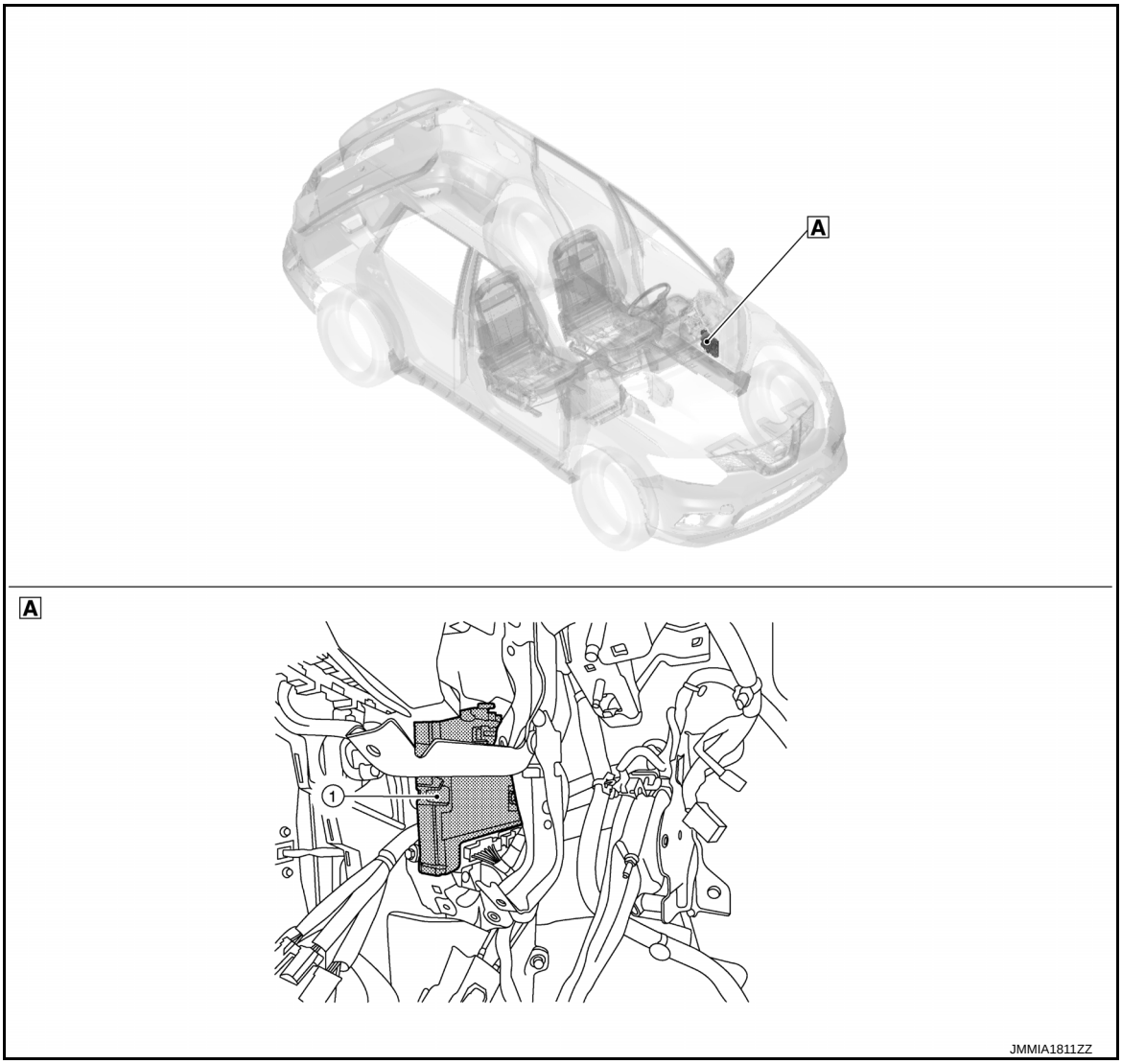
RHD MODELS




① BCM

Ⓐ Behind of glove box

LHD MODELS




① BCM

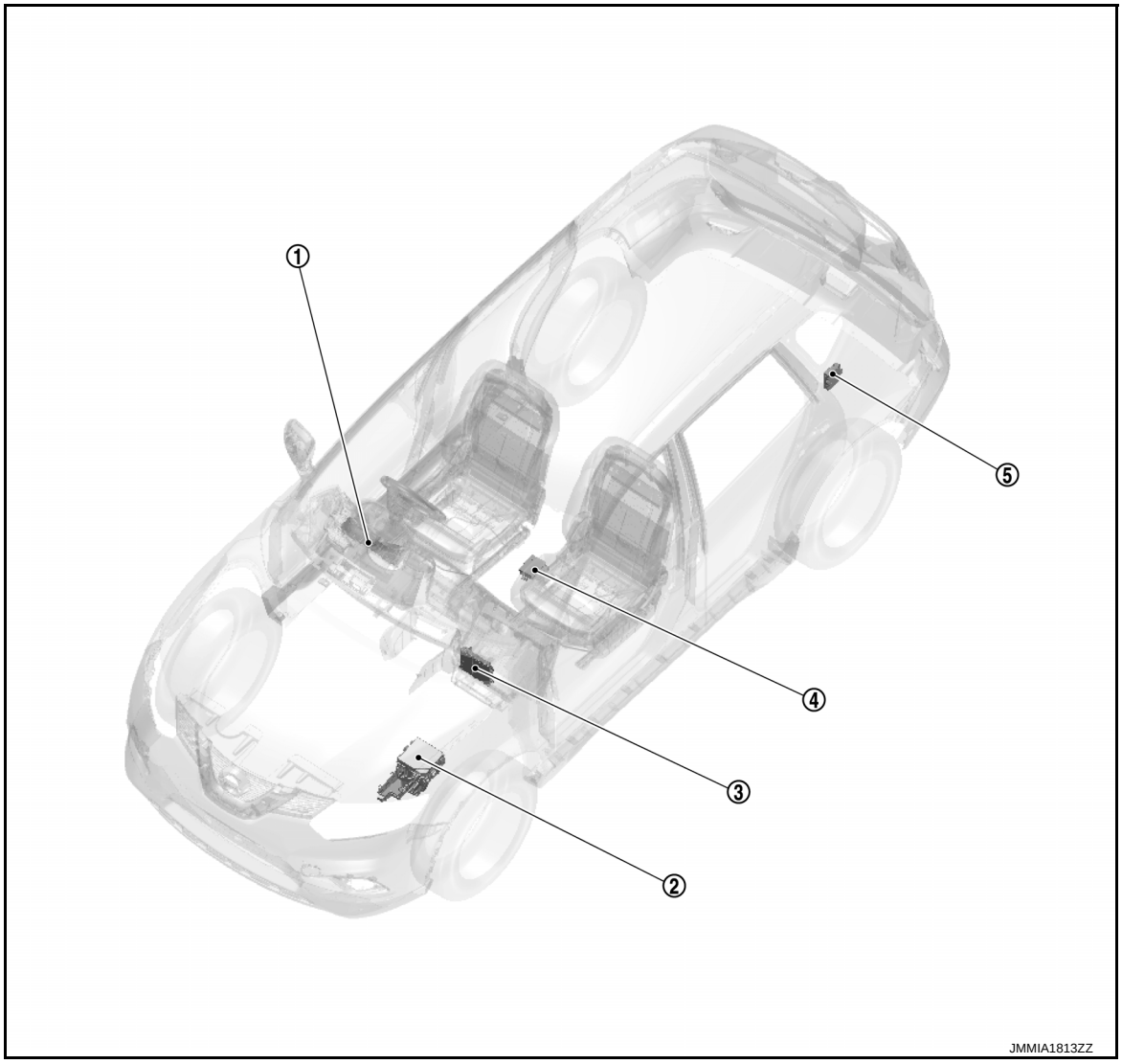
A Behind instrument panel (LH)

## POWER CONSUMPTION CONTROL SYSTEM

### POWER CONSUMPTION CONTROL SYSTEM : Component Parts Location

INFOID:0000000010688575

RHD models




① Combination meter

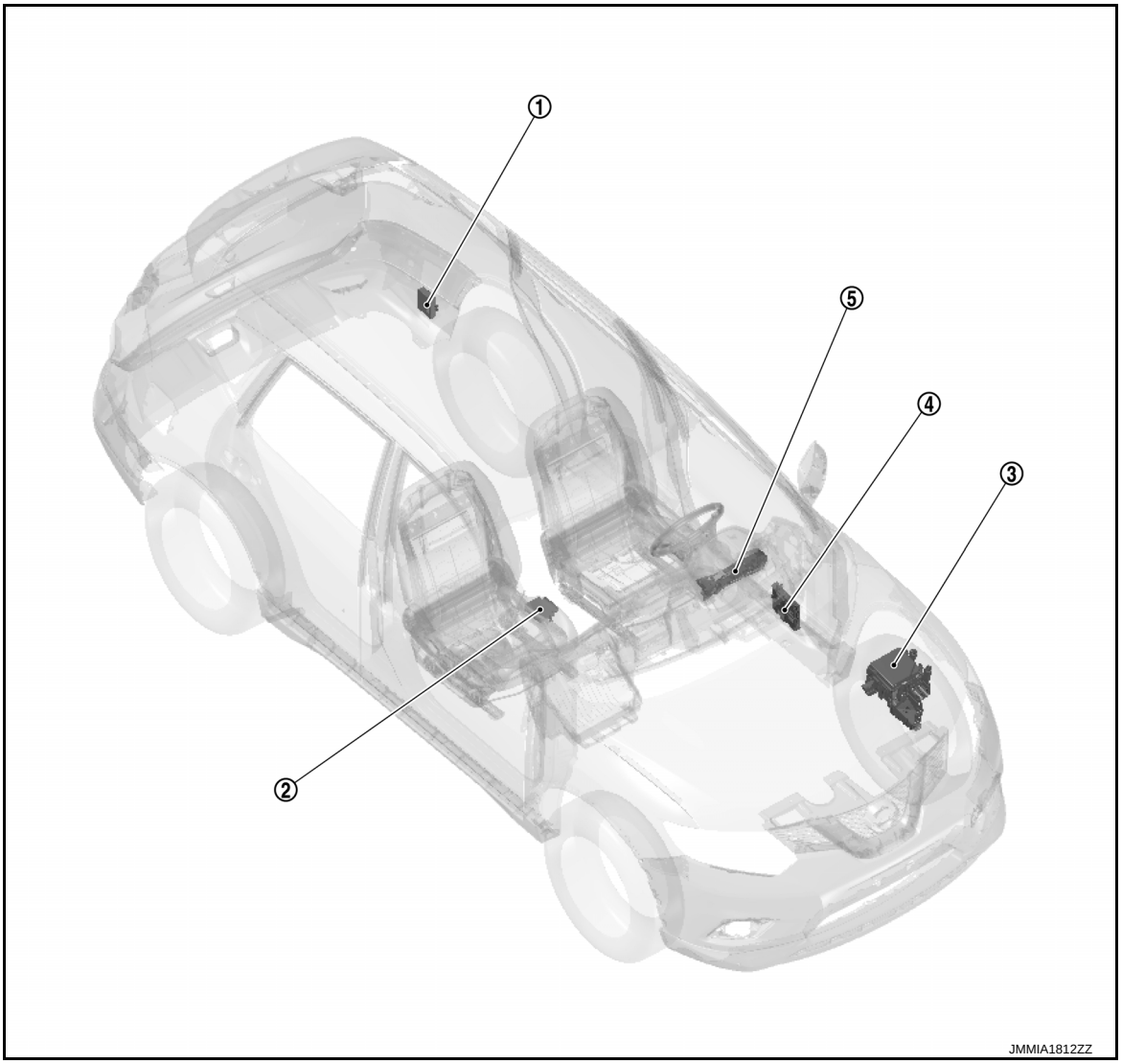
② IPDM E/R
Refer to PCS-5, "Component Parts Location".

③ BCM
Refer to BCS-6, "BODY CONTROL SYSTEM : Component Parts Location".

④ Electric parking brake control module
Refer to PB-8, "Component Parts Location".

⑤ Automatic back door control module
Refer to DLK-25, "DOOR LOCK SYSTEM : Component Parts Location" (With Intelligent Key and super lock) or DLK-335, "DOOR LOCK SYSTEM : Component Parts Location" (With Intelligent Key, without super lock)

LHD models




① Automatic back door control module
Refer to DLK-25, "DOOR LOCK SYSTEM : Component Parts Location" (With Intelligent Key and super lock) or DLK-335, "DOOR LOCK SYSTEM : Component Parts Location" (With Intelligent Key, without super lock)

② Electric parking brake control module
Refer to PB-8, "Component Parts Location".

③ IPDM E/R
Refer to PCS-5, "Component Parts Location".

④ BCM
Refer to BCS-6, "BODY CONTROL SYSTEM : Component Parts Location".

⑤ Combination meter

# SYSTEM
## BODY CONTROL SYSTEM
### BODY CONTROL SYSTEM : System Description

INFOID:0000000010688576

#### 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-13, "COMBINATION SWITCH READING SYSTEM : System Description" |
| Signal buffer system | BCS-17, "SIGNAL BUFFER SYSTEM : System Description" |
| Power consumption control system | BCS-18, "POWER CONSUMPTION CONTROL SYSTEM : System Description" |
| Shipping mode control system | BCS-20, "SHIPPING MODE CONTROL SYSTEM : System Description" |
| Headlamp system | • EXL-21, "HEADLAMP SYSTEM : System Description" (LED headlamp)<br>• EXL-225, "HEADLAMP SYSTEM : System Description" (Halogen headlamp) |
| Auto light system | • EXL-24, "AUTO LIGHT SYSTEM : System Description" (LED headlamp)<br>• EXL-228, "AUTO LIGHT SYSTEM : System Description" (Halogen headlamp) |
| Daytime running light system | • EXL-30, "DAYTIME RUNNING LIGHT SYSTEM : System Description" (LED headlamp)<br>• EXL-234, "DAYTIME RUNNING LIGHT SYSTEM : System Description" (Halogen headlamp) |
| Turn signal and hazard warning lamp system | • EXL-36, "TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM : System Description" (LED headlamp)<br>• EXL-236, "TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM : System Description" (Halogen headlamp) |
| Parking, license plate and tail lamps system | • EXL-38, "PARKING, LICENSE PLATE AND TAIL LAMP SYSTEM : System Description" (LED headlamp)<br>• EXL-239, "PARKING, LICENSE PLATE AND TAIL LAMP SYSTEM : System Description" (Halogen headlamp) |
| Stop lamp system | • EXL-42, "STOP LAMP SYSTEM : System Description" (LED headlamp)<br>• EXL-243, "STOP LAMP SYSTEM : System Description" (Halogen headlamp) |
| Front fog lamp system | • EXL-44, "FRONT FOG LAMP SYSTEM : System Description" (LED headlamp)<br>• EXL-245, "FRONT FOG LAMP SYSTEM : System Description" (Halogen headlamp) |
| Rear fog lamp system | • EXL-46, "REAR FOG LAMP SYSTEM : System Description" (LED headlamp)<br>• EXL-247, "REAR FOG LAMP SYSTEM : System Description" (Halogen headlamp) |

| System | Reference |
|---|---|
| Exterior lamp battery saver system | • EXL-48, "EXTERIOR LAMP BATTERY SAVER SYSTEM : System Description" (LED headlamp)<br>• EXL-249, "EXTERIOR LAMP BATTERY SAVER SYSTEM : System Description" (Halogen headlamp) |
| Interior room lamp control system | INL-11, "INTERIOR ROOM LAMP CONTROL SYSTEM : System Description" |
| Interior room lamp battery saver system | INL-14, "INTERIOR ROOM LAMP BATTERY SAVER SYSTEM : System Description" |
| Illumination control system | INL-18, "ILLUMINATION CONTROL SYSTEM : System Description" |
| Front wiper and washer system | • WW-13, "FRONT WIPER AND WASHER SYSTEM (WITH LIGHT & RAIN SENSOR) : System Description" (With rain sensor)<br>• WW-17, "FRONT WIPER AND WASHER SYSTEM (WITHOUT LIGHT & RAIN SENSOR) : System Description" (Without rain sensor) |
| Rear wiper and washer system | WW-21, "REAR WIPER AND WASHER SYSTEM : System Description" |
| Rear window defogger system | DEF-7, "System Description" |
| Warning chime system | WCS-8, "WARNING CHIME SYSTEM : System Description" |
| Power door lock system | • DLK-35, "System Description" (Type 1)<br>• DLK-345, "System Description" (Type 2)<br>• DLK-646, "System Description" (Type 3)<br>• DLK-797, "POWER DOOR LOCK SYSTEM : System Description" (Type 4)<br>**NOTE:**<br>Refer to DLK-22, "Information" for details of type. |
| Intelligent Key system | • DLK-38, "INTELLIGENT KEY SYSTEM : System Description" (Type 1)<br>• DLK-348, "INTELLIGENT KEY SYSTEM : System Description" (Type 2)<br>**NOTE:**<br>Refer to DLK-22, "Information" for details of type. |
| Remote keyless entry system | • DLK-649, "REMOTE KEYLESS ENTRY FUNCTION : System Description" (Type 3)<br>• DLK-800, "REMOTE KEYLESS ENTRY SYSTEM : System Description" (Type 4)<br>**NOTE:**<br>Refer to DLK-22, "Information" for details of type. |
| Back door opener system | • DLK-62, "System Description" (Type 1)<br>• DLK-371, "System Description" (Type 2)<br>• DLK-655, "System Description" (Type 3)<br>• DLK-803, "BACK DOOR OPENER SYSTEM : System Description" (Type 4)<br>**NOTE:**<br>Refer to DLK-22, "Information" for details of type. |
| Intelligent Key system/engine start system | SEC-15, "INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION : System Description" |
| Nissan Vehicle Immobilizer System-NATS | • SEC-25, "NISSAN ANTI-THEFT SYSTEM : System Description" (With Intelligent Key system)<br>• SEC-214, "NISSAN ANTI-THEFT SYSTEM : System Description" (Without Intelligent Key system) |
| Vehicle security system | • SEC-34, "VEHICLE SECURITY SYSTEM : System Description" (With Intelligent Key system)<br>• SEC-217, "VEHICLE SECURITY SYSTEM : System Description" (Without Intelligent Key system) |
| Power window system | PWC-12, "System Description" |
| CAN gateway | LAN-110, "System Description" |

# BODY CONTROL SYSTEM : Fail-safe

INFOID:0000000011039000

## FAIL-SAFE CONTROL BY DTC

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

| Display contents of CONSULT | Fail-safe |
|---|---|
| B2190–00: CHAIN OF BCM-IMM ANT | Inhibit engine cranking |
| B2191–00: ID DISCORD, BCM-IMMANT | Inhibit engine cranking |
| B2192–00: ID DISCORD BCM-ECM | Inhibit engine cranking |
| B2193–00: CHAIN OF BCM-ECM | Inhibit engine cranking |
| B2195–00: ANTI-SCANNING | Inhibit engine cranking |
| B2196–00: DONGLE NG | Inhibit engine cranking |
| B2198–00: NATS ANTENNA AMP | Inhibit engine cranking |
| B2557–00: VEHICLE SPEED | Inhibit steering lock |
| B2602–00: SHIFT POSITION | Inhibit steering lock |
| B2604–00: PNP/CLUTCH SW | Inhibit steering lock |
| B2608–00: STARTER RELAY | Inhibit engine cranking |
| B260F–00: ENG STATE SIG LOST | Inhibit engine cranking |
| B26F1–00: IGN RELAY OFF | Inhibit engine cranking |
| B26F2–00: IGN RELAY ON | Inhibit engine cranking |
| B27D4–00: BCM - S/L SENSOR CIRCUIT | Inhibit steering unlock |
| B27D5–00: S/L SENSOR TEST OUTPUT | Inhibit steering unlock |
| B27D6–00: S/L CAN COMM CIRCUIT | Inhibit steering lock |
| B27D7–00: S/L PWR RELAY | Inhibit steering lock |
| B27D8–00: S/L VEHICLE SPEED MALFUNCTION | Inhibit steering lock |
| B27D9–00: S/L IGN MALFUNCTION | Inhibit steering lock/unlock |
| B27DA–00: IPDM CAN COMM CIRCUIT | Inhibit steering lock |
| B27DC–00: S/L POWER SUPPLY | Inhibit steering lock |
| B27DD–00: BCM - S/L ID DISCORD | Inhibit steering lock |
| B27DE–00: S/L MECHANICAL MALFUNCTION | Inhibit steering lock |
| B27DF–00: S/L HIGH LEVEL MALFUNCTION | Inhibit steering lock/unlock |
| B27E0–00: S/L LOW LEVEL MALFUNCTION | Inhibit steering lock |
| B27E1–00: S/L SAFETY CIRCUIT | Inhibit steering lock |
| B27E5–00: S/L IGN OFF POSITION | Inhibit steering lock |
| B27E6–00: S/L ANTI-SCAN MODE | Inhibit steering lock |
| B27E8–00: S/L UNDETERMINED LOCK POS | Inhibit steering lock |
| U0415: VEHICLE SPEED | Inhibit steering lock |

## REAR WIPER MOTOR PROTECTION

BCM detects the rear wiper stopping position according to the rear wiper stop position signal.
When the rear wiper stop position signal does not change for more than 5 seconds while driving the rear wiper, BCM stops power supply to protect the rear wiper motor.

Condition of cancellation

1. More than 1 minute is passed after the rear wiper stop.
2. Turn rear wiper switch OFF.
3. Operate the rear wiper switch or rear washer switch.

## FAIL-SAFE CONTROL BY RAIN SENSOR MALFUNCTION

BCM detects the 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:**

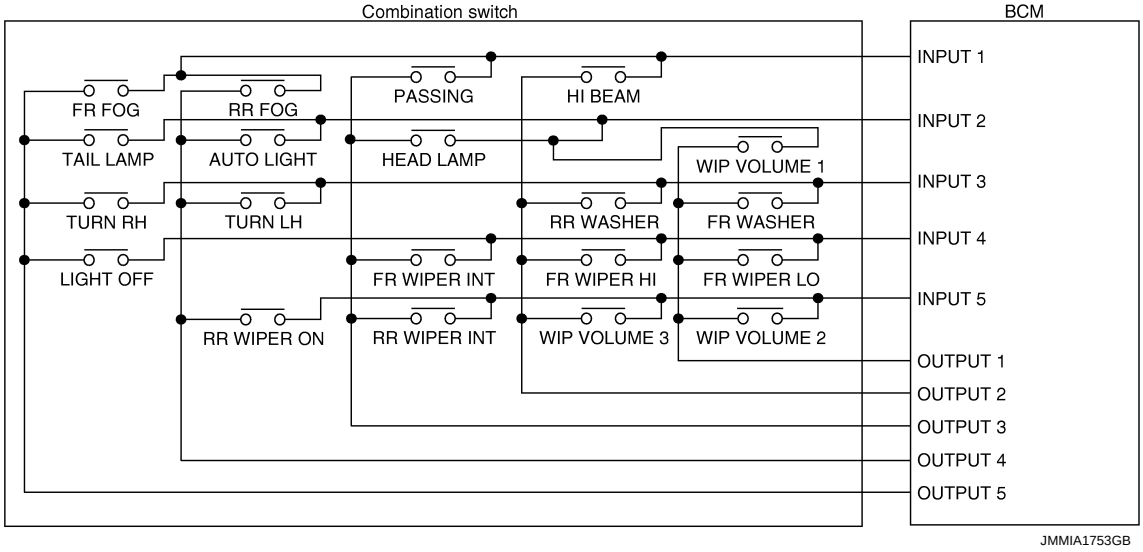
When voltage of battery power supply is approximately 9 V or more, combination switch reading function returns to normal operation.

## COMBINATION SWITCH READING SYSTEM

## COMBINATION SWITCH READING SYSTEM : System Description

INFOID:0000000010688578

### SYSTEM DIAGRAM



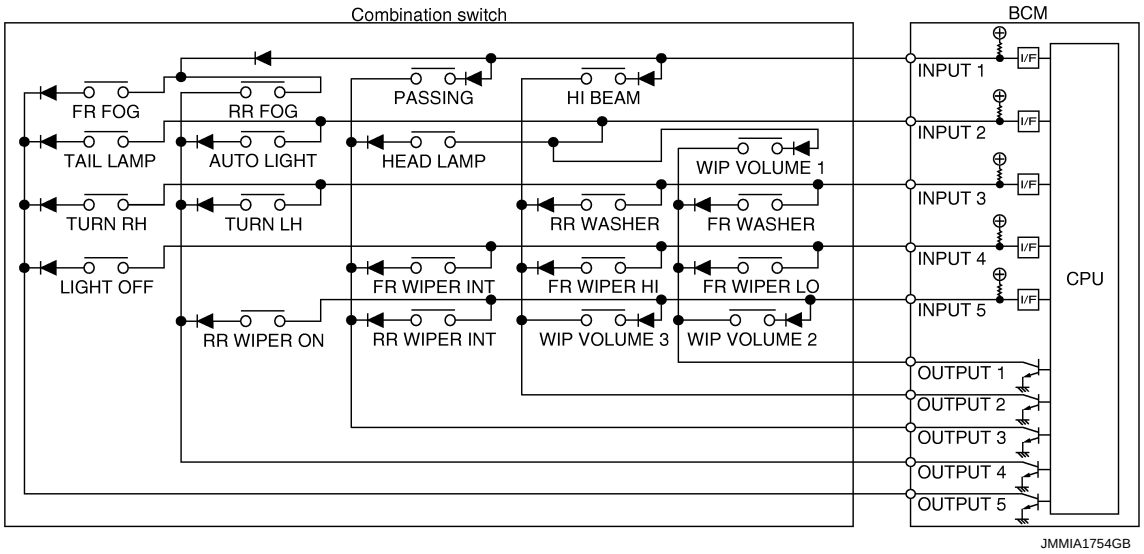

JMMIA1753GB

### 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



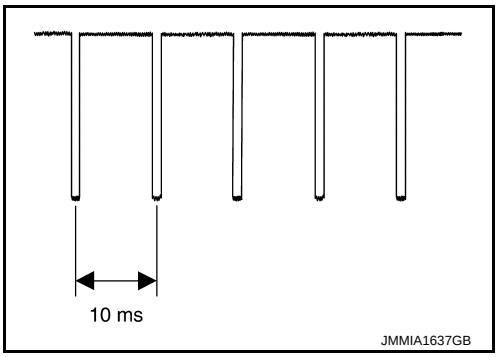

Combination switch INPUT-OUTPUT system list

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

## COMBINATION SWITCH READING FUNCTION

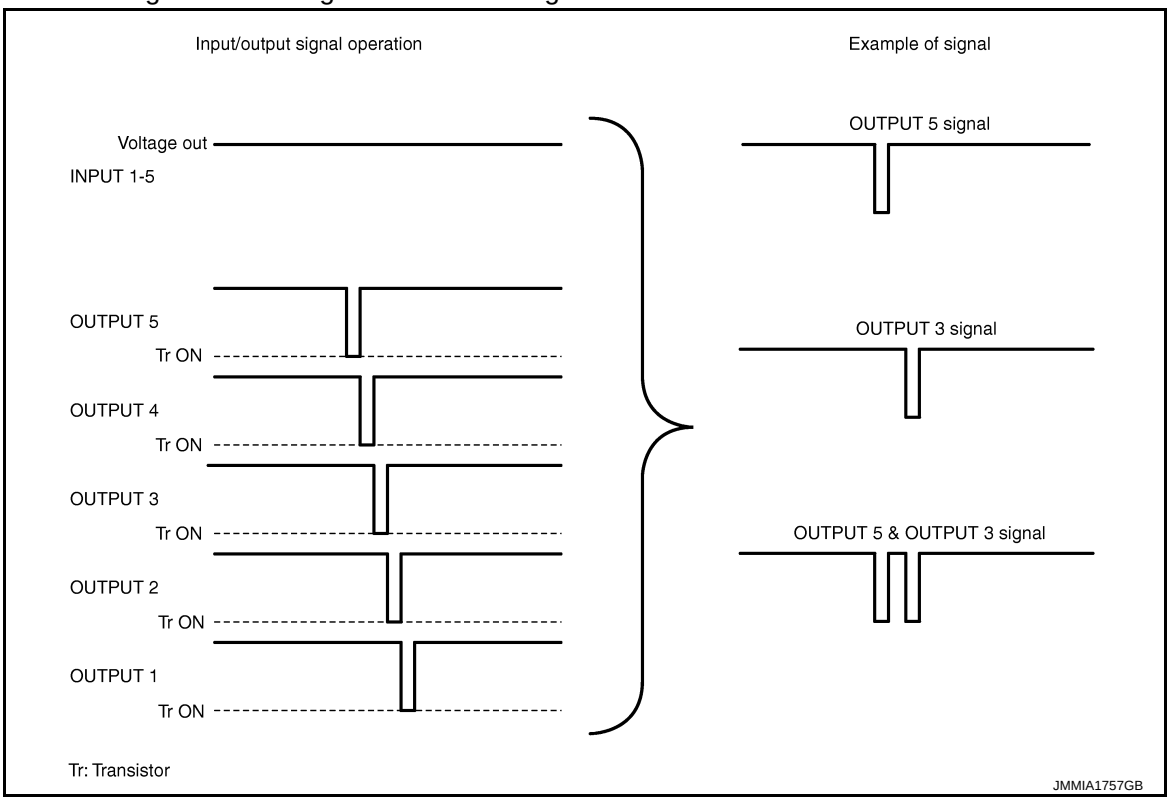
Description

- 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 5 → 4 → 3 → 2 → 1, and outputs voltage waveform.
- The voltage waveform of OUTPUT corresponding to the formed circuit is input into the interface on INPUT side if any (1 or more) switches are ON.

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

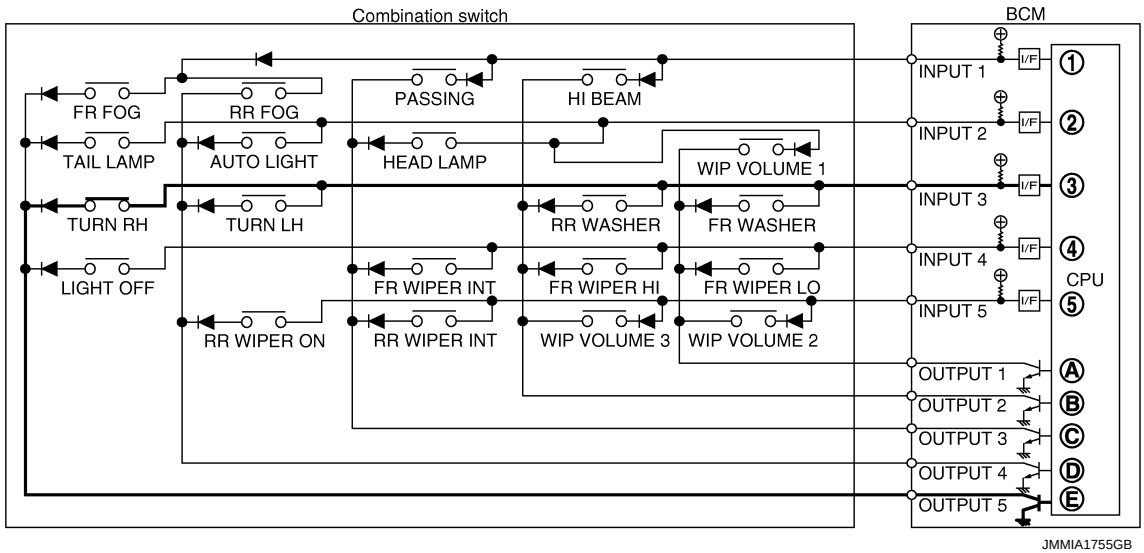



Operation Example

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

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

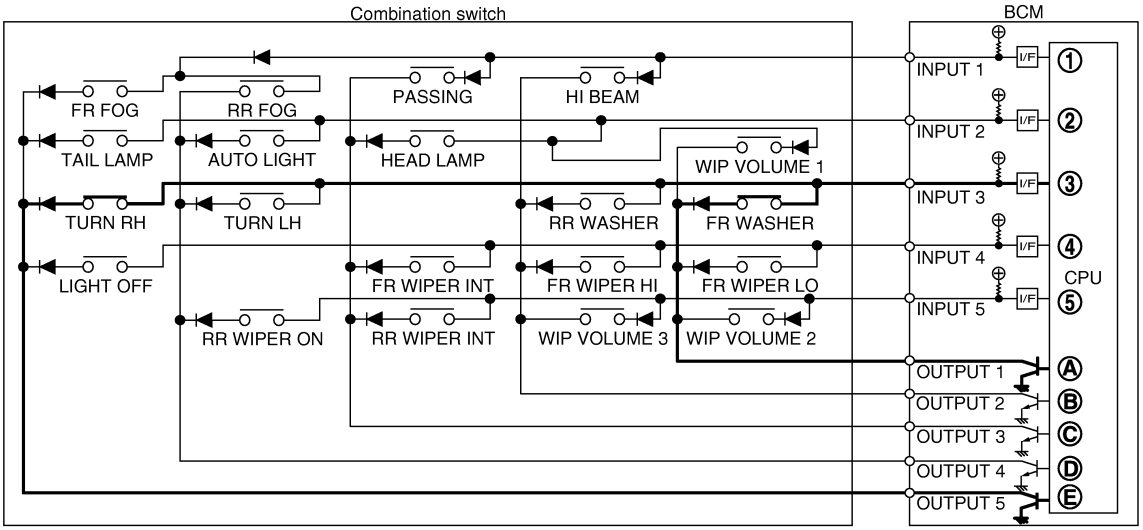
- The circuit between OUTPUT 5 and INPUT 3 is formed when the TURN RH switch is turned ON.




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

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

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




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

### WIPER VOLUME DIAL POSITION

- BCM judges the WIP VOLUME 1 - 4 by the status of WIP VOLUME 1, 2 and 3 switches.

4 clicks type

| Wiper volume | Switch status | | |
|---|---|---|---|
| | WIP VOLUME 1 | WIP VOLUME 2 | WIP VOLUME 3 |
| 1 | ON | ON | OFF |
| 2 | ON | OFF | OFF |
| 3 | OFF | OFF | OFF |
| 4 | OFF | OFF | ON |

- BCM judges the WIP VOLUME 1 - 5 by the status of WIP VOLUME 1, 2 and 3 switches.

5 clicks type

| Wiper volume | Switch status | | |
|---|---|---|---|
| | WIP VOLUME 1 | WIP VOLUME 2 | WIP VOLUME 3 |
| 1 | ON | ON | OFF |
| 2 | ON | OFF | OFF |
| 3 | OFF | OFF | OFF |
| 4 | OFF | OFF | ON |
| 5 | OFF | ON | ON |

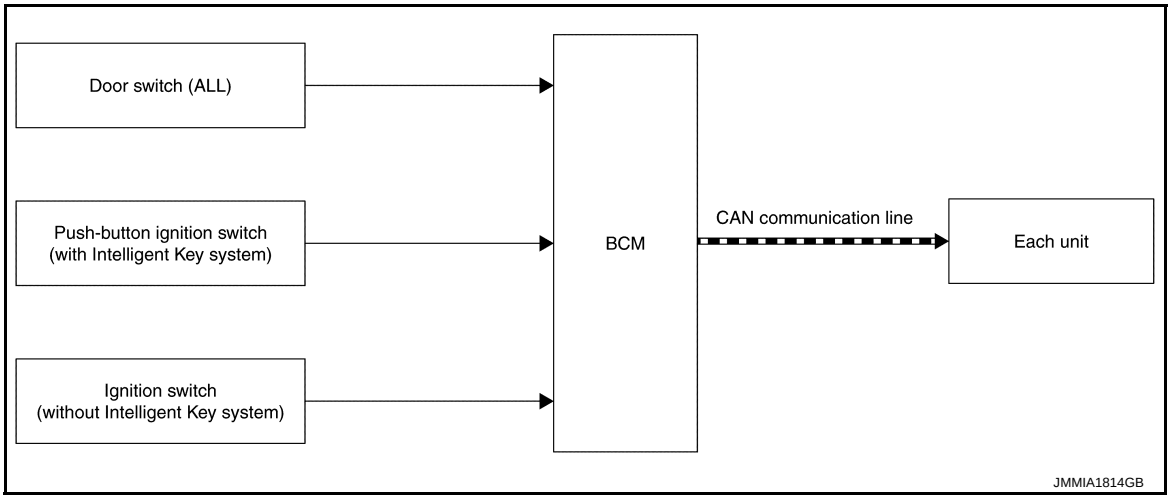
**NOTE:**
For details of wiper volume dial position, refer to WW-13, "FRONT WIPER AND WASHER SYSTEM (WITH LIGHT & RAIN SENSOR) : System Description" (with rain sensor) or WW-17, "FRONT WIPER AND WASHER SYSTEM (WITHOUT LIGHT & RAIN SENSOR) : System Description" (without rain sensor).

## SIGNAL BUFFER SYSTEM

## SIGNAL BUFFER SYSTEM : System Description

INFOID:0000000010688579

### SYSTEM DIAGRAM




### OUTLINE

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

Signal transmission function list

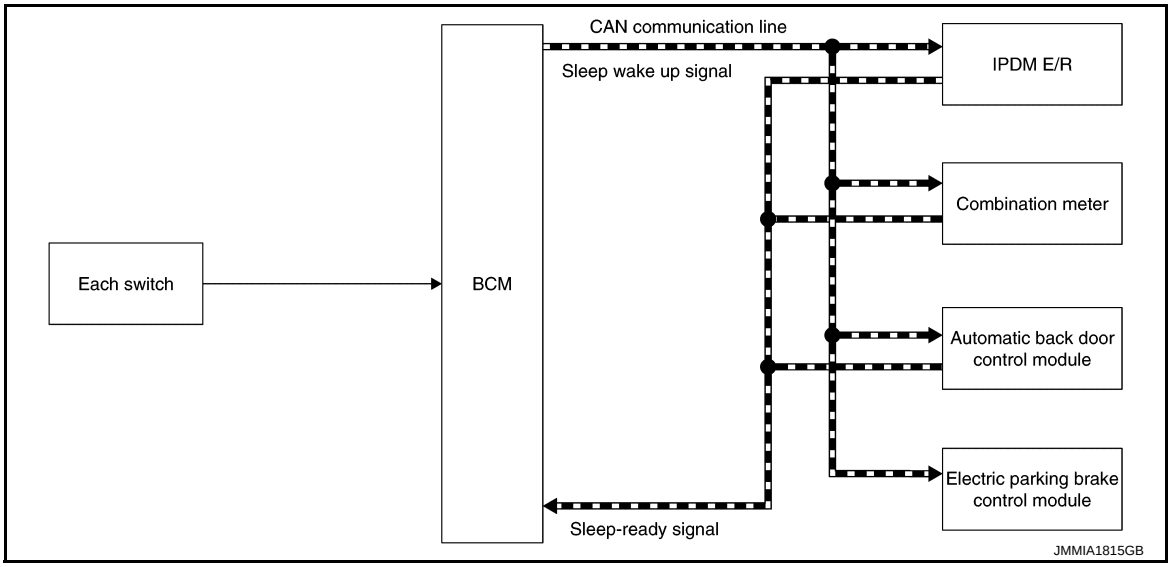
| Signal name | Input | Output | Description |
|---|---|---|---|
| Ignition switch ON signal | Push-button ignition switch (Push switch) (with Intelligent Key system) | • Automatic back door control module (CAN)<br>• IPDM E/R (CAN) | Inputs the push-button ignition switch (push switch) signal and transmits the ignition switch status judged with BCM via CAN communication. |
| | Ignition switch (without Intelligent Key system) | | Inputs the ignition switch signal and transmits the ignition switch status judged with BCM via CAN communication. |
| Door switch signal | Any door switch | • Around view monitor control unit (CAN)<br>• Combination meter (CAN) | Inputs the door switch signal and transmits it via CAN communication. |

## POWER CONSUMPTION CONTROL SYSTEM

# POWER CONSUMPTION CONTROL SYSTEM : System Description

INFOID:0000000010688580

## SYSTEM DIAGRAM




## OUTLINE

- BCM incorporates a power saving control function that reduces the power consumption according to the vehicle status.
- BCM switches the status (control mode) by itself with the power saving control function. It performs the sleep request to each unit (IPDM E/R, combination meter, automatic back door control module and electric parking brake control module) 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, combination meter and AV control unit via CAN communication.
- BCM transmits the sleep wake up signal (sleep) to each unit when all of the CAN sleep conditions are fulfilled.
- 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*1: LOCK or OFF<br>• Push-button ignition switch (push switch)*2: No change 2 seconds<br>• Warning chime: Not operation<br>• Intelligent Key warning buzzer*2: Not operation<br>• Stop lamp switch: OFF<br>• Turn signal indicator lamp: Not operation<br>• Exterior lamp: OFF<br>• Door lock status: No change<br>• Meter display signal: Non-transmission<br>• Door switch status: No change 2 seconds<br>• Back door opener switch status: No change 2 seconds<br>• Rear window defogger: OFF<br>• RAP system: OFF<br>• CONSULT communication status: Not communication |

*1: Without Intelligent Key system
*2: With Intelligent Key system

## 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.

Wake-up condition

| Wake-up condition |
|---|
| • Receiving the sleep-ready signal (Not-ready) from any units<br>• Ignition switch*1: OFF → ON or START<br>• Key switch*1: OFF → ON, ON → OFF<br>• Push-button ignition switch (push switch)*2: OFF→ ON<br>• Hazard switch: OFF → ON, ON → OFF<br>• HI BEAM switch: OFF → ON, ON → OFF<br>• PASSING switch: OFF → ON, ON → OFF<br>• HEADLAMP switch: OFF → ON, ON → OFF<br>• TAIL LAMP switch: OFF → ON<br>• FR FOG switch: OFF → ON, ON → OFF<br>• RR FOG switch: OFF → ON, ON → OFF<br>• Driver door switch: OFF → ON, ON → OFF<br>• Passenger door switch: OFF → ON, ON → OFF<br>• Rear RH door switch: OFF → ON, ON → OFF<br>• Rear LH door switch: OFF → ON, ON → OFF<br>• Back door switch: OFF → ON, ON → OFF<br>• Driver door request switch: OFF → ON<br>• Passenger door request switch: OFF → ON<br>• Back door opener switch: OFF → ON<br>• Back door opener request switch: OFF → ON<br>• Stop lamp switch: OFF → ON<br>• Front door lock assembly (driver side) (unlock sensor): OFF → ON, ON → OFF<br>• Remote keyless entry receiver communication: Receiving<br>• Door lock and unlock switch: NEUTRAL → LOCK, NEUTRAL → UNLOCK |

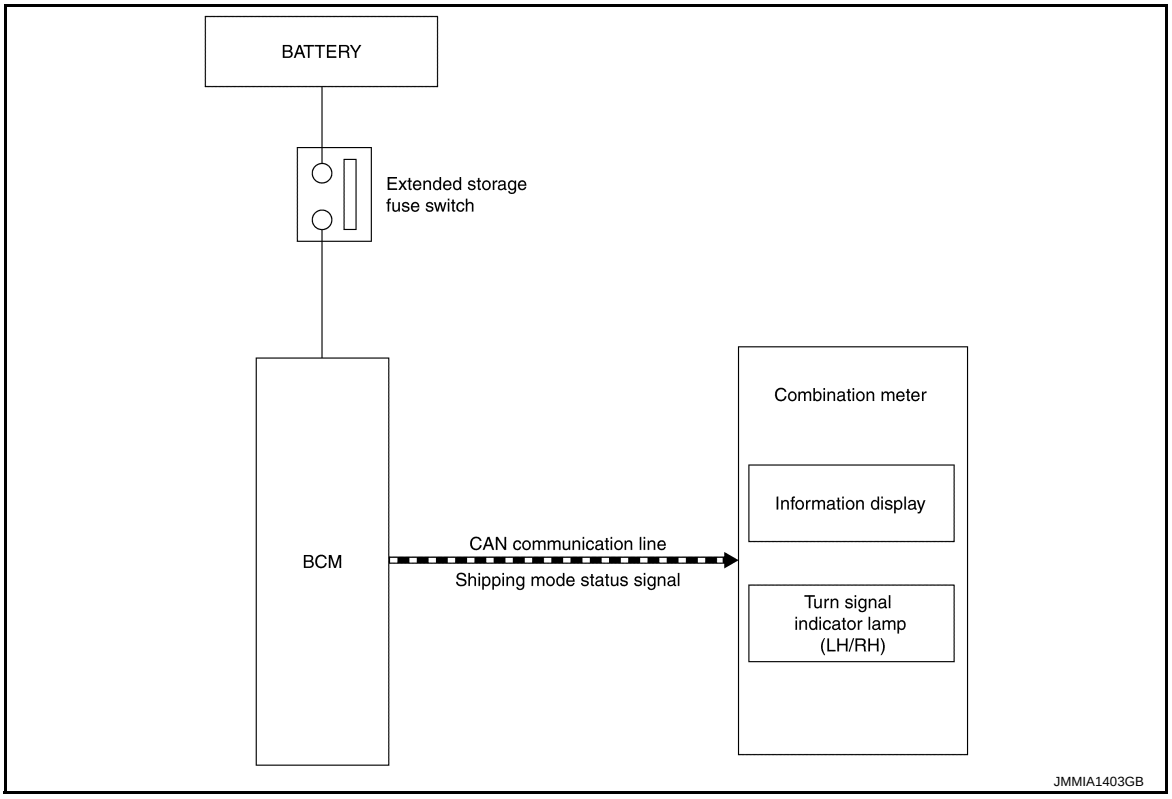
*1: Without Intelligent Key system
*2: With Intelligent Key system

# SHIPPING MODE CONTROL SYSTEM

# SHIPPING MODE CONTROL SYSTEM : System Description

INFOID:0000000010688581

## SYSTEM DIAGRAM




## DESCRIPTION

- BCM switches the status (shipping mode or normal mode) by itself according to the extended storage fuse switch condition, and transmits shipping mode status signal to combination meter and each unit via CAN communication.
- When shipping mode function operates, each control unit does not detect DTCs.
- BCM control functions are limited in shipping mode. Refer to BCS-120, "Description".
- The combination meter displays extended storage fuse warning message* on the information display, and turns the turn signal indicator lamp (LH/RH) ON, when BCM is in shipping mode.

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

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

INFOID:0000000010688582

#### 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.<br>• 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 | | × | × |
| Exterior lamp | HEAD LAMP | × | × | × |
| Interior room lamp control | INT LAMP | | × | |
| Wiper and washer | WIPER | × | × | × |
| Turn signal and hazard warning lamps | FLASHER | × | × | |
| — | AIR CONDITONER* | | × | × |
| Intelligent Key system | INTELLIGENT KEY | × | × | × |
| Combination switch | COMB SW | | × | |
| Body control system | BCM | × | | |
| NVIS - NATS | IMMU | | × | |
| Interior room lamp battery saver | BATTERY SAVER | | × | |
| Back door open | TRUNK | | × | |
| Vehicle security | THEFT ALM | × | × | |
| RAP | RETAINED PWR | | × | |
| Remote keyless entry system | MULTI REMOTE ENT | × | × | |
| Signal buffer system | SIGNAL BUFFER | | × | × |

**NOTE:**
*: This item is displayed, but 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 |
|---|---|---|
| BATTERY VOLTAGE | V | Battery voltage of the moment a particular DTC is detected. |
| VEHICLE SPEED | km/h | Vehicle speed of the moment a particular DTC is detected. |
| EXTERNAL TEMP | °C | External temperature of the moment a particular DTC is detected |
| VEHICLE COND | — | **NOTE:**<br>This item is displayed, but cannot be use this item. |
| DOOR LOCK STATUS | — | **NOTE:**<br>This item is displayed, but cannot be use this item. |
| POWER SUPPLY COUNTER | min | Displays the cumulative time from the time that the battery terminal is connected. |

# DOOR LOCK

## DOOR LOCK : CONSULT Function (BCM - DOOR LOCK) (With Intelligent Key System and Super Lock)

INFOID:0000000011008704

### BCM CONSULT FUNCTION

CONSULT performs the following functions via CAN communication with BCM.

### WORK SUPPORT

| Monitor item | Description |
|---|---|
| DOOR LOCK-UNLOCK SET | Anti-hijack function mode can be changed to operation with this mode<br>• On: Operate<br>• Off: Non-operation |
| AUTO UNLOCK TYPE | **NOTE:**<br>This item is displayed, but cannot be used |
| SIGNATURE LIGHT SETTING | Signature light function can be changed to operation with this mode<br>• On: Operate<br>• Off: Non-operation |

### DATA MONITOR

**NOTE:**

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

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

| Monitor Item | Contents |
|---|---|
| SHOCK SENSOR | **NOTE:**<br>This item is displayed, but cannot be monitored |
| KEY SW | **NOTE:**<br>This item is displayed, but cannot be monitored |

## ACTIVE TEST

| Test item | Description |
|---|---|
| DOOR LOCK | This test is able to check door lock/unlock operation<br>• The all door lock actuators are locked when “ALL LOCK” on CONSULT screen is touched<br>• The all door lock actuators are unlocked when “ALL UNLK” on CONSULT screen is touched |
| SUPER LOCK | This test is able to check super lock actuator operation<br>• The all door lock actuators are set when “LOCK” on CONSULT screen is touched<br>• The all door lock actuators are released when “UNLOCK” on CONSULT screen is touched |
| DOOR LOCK IND | This test is able to check door lock status indicator operation<br>• On: Operate<br>• Off: Non-operation |

# DOOR LOCK : CONSULT Function (BCM - DOOR LOCK) (With Intelligent Key System, Without Super Lock)

INFOID:0000000011008705

## BCM CONSULT FUNCTION

CONSULT performs the following functions via CAN communication with BCM.

## WORK SUPPORT

| Monitor item | Description |
|---|---|
| DOOR LOCK-UNLOCK SET | Anti-hijack function mode can be changed to operation with this mode<br>• On: Operate<br>• Off: Non-operation |
| AUTO UNLOCK TYPE | **NOTE:**<br>This item is displayed, but cannot be used |
| SIGNATURE LIGHT SETTING | Signature light function can be changed to operation with this mode<br>• On: Operate<br>• Off: Non-operation |

## DATA MONITOR

**NOTE:**

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

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

| Monitor Item | Contents |
|---|---|
| KEY CYL UN-SW | **NOTE:**<br>This item is displayed, but cannot be monitored |
| SHOCK SENSOR | **NOTE:**<br>This item is displayed, but cannot be monitored |
| KEY SW | **NOTE:**<br>This item is displayed, but cannot be monitored |

### ACTIVE TEST

| Test item | Description |
|---|---|
| DOOR LOCK | This test is able to check door lock/unlock operation<br>• The all door lock actuators are locked when “ALL LOCK” on CONSULT screen is touched<br>• The all door lock actuators are unlocked when “ALL UNLK” on CONSULT screen is touched |
| SUPER LOCK | **NOTE:**<br>This item is displayed, but cannot be used |
| DOOR LOCK IND | **NOTE:**<br>This item is displayed, but cannot be used |

## DOOR LOCK : CONSULT Function (BCM - DOOR LOCK) (Without Intelligent Key System, With Super Lock)

INFOID:0000000011008706

### WORK SUPPORT

| Monitor item | Description |
|---|---|
| DOOR LOCK-UNLOCK SET | Selective unlock function mode can be changed to operation with this mode<br>• On: Operate<br>• Off: Non-operation |
| AUTO UNLOCK TYPE | **NOTE:**<br>This item is displayed, but cannot be used |
| SIGNATURE LIGHT SETTING | Signature light function can be changed to operation with this mode<br>• On: Operate<br>• Off: Non-operation |

### DATA MONITOR

**NOTE:**

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

| Monitor Item | Contents |
|---|---|
| DOOR SW-DR | Indicated [On/Off] condition of front door switch (driver side) |
| DOOR SW-AS | Indicated [On/Off] condition of front door switch (passenger side) |
| DOOR SW-RR | Indicated [On/Off] condition of rear door switch RH |
| DOOR SW-RL | Indicated [On/Off] condition of rear door switch LH |
| DOOR SW-BK | Indicated [On/Off] condition of back door switch |
| CDL LOCK SW | Indicated [On/Off] condition of lock signal from door lock unlock switch |
| CDL UNLOCK SW | Indicated [On/Off] condition of unlock signal from door lock unlock switch |
| KEY CYL LK-SW | **NOTE:**<br>This item is displayed, but cannot be monitored |
| KEY CYL UN-SW | **NOTE:**<br>This item is displayed, but cannot be monitored |
| SHOCK SENSOR | **NOTE:**<br>This item is displayed, but cannot be monitored |
| KEY SW | Indicated [On/Off] condition of key switch |

ACTIVE TEST

| Test item | Description |
|---|---|
| DOOR LOCK | This test is able to check door lock/unlock operation<br>• The all door lock actuators are locked when “ALL LOCK” on CONSULT screen is touched<br>• The all door lock actuators are unlocked when “ALL UNLK” on CONSULT screen is touched |
| SUPER LOCK | This test is able to check super lock actuator operation<br>• The all door lock actuators are set when “LOCK” on CONSULT screen is touched<br>• The all door lock actuators are released when “UNLOCK” on CONSULT screen is touched |
| DOOR LOCK IND | This test is able to check door lock status indicator operation<br>• On: Operate<br>• Off: Non-operation |

## DOOR LOCK : CONSULT Function (BCM - DOOR LOCK) (Without Intelligent Key System and Super Lock)

INFOID:0000000011008707

WORK SUPPORT

| Monitor item | Description |
|---|---|
| DOOR LOCK-UNLOCK SET | Selective unlock function mode can be changed to operation with this mode<br>• On: Operate<br>• Off: Non-operation |
| AUTO UNLOCK TYPE | **NOTE:**<br>This item is displayed, but cannot be used |
| SIGNATURE LIGHT SETTING | Signature light function can be changed to operation with this mode<br>• On: Operate<br>• Off: Non-operation |

DATA MONITOR

**NOTE:**

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

| Monitor Item | Contents |
|---|---|
| DOOR SW-DR | Indicated [On/Off] condition of front door switch (driver side) |
| DOOR SW-AS | Indicated [On/Off] condition of front door switch (passenger side) |
| DOOR SW-RR | Indicated [On/Off] condition of rear door switch RH |
| DOOR SW-RL | Indicated [On/Off] condition of rear door switch LH |
| DOOR SW-BK | Indicated [On/Off] condition of back door switch |
| CDL LOCK SW | Indicated [On/Off] condition of lock signal from door lock unlock switch |
| CDL UNLOCK SW | Indicated [On/Off] condition of unlock signal from door lock unlock switch |
| KEY CYL LK-SW | **NOTE:**<br>This item is displayed, but cannot be monitored |
| KEY CYL UN-SW | **NOTE:**<br>This item is displayed, but cannot be monitored |
| SHOCK SENSOR | **NOTE:**<br>This item is displayed, but cannot be monitored |
| KEY SW | Indicated [On/Off] condition of key switch |

ACTIVE TEST

| Test item | Description |
|---|---|
| DOOR LOCK | This test is able to check door lock/unlock operation<br>• The all door lock actuators are locked when “ALL LOCK” on CONSULT screen is touched<br>• The all door lock actuators are unlocked when “ALL UNLK” on CONSULT screen is touched |
| SUPER LOCK | **NOTE:**<br>This item is displayed, but cannot be monitored |
| DOOR LOCK IND | **NOTE:**<br>This item is displayed, but cannot be monitored |

## MULTI REMOTE ENT

## MULTI REMOTE ENT : CONSULT Function (BCM - MULTI REMOTE ENT) (With Super Lock)

INFOID:0000000011008710

### WORK SUPPORT

| Test item | Description |
|---|---|
| AUTO LOCK SET | Auto door lock time can be changed in this mode<br>• MODE 1: Non-operation<br>• MODE 2: 30 sec.<br>• MODE 3: 1 minute<br>• MODE 4: 2 minute<br>• MODE 5: 3 minute<br>• MODE 6: 4 minute<br>• MODE 7: 5 minute |
| ANSWER BACK | **NOTE:**<br>This item is displayed, but cannot be used |
| ANSWER BACK KEYLESS LOCK UNLOCK | **NOTE:**<br>This item is displayed, but cannot be used |
| WELCOME LIGHT OP SET | **NOTE:**<br>This item is displayed, but cannot be used |

### DATA MONITOR

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

| Monitor Item | Condition |
|---|---|
| CONFRM ID ALL | Indicates [Yet] at all time.Switches to [Done] when a registered key is inserted into ignition key cylinder. |
| CONFRM ID4 | |
| CONFRM ID3 | |
| CONFRM ID2 | |
| CONFRM ID1 | |
| NOT REGISTERED | Indicates [ID OK] when key ID that is registered is received or is not yet received. Indicates [ID NG] when key ID that is not registered is received. |
| TP 4 | Indicates the number of IDs that are registered. |
| TP 3 | |
| TP 2 | |
| TP 1 | |
| CLUTCH SW*1 | Indicates [On/Off] condition of clutch interlock switch |
| BRAKE SW 1 | Indicates [On/Off]*2 condition of stop lamp switch power supply |
| BRAKE SW 2 | Indicates [On/Off] condition of stop lamp switch |
| START CLUTCH SW | Indicates [On/Off] condition of clutch pedal position switch |

| Monitor Item | Condition |
|---|---|
| DOOR STAT-DR | Indicates [LOCK/READY/UNLK] condition of driver door status |
| DOOR STAT-AS | Indicates [LOCK/READY/UNLK] condition of passenger door status |
| DOOR STAT-RR | Indicates [LOCK/READY/UNLK] condition of rear door RH status |
| DOOR STAT-RL | Indicates [LOCK/READY/UNLK] condition of rear door LH status |
| BK DOOR STATE | **NOTE:**<br>This item is displayed, but cannot be monitored |
| STOP/START SW | Indicates [On/Off] condition of stop/start off switch |
| RKE-LOCK | Indicates [On/Off] condition of LOCK signal from keyfob |
| RKE-UNLOCK | Indicates [On/Off] condition of UNLOCK signal from keyfob |
| RKE-TR/BD | **NOTE:**<br>This item is displayed, but cannot be monitored |
| RKE-PANIC | **NOTE:**<br>This item is displayed, but cannot be monitored |
| RKE-MODE CHG | Indicates [On/Off] condition of MODE CHANGE signal from keyfob |
| KEY SW | Indicates [On/Off] condition of key switch |
| IGN SW | Indicates [On/Off] condition of ignition switch in ON position |
| START SW | Indicates [On/Off] condition of ignition switch in START position |

*1: It is displayed but does not operate on CVT models.

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

## ACTIVE TEST

| Test item | Description |
|---|---|
| FLASHER | This test is able to check flasher operation [LH/RH/Off] |
| HORN | **NOTE:**<br>This item is displayed, but cannot be used |
| IGN CONT2 | This test is able to operate the blower relay in fuse block (J/B)<br>• On: Operates<br>• Off: Non-operation |
| MIRROR+5 | **NOTE:**<br>This item is displayed, but cannot be used |
| TRUNK/BACK DOOR | **NOTE:**<br>This item is displayed, but cannot be used |
| RETRACTABLE MIRROR | **NOTE:**<br>This item is displayed, but cannot be used |
| AUTO ACC 2 | This test is able to check BCM sends power supply to audio unit or NAVI control unit<br>• On: Operate<br>• Off: Non-operation |
| AUTO ACC 1 | This test is able to check BCM sends power supply to ignition relay<br>• On: Operate<br>• Off: Non-operation |
| TRUNK/LUGGAGE LAMP TEST | This test is able to check trunk/luggage room lamp operation<br>• On: Operates<br>• Off: Non-operation |

# MULTI REMOTE ENT : CONSULT Function (BCM - MULTI REMOTE ENT) (Without Super Lock)

INFOID:0000000011008713

## WORK SUPPORT

| Test item | Description |
|---|---|
| AUTO LOCK SET | Auto door lock time can be changed in this mode<br>• MODE 1: Non-operation<br>• MODE 2: 30 sec.<br>• MODE 3: 1 minute<br>• MODE 4: 2 minute<br>• MODE 5: 3 minute<br>• MODE 6: 4 minute<br>• MODE 7: 5 minute |
| ANSWER BACK | **NOTE:**<br>This item is displayed, but cannot be used |
| ANSWER BACK KEYLESS LOCK UNLOCK | **NOTE:**<br>This item is displayed, but cannot be used |
| WELCOME LIGHT OP SET | **NOTE:**<br>This item is displayed, but cannot be used |

## DATA MONITOR

**NOTE:**

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

| Monitor Item | Condition |
|---|---|
| CONFRM ID ALL | Indicates [Yet] at all time.Switches to [Done] when a registered key is inserted into ignition key cylinder. |
| CONFRM ID4 | |
| CONFRM ID3 | |
| CONFRM ID2 | |
| CONFRM ID1 | |
| NOT REGISTERED | Indicates [ID OK] when key ID that is registered is received or is not yet received. Indicates [ID NG] when key ID that is not registered is received. |
| TP 4 | Indicates the number of IDs that are registered. |
| TP 3 | |
| TP 2 | |
| TP 1 | |
| CLUTCH SW*1 | Indicates [On/Off] condition of clutch interlock switch |
| BRAKE SW 1 | Indicates [On/Off]*2 condition of stop lamp switch power supply |
| BRAKE SW 2 | Indicates [On/Off] condition of stop lamp switch |
| START CLUTCH SW | Indicates [On/Off] condition of clutch pedal position switch |
| DOOR STAT-DR | Indicates [LOCK/READY/UNLK] condition of driver door status |
| DOOR STAT-AS | Indicates [LOCK/READY/UNLK] condition of passenger door status |
| DOOR STAT-RR | Indicates [LOCK/READY/UNLK] condition of rear door RH status |
| DOOR STAT-RL | Indicates [LOCK/READY/UNLK] condition of rear door LH status |
| BK DOOR STATE | **NOTE:**<br>This item is displayed, but cannot be monitored |
| STOP/START SW | Indicates [On/Off] condition of stop/start off switch |
| RKE-LOCK | Indicates [On/Off] condition of LOCK signal from keyfob |
| RKE-UNLOCK | Indicates [On/Off] condition of UNLOCK signal from keyfob |
| RKE-TR/BD | **NOTE:**<br>This item is displayed, but cannot be monitored |
| RKE-PANIC | **NOTE:**<br>This item is displayed, but cannot be monitored |
| RKE-MODE CHG | Indicates [On/Off] condition of MODE CHANGE signal from keyfob |

| Monitor Item | Condition |
|---|---|
| KEY SW | Indicates [On/Off] condition of key switch |
| IGN SW | Indicates [On/Off] condition of ignition switch in ON position |
| START SW | Indicates [On/Off] condition of ignition switch in START position |

*1: It is displayed but does not operate on CVT models.

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

## ACTIVE TEST

| Test item | Description |
|---|---|
| FLASHER | This test is able to check flasher operation [LH/RH/Off] |
| HORN | **NOTE:**<br>This item is displayed, but cannot be used |
| IGN CONT2 | This test is able to operate the blower relay in fuse block (J/B)<br>• On: Operates<br>• Off: Non-operation |
| MIRROR+5 | **NOTE:**<br>This item is displayed, but cannot be used |
| TRUNK/BACK DOOR | **NOTE:**<br>This item is displayed, but cannot be used |
| RETRACTABLE MIRROR | **NOTE:**<br>This item is displayed, but cannot be used |
| AUTO ACC 2 | This test is able to check BCM sends power supply to audio unit or NAVI control unit<br>• On: Operate<br>• Off: Non-operation |
| AUTO ACC 1 | This test is able to check BCM sends power supply to ignition relay<br>• On: Operate<br>• Off: Non-operation |
| TRUNK/LUGGAGE LAMP TEST | This test is able to check trunk/luggage room lamp operation<br>• On: Operates<br>• Off: Non-operation |

# REAR WINDOW DEFOGGER

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

INFOID:0000000011008741

## WORK SUPPORT

| Service item | Setting item | Description |
|---|---|---|
| SET R-DEF TIMER | MODE1* | **NOTE:**<br>Do not use this function. |
| | MODE2 | |
| | MODE3 | |

*: Factory setting

## DATA MONITOR

**NOTE:**

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

| Monitor Item | Description |
|---|---|
| PUSH SW | Indicates [On/Off] condition of push switch |
| REAR DEF SW | Displays “Press (On)/other (Off)” status determined with the rear window defogger switch |

## ACTIVE TEST

| Test Item | Description |
|---|---|
| REAR DEFOGGER | Rear window defogger operates when “On” on CONSULT screen is touched |

# BUZZER

## BUZZER : CONSULT Function (BCM - BUZZER)

INFOID:0000000011008744

### DATA MONITOR

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

| Display item [Unit] | Description |
|---|---|
| PUSH SW [On/Off] | Status of push-button ignition switch judged by BCM. |
| 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 |
|---|---|
| IGN KEY WARN ALM | The key warning chime operation can be checked by operating the relevant function (On/Off). |
| SEAT BELT WARN TEST | This item is displayed, but cannot be monitored. |
| LIGHT WARN ALM | The light warning chime operation can be checked by operating the relevant function (On/Off). |
| REVERSE WARNING | This item is displayed, but cannot be monitored. |

**NOTE:**
Some items are not available according to vehicle specification.

# INT LAMP

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

INFOID:0000000011008729

### WORK SUPPORT

| Service item | Setting item | Setting |
|---|---|---|
| SET I/L D-UNLCK INTCON | On* | With interior room lamp timer function |
| | Off | Without interior room lamp timer function |
| FOG LAMP OVERRIDE | On* | With fog override function |
| | Off | Without fog override function |

*: Factory setting

### DATA MONITOR

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

| Monitor item [Unit] | Description |
|---|---|
| REQ SW-DR [On/Off] | Indicated [On/Off] condition of door request switch (driver side) |
| REQ SW-AS [On/Off] | Indicated [On/Off] condition of door request switch (passenger side) |
| PUSH SW [On/Off] | Indicates [On/Off] condition of push-button ignition switch |
| DOOR SW-DR [On/Off] | Indicated [On/Off] condition of front door switch (driver side) |
| DOOR SW-AS [On/Off] | Indicated [On/Off] condition of front door switch (passenger side) |
| DOOR SW-RR [On/Off] | Indicated [On/Off] condition of rear door switch RH |
| DOOR SW-RL [On/Off] | Indicated [On/Off] condition of rear door switch LH |
| DOOR SW-BK [On/Off] | Indicated [On/Off] condition of back door switch |
| CDL LOCK SW [On/Off] | Indicated [On/Off] condition of lock signal from door lock and unlock switch |
| CDL UNLOCK SW [On/Off] | Indicated [On/Off] condition of unlock signal from door lock and unlock switch |
| KEY CYL LK-SW [On/Off] | **NOTE:** This item is displayed, but cannot be monitored |
| KEY CYL UN-SW [On/Off] | **NOTE:** This item is displayed, but cannot be monitored |
| RKE-LOCK [On/Off] | Indicates [On/Off] condition of LOCK signal from Intelligent Key or keyfob |
| RKE-UNLOCK [On/Off] | Indicates [On/Off] condition of UNLOCK signal from Intelligent Key or keyfob |
| KEY SW [On/Off] | Indicates [On/Off] condition of key switch |

## ACTIVE TEST

| Test item | Operation | Description |
|---|---|---|
| INT LAMP | On | Outputs interior room lamp control signal. |
| | Off | Stops interior room lamp control signal. |

# HEADLAMP

## HEADLAMP : CONSULT Function (BCM - HEAD LAMP) (LED Headlamp) INFOID:0000000011010965

### WORK SUPPORT

| Service item | Setting item | Setting |
|---|---|---|
| CUSTOM A/LIGHT SETTING | MODE1* | Normal |
| | MODE2 | More sensitive setting than normal setting (Turns ON earlier than normal operation) |
| | MODE3 | More sensitive setting than MODE2 (Turns ON earlier than MODE2) |
| | MODE4 | Less sensitive setting than normal setting (Turns ON later than normal operation) |
| TWILIGHT On | MODE1 | **NOTE:** This item is displayed, but cannot be used |
| | MODE2 | |

| Service item | Setting item | Setting |
|---|---|---|
| WIPER LINK | MODE1 | **NOTE:**<br>This item is displayed, but cannot be used |
| | MODE2 | |
| | MODE3 | |
| | MODE4 | |

*: Factory setting

## DATA MONITOR

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

| Monitor item<br>[Unit] | Description |
|---|---|
| PUSH SW<br>[On/Off] | Indicates [On/Off] condition of push-button ignition switch |
| ENGINE STATE<br>[STOP/STALL/CRANK/RUN] | Indicates [STOP/STALL/CRANK/RUN] condition of engine states |
| VEH SPEED 1<br>[km/h] | Indicates [km/h] condition of vehicle speed signal from combination meter |
| TURN SIGNAL R<br>[On/Off] | Each switch status that BCM judges from the combination switch reading function. |
| TURN SIGNAL L<br>[On/Off] | |
| TAIL LAMP SW<br>[On/Off] | |
| HI BEAM SW<br>[On/Off] | |
| HEADLAMP SW<br>[On/Off] | |
| LIGHT OFF SW<br>[On/Off] | |
| PASSING SW<br>[On/Off] | |
| AUTO LIGHT SW<br>[On/Off] | |
| FR FOG SW<br>[On/Off] | |
| RR FOG SW<br>[On/Off] | |
| DOOR SW-DR<br>[On/Off] | Indicated [On/Off] condition of front door switch (driver side) |
| DOOR SW-AS<br>[On/Off] | Indicated [On/Off] condition of front door switch (passenger side) |
| DOOR SW-RR<br>[On/Off] | Indicated [On/Off] condition of rear door switch RH |
| DOOR SW-RL<br>[On/Off] | Indicated [On/Off] condition of rear door switch LH |
| DOOR SW-BK<br>[On/Off] | Indicated [On/Off] condition of back door switch |
| OPTI SEN (DTCT)<br>[V] | **NOTE:**<br>This item is displayed, but cannot be monitored |

| Monitor item [Unit] | Description |
|---|---|
| OPTI SEN (FILT) [V] | **NOTE:** This item is displayed, but cannot be monitored |
| OPTICAL SENSOR [On/Off/NG] | The sensor condition received from light & rain sensor |

## ACTIVE TEST

| Test item | Operation | Description |
|---|---|---|
| FR FOG LAMP | On | • Transmits the front fog light request signal to IPDM E/R via CAN communication to turn the front fog lamp ON<br>• Transmits the front fog light request signal to combination meter via CAN communication to turn the front fog lamp indicator lamp ON |
| | Off | Stops the front fog light request signal transmission |
| RR FOG LAMP | On | • Outputs voltage to turn the rear fog lamp ON<br>• Transmits the rear fog lamp status signal to combination meter via CAN communication to turn the rear fog lamp indicator lamp ON |
| | Off | • Stops the voltage to turn the rear fog lamp OFF<br>• Stops the rear fog lamp status signal transmission |
| STOP LAMP 1 | On | Outputs voltage to turn the stop lamp RH ON |
| | Off | Stops the voltage to turn the stop lamp RH OFF |
| STOP LAMP 2 | On | Outputs voltage to turn the stop lamp LH ON |
| | Off | Stops the voltage to turn the stop lamp LH OFF |
| STOP LAMP 3 | On | Outputs voltage to turn the high-mounted stop lamp ON |
| | Off | Stops the voltage to turn the high-mounted stop lamp OFF |
| DAYTIME RUNNING LIGHT | On | Transmits the daytime running light request signal to IPDM E/R using CAN communication to turn the daytime running light ON |
| | Off | Stops the daytime running light request signal transmission |
| ILL DIM SIGNAL* | On | Transmits the dimmer signal to NAVI control unit and dims display |
| | Off | Stops the dimmer signal transmission |

*: For models without navigation, this item is displayed, but cannot be tested.

## HEADLAMP : CONSULT Function (BCM - HEAD LAMP) (Halogen Headlamp)

*INFOID:0000000011008727*

### WORK SUPPORT

| Service item | Setting item | Setting |
|---|---|---|
| CUSTOM A/LIGHT SETTING | MODE1* | Normal |
| | MODE2 | More sensitive setting than normal setting (Turns ON earlier than normal operation) |
| | MODE3 | More sensitive setting than MODE2 (Turns ON earlier than MODE2) |
| | MODE4 | Less sensitive setting than normal setting (Turns ON later than normal operation) |
| TWILIGHT On | MODE1 | **NOTE:** This item is displayed, but cannot be used |
| | MODE2 | |
| WIPER LINK | MODE1 | **NOTE:** This item is displayed, but cannot be used |
| | MODE2 | |
| | MODE3 | |
| | MODE4 | |

*: Factory setting

### DATA MONITOR

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

| Monitor item [Unit] | Description |
|---|---|
| PUSH SW [On/Off] | Indicates [On/Off] condition of push-button ignition switch |
| ENGINE STATE [STOP/STALL/CRANK/RUN] | Indicates [STOP/STALL/CRANK/RUN] condition of engine states |
| VEH SPEED 1 [km/h] | Indicates [km/h] condition of vehicle speed signal from combination meter |
| 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] | |
| HEADLAMP SW [On/Off] | |
| LIGHT OFF SW [On/Off] | |
| PASSING SW [On/Off] | |
| AUTO LIGHT SW*1 [On/Off] | |
| FR FOG SW*2 [On/Off] | |
| RR FOG SW [On/Off] | |
| DOOR SW-DR [On/Off] | Indicated [On/Off] condition of front door switch (driver side) |
| DOOR SW-AS [On/Off] | Indicated [On/Off] condition of front door switch (passenger side) |
| DOOR SW-RR [On/Off] | Indicated [On/Off] condition of rear door switch RH |
| DOOR SW-RL [On/Off] | Indicated [On/Off] condition of rear door switch LH |
| DOOR SW-BK [On/Off] | Indicated [On/Off] condition of back door switch |
| OPTI SEN (DTCT) [V] | **NOTE:** This item is displayed, but cannot be monitored |
| OPTI SEN (FILT) [V] | **NOTE:** This item is displayed, but cannot be monitored |
| OPTICAL SENSOR*1 [On/Off/NG] | The sensor condition received from light & rain sensor |

*1: For models without auto light system, this item is displayed, but cannot be monitored.
*2: For models without front fog lamp, this item is displayed, but cannot be monitored.

ACTIVE TEST

| Test item | Operation | Description |
|---|---|---|
| FR FOG LAMP*1 | On | • Transmits the front fog light request signal to IPDM E/R via CAN communication to turn the front fog lamp ON<br>• Transmits the front fog light request signal to combination meter via CAN communication to turn the front fog lamp indicator lamp ON |
| | Off | Stops the front fog light request signal transmission |
| RR FOG LAMP | On | • Outputs voltage to turn the rear fog lamp ON<br>• Transmits the rear fog lamp status signal to combination meter via CAN communication to turn the rear fog lamp indicator lamp ON |
| | Off | • Stops the voltage to turn the rear fog lamp OFF<br>• Stops the rear fog lamp status signal transmission |
| STOP LAMP 1 | On | Outputs voltage to turn the stop lamp RH ON |
| | Off | Stops the voltage to turn the stop lamp RH OFF |
| STOP LAMP 2 | On | Outputs voltage to turn the stop lamp LH ON |
| | Off | Stops the voltage to turn the stop lamp LH OFF |
| STOP LAMP 3 | On | Outputs voltage to turn the high-mounted stop lamp ON |
| | Off | Stops the voltage to turn the high-mounted stop lamp OFF |
| DAYTIME RUNNING LIGHT | On | Transmits the daytime running light request signal to IPDM E/R using CAN communication to turn the daytime running light ON |
| | Off | Stops the daytime running light request signal transmission |
| ILL DIM SIGNAL*2 | On | Transmits the dimmer signal to NAVI control unit and dims display |
| | Off | Stops the dimmer signal transmission |

*1: For models without front fog lamp, this item is displayed, but cannot be tested.
*2: For models without navigation, this item is displayed, but cannot be tested.

# WIPER

## WIPER : CONSULT Function - WIPER

INFOID:0000000011008738

### WORK SUPPORT

| Service item | Setting item | Description | |
|---|---|---|---|
| WIPER SPEED SETTING*1 | On*3 | Linked with vehicle speed<br>(Front wiper intermittent time linked with the vehicle speed and wiper volume dial position.) | The setting of front wiper INT operation can be changed. |
| | Off | Not linked with vehicle speed<br>(Front wiper intermittent time linked with the wiper volume dial position.) | |
| RAIN SENSOR*2 | On*3 | Linked with light & rain sensor<br>(Front wiper intermittent time linked with the light & rain sensor, vehicle speed, and wiper volume dial position) | The setting of front wiper AUTO operation can be changed |
| | Off | Not linked with light & rain sensor<br>(Front wiper intermittent time linked with the vehicle speed and wiper volume dial position) | |
| FR RR DRIP | On*3 | Front wiper drop wipe and rear wiper drop wipe operation ON | The setting of drop wipe operation can be changed |
| | Off | Front wiper drop wipe and rear wiper drop wipe operation OFF | |
| REAR WIPER LINK WITH REVERSE SETTING | On | Rear wiper operation linked with reverse ON | The setting of rear wiper operation linked with reverse can be changed |
| | Off*3 | Rear wiper operation linked with reverse OFF | |

*1: For models without light & rain sensor
*2: For models with light & rain sensor
*3: Factory setting

## DATA MONITOR

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

| Monitor Item [Unit] | Description |
|---|---|
| PUSH SW [Off/On] | The switch status input from push-button ignition switch. |
| 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 stop 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. |
| RR WIPER ON [Off/On] | Status of each switch judged by BCM using the combination switch reading function. |
| RR WIPER INT [Off/On] | |
| RR WASHER SW [Off/On] | |
| RR WIPER STOP [Off/On] | Displays the status of the rear wiper stop position signal received from rear wiper motor. |
| H/L WSR SW* [Off/On] | Status of headlamp washer switch judged by BCM. |
| RAIN SENSOR [OFF/LOW/HIGH/SPLASH/NG] | Request signal from light & rain sensor detected by BCM is displayed. |

*: For models without headlamp washer switch, this item is indicated but is not used.

## ACTIVE TEST

| Test item | Operation | Description |
|---|---|---|
| FR WIPER | Hi | Operates the front wiper HI operation. |
| | Lo | Operates the front wiper LO operation. |
| | INT | Operates the front wiper INT/AUTO operation. |
| | Off | Stops the front wiper operation. |
| RR WIPER | On | Operates the rear wiper operation. |
| | Off | Stops the rear wiper operation. |
| HEADLAMP WASHER* | On | Operates the headlamp washer operation. |

*: For models without headlamp washer, this item is indicated but is not used.

# FLASHER

## FLASHER : CONSULT Function (BCM - FLASHER) (LED Headlamp)

INFOID:0000000011010966

### WORK SUPPORT

| Service item | Setting item | Setting |
|---|---|---|
| 3-TIME FLASHER SETTING | On* | With 3-time flasher function |
| | Off | Without 3-time flasher function |

*: Factory setting

DATA MONITOR

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

| Monitor item [Unit] | Description |
|---|---|
| REQ SW -DR [On/Off] | Indicated [On/Off] condition of door request switch (driver side) |
| REQ SW -AS [On/Off] | Indicated [On/Off] condition of door request switch (passenger side) |
| PUSH SW [On/Off] | Indicates [On/Off] condition of 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] | Indicates [On/Off] condition of LOCK signal from Intelligent Key |
| RKE-UNLOCK [On/Off] | Indicates [On/Off] condition of UNLOCK signal from Intelligent Key |
| RKE-PANIC [On/Off] | **NOTE:**<br>This item is displayed, but cannot be monitored |

## FLASHER : CONSULT Function (BCM - FLASHER) (Halogen Headlamp)

INFOID:0000000011008728

WORK SUPPORT

| Service item | Setting item | Setting |
|---|---|---|
| 3-TIME FLASHER SETTING | On* | With 3-time flasher function |
| | Off | Without 3-time flasher function |

*: Factory setting

DATA MONITOR

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

| Monitor item [Unit] | Description |
|---|---|
| REQ SW -DR [On/Off] | Indicated [On/Off] condition of door request switch (driver side) |
| REQ SW -AS [On/Off] | Indicated [On/Off] condition of door request switch (passenger side) |
| PUSH SW [On/Off] | Indicates [On/Off] condition of push-button ignition switch |

| Monitor item [Unit] | Description |
|---|---|
| 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] | Indicates [On/Off] condition of LOCK signal from Intelligent Key or keyfob |
| RKE-UNLOCK [On/Off] | Indicates [On/Off] condition of UNLOCK signal from Intelligent Key or keyfob |
| RKE-PANIC [On/Off] | **NOTE:** This item is displayed, but cannot be monitored |

# INTELLIGENT KEY

## INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY) (With Super Lock)

INFOID:0000000011008715

### 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<br>• On: Operate<br>• Off: Non-operation |
| ENGINE START BY I-KEY | Engine start function mode can be changed to operation with this mode<br>• On: Operate<br>• Off: Non-operation |
| TRUNK/GLASS HATCH OPEN | **NOTE:** This item is displayed, but cannot be monitored |
| AUTO LOCK SET | Auto door lock operation time can be changed in this mode<br>• MODE 1: OFF<br>• MODE 2: 30 sec<br>• MODE 3: 1 minute<br>• MODE 4: 2 minutes<br>• MODE 5: 3 minutes<br>• MODE 6: 4 minutes<br>• MODE 7: 5 minutes |
| SHORT CRANKING OUTPUT | **NOTE:** This item is displayed, but cannot be monitored |
| IGN/ACC BATTERY SAVER | Ignition battery saver system mode can be changed to operation with this mode<br>• On: Operate<br>• Off: Non-operation |
| ANSWER BACK | **NOTE:** This item is displayed, but cannot be used |
| ANSWER BACK I-KEY LOCK UNLOCK | **NOTE:** This item is displayed, but cannot be monitored |
| ANSWER BACK KEYLESS LOCK UNLOCK | **NOTE:** This item is displayed, but cannot be monitored |

### SELF-DIAG RESULT

Refer to BCS-78, "DTC Index".

### DATA MONITOR

**NOTE:**

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

| Monitor Item | Condition |
|---|---|
| REQ SW -DR | Indicates [On/Off] condition of door request switch (driver side) |
| REQ SW -AS | Indicates [On/Off] condition of door request switch (passenger side) |
| REQ SW -BD/TR | Indicates [On/Off] condition of back door request switch |
| PUSH SW | Indicates [On/Off] condition of push-button ignition switch |
| CLUTCH SW*1 | Indicates [On/Off] condition of clutch interlock switch |
| BRAKE SW 1 | Indicates [On/Off]*2 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 |
| START CLUTCH SW | Indicates [On/Off] condition of clutch pedal position switch |
| PUSH SW -IPDM | Indicates [On/Off] condition of push-button ignition switch |
| IGN RLY1 -F/B | Indicates [On/Off] condition of ignition relay 1 |
| NEUTRAL SW - IPDM | Indicates [On/Off] condition of reverse/neutral position switch |
| SFT PN -IPDM | Indicates [On/Off] condition of P or N position |
| STARTER RELAY - IPDM | Indicates [On/Off] condition of starter relay |
| ENGINE STATE | Indicates [Stop/Stall/Crank/Run] condition of engine states |
| ST/INHIRELAY-IPDM | Display the starter relay/starter control relay status signal from IPDM E/R via CAN communication |
| REVERSE SIGNAL - IPDM | Indicates [On/Off] condition of R position |
| CRANKING PERMIT - ECM | Display the engine cranking permit signal from ECM via CAN communication |
| IS STATUS - ECM | Indicates [On/Off] condition of stop/start system |
| STARTER CUT RELAY - ECM | Indicates [On/Off] condition of starter control relay signal from ECM via CAN communication |
| 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 actuator and electric unit (control unit) by numerical value [Km/h] |
| IGN REQ - IPDM | Display the ignition request signal from IPDM E/R via CAN communication |
| STARTER REQ - IPDM | Display the starter request signal from IPDM E/R via CAN communication |
| DOOR STAT-DR | Indicates [LOCK/READY/UNLK] condition of driver door status |
| DOOR STAT-AS | Indicates [LOCK/READY/UNLK] condition of passenger door status |
| DOOR STAT-RR | Indicates [LOCK/READY/UNLK] condition of rear door RH status |
| DOOR STAT-RL | Indicates [LOCK/READY/UNLK] condition of rear door LH status |
| BK DOOR STATE | **NOTE:**<br>This item is displayed, but cannot be monitored |
| ID OK FLAG | Indicates [Set/Reset] condition of Intelligent Key ID |
| PRMT ENG STRT | Indicates [Set/Reset] condition of engine start possibility |
| PRMT RKE STRT | **NOTE:**<br>This item is displayed, but cannot be monitored |
| I-KEY OK FLAG | Indicates [KEY On/NOT On] condition of Intelligent Key ID and Intelligent Key is detected inside vehicle |
| PRBT ENG STRT | Indicates whether or not the engine is in start prohibited status |
| ID AUTHENT CANCEL TIMER | Indicates whether or not it is in engine start possible status when Intelligent Key verification is unnecessary |
| ACC BATTERY SAVER | Indicates [On/Off] whether or not ignition battery saver is in operation |
| CRNK PRBT TMR | Indicates [On/Off] whether or not in cranking prohibited status due to starter motor protection function operation |

| Monitor Item | Condition |
|---|---|
| AUT CRANK TMR | Indicates [On/Off] whether or not in AUTO CRANKING MODE status |
| CRNK PRBT TME | Indicates the time for changing from cranking prohibited status to cranking possible status |
| AUT CRANK TMR | Indicates the time that AUTO CRANKING MODE operates |
| CRANKING TME | Indicates the cranking operation time |
| SHORT CRANK | **NOTE:**<br>This item is displayed, but not used |
| 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:**<br>This item is displayed, but cannot be monitored |
| S/L IGN OFF POSITION | Indicates [On/Off] condition of Ignition OFF signal |
| S/L SENSOR CIRCUIT 1 | Indicates [Gnd/On] condition of steering lock unit sensor circuit |
| S/L SENSOR CIRCUIT 2 | Indicates [On/Off] condition of steering lock unit sensor circuit |
| S/L POWER OUTPUT | Indicates [On/Off] condition of steering lock unit power supply |
| S/L POWER CHECK | Indicates [On/Off] condition of steering lock unit power supply |
| ANTICIPATED POWER | Indicates [On/Off] condition of anticipated power supply |
| S/L LOCK REQ | Indicates [On/Off] condition of steering lock unit lock request signal |
| S/L - BCM (CAN) | Indicates [On/Off] condition of CAN communication |
| S/L POWER ERROR | Indicates [On/Off] condition of steering lock unit power supply error |
| VEH SPEED ERROR (S/L) | Indicates [On/Off] condition of vehicle speed signal |
| VEH SPEED NORMAL (S/L) | Indicates [On/Off] condition of vehicle speed signal |
| ENGINE RUNNING (S/L) | Indicates [On/Off] condition of engine running |
| S/L ID DISCORD | Indicates [Correct/Incorrect] condition of ID verification |
| S/L ANTI-SCAN MODE | Indicates [On/Off] condition of antiscan mode |
| S/L LOCK NOT PERMIT | Indicates [Inhibition/No inhbt] condition of inhibit steering lock |
| S/L UNLOCK (CAN) | Indicates [Finished/Unfinished] condition of steering lock unit unlock |
| S/L ID STATUS (CAN) | Indicates [Coded/Blank] condition of registration ID |
| S/L RESET STATUS (CAN) | Indicates [Exit/No exit] condition of steering lock unit reset signal |
| S/L LO-LEVEL MALFUNC (CAN) | Indicates [Malf/No malf] condition of lo-level malfunction |
| S/L LOCK POSITION (CAN) | Indicates [Armed/Malf/Unlocked/Undefined] condition of lock/unlock position signal |
| S/L ACT MALFUNCTION (CAN) | Indicates [Malf/No malf] condition of steering lock unit malfunction |
| S/L HI-LEVEL MALFUNC (CAN) | Indicates [Malf/No malf] condition of hi-level malfunction |
| S/L OPERATION PRHBT (SPD) | Indicates [On/Off] condition of vehicle speed signal |
| S/L OPERATION PRHBT (PWR) | Indicates [Allowed/Forbid] condition of safety line inhibition |
| S/L SENSOR POWER (CAN) | Indicates [On/Off] condition of sensor test power supply |
| S/L SEN TEST PERMIT (CAN) | Indicates [Forbid/Authorize] condition of sensor test |
| S/L STAT NOT DETECT (CAN) | Indicates [Ok/Undefind] condition of steering lock undefined position signal |
| S/L LOCKING FINISHED (CAN) | Indicates [Unfinshd/Finished] condition of steering lock unit lock status signal |
| STOP/START SW | Indicates [On/Off] condition of stop/start off 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 | **NOTE:**<br>This item is displayed, but cannot be monitored |
| RKE-PANIC | **NOTE:**<br>This item is displayed, but cannot be monitored |

| Monitor Item | Condition |
|---|---|
| RKE-MODE CHG | Indicates [On/Off] condition of MODE CHANGE signal from Intelligent Key |
| RKE PBD | Indicates [On/Off] condition of back door open request signal from Intelligent Key |
| KEY SW | **NOTE:**<br>This item is displayed, but cannot be monitored |
| IGN SW | **NOTE:**<br>This item is displayed, but cannot be monitored |
| START SW | **NOTE:**<br>This item is displayed, but cannot be monitored |

*1: It is displayed but does not operate on CVT models.

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

## ACTIVE TEST

| Test item | Description |
|---|---|
| OUTSIDE BUZZER | This test is able to check Intelligent Key warning buzzer operation<br>• On: Operate<br>• Off: Non-operation |
| INSIDE BUZZER | This test is able to check warning chime in combination meter operation<br>• Buzzer 1: Combination meter buzzer sounds (pipipi...) when CONSULT screen is touched<br>• Buzzer 2: Combination meter buzzer sounds (pipi-pipi-...) when CONSULT screen is touched<br>• Buzzer 3: Combination meter buzzer sounds (pipipipi-pipipipi-...) when CONSULT screen is touched<br>• Off: Non-operation |
| INDICATOR | This test is able to check warning lamp operation<br>• KEY ON: [Intelligent Key system malfunction] displays when CONSULT screen is touched<br>• KEY IND: “KEY” Warning lamp blinks when CONSULT screen is touched<br>• Off: Non-operation |
| FLASHER | This test is able to check security hazard lamp operation<br>The hazard lamps are activated after “LH/RH/Off” on CONSULT screen is touched |
| HORN | **NOTE:**<br>This item is displayed, but cannot be used |
| IGN CONT2 | This test is able to operate the blower relay in fuse block (J/B)<br>• On: Operates<br>• Off: Non-operation |
| ENGINE SW ILLUMI | This test is able to check push-ignition switch illumination operation<br>Push-ignition switch illumination illuminates when “ON” on CONSULT screen is touched |
| ENGINE START REQUEST | This test is able to check BCM sends starter request signal to IPDM E/R via CAN communication<br>• MODE 1: IGN ON, START request OFF<br>• MODE 2: IGN OFF, START request ON<br>• MODE 3: IGN ON, START request ON<br>• Off: Non-operation |
| IGNITION RELAY | **NOTE:**<br>This item is displayed, but cannot be used |
| STARTER CUT RELAY | This test is able to operate the starter control relay<br>• On: Operates<br>• Off: Non-operation |
| ENGINE START | **NOTE:**<br>This item is displayed, but cannot be used |
| TRUNK/BACK DOOR | **NOTE:**<br>This item is displayed, but cannot be used |
| RETRACTABLE MIRROR | **NOTE:**<br>This item is displayed, but cannot be used |

| Test item | Description |
|---|---|
| AUTO ACC 2 | This test is able to check BCM sends power supply to audio unit or NAVI control unit<br>• On: Operate<br>• Off: Non-operation |
| AUTOMATIC BACK DOOR | **NOTE:**<br>This item is displayed, but cannot be used |
| AUTO ACC 1 | This test is able to check BCM sends power supply to ignition relay<br>• On: Operate<br>• Off: Non-operation |
| TRUNK/LUGGAGE LAMP TEST | This test is able to check trunk/luggage room lamp operation<br>• On: Operates<br>• Off: Non-operation |

## INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY) (Without Super Lock)

INFOID:0000000011008716

### 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<br>• On: Operate<br>• Off: Non-operation |
| ENGINE START BY I-KEY | Engine start function mode can be changed to operation with this mode<br>• On: Operate<br>• Off: Non-operation |
| TRUNK/GLASS HATCH OPEN | **NOTE:**<br>This item is displayed, but cannot be monitored |
| AUTO LOCK SET | Auto door lock operation time can be changed in this mode<br>• MODE 1: OFF<br>• MODE 2: 30 sec<br>• MODE 3: 1 minute<br>• MODE 4: 2 minutes<br>• MODE 5: 3 minutes<br>• MODE 6: 4 minutes<br>• MODE 7: 5 minutes |
| SHORT CRANKING OUTPUT | **NOTE:**<br>This item is displayed, but cannot be monitored |
| IGN/ACC BATTERY SAVER | Ignition battery saver system mode can be changed to operation with this mode<br>• On: Operate<br>• Off: Non-operation |
| ANSWER BACK | **NOTE:**<br>This item is displayed, but cannot be used |
| ANSWER BACK I-KEY LOCK UN-LOCK | **NOTE:**<br>This item is displayed, but cannot be used |
| ANSWER BACK KEYLESS LOCK UNLOCK | **NOTE:**<br>This item is displayed, but cannot be used |

### SELF-DIAG RESULT

Refer to BCS-78, "DTC Index".

### DATA MONITOR

**NOTE:**

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

| Monitor Item | Condition |
|---|---|
| REQ SW -DR | Indicates [On/Off] condition of door request switch (driver side) |
| REQ SW -AS | Indicates [On/Off] condition of door request switch (passenger side) |
| REQ SW -BD/TR | Indicates [On/Off] condition of back door request switch |
| PUSH SW | Indicates [On/Off] condition of push-button ignition switch |
| CLUTCH SW*1 | Indicates [On/Off] condition of clutch interlock switch |
| BRAKE SW 1 | Indicates [On/Off]*2 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 |
| START CLUTCH SW | Indicates [On/Off] condition of clutch pedal position switch |
| PUSH SW -IPDM | Indicates [On/Off] condition of push-button ignition switch |
| IGN RLY1 -F/B | Indicates [On/Off] condition of ignition relay 1 |
| NEUTRAL SW - IPDM | Indicates [On/Off] condition of reverse/neutral position switch |
| SFT PN -IPDM | Indicates [On/Off] condition of P or N position |
| STARTER RELAY - IPDM | Indicates [On/Off] condition of starter relay |
| ENGINE STATE | Indicates [Stop/Stall/Crank/Run] condition of engine states |
| ST/INHIRELAY-IPDM | Display the starter relay/starter control relay status signal from IPDM E/R via CAN communication |
| REVERSE SIGNAL - IPDM | Indicates [On/Off] condition of R position |
| CRANKING PERMIT - ECM | Display the engine cranking permit signal from ECM via CAN communication |
| IS STATUS - ECM | Indicates [On/Off] condition of stop/start system |
| STARTER CUT RELAY - ECM | Indicates [On/Off] condition of starter control relay signal from ECM via CAN communication |
| 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 actuator and electric unit (control unit) by numerical value [Km/h] |
| IGN REQ - IPDM | Display the ignition request signal from IPDM E/R via CAN communication |
| STARTER REQ - IPDM | Display the starter request signal from IPDM E/R via CAN communication |
| DOOR STAT-DR | Indicates [LOCK/READY/UNLK] condition of driver door status |
| DOOR STAT-AS | Indicates [LOCK/READY/UNLK] condition of passenger door status |
| DOOR STAT-RR | Indicates [LOCK/READY/UNLK] condition of rear door RH status |
| DOOR STAT-RL | Indicates [LOCK/READY/UNLK] condition of rear door LH status |
| BK DOOR STATE | **NOTE:**<br>This item is displayed, but cannot be monitored |
| ID OK FLAG | Indicates [Set/Reset] condition of Intelligent Key ID |
| PRMT ENG STRT | Indicates [Set/Reset] condition of engine start possibility |
| PRMT RKE STRT | **NOTE:**<br>This item is displayed, but cannot be monitored |
| I-KEY OK FLAG | Indicates [KEY On/NOT On] condition of Intelligent Key ID and Intelligent Key is detected inside vehicle |
| PRBT ENG STRT | Indicates whether or not the engine is in start prohibited status |
| ID AUTHENT CANCEL TIMER | Indicates whether or not it is in engine start possible status when Intelligent Key verification is unnecessary |
| ACC BATTERY SAVER | Indicates [On/Off] whether or not ignition battery saver is in operation |
| CRNK PRBT TMR | Indicates [On/Off] whether or not in cranking prohibited status due to starter motor protection function operation |
| AUT CRANK TMR | Indicates [On/Off] whether or not in AUTO CRANKING MODE status |
| CRNK PRBT TME | Indicates the time for changing from cranking prohibited status to cranking possible status |

| Monitor Item | Condition |
|---|---|
| AUT CRANK TMR | Indicates the time that AUTO CRANKING MODE operates |
| CRANKING TME | Indicates the cranking operation time |
| SHORT CRANK | **NOTE:**<br>This item is displayed, but not used |
| 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:**<br>This item is displayed, but cannot be monitored |
| S/L IGN OFF POSITION | Indicates [On/Off] condition of Ignition OFF signal |
| S/L SENSOR CIRCUIT 1 | Indicates [Gnd/On] condition of steering lock unit sensor circuit |
| S/L SENSOR CIRCUIT 2 | Indicates [On/Off] condition of steering lock unit sensor circuit |
| S/L POWER OUTPUT | Indicates [On/Off] condition of steering lock unit power supply |
| S/L POWER CHECK | Indicates [On/Off] condition of steering lock unit power supply |
| ANTICIPATED POWER | Indicates [On/Off] condition of anticipated power supply |
| S/L LOCK REQ | Indicates [On/Off] condition of steering lock unit lock request signal |
| S/L - BCM (CAN) | Indicates [On/Off] condition of CAN communication |
| S/L POWER ERROR | Indicates [On/Off] condition of steering lock unit power supply error |
| VEH SPEED ERROR (S/L) | Indicates [On/Off] condition of vehicle speed signal |
| VEH SPEED NORMAL (S/L) | Indicates [On/Off] condition of vehicle speed signal |
| ENGINE RUNNING (S/L) | Indicates [On/Off] condition of engine running |
| S/L ID DISCORD | Indicates [Correct/Incorrect] condition of ID verification |
| S/L ANTI-SCAN MODE | Indicates [On/Off] condition of antiscan mode |
| S/L LOCK NOT PERMIT | Indicates [Inhibition/No inhbt] condition of inhibit steering lock |
| S/L UNLOCK (CAN) | Indicates [Finished/Unfinished] condition of steering lock unit unlock |
| S/L ID STATUS (CAN) | Indicates [Coded/Blank] condition of registration ID |
| S/L RESET STATUS (CAN) | Indicates [Exit/No exit] condition of steering lock unit reset signal |
| S/L LO-LEVEL MALFUNC (CAN) | Indicates [Malf/No malf] condition of lo-level malfunction |
| S/L LOCK POSITION (CAN) | Indicates [Armed/Malf/Unlocked/Undefined] condition of lock/unlock position signal |
| S/L ACT MALFUNCTION (CAN) | Indicates [Malf/No malf] condition of steering lock unit malfunction |
| S/L HI-LEVEL MALFUNC (CAN) | Indicates [Malf/No malf] condition of hi-level malfunction |
| S/L OPERATION PRHBT (SPD) | Indicates [On/Off] condition of vehicle speed signal |
| S/L OPERATION PRHBT (PWR) | Indicates [Allowed/Forbid] condition of safety line inhibition |
| S/L SENSOR POWER (CAN) | Indicates [On/Off] condition of sensor test power supply |
| S/L SEN TEST PERMIT (CAN) | Indicates [Forbid/Authorize] condition of sensor test |
| S/L STAT NOT DETECT (CAN) | Indicates [Ok/Undefind] condition of steering lock undefined position signal |
| S/L LOCKING FINISHED (CAN) | Indicates [Unfinshd/Finished] condition of steering lock unit lock status signal |
| STOP/START SW | Indicates [On/Off] condition of stop/start off 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 | **NOTE:**<br>This item is displayed, but cannot be monitored |
| RKE-PANIC | **NOTE:**<br>This item is displayed, but cannot be monitored |
| RKE-MODE CHG | Indicates [On/Off] condition of MODE CHANGE signal from Intelligent Key |
| RKE PBD | Indicates [On/Off] condition of back door open request signal from Intelligent Key |

| Monitor Item | Condition |
|---|---|
| KEY SW | **NOTE:**<br>This item is displayed, but cannot be monitored |
| IGN SW | **NOTE:**<br>This item is displayed, but cannot be monitored |
| START SW | **NOTE:**<br>This item is displayed, but cannot be monitored |

*1: It is displayed but does not operate on CVT models.

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

## ACTIVE TEST

| Test item | Description |
|---|---|
| OUTSIDE BUZZER | This test is able to check Intelligent Key warning buzzer operation<br>• On: Operate<br>• Off: Non-operation |
| INSIDE BUZZER | This test is able to check warning chime in combination meter operation<br>• Buzzer 1: Combination meter buzzer sounds (pipipi...) when CONSULT screen is touched<br>• Buzzer 2: Combination meter buzzer sounds (pipi-pipi-...) when CONSULT screen is touched<br>• Buzzer 3: Combination meter buzzer sounds (pipipipi-pipipipi-...) when CONSULT screen is touched<br>• Off: Non-operation |
| INDICATOR | This test is able to check warning lamp operation<br>• KEY ON: [Intelligent Key system malfunction] displays when CONSULT screen is touched<br>• KEY IND: “KEY” Warning lamp blinks when CONSULT screen is touched<br>• Off: Non-operation |
| FLASHER | This test is able to check security hazard lamp operation<br>The hazard lamps are activated after “LH/RH/Off” on CONSULT screen is touched |
| HORN | **NOTE:**<br>This item is displayed, but cannot be used |
| IGN CONT2 | This test is able to operate the blower relay in fuse block (J/B)<br>• On: Operates<br>• Off: Non-operation |
| ENGINE SW ILLUMI | This test is able to check push-ignition switch illumination operation<br>Push-ignition switch illumination illuminates when “ON” on CONSULT screen is touched |
| ENGINE START REQUEST | This test is able to check BCM sends starter request signal to IPDM E/R via CAN communication<br>• MODE 1: IGN ON, START request OFF<br>• MODE 2: IGN OFF, START request ON<br>• MODE 3: IGN ON, START request ON<br>• Off: Non-operation |
| IGNITION RELAY | **NOTE:**<br>This item is displayed, but cannot be used |
| STARTER CUT RELAY | This test is able to operate the starter control relay<br>• On: Operates<br>• Off: Non-operation |
| ENGINE START | **NOTE:**<br>This item is displayed, but cannot be used |
| TRUNK/BACK DOOR | **NOTE:**<br>This item is displayed, but cannot be used |
| RETRACTABLE MIRROR | **NOTE:**<br>This item is displayed, but cannot be used |
| AUTO ACC 2 | This test is able to check BCM sends power supply to audio unit or NAVI control unit<br>• On: Operate<br>• Off: Non-operation |

| Test item | Description |
|---|---|
| AUTOMATIC BACK DOOR | **NOTE:**<br>This item is displayed, but cannot be used |
| AUTO ACC 1 | This test is able to check BCM sends power supply to ignition relay<br>• On: Operate<br>• Off: Non-operation |
| TRUNK/LUGGAGE LAMP TEST | This test is able to check trunk/luggage room lamp operation<br>• On: Operates<br>• Off: Non-operation |

# COMB SW

## COMB SW : CONSULT Function (BCM - COMB SW)

INFOID:0000000010688597

### DATA MONITOR

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

| Monitor item [UNIT] | Description |
|---|---|
| FR WIPER HI [Off/On] | Displays the status of the FR WIPER HI switch in combination switch judged by BCM with the combination switch reading function. |
| FR WIPER LOW [Off/On] | Displays the status of the FR WIPER LOW switch in combination switch judged by BCM with the combination switch reading function. |
| FR WASHER SW [Off/On] | Displays the status of the FR WASHER switch in combination switch judged by BCM with the combination switch reading function. |
| FR WIPER INT [Off/On] | Displays the status of the FR WIPER INT/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. |
| RR WIPER ON [Off/On] | Displays the status of the RR WIPER ON switch in combination switch judged by BCM with the combination switch reading function. |
| RR WIPER INT [Off/On] | Displays the status of the RR WIPER INT switch in combination switch judged by BCM with the combination switch reading function. |
| RR WASHER SW [Off/On] | Displays the status of the RR WASHER switch in combination switch judged by BCM with the combination switch reading function. |
| 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 [Off/On] | Displays the status of the HEADLAMP switch in combination switch judged by BCM with the combination switch reading function. |
| LIGHT OFF SW [Off/On] | Displays the status of the LIGHT OFF 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. |

| Monitor item [UNIT] | Description |
|---|---|
| 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] | Displays the status of the RR FOG switch in combination switch judged by BCM with the combination switch reading function. |

# BCM

## BCM : CONSULT Function (BCM - BCM)

INFOID:0000000010688598

### WORK SUPPORT

| Item | Description |
|---|---|
| RESET SETTING VALUE | Return a value set with Work Support of each system to a default value in factory shipment. |
| AUTO ACC FNCTN (AUDIO/NAVI SET AFTER IGN OFF) | Switches the operation of audio and navigation systems between continuous and not continuous after ignition is OFF. |

# IMMU

## IMMU : CONSULT Function (BCM - IMMU) (With Intelligent Key System)

INFOID:0000000011008725

### DATA MONITOR

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

| Monitor item | Content |
|---|---|
| PUSH SW | Indicates [ON/OFF] condition of push-button ignition switch. |

### WORK SUPPORT

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

### ACTIVE TEST

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

## IMMU : CONSULT Function (BCM - IMMU) (Without Intelligent Key System)

INFOID:0000000011008726

### WORK SUPPORT

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

### ACTIVE TEST

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

# BATTERY SAVER

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

INFOID:0000000011008732

### DATA MONITOR

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

| Monitor item [Unit] | Description |
|---|---|
| REQ SW-DR [On/Off] | Indicated [On/Off] condition of door request switch (driver side) |
| REQ SW-AS [On/Off] | Indicated [On/Off] condition of door request switch (passenger side) |
| PUSH SW [On/Off] | Indicates [On/Off] condition of push-button ignition switch |
| DOOR SW-DR [On/Off] | Indicated [On/Off] condition of front door switch (driver side) |
| DOOR SW-AS [On/Off] | Indicated [On/Off] condition of front door switch (passenger side) |
| DOOR SW-RR [On/Off] | Indicated [On/Off] condition of rear door switch RH |
| DOOR SW-RL [On/Off] | Indicated [On/Off] condition of rear door switch LH |
| DOOR SW-BK [On/Off] | Indicated [On/Off] condition of back door switch |
| CDL LOCK SW [On/Off] | Indicated [On/Off] condition of lock signal from door lock and unlock switch |
| CDL UNLOCK SW [On/Off] | Indicated [On/Off] condition of unlock signal from door lock and unlock switch |
| KEY CYL LK-SW [On/Off] | **NOTE:** This item is displayed, but cannot be monitored |
| KEY CYL UN-SW [On/Off] | **NOTE:** This item is displayed, but cannot be monitored |
| RKE-LOCK [On/Off] | Indicates [On/Off] condition of LOCK signal from Intelligent Key or keyfob |
| RKE-UNLOCK [On/Off] | Indicates [On/Off] condition of UNLOCK signal from Intelligent Key or keyfob |
| KEY SW [On/Off] | Indicates [On/Off] condition of key switch |

### ACTIVE TEST

| Test item | Operation | Description |
|---|---|---|
| BATTERY SAVER | ON | Turns interior room lamp relay ON. |
| | OFF | Turns interior room lamp relay OFF. |

# TRUNK

## TRUNK : CONSULT Function (BCM - TRUNK) (With Intelligent Key System and Super Lock)

INFOID:0000000011008719

### DATA MONITOR

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

| Monitor Item | Contents |
|---|---|
| PUSH SW | Indicates [On/Off] condition of push switch |
| STARTER CUT RELAY | Indicates [On/Off] condition of starter control relay |
| DETECTION SENSOR (BK) | **NOTE:**<br>This item is displayed, but cannot be monitored |
| VEH SPEED 1 | Indicates [Km/h] condition of vehicle speed signal from combination meter |
| KEY CYL SW-TR | **NOTE:**<br>This item is displayed, but cannot be monitored |
| TR CANCEL SW | **NOTE:**<br>This item is displayed, but cannot be monitored |
| TRUNK LID OPENER SW | **NOTE:**<br>This item is displayed, but cannot be monitored |
| BACK DOOR OPENER SW | Indicates [On/Off] condition of back door opener switch |
| RKE-TR/BD | **NOTE:**<br>This item is displayed, but cannot be monitored |

## TRUNK : CONSULT Function (BCM - TRUNK) (With Intelligent Key System, Without Super Lock)

INFOID:0000000011008720

### DATA MONITOR

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

| Monitor Item | Contents |
|---|---|
| PUSH SW | Indicates [On/Off] condition of push switch |
| STARTER CUT RELAY | Indicates [On/Off] condition of starter control relay |
| DETECTION SENSOR (BK) | Indicates [On/Off] condition of hands free sensor |
| VEH SPEED 1 | Indicates [Km/h] condition of vehicle speed signal from combination meter |
| KEY CYL SW-TR | **NOTE:**<br>This item is displayed, but cannot be monitored |
| TR CANCEL SW | **NOTE:**<br>This item is displayed, but cannot be monitored |
| TRUNK LID OPENER SW | **NOTE:**<br>This item is displayed, but cannot be monitored |
| BACK DOOR OPENER SW | Indicates [On/Off] condition of back door opener switch |
| RKE-TR/BD | **NOTE:**<br>This item is displayed, but cannot be monitored |

## TRUNK : CONSULT Function (BCM - TRUNK) (Without Intelligent Key System, With Super Lock)

INFOID:0000000011008721

### DATA MONITOR

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

| Monitor Item | Contents |
|---|---|
| STARTER CUT RELAY | Indicates [On/Off] condition of starter control relay |
| KEY CYL SW-TR | **NOTE:**<br>This item is displayed, but cannot be monitored |

| Monitor Item | Contents |
|---|---|
| TR CANCEL SW | **NOTE:**<br>This item is displayed, but cannot be monitored |
| TRUNK LID OPENER SW | **NOTE:**<br>This item is displayed, but cannot be monitored |
| BACK DOOR OPENER SW | Indicates [On/Off] condition of back door opener switch |
| RKE-TR/BD | **NOTE:**<br>This item is displayed, but cannot be monitored |

## TRUNK : CONSULT Function (BCM - TRUNK) (Without Intelligent Key System and Super Lock)

*INFOID:0000000011008722*

### DATA MONITOR

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

| Monitor Item | Contents |
|---|---|
| STARTER CUT RELAY | Indicates [On/Off] condition of starter control relay |
| KEY CYL SW-TR | **NOTE:**<br>This item is displayed, but cannot be monitored |
| TR CANCEL SW | **NOTE:**<br>This item is displayed, but cannot be monitored |
| TRUNK LID OPENER SW | **NOTE:**<br>This item is displayed, but cannot be monitored |
| BACK DOOR OPENER SW | Indicates [On/Off] condition of back door opener switch |
| RKE-TR/BD | **NOTE:**<br>This item is displayed, but cannot be monitored |

## THEFT ALM

## THEFT ALM : CONSULT Function (BCM - THEFT) (With Intelligent Key System)

*INFOID:0000000011008723*

### DATA MONITOR

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

| Monitored Item | Description |
|---|---|
| REQ SW -DR | Indicates [ON/OFF] condition of door request switch (driver side). |
| REQ SW -AS | Indicates [ON/OFF] condition of door request switch (passenger side). |
| REQ SW -BD/TR | Indicates [ON/OFF] condition of back door opener request switch. |
| PUSH SW | Indicates [ON/OFF] condition of push-button ignition switch |
| DOOR SW-DR | Indicates [ON/OFF] condition of front door switch (driver side). |
| DOOR SW-AS | Indicates [ON/OFF] condition of front door switch (passenger side). |
| DOOR SW-RR | Indicates [ON/OFF] condition of rear door switch RH. |
| DOOR SW-RL | Indicates [ON/OFF] condition of rear door switch LH. |
| DOOR SW-BK | Indicates [ON/OFF] condition of back door switch. |
| CDL LOCK SW | Indicates [ON/OFF] condition of lock signal from door lock/unlock switch. |
| CDL UNLOCK SW | Indicates [ON/OFF] condition of unlock signal from door lock/unlock switch. |
| KEY CYL LK-SW | **NOTE:**<br>This item is indicated, but not monitored. |

| Monitored Item | Description |
|---|---|
| KEY CYL UN-SW | **NOTE:**<br>This item is indicated, but not monitored. |
| KEY CYL SW-TR | **NOTE:**<br>This item is indicated, but not monitored. |
| SEN CANCEL SW | Indicates [ON/OFF] condition of sensor cancel 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 | **NOTE:**<br>This item is indicated, but not monitored. |
| KEY SW | **NOTE:**<br>This item is indicated, but not monitored. |

## WORK SUPPORT

| Service Item | Description |
|---|---|
| SECURITY ALARM SET | This mode is able to confirm and change vehicle security alarm ON-OFF setting. |
| SIREN SET | Select the siren function ON or OFF, and siren type.<br>• MODE 1: Without siren<br>• MODE 2: With siren<br>• MODE 3: With external complete protection (with siren)<br>• MODE 4: Without any external protection (with siren)<br>• MODE 5: Without external tilt protection (with siren) |

## ACTIVE TEST

| Test Item | Description |
|---|---|
| SIREN | Activates the self-diagnosis function for siren control unit. |
| VEHICLE SECURITY HORN | **NOTE:**<br>This item is indicated, but not used |
| HEAD LAMP | **NOTE:**<br>This item is indicated, but not used |

# THEFT ALM : CONSULT Function (BCM - THEFT) (Without Intelligent Key System)

*INFOID:0000000011008724*

## DATA MONITOR

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

| Monitored Item | Description |
|---|---|
| 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 | Indicates [ON/OFF] condition of back door switch. |
| CDL LOCK SW | Indicates [ON/OFF] condition of lock signal from door lock/unlock switch. |
| CDL UNLOCK SW | Indicates [ON/OFF] condition of unlock signal from door lock/unlock switch. |
| KEY CYL LK-SW | **NOTE:**<br>This item is indicated, but not monitored. |
| KEY CYL UN-SW | **NOTE:**<br>This item is indicated, but not monitored. |

| Monitored Item | Description |
|---|---|
| KEY CYL SW-TR | **NOTE:**<br>This item is indicated, but not monitored. |
| SEN CANCEL SW | Indicates [ON/OFF] condition of sensor cancel switch. |
| RKE-LOCK | Indicates [ON/OFF] condition of LOCK signal from Keyfob. |
| RKE-UNLOCK | Indicates [ON/OFF] condition of UNLOCK signal from Keyfob. |
| RKE-TR/BD | **NOTE:**<br>This item is indicated, but not monitored. |
| KEY SW | Indicates [ON/OFF] condition of Key switch. |

## WORK SUPPORT

| Service Item | Description |
|---|---|
| SECURITY ALARM SET | This mode is able to confirm and change vehicle security alarm ON-OFF setting. |
| SIREN SET | Select the siren function ON or OFF, and siren type.<br>• MODE 1: Without siren<br>• MODE 2: With siren<br>• MODE 3: With external complete protection (with siren)<br>• MODE 4: Without any external protection (with siren)<br>• MODE 5: Without external tilt protection (with siren) |

## ACTIVE TEST

| Test Item | Description |
|---|---|
| SIREN | Activates the self-diagnosis function for siren control unit. |
| VEHICLE SECURITY HORN | **NOTE:**<br>This item is indicated, but not used |
| HEAD LAMP | **NOTE:**<br>This item is indicated, but not used |

# SIGNAL BUFFER

## SIGNAL BUFFER : CONSULT Function (BCM - SIGNAL BUFFER)

*INFOID:0000000010688605*

### DATA MONITOR

**NOTE:**

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

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

# ECU DIAGNOSIS INFORMATION

## BCM

### Reference Value

INFOID:0000000010688606

VALUES ON THE DIAGNOSIS TOOL

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

CONSULT MONITOR ITEM

| Monitor Item | Condition | Value/Status |
|---|---|---|
| CONFRM ID ALL | The Intelligent Key ID that the NATS antenna amp. receives is not recognized by any Intelligent Key ID registered to BCM. | Yet |
| | The Intelligent Key ID that the NATS antenna amp. receives is recognized by any Intelligent Key ID registered to BCM. | Done |
| CONFIRM ID4 | The Intelligent Key ID that the NATS antenna amp. receives is not recognized by the fourth Intelligent Key ID registered to BCM. | Yet |
| | The Intelligent Key ID that the NATS antenna amp. receives is recognized by the fourth Intelligent Key ID registered to BCM. | Done |
| CONFIRM ID3 | The Intelligent Key ID that the NATS antenna amp. receives is not recognized by the third Intelligent Key ID registered to BCM. | Yet |
| | The Intelligent Key ID that the NATS antenna amp. receives is recognized by the third Intelligent Key ID registered to BCM. | Done |
| CONFIRM ID2 | The Intelligent Key ID that the NATS antenna amp. receives is not recognized by the second Intelligent Key ID registered to BCM. | Yet |
| | The Intelligent Key ID that the NATS antenna amp. receives is recognized by the second Intelligent Key ID registered to BCM. | Done |
| CONFIRM ID1 | The Intelligent Key ID that the NATS antenna amp. receives is not recognized by the first Intelligent Key ID registered to BCM. | Yet |
| | The Intelligent Key ID that the NATS antenna amp. receives is recognized by the first Intelligent Key ID registered to BCM. | Done |
| NOT REGISTERED | BCM detects registered Intelligent Key ID, or BCM does not detect Intelligent Key ID. | ID OK |
| | BCM detects non-registration Intelligent Key ID. | ID NG |
| TP 4 | The ID of fourth Intelligent Key is not registered to BCM | Yet |
| | The ID of fourth Intelligent Key is registered to BCM | Done |
| TP 3 | The ID of third Intelligent Key is not registered to BCM | Yet |
| | The ID of third Intelligent Key is registered to BCM | Done |
| TP 2 | The ID of second Intelligent Key is not registered to BCM | Yet |
| | The ID of second Intelligent Key is registered to BCM | Done |
| TP 1 | The ID of first Intelligent Key is not registered to BCM | Yet |
| | The ID of first Intelligent Key is registered to BCM | Done |
| 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 -BD/TR | Trunk lid opener request switch is not pressed | Off |
| | Trunk lid opener 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 |

| Monitor Item | Condition | Value/Status |
|---|---|---|
| STARTER CUT RELAY | Other than engine cranking | Off |
| | At engine cranking | On |
| DETECTION SENSOR (BK) | Hands free sensor is not detected. | Off |
| | Hands free sensor is detected. | On |
| CLUCH SW | The clutch pedal is not depressed. | Off |
| | The clutch pedal is depressed | On |
| BRAKE SW 1 | The brake pedal is not depressed and ignition switch ON | Off |
| | The brake pedal is depressed and ignition switch ON | On |
| BRAKE SW 2 | The brake pedal is not depressed | Off |
| | The brake pedal is depressed | On |
| DETE/CANCL SW | Selector lever in P position | Off |
| | Selector lever in any position other than P | On |
| START CLUTCH SW | The clutch pedal is depressed | Off |
| | The clutch pedal is not depressed | 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 | Power position in OFF or ACC | Off |
| | Power position in ON | On |
| NEUTRAL SW - IPDM | • Selector lever in any position other than P or N (CVT models)<br>• Control lever in any position other than neutral (M/T models) | Off |
| | • Selector lever in P or N position (CVT models)<br>• Control lever in neutral position (M/T models) | On |
| SFT PN -IPDM | Selector lever in any position other than P or N | Off |
| | Selector lever in P or N position | On |
| STARTER RELAY - IPDM | Other than engine cranking | Off |
| | At engine cranking (short cranking) | Crank |
| | Operation prohibited status | Invalid |
| | At engine cranking | On |
| ENGINE STATE | Engine stopped | STOP |
| | While the engine stalls | STALL |
| | At engine cranking | CRANK |
| | Engine running | RUN |
| ST/INHI RELAY - IPDM | Power position in OFF | Off, Off |
| | Engine restart | Off, On |
| | At engine cranking | INVALID |
| | Engine running | On, On |
| REVERSE SIGNAL - IPDM | Selector lever in any position other than R position | Off |
| | Selector lever in R position | On |
| CRANKING PERMIT - ECM | The engine start is prohibited | PRHBT |
| | The engine start is permitted | PERMIT |
| | When it is stopped requested during engine start | STOP |
| | When not communication with ECM | Off |
| IS STATUS - ECM | Stop/start system not operating | Off |
| | Stop/start system operating | On |

| Monitor Item | Condition | Value/Status |
|---|---|---|
| STARTER CUT RELAY - ECM | Other than engine cranking | Off |
| | At engine cranking | On |
| VEH SPEED 1 | While driving | Equivalent to speed-ometer reading |
| VEH SPEED 2 | While driving | Equivalent to speed-ometer reading |
| IGN REQ - IPDM | Power position in OFF or ACC | Off |
| | Power position in ON | On |
| STARTER REQ - IPDM | Other than engine cranking | Off |
| | At engine cranking | On |
| DOOR STAT-DR | Driver door is locked | LOCK |
| | Driver door is unlocked | UNLOCK |
| DOOR STAT-AS | Passenger door is locked | LOCK |
| | Passenger door is unlocked | UNLOCK |
| DOOR STAT-RR | Rear door RH is locked | LOCK |
| | Rear door RH is unlocked | UNLOCK |
| DOOR STAT-RL | Rear door LH is locked | LOCK |
| | Rear door LH is unlocked | UNLOCK |
| BK DOOR STATE | Back door is locked | LOCK |
| | Back door is unlocked | UNLOCK |
| ID OK FLAG | Steering is locked | Reset |
| | Steering is unlocked | Set |
| PRMT ENG STRT | When the engine start is prohibited | Reset |
| | When the engine start is permitted | Set |
| PRMT RKE STRT | **NOTE:**<br>The item is indicated, but not monitored. | Reset |
| I-KEY OK FLAG | Intelligent Key ID and Intelligent Key is detected outside vehicle | NOT On |
| | Intelligent Key ID and Intelligent Key is detected inside vehicle | KEY On |
| PRBT ENG STRT | Not activated fail safe function | Reset |
| | Engine start is prohibited by fail safe function | SET |
| ID AUTHENT CANCEL TIMER | Engine start is prohibited without Intelligent Key | STOP |
| | Engine start is permitted without Intelligent Key | OPRAT |
| ACC BATTERY SAVER | ACC battery saver timer is stop | STOP |
| | ACC battery saver timer is running | OPRAT |
| CRNK PRBT TMR | Cranking is permitted | Off |
| | Cranking is prohibited | On |
| AUT CRANK TMR | Not auto cranking | Off |
| | During auto cranking | On |
| CRNK PRBT TME | Cranking prohibit timer | sec |
| AUT CRANK TMR | Auto cranking timer | sec |
| CRANKING TME | Cranking timer | sec |
| SHORT CRANK | **NOTE:**<br>The item is indicated, but not monitored. | — |
| RKE OPE COUN1 | During the operation of the Intelligent Key | Operation frequency of the Intelligent Key |

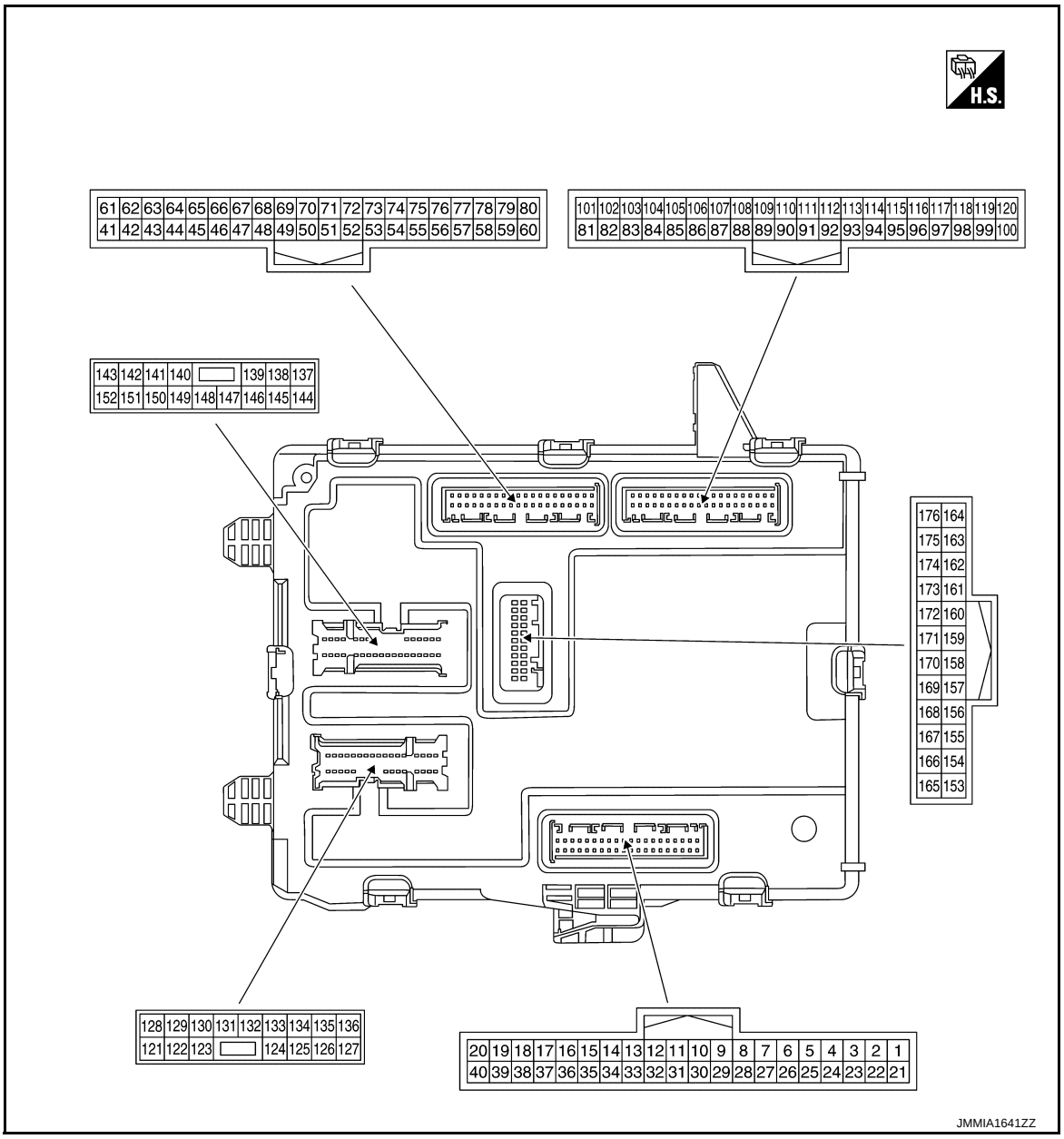
| Monitor Item | Condition | Value/Status |
|---|---|---|
| RKE OPE COUN2 | **NOTE:**<br>The item is indicated, but not monitored. | — |
| S/L IGN OFF POSITION | Power position in ON | Off |
| | Power position in OFF or ACC | On |
| S/L SENSOR CIRCUIT 1 | Steering lock unit is not operated | GND |
| | Steering is lock unit is operated | On |
| S/L SENSOR CIRCUIT 2 | Steering lock unit is not operated | Off |
| | Steering is lock unit is operated | On |
| S/L POWER OUTPUT | Steering lock unit is operated | Off |
| | Steering is lock unit is not operated | On |
| S/L POWER CHECK | Steering lock unit is operated | Off |
| | Steering is lock unit is not operated | On |
| ANTICIPATED POWER | Not outputs the steering lock unit anticipated power supply | Off |
| | Outputs the steering lock unit anticipated power supply | On |
| S/L LOCK REQ | Steering lock unit is not operated | Off |
| | Steering is lock unit is operated | On |
| S/L - BCM (CAN) | When not communication between BCM and steering lock unit | Off |
| | When communication between BCM and steering lock unit | On |
| S/L POWER ERROR | Steering lock unit power supply is normal | Off |
| | Steering lock unit power supply is malfunction | On |
| VEH SPEED ERROR (S/L) | Power position ON and steering is unlocked | Off |
| | Power position ON and steering is locked | On |
| VEH SPEED NORMAL (S/L) | While the vehicle is stopped | Off |
| | While the vehicle is running | On |
| ENGINE RUNNING (S/L) | Engine stopped | Off |
| | Engine running | On |
| S/L ID DISCORD | When the BCM and steering lock unit ID becomes consistent | Correct |
| | When the BCM and steering lock unit ID becomes not consistent | Incorrect |
| S/L ANTI-SCAN MODE | Steering lock system is normal | Off |
| | Steering lock system is malfunction | On |
| S/L LOCK NOT PERMIT | Power position in OFF | No inhbt |
| | Power position in ACC or ON | Inhibition |
| S/L UNLOCK (CAN) | Steering is locked | Unfinshd |
| | Steering is unlocked | Finished |
| S/L ID STATUS (CAN) | The ID of steering lock unit is registered | Coded |
| | The ID of steering lock unit is not registered | Blank |
| S/L RESET STATUS (CAN) | Steering is unlocked | Exit |
| | Steering is lock unit is operated (look → unlock) | No exit |
| S/L LO-LEVEL MALFUNC (CAN) | Steering lock system is normal | No malf |
| | Steering lock system is malfunction | Malf |
| S/L LOCK POSITION (CAN) | Steering is locked | Armed |
| | Steering is unlocked | Malf |
| | Steering lock system is malfunction | Unlocked |
| | Steering is lock unit is operated | Undfined |

| Monitor Item | Condition | Value/Status |
|---|---|---|
| S/L ACT MALFUNCTION (CAN) | Steering lock unit is normal | No malf |
| | Steering lock unit is malfunction | Malf |
| S/L HI-LEVEL MALFUNC (CAN) | Steering lock system is normal | No malf |
| | Steering lock system is malfunction | Malf |
| S/L OPERATION PRHBT (SPD) | When the steering lock unit receives the lock/unlock request signal to the vehicle stopped | 0 km/h |
| | When the steering lock unit receives the lock/unlock request signal to the vehicle running | > 0 km/h |
| S/L OPERATION PRHBT (PWR) | Steering lock system is normal | Allowed |
| | Steering lock system is malfunction | Forbid |
| S/L SENSOR POWER (CAN) | Steering lock unit is not operated | On |
| | Steering is lock unit is operated | Off |
| S/L SEN TEST PERMIT (CAN) | Steering lock system is normal | Forbid |
| | Steering lock system is malfunction | Authorize |
| S/L STAT NOT DETECT (CAN) | Steering is locked | OK |
| | Steering is unlocked | Undfined |
| S/L LOCKING FINISHED (CAN) | Steering is unlocked | Unfinshd |
| | Steering is locked | Finished |
| 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 | Wiper volume dial position |
| RR WIPER ON | Other than rear wiper switch ON | Off |
| | Rear wiper switch ON | On |
| RR WIPER INT | Other than rear wiper switch INT | Off |
| | Rear wiper switch INT | On |
| RR WASHER SW | Rear washer switch OFF | Off |
| | Rear washer switch ON | On |
| RR WIPER STOP | Rear wiper is in STOP position | Off |
| | Rear wiper is not in STOP position | On |
| TURN SIGNAL R | Other than turn signal switch RH | Off |
| | Turn signal switch RH | On |
| TURN SIGNAL L | Other than turn signal switch LH | Off |
| | Turn signal switch LH | On |
| TAIL LAMP SW | Other than lighting switch 1ST | Off |
| | Lighting switch 1ST | On |

| Monitor Item | Condition | Value/Status |
|---|---|---|
| HI BEAM SW | Other than lighting switch HI | Off |
| | Lighting switch HI | On |
| HEAD LAMP SW | Other than lighting switch 2ND | Off |
| | Lighting switch 2ND | On |
| LIGHT OFF SW | Other than lighting switch OFF | Off |
| | Lighting switch OFF | 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 | Rear fog lamp switch OFF | Off |
| | Rear fog lamp switch ON | On |
| DOOR SW-DR | Driver door closed | Off |
| | Driver door opened | On |
| DOOR SW-AS | Passenger door closed | Off |
| | Passenger door opened | On |
| DOOR SW-RR | Rear RH door closed | Off |
| | Rear RH door opened | On |
| DOOR SW-RL | Rear LH door closed | Off |
| | Rear LH door opened | On |
| DOOR SW-BK | Back door closed | Off |
| | Back door opened | On |
| CDL LOCK SW | Other than power door lock switch LOCK | Off |
| | Power door lock switch LOCK | On |
| CDL UNLOCK SW | Other than power door lock switch UNLOCK | Off |
| | Power door lock switch UNLOCK | On |
| KEY CYL LK-SW | **NOTE:**<br>The item is indicated, but not monitored. | Off |
| KEY CYL UN-SW | **NOTE:**<br>The item is indicated, but not monitored. | Off |
| KEY CYL SW-TR | **NOTE:**<br>The item is indicated, but not monitored. | Off |
| 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 |
| H/L WSR SW | Headlamp washer switch OFF | Off |
| | Headlamp washer switch ON | On |
| TR CANCEL SW | **NOTE:**<br>The item is indicated, but not monitored. | Off |
| TRUNK LID OPENER SW | **NOTE:**<br>The item is indicated, but not monitored. | Off |
| BACK DOOR OPENER SW | Back door opener switch OFF | Off |
| | Back door opener switch ON | On |

| Monitor Item | Condition | Value/Status |
|---|---|---|
| STOP/START SW | **NOTE:**<br>The item is indicated, but not monitored. | Off |
| SEN CANCEL SW | Sensor cancel switch is not pressed | Off |
| | Sensor cancel switch is pressed | On |
| RKE-LOCK | • LOCK button of the Intelligent Key is not pressed (with Intelligent Key system)<br>• LOCK button of the keyfob is not pressed (without Intelligent Key system) | Off |
| | • LOCK button of the Intelligent Key is pressed (with Intelligent Key system)<br>• LOCK button of the keyfob is pressed (without Intelligent Key system) | On |
| RKE-UNLOCK | • UNLOCK button of the Intelligent Key is not pressed (with Intelligent Key system)<br>• UNLOCK button of the keyfob is not pressed (without Intelligent Key system) | Off |
| | • UNLOCK button of the Intelligent Key is pressed (with Intelligent Key system)<br>• UNLOCK button of the keyfob is pressed (without Intelligent Key system) | On |
| RKE-TR/BD | **NOTE:**<br>The item is indicated, but not monitored. | Off |
| RKE-PANIC | **NOTE:**<br>The item is indicated, but not monitored. | Off |
| RKE-MODE CHG | **NOTE:**<br>The item is indicated, but not monitored. | Off |
| RKE PBD | Power back door button OFF | Off |
| | Power back door button ON | On |
| SHOCK SENSOR | Car crash information signal (NORMAL) is detected. | NOMAL |
| | Car crash information signal (AIR BAG OPEN) is detected. | On |
| | Car crash information 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 |
| OPTICAL SENSOR | **NOTE:**<br>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 |
| KEY SW | Mechanical key is removed from key cylinder | Off |
| | Mechanical key is inserted to key cylinder | On |
| IGN SW | Other than power position in ON | Off |
| | Power position in ON | On |
| START SW | Other than power position in START | Off |
| | Power position in START | On |

TERMINAL LAYOUT

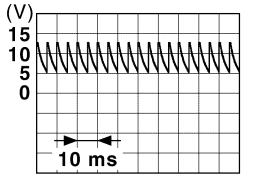
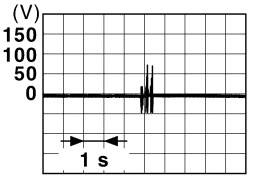
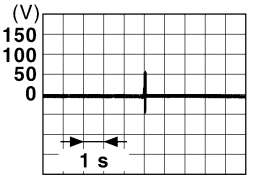


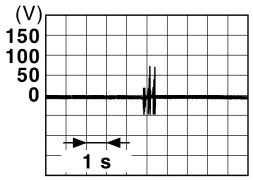
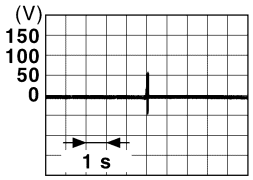
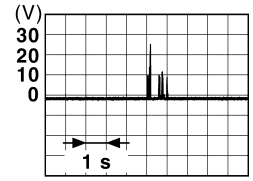
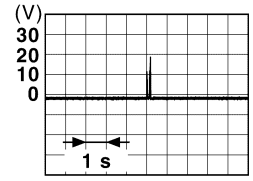
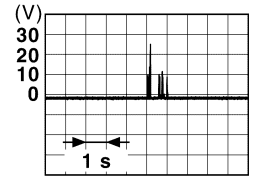
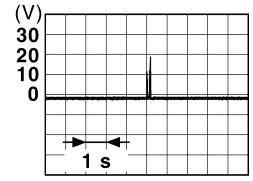

PHYSICAL VALUES

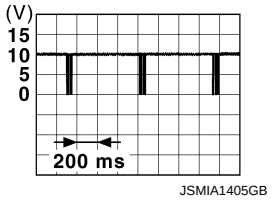
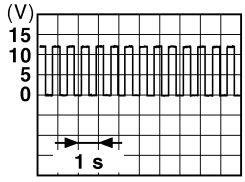
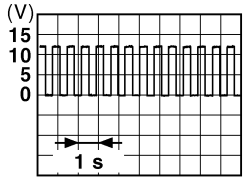
**NOTE:**

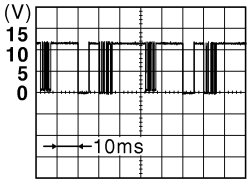
Waveform reference

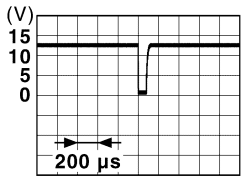
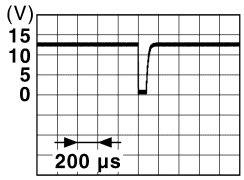
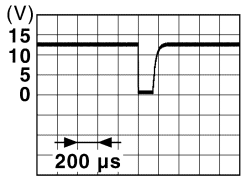
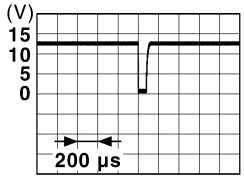
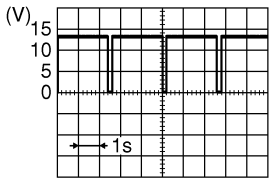
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 6*2 (R) | Ground | Back door opener request switch | Input | Back door request switch | ON (Pressed) | 0 – 0.5 V |
| | | | | | OFF (Not pressed) | 9 – 16 V |
| 9*1 (G) | Ground | Hands free sensor | Input | Hands free sensor | Hold up hands to detection area | 0 – 0.5 V |
| | | | | | Other than above | 9 – 16 V |

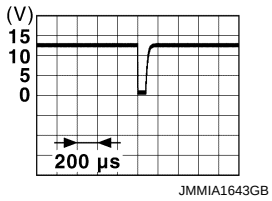
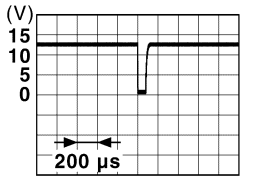
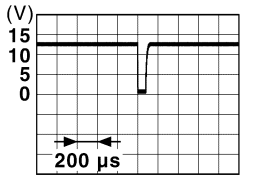
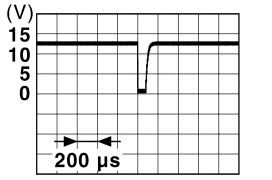
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 10 (W) | Ground | Rear RH door switch | Input | Rear RH door switch | OFF (When rear RH door closed) | 9 – 16 V |
| | | | | | ON (When rear RH door opened) | 0 – 0.5 V |
| 11 (LG) | Ground | Back door switch | Input | Back door switch | OFF (When back door closed) | 9 – 16 V |
| | | | | | ON (When back door opened) | 0 – 0.5 V |
| 12 (R) | Ground | Rear LH door switch | Input | Rear LH door switch | OFF (When rear LH door closed) | 9 – 16 V |
| | | | | | ON (When rear LH door opened) | 0 – 0.5 V |
| 13 (SB) | Ground | Passenger door switch | Input | Passenger door switch | OFF (When passenger door closed) | 9 – 16 V |
| | | | | | ON (When passenger door opened) | 0 – 0.5 V |
| 15 (LA/G) | Ground | Rear wiper auto stop | Input | Power position ON | Rear wiper stop position | 0 – 0.5 V |
| | | | | | Any position other than rear wiper stop position |  JMMIA1654GB |
| 16 (Y) | Ground | Back door opener switch | Input | Back door opener switch | OFF (Not pressed) | 9 – 16 V |
| | | | | | ON (Pressed) | 0 – 0.5 V |
| 17 (SB) | Ground | Driver door switch | Input | Driver door switch | OFF (When driver door closed) | 9 – 16 V |
| | | | | | ON (When driver door opened) | 0 – 0.5 V |
| 20 (L) | Ground | CAN-H (CAN communication circuit 1) | Input/ Output | — | | — |
| 21*2 (BR) | Ground | Rear bumper antenna (-) | Input | Power position ON and any door is open | Intelligent Key is outside the vehicle |  JMMIA1652GB |
| | | | | | Intelligent Key is inside the vehicle |  JMMIA1653GB |

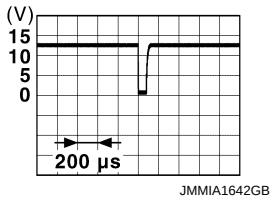
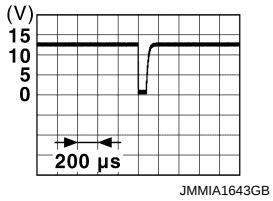
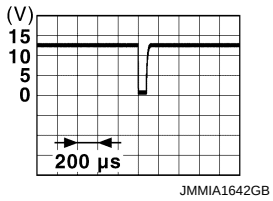
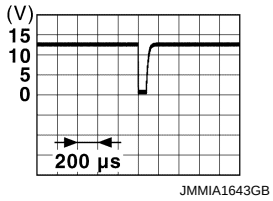
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 22*2 (Y) | Ground | Inside key antenna (Luggage room) (-) | Input | Power position ON and any door is open | Intelligent Key is outside the vehicle |  JMMIA1652GB |
| | | | | | Intelligent Key is inside the vehicle |  JMMIA1653GB |
| 23*2 (L) | Ground | Inside key antenna (Luggage room) (+) | Output | Power position ON and any door is open | Intelligent Key is outside the vehicle |  JSMIA1507GB |
| | | | | | Intelligent Key is inside the vehicle |  JSMIA1506GB |
| 24*2 (G) | Ground | Rear bumper antenna (+) | Output | Power position ON and any door is open | Intelligent Key is outside the vehicle |  JSMIA1507GB |
| | | | | | Intelligent Key is inside the vehicle |  JSMIA1506GB |

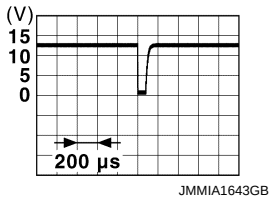
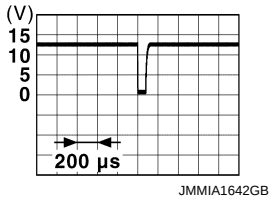
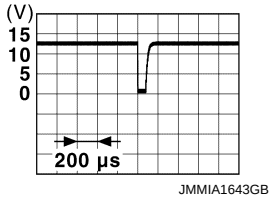
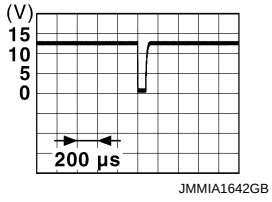
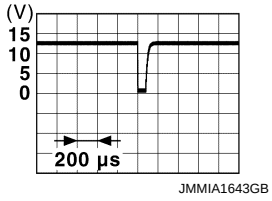
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 38 (V) | Ground | Alarm link | Output | Disarmed phase | | 0 V |
| | | | | Armed phase | |  JSMIA1405GB |
| 39 (LA/W) | Ground | High-mounted stop lamp output | Output | Brake pedal is not depressed | | 0 V |
| | | | | Brake pedal is depressed | | 9 – 16 V |
| 40 (P) | Ground | CAN-L (CAN communication circuit 1) | Input/ Output | — | | — |
| 41*2 (V) | Ground | Steering lock unit power supply output | Output | Steering lock unit | Activated | 9 – 16 V |
| | | | | | Not activated | 0 – 0.5 V |
| 42 (LA/G) | Ground | Turn signal LH output (Side) | Output | Ignition switch ON | Turn signal switch OFF | 0 V |
| | | | | | Turn signal switch LH |  PKID0926E<br>6.5 V<br>(Turn signal lamp turn on: 9 - 16 V) |
| 43 (LA/Y) | Ground | Turn signal RH output (Side) | Output | Ignition switch ON | Turn signal switch OFF | 0 V |
| | | | | | Turn signal switch RH |  PKID0926E<br>6.5 V<br>(Turn signal lamp turn on: 9 - 16 V) |
| 44 (P) | Ground | Interior room lamp relay control | Output | Interior room lamp battery saver is activated | | 9 – 16 V |
| | | | | Interior room lamp battery saver is not activated | | 0 V |
| 45 (R) | Ground | CAN-L (CAN communication circuit 2) | Input/ Output | — | | — |
| 46 (L) | Ground | CAN-H (CAN communication circuit 2) | Input/ Output | — | | — |

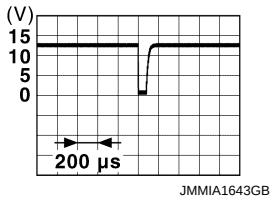
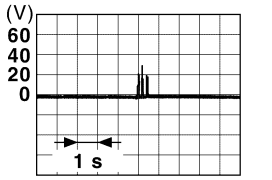
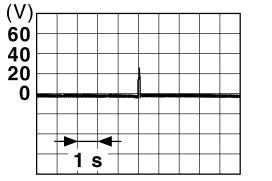
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 47 (G) | Ground | Rain sensor serial link | Input/ Output | Power position OFF | | 12 V |
| | | | | Power position ON | |  JPMIA0156GB 8.7 V |
| 48 (L) | Ground | CAN-H (CAN communication circuit 2) | Input/ Output | — | | — |
| 49 (R) | Ground | CAN-L (CAN communication circuit 2) | Input/ Output | — | | — |
| 50 (BG) | Ground | Door lock and unlock switch LOCK | Input | Door lock and unlock switch | NEUTRAL position | 9 – 16 V |
| | | | | | LOCK position | 0 V |
| 51 (Y) | Ground | Hazard switch | Input | Hazard switch | OFF | 9 – 16 V |
| | | | | | ON | 0 V |
| 57 (L) | Ground | Detention switch power supply | Output | Power position | ACC or ON | 9 – 16 V |
| | | | | | OFF | 0 – 0.5 V |
| 60 (R) | Ground | Headlamp washer switch | Input | Headlamp washer switch | Pressed | 0 V |
| | | | | | Not pressed | 9 – 16 V |
| 63 (G) | Ground | Power window relay control | Output | Power position | OFF or ACC | 9 – 16 V |
| | | | | | ON | 0 – 0.5 V |
| 64 (LA/R) | Ground | Rear window defogger relay control | Output | Rear window defogger | Not activated | 9 – 16 V |
| | | | | | Activated | 0 – 1.5 V |
| 65 (BR) | Ground | ACC relay control | Output | Power position | OFF | 9 – 16 V |
| | | | | | ACC or ON | 0 – 0.5 V |
| 67 (Y) | Ground | Ignition relay (J/B) control | Output | Power position | OFF or ACC | 9 – 16 V |
| | | | | | ON | 0 – 0.5 V |
| 68 (LA/W) | Ground | Blower relay control | Output | Power position | OFF or ACC | 9 – 16 V |
| | | | | | ON | 0 – 0.5 V |

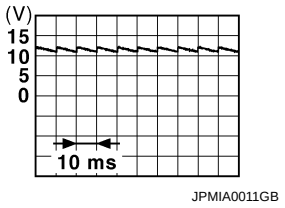
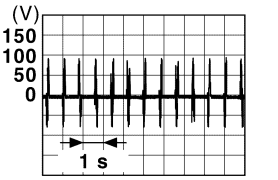
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 73 (LG) | Ground | Combination switch INPUT 5 | Input | Combination switch | All switches OFF (Wiper volume dial 3) | 12 V |
| | | | | | Rear wiper switch ON (Wiper volume dial 3) |  JMMIA1642GB |
| | | | | | Wiper volume dial 1 (All switches OFF) | |
| | | | | | Rear wiper switch INT (Wiper volume dial 3) |  JMMIA1643GB |
| | | | | | Wiper volume dial 4 (All switches OFF) | |
| | | | | | Wiper volume dial 5 (All switches OFF) |  JMMIA1644GB |
| 74 (Y) | Ground | Combination switch OUTPUT 5 | Output | Combination switch | Lighting switch 2ND (Wiper volume dial 3) | 0 V |
| | | | | | All switch OFF (Wiper volume dial 3) |  JMMIA1642GB |
| | | | | | Lighting switch 1ST (Wiper volume dial 3) | |
| | | | | | Front fog lamp switch ON (Lighting switch 2ND) | |
| | | | | | Turn signal switch RH (Lighting switch 2ND) | |
| 75 (BG) | Ground | Security indicator lamp control | Output | Security indicator lamp | ON | 0 – 0.5 V |
| | | | | | Blinking |  JPMIA0590GB<br>12 V |
| | | | | | OFF | 9 – 16 V |

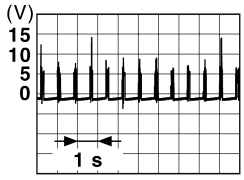
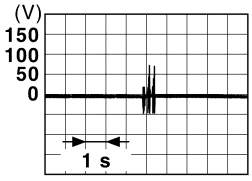
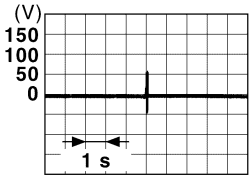
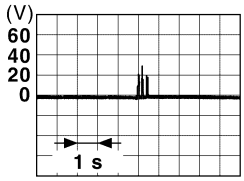
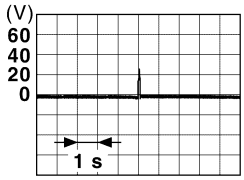
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 76 (G) | Ground | Combination switch INPUT 3 | Input | Combination switch (Wiper volume dial 3) | All switches OFF | 12 V |
| | | | | | Front washer switch ON |  JMMIA1643GB |
| | | | | | Rear washer switch ON | |
| | | | | | Turn signal switch LH | |
| | | | | | Turn signal switch RH |  JMMIA1642GB |
| 77 (GR) | Ground | Combination switch INPUT 4 | Input | Combination switch | Lighting switch 2ND (Wiper volume dial 3) | 12 V |
| | | | | | All switches OFF (Wiper volume dial 3) |  JMMIA1642GB |
| | | | | | Front wiper switch INT/ AUTO (Lighting switch 2ND) | |
| | | | | | Front wiper switch LO (Lighting switch 2ND) |  JMMIA1643GB |
| | | | | | Front wiper switch MIST (Lighting switch 2ND) | |
| | | | | | Front wiper switch HI (Lighting switch 2ND) | |

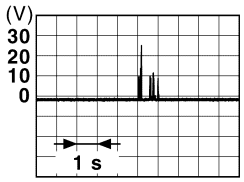
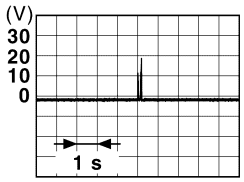
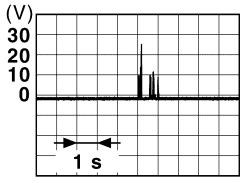
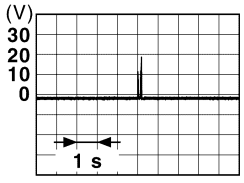
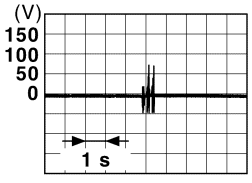
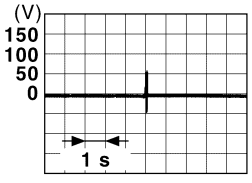
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 78 (V) | Ground | Combination switch INPUT 1 | Input | Combination switch | All switches OFF (Wiper volume dial 3) | 12 V |
| | | | | | Front fog lamp switch ON (Wiper volume dial 3) |  JMMIA1642GB |
| | | | | | Lighting switch HI (Lighting switch 2ND) |  JMMIA1643GB |
| | | | | | Lighting switch PASS (Wiper volume dial 3) | |
| | | | | | Rear fog lamp switch ON (Wiper volume dial 3) | |
| 79 (W) | Ground | Combination switch INPUT 2 | Input | Combination switch | All switches OFF (Wiper volume dial 3) | 12 V |
| | | | | | Wiper volume dial 1 (All switches OFF) |  JMMIA1642GB |
| | | | | | Lighting switch 1ST (Wiper volume dial 3) |  JMMIA1643GB |
| | | | | | Lighting switch 2ND (Wiper volume dial 3) | |
| | | | | | Lighting switch AUTO (Wiper volume dial 3) | |
| | | | | | Wiper volume dial 2 (All switches OFF) | |
| 80 (SB) | Ground | Door lock and unlock switch UNLOCK | Input | Door lock and unlock switch | NEUTRAL position | 9 – 16 V |
| | | | | | UNLOCK position | 0 V |
| 81*3 (L) | Ground | Key switch | Input | Insert mechanical key into ignition key cylinder | | 9 – 16 V |
| | | | | Remove mechanical key from ignition key cylinder | | 0 V |
| 82*2 (W) | Ground | Passenger door request switch | Input | Passenger door request switch | ON (Pressed) | 0 – 0.5 V |
| | | | | | OFF (Not pressed) | 9 – 16 V |
| 82*3 (LA/R) | Ground | Key switch (START) | Input | Power position | START | 9 – 16 V |
| | | | | | Other than START | 0 – 0.5 V |

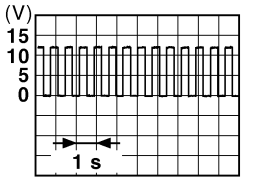
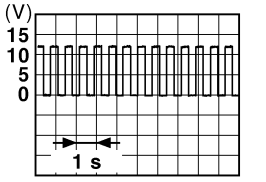
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 84 (BR) | Ground | Combination switch OUTPUT 2 | Output | Combination switch | All switches OFF (Wiper volume dial 3) | 0 V |
| | | | | | Lighting switch HI (Lighting switch 2ND) |  JMMIA1643GB |
| | | | | | Front wiper switch HI (Lighting switch 2ND) | |
| | | | | | Rear washer switch ON (Wiper volume dial 3) | |
| | | | | | Wiper volume dial 4 (All switches OFF) | |
| | | | | | Wiper volume dial 5 (All switches OFF) |  JMMIA1642GB |
| 85 (SB) | Ground | Combination switch OUTPUT 1 | Output | Combination switch | All switches OFF (Wiper volume dial 3) | 0 V |
| | | | | | Front washer switch ON (Wiper volume dial 3) |  JMMIA1643GB |
| | | | | | Front wiper switch MIST (Wiper volume dial 3) | |
| | | | | | Front wiper switch LO (Wiper volume dial 3) | |
| | | | | | Wiper volume dial 2 (All switches OFF) | |
| | | | | | Wiper volume dial 5 (All switches OFF) | |
| | | | | | Wiper volume dial 1 (All switches OFF) |  JMMIA1642GB |
| 86 (P) | Ground | Combination switch OUTPUT 3 | Output | Combination switch (Wiper volume dial 3) | All switches OFF | 0 V |
| | | | | | Lighting switch 2ND |  JMMIA1643GB |
| | | | | | Lighting switch PASS | |
| | | | | | Front wiper switch INT/ AUTO | |
| | | | | | Rear wiper switch INT | |

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 87 (BG) | Ground | Combination switch OUTPUT 4 | Output | Combination switch (Wiper volume dial 3) | All switches OFF | 0 V |
| | | | | | Lighting switch AUTO |  JMMIA1643GB |
| | | | | | Rear fog lamp switch ON | |
| | | | | | Turn signal switch LH | |
| | | | | | Rear wiper switch ON | |
| 88*2 (W) | Ground | Push-button ignition switch illumination power supply | Output | Push-button ignition switch illumination | OFF | 0 V |
| | | | | | ON | 12 V |
| 90*2 (Y) | Ground | Steering lock condition | Input | Steering lock unit | Activated | 9 – 16 V |
| | | | | | Not activated | 0 – 0.5 V |
| 94 (G) | Ground | Detention switch | Input | Selector lever | P position (Release selector button) | 0 – 0.5 V |
| | | | | | Any position other than P | 9 – 16 V |
| 95 (V) | Ground | Extended storage fuse switch | Input | Extended storage fuse switch | OFF | 0 – 0.5 V |
| | | | | | ON (Power position OFF) | 9 – 16 V |
| 99 (R) | Ground | Stop/start OFF switch | Input | Stop/start OFF switch | Pressed | 0 – 0.5 V |
| | | | | | Not pressed | 9 – 16 V |
| 100*2 (V) | Ground | Driver door antenna (+) | Output | Power position ON and any door is open | Intelligent Key is outside the vehicle |  JSMIA1348GB |
| | | | | | Intelligent Key is inside the vehicle |  JSMIA1406GB |
| 101*2 (Y) | Ground | Push-button ignition switch (Push switch) | Input | Push-button ignition switch (push switch) | Pressed | 0 – 0.5 V |
| | | | | | Not pressed | 9 – 16 V |
| 104 (R) | Ground | Front door lock assembly driver side (Unlock sensor) | Input | Driver door | LOCK status (Unlock sensor switch OFF) | 9 – 16 V |
| | | | | | UNLOCK status (Unlock sensor switch ON) | 0 – 0.5 V |
| 105*2 (Y) | Ground | Driver door request switch | Input | Driver door request switch | ON (Pressed) | 0 – 0.5 V |
| | | | | | OFF (Not pressed) | 9 – 16 V |
| 105*3 (Y) | Ground | Key switch (IPDM E/R) | Input | Power position | ON | 0 – 0.5 V |
| | | | | | OFF | 9 – 16 V |

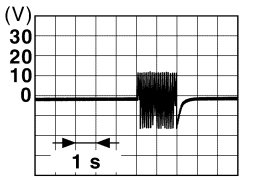
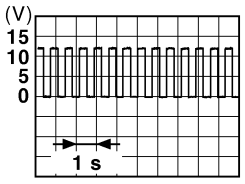
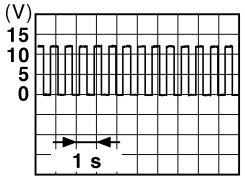
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 106 (W) | Ground | ACC output | Output | Power position | ACC or ON | 0 – 0.5 V |
| | | | | | OFF | 3.15 V |
| 107 (V) | Ground | Sensor cancel switch | Input | Sensor cancel switch | OFF (Not pressed) |  JPMIA0011GB |
| | | | | | ON (Pressed) | 0 V |
| 109*3 (P) | Ground | NATS antenna amp. | Input/ Output | Just after inserting ignition key in key cylinder | | Pointer of tester should move |
| | | | | Other than above | | 0 V |
| 110 (BG) | Ground | Dimmer signal | Output | Power position ON | Either of the following conditions<br>• Lighting switch OFF<br>• Bright outside of the vehicle (Lighting switch AUTO) | 0 V |
| | | | | | Either of the following conditions<br>• Lighting switch 1ST or 2ND<br>• Dark outside of the vehicle (Lighting switch AUTO) | 12 V |
| 111 (R) | Ground | Door lock status indicator lamp | Output | Door lock status indicator lamp | OFF | 0 V |
| | | | | | ON | 12 V |
| 112 (SB) | Ground | Stop/start OFF switch indicator | Output | Stop/start OFF switch indicator | ON | 0 – 0.5 V |
| | | | | | OFF | 9 – 16 V |
| 113*3 (LG) | Ground | NATS antenna amp. | Input/ Output | Just after inserting ignition key in key cylinder | | Pointer of tester should move |
| | | | | Other than above | | 0 V |
| 114*2 (Y) | Ground | NATS antenna amp. | Input/ Output | Intelligent Key battery is removed and brake pedal is depressed | When a registered Intelligent Key backside is contacted to push-button ignition switch | 0 V |
| | | | | | Other than above |  JMMIA1650GB |

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 115*2 (W) | Ground | NATS antenna amp. | Input/ Output | Intelligent Key battery is removed and brake pedal is depressed | When a registered Intelligent Key backside is contacted to push-button ignition switch | 0 V |
| | | | | | Other than above |  JMMIA1651GB |
| 116*2 (BG) | Ground | Inside key antenna (Console) (-) | Input | Power position ON and any door is open | Intelligent Key is outside the vehicle |  JMMIA1652GB |
| | | | | | Intelligent Key is inside the vehicle |  JMMIA1653GB |
| 117*2 (GR) | Ground | Inside key antenna (Console) (+) | Output | Power position ON and any door is open | Intelligent Key is outside the vehicle |  JSMIA1348GB |
| | | | | | Intelligent Key is inside the vehicle |  JSMIA1406GB |

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 118*2 (SB) | Ground | Passenger door antenna (-) | Input | Power position ON and any door is open | Intelligent Key is outside the vehicle |  JSMIA1507GB |
| | | | | | Intelligent Key is inside the vehicle |  JSMIA1506GB |
| 119*2 (P) | Ground | Passenger door antenna (+) | Output | Power position ON and any door is open | Intelligent Key is outside the vehicle |  JSMIA1507GB |
| | | | | | Intelligent Key is inside the vehicle |  JSMIA1506GB |
| 120*2 (BR) | Ground | Driver door antenna (-) | Input | Power position ON and any door is open | Intelligent Key is outside the vehicle |  JMMIA1652GB |
| | | | | | Intelligent Key is inside the vehicle |  JMMIA1653GB |

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 121 (LA/V) | Ground | Back door open | Output | Back door opener actuator | Activated | 9 – 16 V |
| | | | | | Not activated | 0 V |
| 122 (Y) | Ground | Rear fog lamp | Output | Rear fog lamp | OFF | 0 V |
| | | | | | ON | 9 – 16 V |
| 123 (LA/R) | Ground | Rear wiper | Output | Power position ON | Rear wiper switch OFF | 0 V |
| | | | | | Rear wiper switch ON | 9 – 16 V |
| 124 (W) | Ground | Rear door UNLOCK | Output | Rear door | UNLOCK (Actuator is activated) | 9 – 16 V |
| | | | | | Other than UNLOCK (Actuator is not activated) | 0 V |
| 125 (L) | Ground | Rear door LOCK | Output | Rear door | LOCK (Actuator is activated) | 9 – 16 V |
| | | | | | Other than LOCK (Actuator is not activated) | 0 V |
| 127 (R) | Ground | Luggage room lamp control | Output | Luggage room lamp | OFF | 9 – 16 V |
| | | | | | ON | 0 – 0.5 V |
| 129 (LA/W) | Ground | Stop lamp LH output | Output | Brake pedal | Not depressed | 0 V |
| | | | | | Depressed | 9 – 16 V |
| 131*4 (R) | Ground | Super lock (Rear door) | Output | Super lock actuator (Rear door) | Activated | 9 – 16 V |
| | | | | | Not activated | 0 V |
| 133 (GR) | Ground | Turn signal LH output (Rear) | Output | Power position ON | Turn signal switch OFF | 0 V |
| | | | | | Turn signal switch LH |  PKID0926E<br>6.5 V<br>(Turn signal lamp turn on: 9 - 16 V) |
| 134 (LA/Y) | Ground | Stop lamp RH output | Output | Brake pedal | Not depressed | 0 V |
| | | | | | Depressed | 9 – 16 V |
| 136 (P) | Ground | Turn signal RH output (Rear) | Output | Power position ON | Turn signal switch OFF | 0 V |
| | | | | | Turn signal switch RH |  PKID0926E<br>6.5 V<br>(Turn signal lamp turn on: 9 - 16 V) |
| 137 (W) | Ground | Battery power supply (BCM) | Input | Power position ON | | 9 – 16 V |

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 138 (SB) | Ground | Interior room lamp control | Output | Map lamp, room lamp and personal lamp (Door position) | When all doors are closed (Interior room lamp are turned OFF) | 9 – 16 V |
| | | | | | Any doors opens (Interior room lamp are turned ON) | 0 – 1 V |
| 139 (L) | Ground | Passenger door UNLOCK | Output | Passenger door | UNLOCK (Actuator is activated) | 9 – 16 V |
| | | | | | Other than UNLOCK (Actuator is not activated) | 0 V |
| 141 (V) | Ground | Front doors LOCK | Output | Front doors | LOCK (Actuator is activated) | 9 – 16 V |
| | | | | | Other than LOCK (Actuator is not activated) | 0 V |
| 143 (LA/V) | Ground | Battery power supply (Front door lock actuator) | Input | Power position ON | | 9 – 16 V |
| 144 (BG) | Ground | Battery power supply (Turn signal lamp) | Input | Power position ON | | 9 – 16 V |
| 145 (GR) | Ground | Battery power supply (Stop lamp) | Input | Power position ON | | 9 – 16 V |
| 146 (B) | Ground | Ground | — | Power position OFF | | 0 V |
| 147 (B) | Ground | Ground | — | Power position OFF | | 0 V |
| 148 (G) | Ground | Driver door UNLOCK | Output | Driver door | UNLOCK (Actuator is activated) | 9 – 16 V |
| | | | | | Other than UNLOCK (Actuator is not activated) | 0 V |
| 149*4 (W) | Ground | Super lock (Front door) | Output | Super lock actuator (Front door) | Activated | 9 – 16 V |
| | | | | | Not activated | 0 V |
| 151 (R) | Ground | Battery power supply (Rear door lock actuator) | Input | Power position ON | | 9 – 16 V |
| 152 (LG) | Ground | Battery power supply (Rear wiper) | Input | Power position ON | | 9 – 16 V |
| 156 (V) | Ground | Clutch interlock switch | Input | Clutch interlock switch | OFF (Clutch pedal is depressed) | 9 – 16 V |
| | | | | | ON (Clutch pedal is not depressed) | 0 – 0.5 V |
| 157 (LG) | Ground | Stop lamp switch 2 | Input | Stop lamp switch | OFF (Brake pedal is not depressed) | 0 V |
| | | | | | ON (Brake pedal is depressed) | 9 – 16 V |
| 158 (W) | Ground | Stop lamp switch 1 | Input | Power position ON | Stop lamp switch OFF (Brake pedal is not depressed) | 9 – 16 V |
| | | | | | Stop lamp switch ON (Brake pedal is depressed) | 0 V |

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 159 (R) | Ground | Clutch pedal position switch | Input | Clutch pedal position switch | OFF (Clutch pedal is depressed) | 9 – 16 V |
| | | | | | ON (Clutch pedal is not depressed) | 0 – 0.5 V |
| 164*2 (Y) | Ground | Intelligent Key warning buzzer | Output | Intelligent Key warning buzzer | Sounding<br>**NOTE:**<br>The pulse cycle changes depending on buzzer sounds. |  <br>JMMIA1702GB |
| | | | | | Not sounding | 0 – 0.5 V |
| 166*2 (P) | Ground | Steering lock unit power supply | Input | Power position | OFF or ACC | 9 – 16 V |
| | | | | | ON | 0 – 0.5 V |
| 167 (BR) | Ground | Turn signal LH output (Front) | Output | Power position ON | Turn signal switch OFF | 0 V |
| | | | | | Turn signal switch LH |  <br>PKID0926E<br>6.5 V<br>(Turn signal lamp turn on: 9 - 16 V) |
| 168 (GR) | Ground | Turn signal RH output (Front) | Output | Power position ON | Turn signal switch OFF | 0 V |
| | | | | | Turn signal switch RH |  <br>PKID0926E<br>6.5 V<br>(Turn signal lamp turn on: 9 - 16 V) |
| 170 (L) | Ground | PTC relay-3 control | Output | PTC heater | "HIGH" operation | 9 – 16 V |
| | | | | | Other than above | 0 – 0.1 V |
| 171 (G) | Ground | Starter relay control | Output | Starter motor | At engine cranking | 0 – 0.1 V |
| | | | | | Other than above | 9 – 16 V |
| 172 (V) | Ground | PTC relay-1 control signal | Output | PTC heater | OFF | 9 – 16 V |
| | | | | | "LOW", "MID" or "HIGH" operation | 0 – 0.1 V |
| 173 (BG) | Ground | PTC relay-2 control signal | Output | PTC heater | "MID" or "HIGH" operation | 0 – 0.1 V |
| | | | | | Except above | 9 – 16 V |

*1: With automatic back door
*2: With Intelligent Key system

*3: Without Intelligent Key system
*4: RHD models

## Fail-safe

INFOID:0000000010688607

### FAIL-SAFE CONTROL BY DTC

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

| Display contents of CONSULT | Fail-safe |
|---|---|
| B2190–00: CHAIN OF BCM-IMM ANT | Inhibit engine cranking |
| B2191–00: ID DISCORD, BCM-IMMANT | Inhibit engine cranking |
| B2192–00: ID DISCORD BCM-ECM | Inhibit engine cranking |
| B2193–00: CHAIN OF BCM-ECM | Inhibit engine cranking |
| B2195–00: ANTI-SCANNING | Inhibit engine cranking |
| B2196–00: DONGLE NG | Inhibit engine cranking |
| B2198–00: NATS ANTENNA AMP | Inhibit engine cranking |
| B2557–00: VEHICLE SPEED | Inhibit steering lock |
| B2602–00: SHIFT POSITION | Inhibit steering lock |
| B2604–00: PNP/CLUTCH SW | Inhibit steering lock |
| B2608–00: STARTER RELAY | Inhibit engine cranking |
| B260F–00: ENG STATE SIG LOST | Inhibit engine cranking |
| B26F1–00: IGN RELAY OFF | Inhibit engine cranking |
| B26F2–00: IGN RELAY ON | Inhibit engine cranking |
| B27D4–00: BCM - S/L SENSOR CIRCUIT | Inhibit steering unlock |
| B27D5–00: S/L SENSOR TEST OUTPUT | Inhibit steering unlock |
| B27D6–00: S/L CAN COMM CIRCUIT | Inhibit steering lock |
| B27D7–00: S/L PWR RELAY | Inhibit steering lock |
| B27D8–00: S/L VEHICLE SPEED MALFUNCTION | Inhibit steering lock |
| B27D9–00: S/L IGN MALFUNCTION | Inhibit steering lock/unlock |
| B27DA–00: IPDM CAN COMM CIRCUIT | Inhibit steering lock |
| B27DC–00: S/L POWER SUPPLY | Inhibit steering lock |
| B27DD–00: BCM - S/L ID DISCORD | Inhibit steering lock |
| B27DE–00: S/L MECHANICAL MALFUNCTION | Inhibit steering lock |
| B27DF–00: S/L HIGH LEVEL MALFUNCTION | Inhibit steering lock/unlock |
| B27E0–00: S/L LOW LEVEL MALFUNCTION | Inhibit steering lock |
| B27E1–00: S/L SAFETY CIRCUIT | Inhibit steering lock |
| B27E5–00: S/L IGN OFF POSITION | Inhibit steering lock |
| B27E6–00: S/L ANTI-SCAN MODE | Inhibit steering lock |
| B27E8–00: S/L UNDETERMINED LOCK POS | Inhibit steering lock |
| U0415: VEHICLE SPEED | Inhibit steering lock |

### REAR WIPER MOTOR PROTECTION

BCM detects the rear wiper stopping position according to the rear wiper stop position signal.
When the rear wiper stop position signal does not change for more than 5 seconds while driving the rear wiper, BCM stops power supply to protect the rear wiper motor.

Condition of cancellation
1. More than 1 minute is passed after the rear wiper stop.
2. Turn rear wiper switch OFF.
3. Operate the rear wiper switch or rear washer switch.

## FAIL-SAFE CONTROL BY RAIN SENSOR MALFUNCTION

BCM detects the 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

INFOID:0000000010688608

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

| Priority | DTC |
|---|---|
| 1 | B2562–00: LOW VOLTAGE |
| 2 | • U1000–00: CAN COMM<br>• U1010–00: CONTROL UNIT (CAN) |
| 3 | • B2190–00: CHAIN OF BCM-IMM ANT<br>• B2191–00: ID DISCORD, BCM-IMMANT<br>• B2192–00: ID DISCORD BCM-ECM<br>• B2193–00: CHAIN OF BCM-ECM<br>• B2195–00: ANTI-SCANNING<br>• B2196–00: DONGLE NG<br>• B2198–00: NATS ANTENNA AMP |

| Priority | DTC |
|---|---|
| 4 | • B2556–00: PUSH-BTN IGN SW<br>• B2557–00: VEHICLE SPEED<br>• B2602–00: SHIFT POSITION<br>• B2604–00: PNP/CLUTCH SW<br>• B2608–00: STARTER RELAY<br>• B260F–00: ENG STATE SIG LOST<br>• B261A–00: PUSH-BTN IGN SW<br>• B261F–00: ASCD CNCL/CLTCH SW<br>• B2620–00: NEUTRAL SW<br>• B26E8–00: CLUTCH SW<br>• B26F1–00: IGN RELAY OFF<br>• B26F2–00: IGN RELAY ON<br>• B26FC–00: KEY REGISTRATION<br>• B27D1–00: START CUT RELAY OFF<br>• B27D2–00: START CUT RELAY ON<br>• B27D3–00: S/L THERMAL PROTECTION<br>• B27D4–00: BCM - S/L SENSOR CIRCUIT<br>• B27D5–00: S/L SENSOR TEST OUTPUT<br>• B27D6–00: S/L CAN COMM CIRCUIT<br>• B27D7–00: S/L PWR RELAY<br>• B27D8–00: S/L VEHICLE SPEED MALFUNCTION<br>• B27D9–00: S/L IGN MALFUNCTION<br>• B27DA–00: IPDM CAN COMM CIRCUIT<br>• B27DB–00: S/L IGN OFF<br>• B27DC–00: S/L POWER SUPPLY<br>• B27DD–00: BCM - S/L ID DISCORD<br>• B27DE–00: S/L MECHANICAL MALFUNCTION<br>• B27DF–00: S/L HIGH LEVEL MALFUNCTION<br>• B27E0–00: S/L LOW LEVEL MALFUNCTION<br>• B27E1–00: S/L SAFETY CIRCUIT<br>• B27E3–00: S/L KEY NOT REGISTRATION<br>• B27E4–00: S/L REGISTRATION STATUS<br>• B27E5–00: S/L IGN OFF POSITION<br>• B27E6–00: S/L ANTI-SCAN MODE<br>• B27E7–00: S/L UNDETERMINED UNLOCK POS<br>• B27E8–00: S/L UNDETERMINED LOCK POS<br>• U0415–00: VEHICLE SPEED |
| 5 | • B2621–00: INSIDE ANTENNA<br>• B2622–00: INSIDE ANTENNA |

## DTC Index

INFOID:0000000010688609

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

×:Applicable

| CONSULT display | Fail-safe | Freeze Frame Data | Key system malfunction | Security indicator lamp ON | Reference |
|---|---|---|---|---|---|
| No DTC is detected. further testing may be required. | — | — | — | — | — |
| U1000–00: CAN COMM | — | — | — | — | BCS-110 |
| U1010–00: CONTROL UNIT (CAN) | — | — | — | — | BCS-111 |
| U0415–00: VEHICLE SPEED | × | — | × | — | BCS-112 |
| B2190–00: CHAIN OF BCM-IMMANT | × | — | — | × | •SEC-110*1<br>•SEC-270*2 |
| B2191–00: ID DISCORD, BCM-IMMANT | × | — | — | × | •SEC-113*1<br>•SEC-273*2 |

| CONSULT display | Fail-safe | Freeze Frame Data | Key system malfunction | Security indicator lamp ON | Reference |
|---|---|---|---|---|---|
| B2192–00: ID DISCORD BCM-ECM | × | — | — | × | •SEC-114*1<br>•SEC-274*2 |
| B2193–00: CHAIN OF BCM-ECM | × | — | — | × | •SEC-116*1<br>•SEC-275*2 |
| B2195–00: ANTI-SCANNING | × | — | — | × | •SEC-118*1<br>•SEC-277*2 |
| B2196–00: DONGLE NG | × | — | — | × | •SEC-119*1<br>•SEC-278*2 |
| B2198–00: NATS ANTENNA AMP | × | — | — | × | •SEC-121*1<br>•SEC-280*2 |
| B2556–00: PUSH-BTN IGN SW | — | × | × | — | SEC-123 |
| B2557–00: VEHICLE SPEED | × | × | × | — | SEC-125 |
| B2562–00: LOW VOLTAGE | — | × | — | — | BCS-113 |
| B2602–00: SHIFT POSITION | × | × | × | — | SEC-127 |
| B2604–00: PNP/CLUTCH SW | × | × | × | — | SEC-130 |
| B2608–00: STARTER RELAY | × | × | × | — | •SEC-133*1<br>•SEC-283*2 |
| B260F–00: ENG STATE SIG LOST | × | × | × | — | •SEC-134*1<br>•SEC-284*2 |
| B261A–00: PUSH-BTN IGN SW | — | × | × | — | PCS-101 |
| B261F–00: ASCD CNCL/CLTCH SW | — | × | × | — | SEC-136 |
| B2620–00: NEUTRAL SW | × | × | × | — | SEC-139 |
| B2621–00: INSIDE ANTENNA | — | × | × | — | •DLK-149*3<br>•DLK-460*4 |
| B2622–00: INSIDE ANTENNA | — | × | × | — | •DLK-152*3<br>•DLK-463*4 |
| B26E8–00: CLUTCH SW | — | × | × | — | SEC-143 |
| B26F1–00: IGN RELAY OFF | × | × | × | — | PCS-103 |
| B26F2–00: IGN RELAY ON | × | × | × | — | PCS-105 |
| B26FC–00: KEY REGISTRATION | — | × | × | — | SEC-142 |
| B27D1–00: START CUT RELAY OFF | — | × | × | — | •SEC-146*1<br>•SEC-286*2 |
| B27D2–00: START CUT RELAY ON | — | × | × | — | •SEC-149*1<br>•SEC-289*2 |
| B27D3–00: S/L THERMAL PROTECTION | — | × | × | — | SEC-152 |
| B27D4–00: BCM - S/L SENSOR CIRCUIT | × | × | × | — | SEC-153 |
| B27D5–00: S/L SENSOR TEST OUTPUT | × | × | × | — | SEC-155 |
| B27D6–00: S/L CAN COMM CIRCUIT | × | × | × | — | SEC-158 |
| B27D7–00: S/L PWR RELAY | × | × | × | — | SEC-160 |
| B27D8–00: S/L VEHICLE SPEED MALFUNCTION | × | × | × | — | SEC-162 |
| B27D9–00: S/L IGN MALFUNCTION | × | × | × | — | SEC-164 |

| CONSULT display | Fail-safe | Freeze Frame Data | Key system malfunction | Security indicator lamp ON | Reference |
|---|---|---|---|---|---|
| B27DA–00: IPDM CAN COMM CIRCUIT | × | × | × | — | •SEC-165*1<br>•SEC-292*2 |
| B27DB–00: S/L IGN OFF | — | × | × | — | SEC-167 |
| B27DC–00: S/L POWER SUPPLY | × | × | × | — | SEC-169 |
| B27DD–00: BCM - S/L ID DISCORD | × | × | × | — | SEC-171 |
| B27DE–00: S/L MECHANICAL MALFUNCTION | × | × | × | — | SEC-173 |
| B27DF–00: S/L HIGH LEVEL MALFUNCTION | × | × | × | — | SEC-174 |
| B27E0–00: S/L LOW LEVEL MALFUNCTION | × | × | × | — | SEC-175 |
| B27E1–00: S/L SAFETY CIRCUIT | × | × | × | — | SEC-176 |
| B27E3–00: S/L KEY NOT REGISTRATION | — | × | × | — | SEC-178 |
| B27E4–00: S/L REGISTRATION STATUS | — | × | × | — | SEC-179 |
| B27E5–00: S/L IGN OFF POSITION | × | × | × | — | SEC-180 |
| B27E6–00: S/L ANTI-SCAN MODE | × | × | × | — | SEC-182 |
| B27E7–00: S/L UNDETERMINED UNLOCK POS | — | × | × | — | SEC-184 |
| B27E8–00: S/L UNDETERMINED LOCK POS | × | × | × | — | SEC-186 |

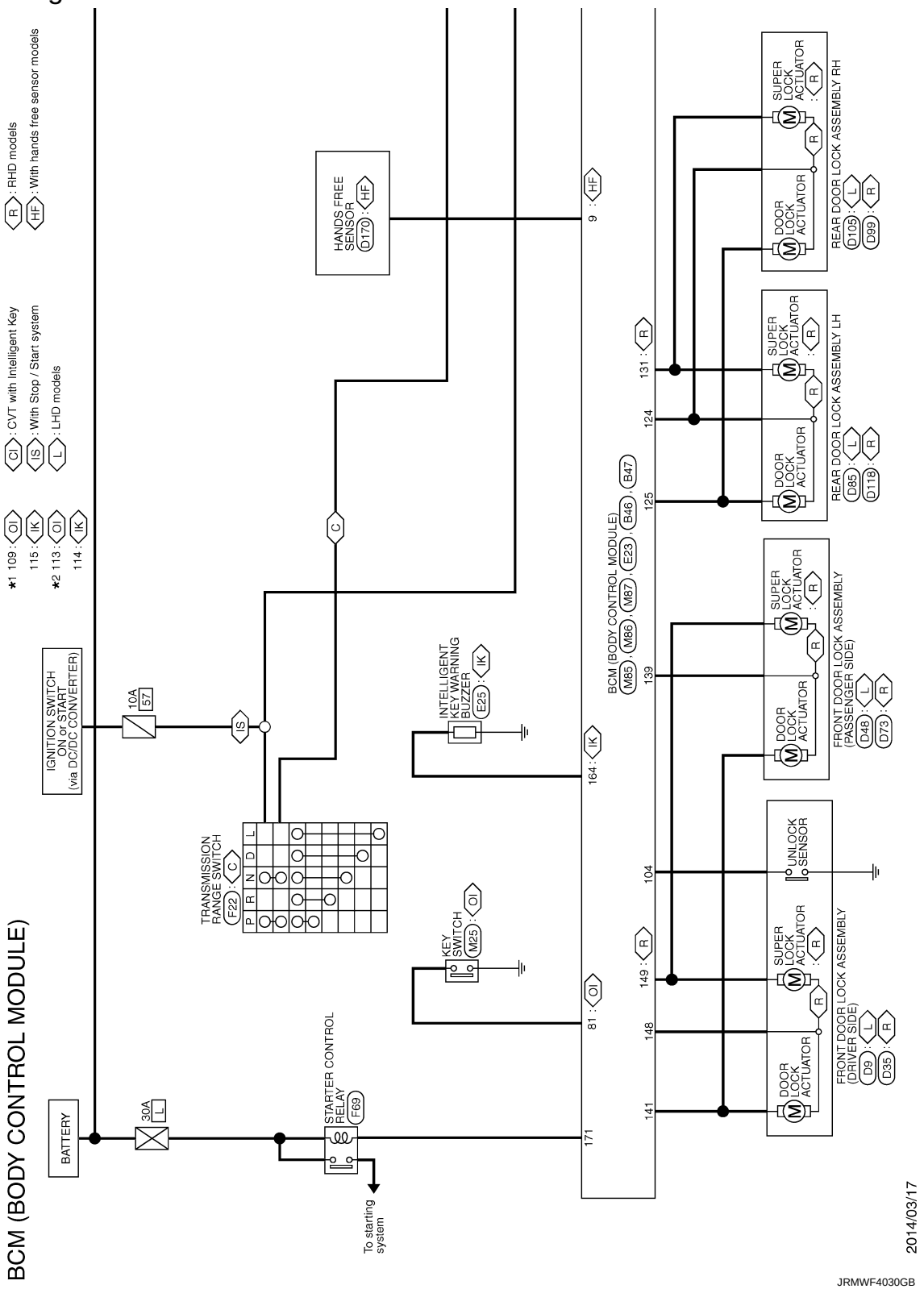
*1: With Intelligent Key system
*2: Without Intelligent Key system
*3: With super lock
*4: Without super lock

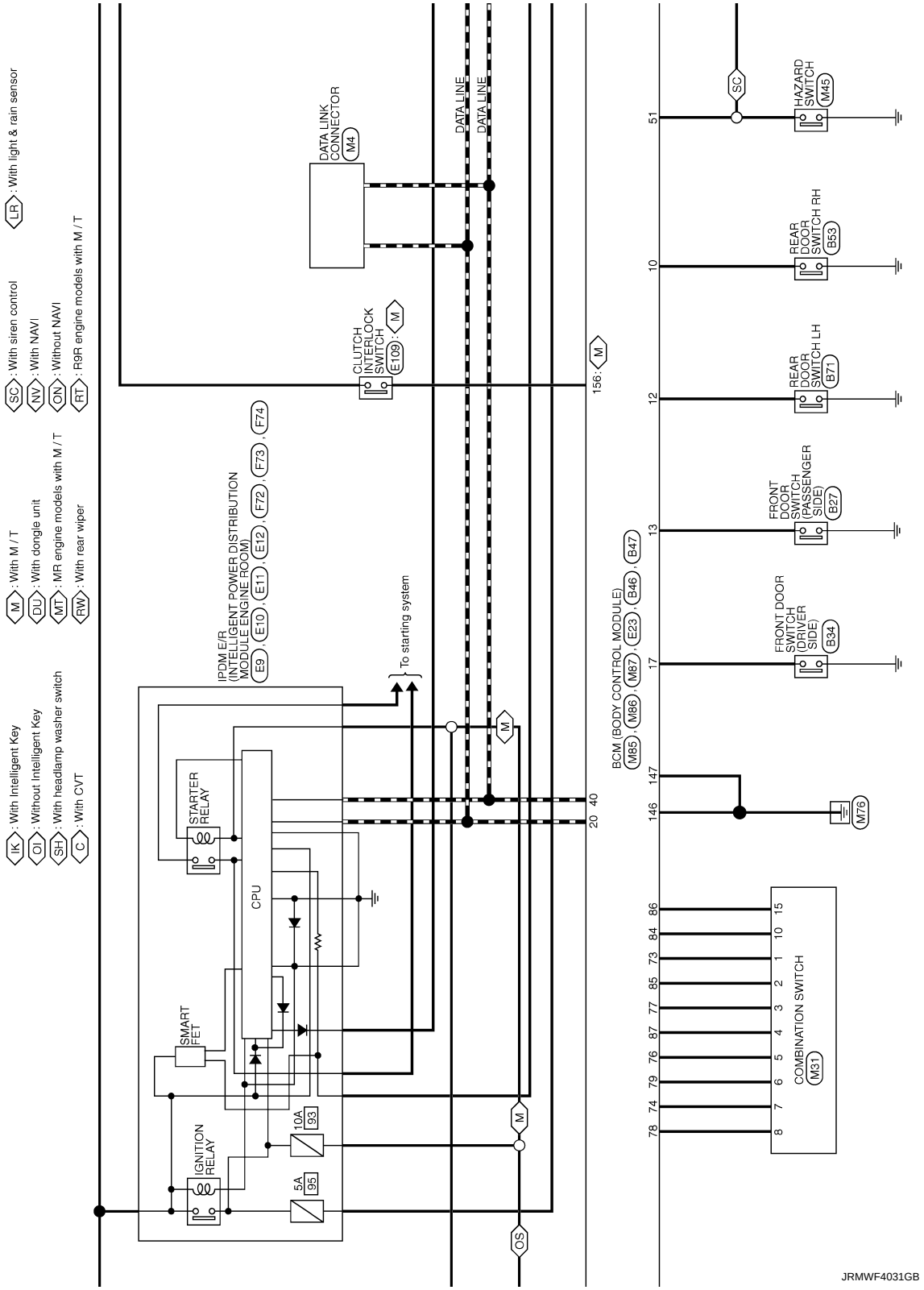
# WIRING DIAGRAM

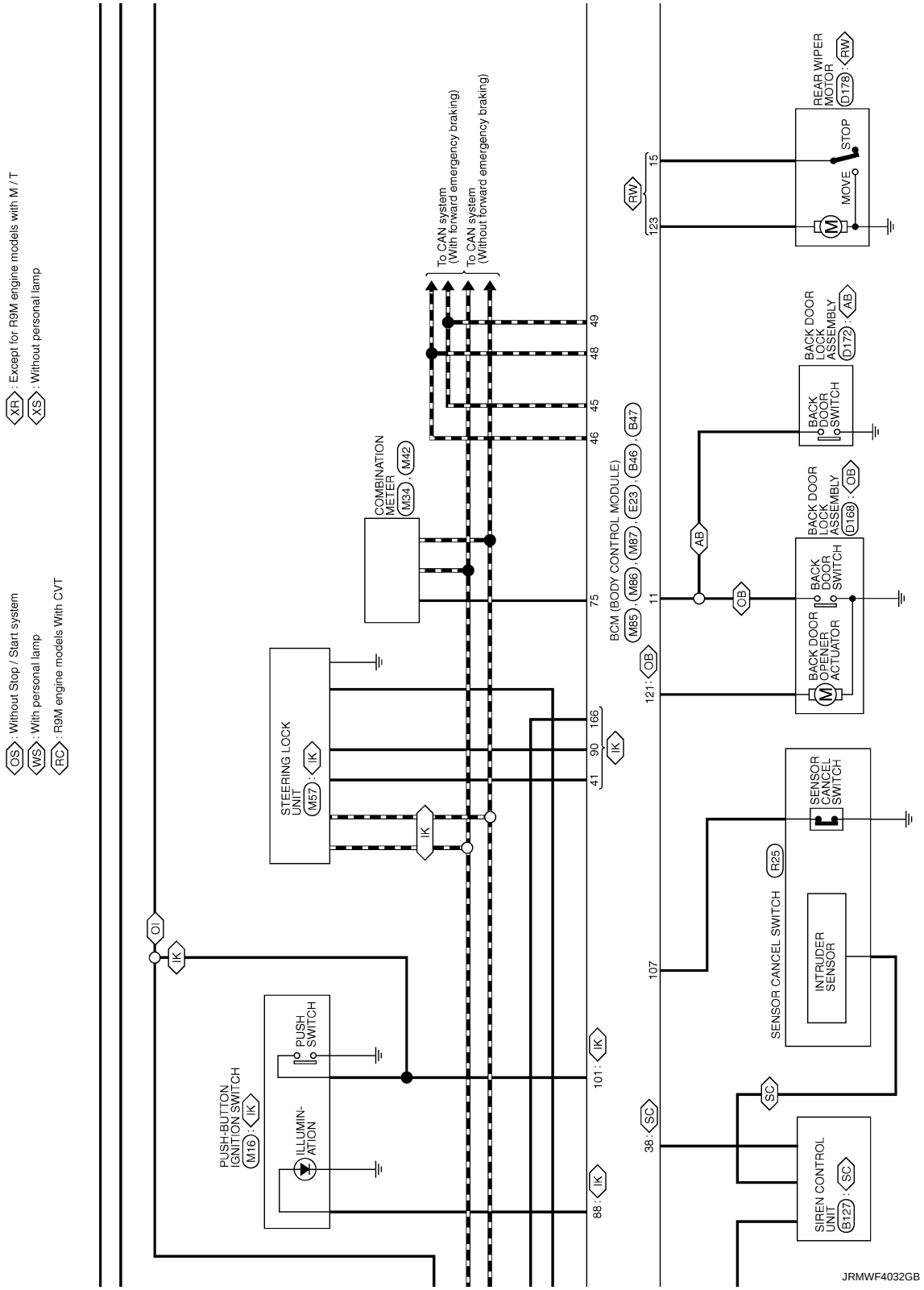
## BCM

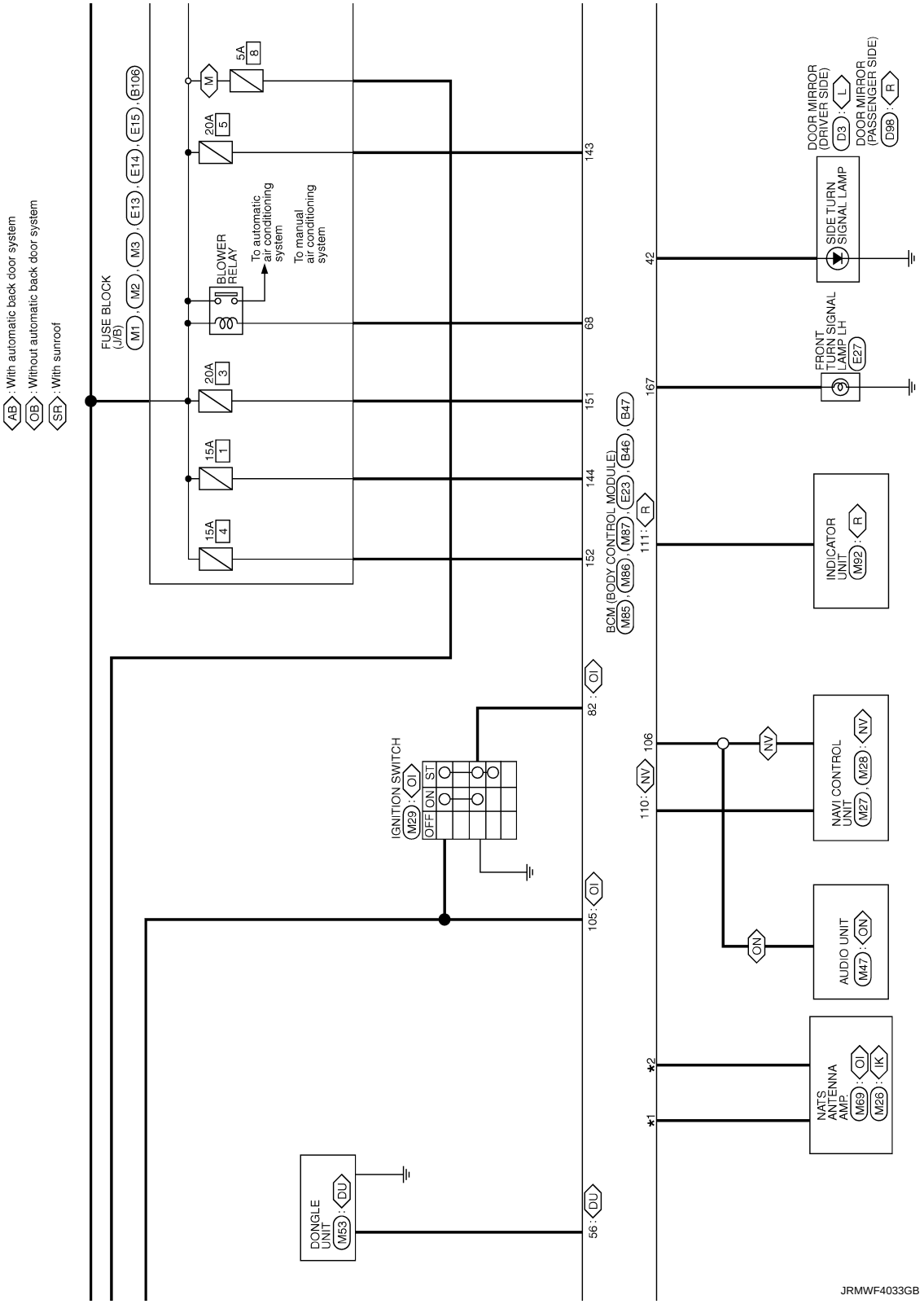
### Wiring Diagram

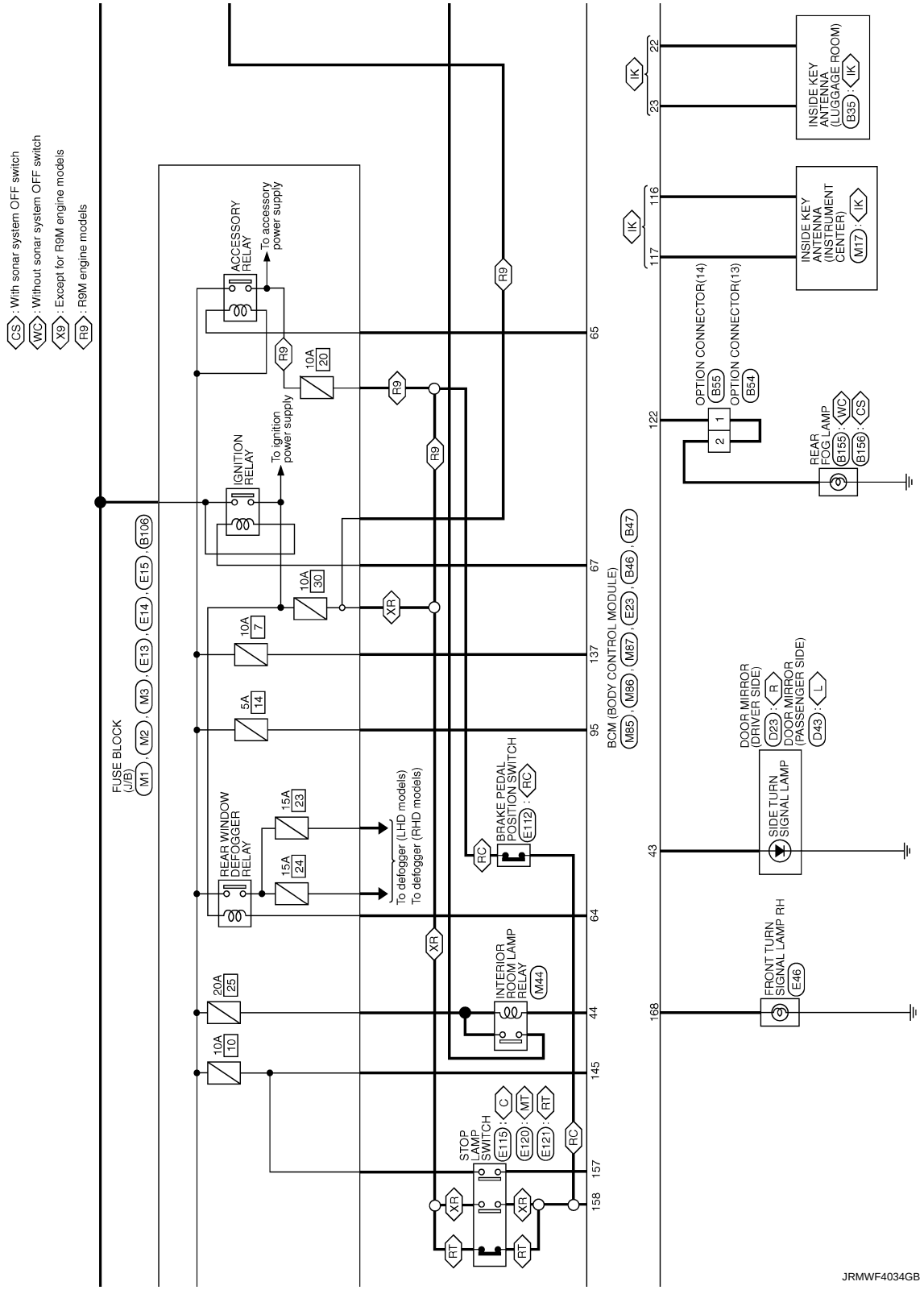
INFOID:0000000010688610

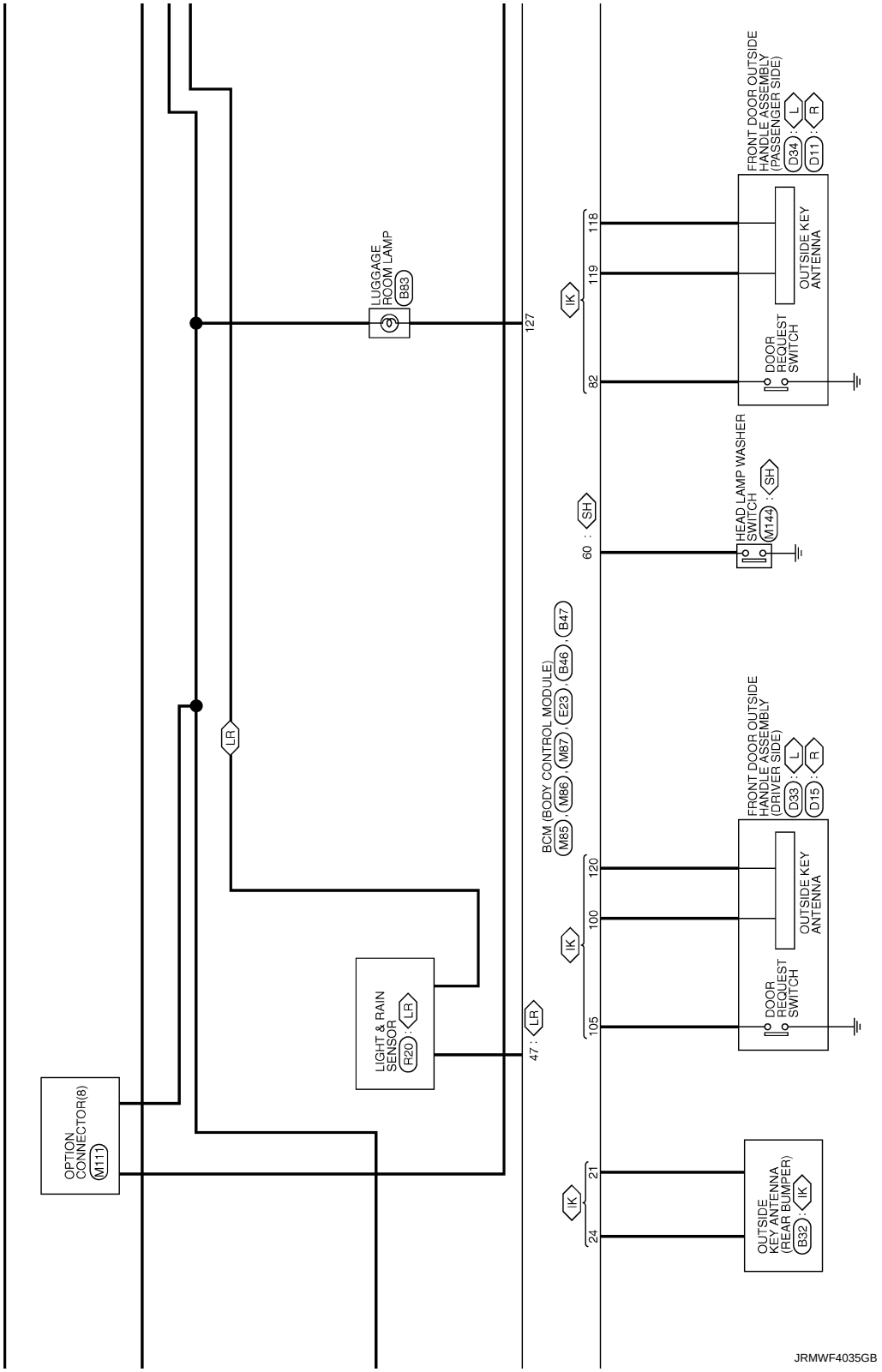


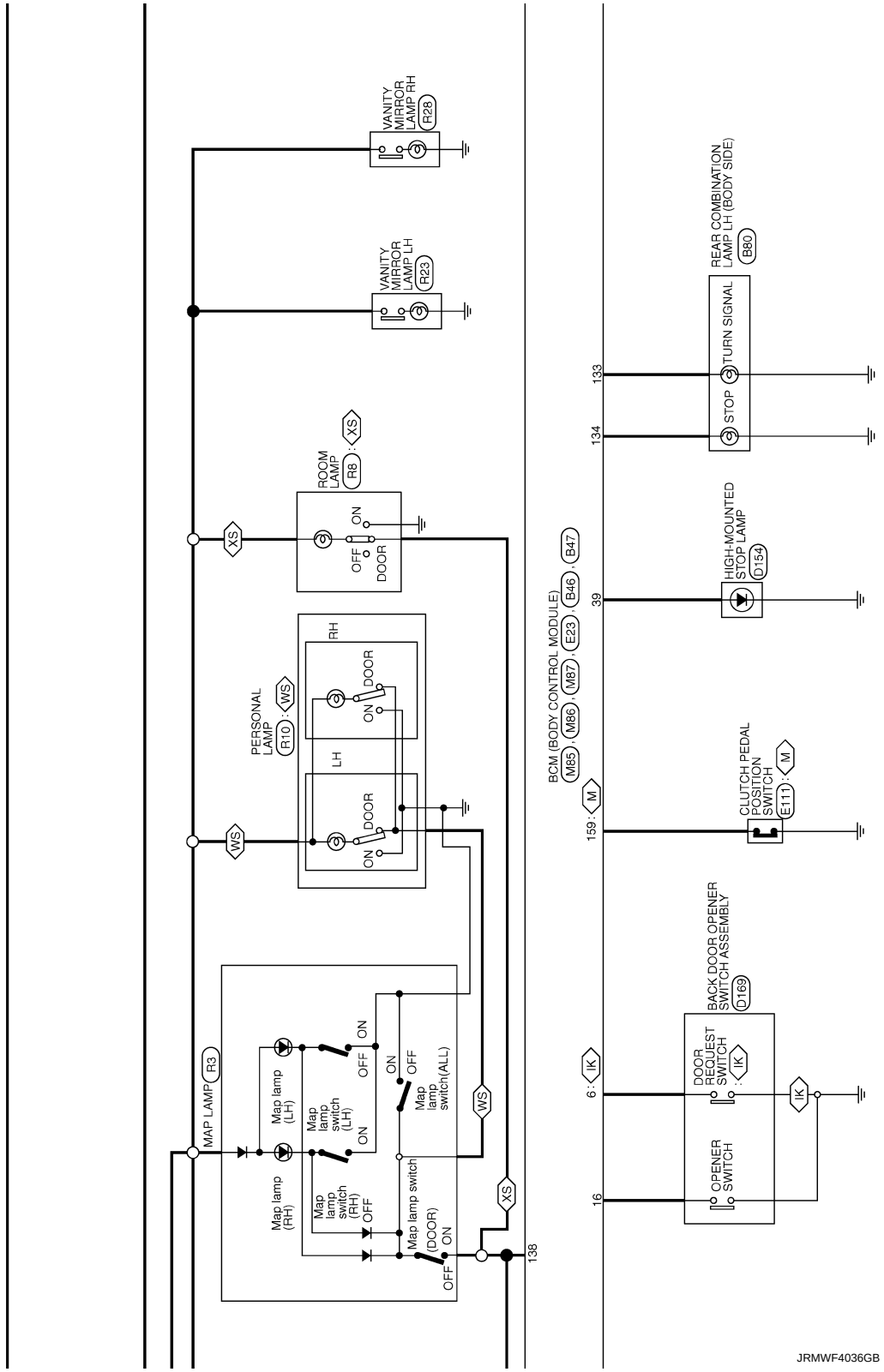

IK : With Intelligent Key
OI : Without Intelligent Key
SH : With headlamp washer switch
C : With CVT
M : With M / T
DU : With dongle unit
MT : MR engine models with M / T
RW : With rear wiper
SC : With siren control
NV : With NAVI
ON : Without NAVI
RT : R9R engine models with M / T
LR : With light & rain sensor
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
E9, E10, E11, E12, F72, F73, F74
To starting system
DATA LINK CONNECTOR M4
DATA LINE
DATA LINE
CLUTCH INTERLOCK SWITCH E109
156
CPU
STARTER RELAY
SMART FET
IGNITION RELAY
10A 93
5A 95
BCM (BODY CONTROL MODULE) M85, M86, M67, E23, B46, B47
HAZARD SWITCH M45
REAR DOOR SWITCH RH B53
REAR DOOR SWITCH LH B71
FRONT DOOR SWITCH (PASSENGER SIDE) B27
FRONT DOOR SWITCH (DRIVER SIDE) B34
M76
COMBINATION SWITCH M31
JRMWF4031GB

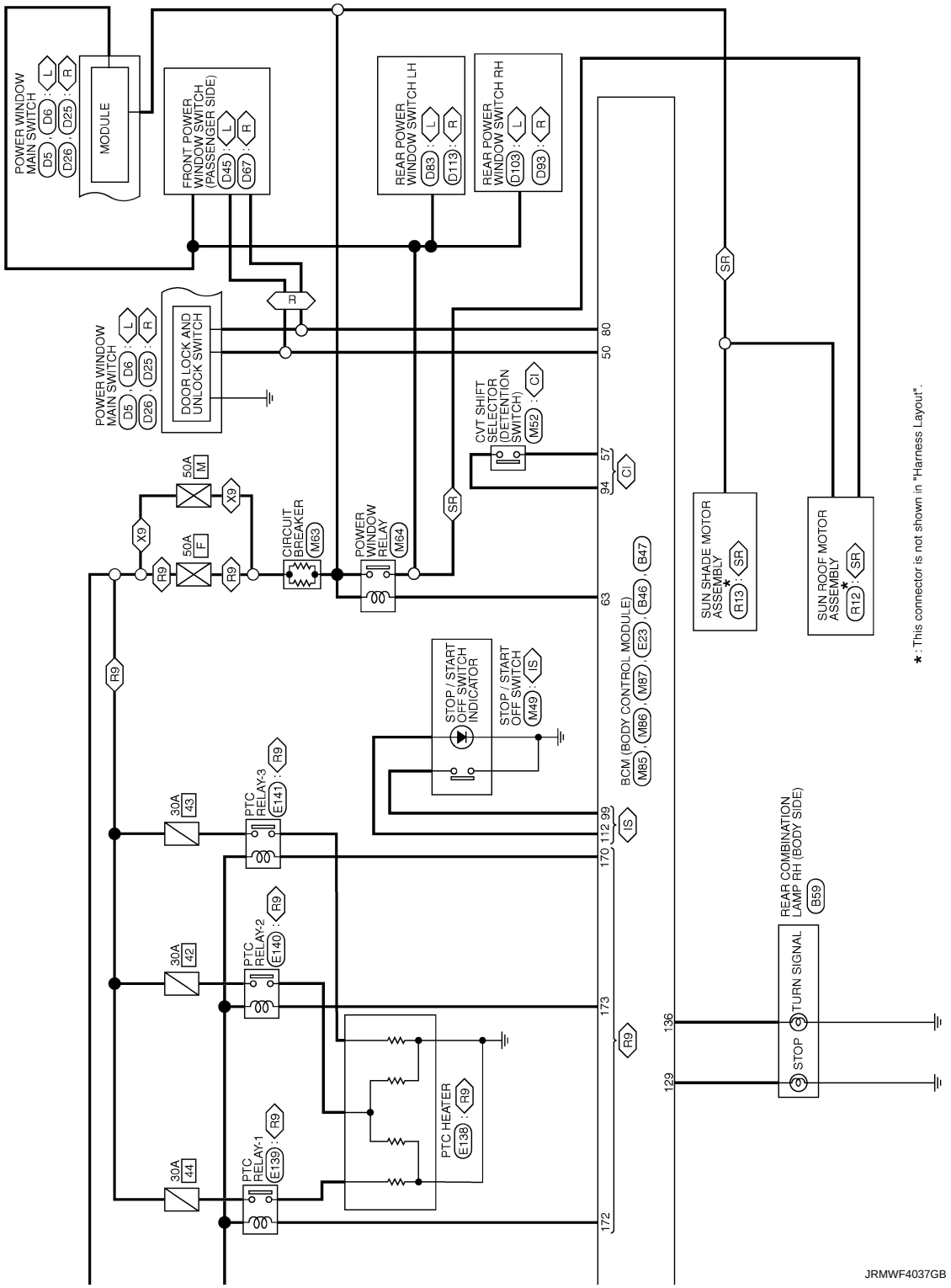

OS : Without Stop / Start system
WS : With personal lamp
RC : R9M engine models With CVT
XR : Except for R9M engine models with M / T
XS : Without personal lamp
To CAN system (With forward emergency braking)
To CAN system (Without forward emergency braking)
COMBINATION METER M34, M42
STEERING LOCK UNIT M57 : IK
PUSH-BUTTON IGNITION SWITCH M16 : IK
PUSH SWITCH
ILLUMINATION
BCM (BODY CONTROL MODULE) M65, M86, M87, E23, B46, B47
REAR WIPER MOTOR D178 : RW
STOP
MOVE
BACK DOOR LOCK ASSEMBLY D172 : AB
BACK DOOR SWITCH
BACK DOOR LOCK ASSEMBLY D168 : OB
BACK DOOR OPENER ACTUATOR
SENSOR CANCEL SWITCH R25
INTRUDER SENSOR
SENSOR CANCEL SWITCH
SIREN CONTROL UNIT B127 : SC
JRMWF4032GB

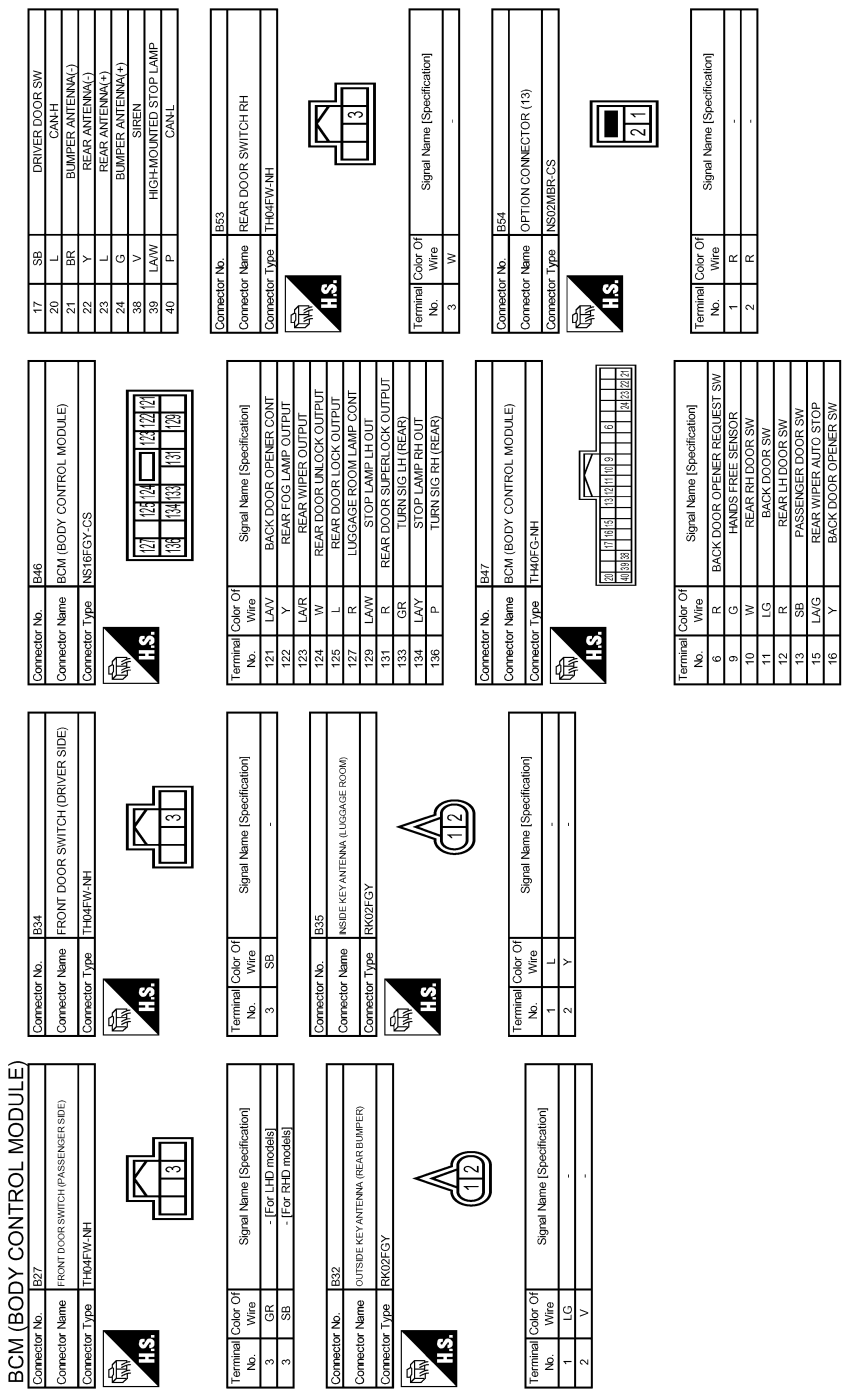

AB : With automatic back door system
OB : Without automatic back door system
SR : With sunroof
FUSE BLOCK (J/B)
M1 , M2 , M3 , E13 , E14 , E15 , B106
5A 8
20A 5
20A 3
15A 1
15A 4
BLOWER RELAY
To automatic air conditioning system
To manual air conditioning system
143
68
151
144
152
IGNITION SWITCH
M29 : OI
OFF ACC ON ST
82 : OI
105 : OI
56 : DU
DONGLE UNIT
M53 : DU
BCM (BODY CONTROL MODULE)
M85 , M86 , M87 , E23 , B46 , B47
111 : R
110 : NV
106
42
167
DOOR MIRROR (DRIVER SIDE)
D3 : L
DOOR MIRROR (PASSENGER SIDE)
D98 : R
SIDE TURN SIGNAL LAMP
FRONT TURN SIGNAL LAMP LH
E27
INDICATOR UNIT
M92 : R
NAVI CONTROL UNIT
M27 , M28 : NV
AUDIO UNIT
M47 : ON
NATS ANTENNA AMP.
M69 : OI
M26 : IK
*1
*2
JRMWF4033GB


CS : With sonar system OFF switch
WC : Without sonar system OFF switch
X9 : Except for R9M engine models
R9 : R9M engine models
FUSE BLOCK (J/B)
M1, M2, M3, E13, E14, E15, B106
ACCESSORY RELAY
To accessory power supply
IGNITION RELAY
To ignition power supply
REAR WINDOW DEFOGGER RELAY
To defogger (LHD models)
To defogger (RHD models)
INTERIOR ROOM LAMP RELAY M44
STOP LAMP SWITCH E115 : C
E120 : MT
E121 : RT
BRAKE PEDAL POSITION SWITCH E112 : RC
BCM (BODY CONTROL MODULE) M85, M86, M87, E23, B46, B47
INSIDE KEY ANTENNA (LUGGAGE ROOM) B35 : IK
INSIDE KEY ANTENNA (INSTRUMENT CENTER) M17 : IK
OPTION CONNECTOR(14) B55
OPTION CONNECTOR(13) B54
REAR FOG LAMP B155 : WC B156 : CS
DOOR MIRROR (DRIVER SIDE) D23 : R
DOOR MIRROR (PASSENGER SIDE) D43 : L
SIDE TURN SIGNAL LAMP
FRONT TURN SIGNAL LAMP RH E46
JRMWF4034GB


OPTION CONNECTOR(8) (M111)
LIGHT & RAIN SENSOR (R20) : LR
LUGGAGE ROOM LAMP (B83)
127
LR
47 : LR
BCM (BODY CONTROL MODULE) (M85), (M86), (M87), (E23), (B46), (B47)
IK
120
100
105
FRONT DOOR OUTSIDE HANDLE ASSEMBLY (DRIVER SIDE) (D33) : L (D15) : R
DOOR REQUEST SWITCH
OUTSIDE KEY ANTENNA
IK
118
119
82
FRONT DOOR OUTSIDE HANDLE ASSEMBLY (PASSENGER SIDE) (D34) : L (D11) : R
DOOR REQUEST SWITCH
OUTSIDE KEY ANTENNA
60 : SH
HEAD LAMP WASHER SWITCH (M144) : SH
IK
21
24
OUTSIDE KEY ANTENNA (REAR BUMPER) (B32) : IK
JRMWF4035GB


VANITY MIRROR LAMP RH R28
VANITY MIRROR LAMP LH R23
ROOM LAMP R8 : XS
ON
OFF
DOOR
XS
PERSONAL LAMP R10 : WS
RH
LH
DOOR
ON
WS
MAP LAMP R3
Map lamp (LH)
Map lamp switch (LH)
Map lamp (RH)
Map lamp switch (RH)
OFF
Map lamp switch(ALL)
Map lamp switch (DOOR)
138
BCM (BODY CONTROL MODULE) M85, M86, M87, E23, B46, B47
133
134
39
159 : M
6 : IK
16
REAR COMBINATION LAMP LH (BODY SIDE) B80
STOP
TURN SIGNAL
HIGH-MOUNTED STOP LAMP D154
CLUTCH PEDAL POSITION SWITCH E111 : M
BACK DOOR OPENER SWITCH ASSEMBLY D169
DOOR REQUEST SWITCH : IK
OPENER SWITCH
IK
JRMWF4036GB


POWER WINDOW MAIN SWITCH
D5 : L
D6 : L
D25 : R
D26 : R
MODULE
FRONT POWER WINDOW SWITCH (PASSENGER SIDE)
D45 : L
D67 : R
REAR POWER WINDOW SWITCH LH
D83 : L
D113 : R
REAR POWER WINDOW SWITCH RH
D103 : L
D93 : R
DOOR LOCK AND UNLOCK SWITCH
CVT SHIFT SELECTOR (DETENTION SWITCH)
M52 : CI
50A M
50A F
CIRCUIT BREAKER M63
POWER WINDOW RELAY M64
STOP / START OFF SWITCH INDICATOR
STOP / START OFF SWITCH M49 : IS
BCM (BODY CONTROL MODULE)
M85 : M86 : M87 : E23 : B46 : B47
SUN SHADE MOTOR ASSEMBLY ★ R13 : SR
SUN ROOF MOTOR ASSEMBLY ★ R12 : SR
PTC RELAY-3 E141 : R9
PTC RELAY-2 E140 : R9
PTC RELAY-1 E139 : R9
PTC HEATER E138 : R9
30A 43
30A 42
30A 44
REAR COMBINATION LAMP RH (BODY SIDE) B59
STOP
TURN SIGNAL
★ : This connector is not shown in "Harness Layout".
JRMWF4037GB

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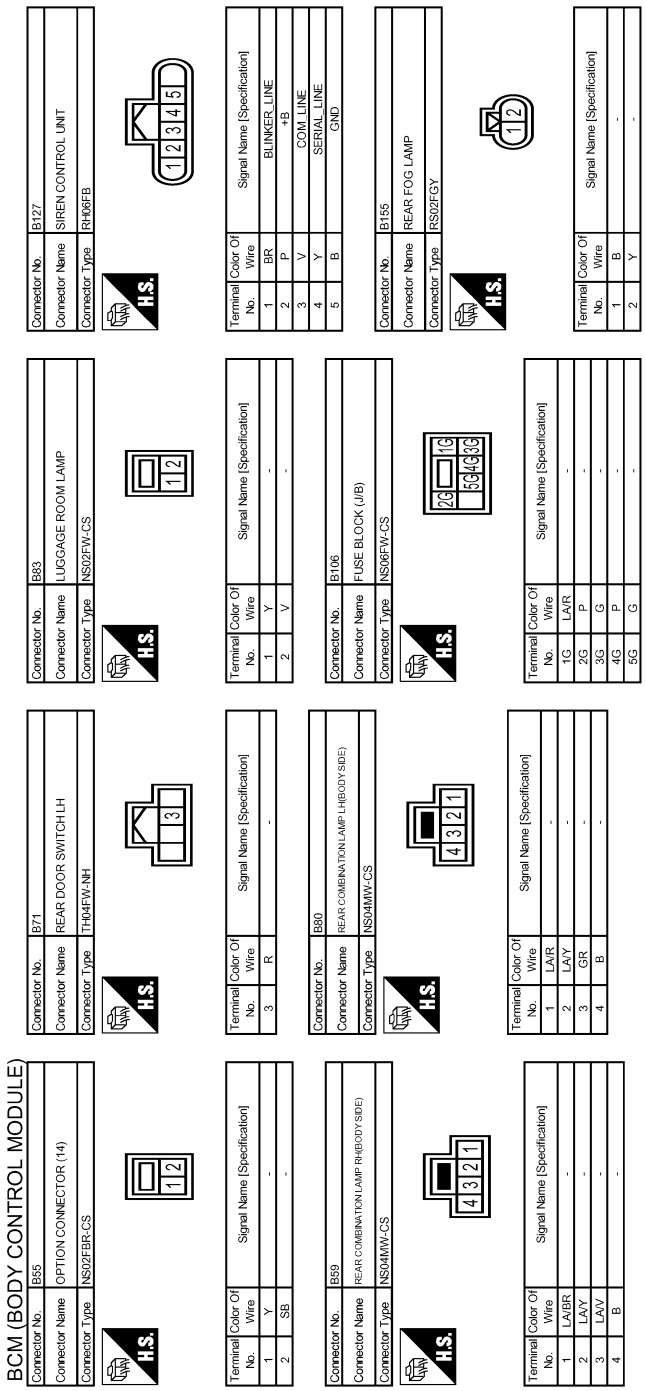


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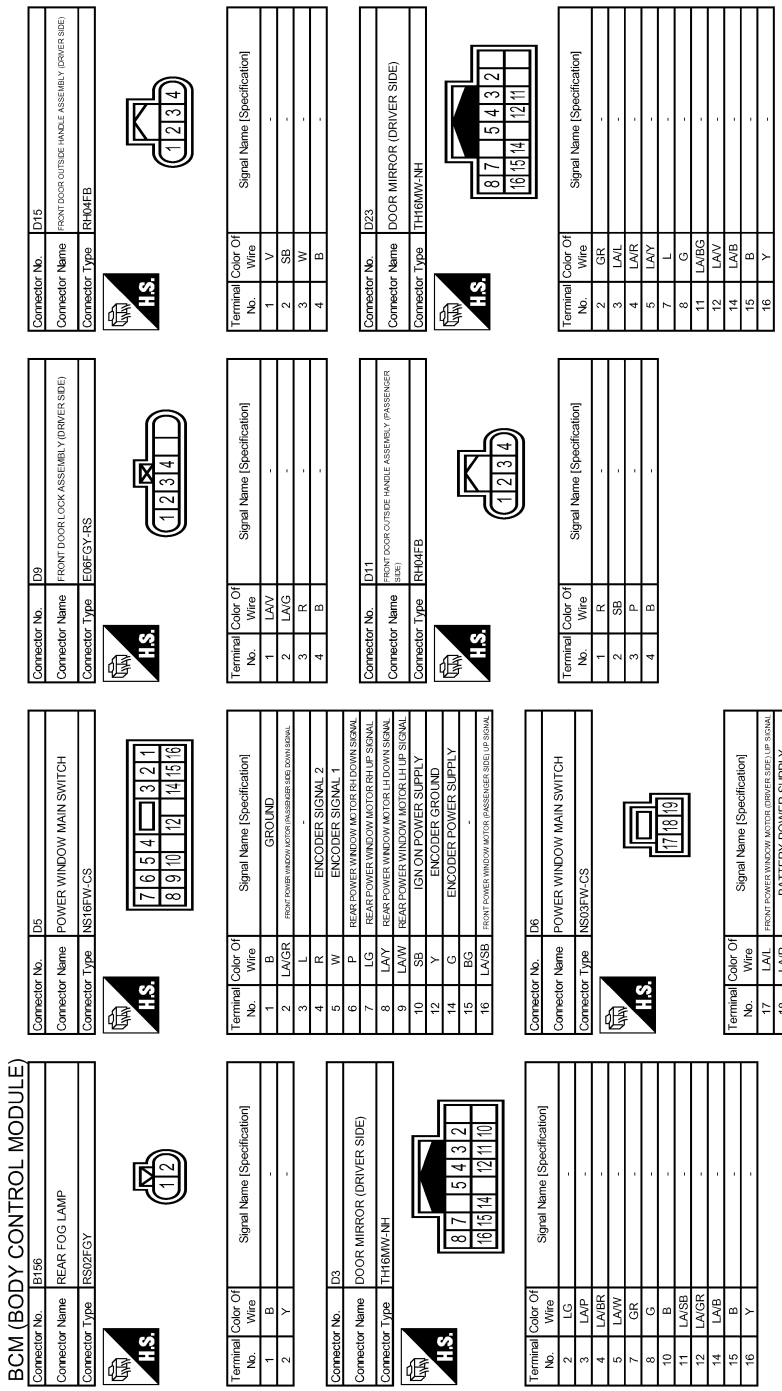



JRMWF4040GB

BCM (BODY CONTROL MODULE)

| Connector No. | D25 |
|---|---|
| Connector Name | POWER WINDOW MAIN SWITCH |
| Connector Type | NS16FW-CS |

H.S.


| Terminal No. | Color Of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | B | GROUND |
| 2 | LA/GR | FRONT POWER WINDOW MOTOR (PASSENGER SIDE) DOWN SIGNAL |
| 3 | L | - |
| 4 | P | ENCODER SIGNAL 2 |
| 5 | W | ENCODER SIGNAL 1 |
| 6 | LA/L | REAR POWER WINDOW MOTOR RH DOWN SIGNAL |
| 7 | LA/G | REAR POWER WINDOW MOTOR RH UP SIGNAL |
| 8 | Y | REAR POWER WINDOW MOTOR LH DOWN SIGNAL |
| 9 | G | REAR POWER WINDOW MOTOR LH UP SIGNAL |
| 10 | SB | IGN ON POWER SUPPLY |
| 12 | LG | ENCODER GROUND |
| 13 | GR | - |
| 14 | G | ENCODER POWER SUPPLY |
| 15 | BG | - |
| 16 | LA/V | FRONT POWER WINDOW MOTOR (PASSENGER SIDE) UP SIGNAL |

| Connector No. | D33 |
|---|---|
| Connector Name | FRONT DOOR OUTSIDE HANDLE ASSEMBLY (DRIVER SIDE) |
| Connector Type | RH04FB |

H.S.


| Terminal No. | Color Of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | - |
| 2 | SB | - |
| 3 | W | - |
| 4 | B | - |

| Connector No. | D34 |
|---|---|
| Connector Name | FRONT DOOR OUTSIDE HANDLE ASSEMBLY (PASSENGER SIDE) |
| Connector Type | RH04FB |

H.S.




| Terminal No. | Color Of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | R | - |
| 2 | SB | - |
| 3 | P | - |
| 4 | B | - |

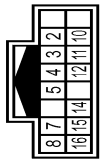
| Connector No. | D35 |
|---|---|
| Connector Name | FRONT DOOR LOCK ASSEMBLY (DRIVER SIDE) |
| Connector Type | FEA04FB-FHA2-LC |

H.S.


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

| Connector No. | D43 |
|---|---|
| Connector Name | DOOR MIRROR (PASSENGER SIDE) |
| Connector Type | TH16MW-NH |

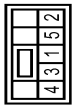
H.S.




| Terminal No. | Color Of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | GR | - |
| 3 | LA/L | - |
| 4 | LA/R | - |
| 5 | LA/Y | - |
| 7 | L | - |
| 8 | V | - |
| 10 | B | - |
| 11 | LA/BG | - |
| 12 | LA/V | - |
| 14 | LA/B | - |
| 15 | B | - |
| 16 | Y | - |

| Connector No. | D45 |
|---|---|
| Connector Name | FRONT POWER WINDOW SWITCH (PASSENGER SIDE) |
| Connector Type | NS08FW-CS |

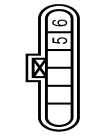
H.S.




| Terminal No. | Color Of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | LA/GR | LOCK |
| 2 | LA/BR | UNLOCK |
| 3 | LA/Y | GND |
| 4 | LA/L | - |
| 5 | LA/R | - |

| Connector No. | D48 |
|---|---|
| Connector Name | FRONT DOOR LOCK ASSEMBLY (PASSENGER SIDE) |
| Connector Type | E06FGY-RS |

H.S.




| Terminal No. | Color Of Wire | Signal Name [Specification] |
|---|---|---|
| 5 | LA/V | - |
| 6 | LA/L | - |

| Connector No. | D26 |
|---|---|
| Connector Name | POWER WINDOW MAIN SWITCH |
| Connector Type | NS03FW-CS |

H.S.




| Terminal No. | Color Of Wire | Signal Name [Specification] |
|---|---|---|
| 17 | LA/R | FRONT POWER WINDOW MOTOR (DRIVER SIDE) UP SIGNAL |
| 18 | LA/R | BATTERY POWER SUPPLY |
| 19 | LA/BR | FRONT POWER WINDOW MOTOR (DRIVER SIDE) DOWN SIGNAL |

JRMWF4041GB

BCM (BODY CONTROL MODULE)

| Connector No. | D67 |
|---|---|
| Connector Name | FRONT POWER WINDOW SWITCH (PASSENGER SIDE) |
| Connector Type | NS12FW-CS |

H.S.




| Terminal No. | Color Of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | LG | - |
| 2 | BR | - |
| 3 | B | - |
| 6 | LA/Y | - |
| 7 | LA/R | - |
| 8 | LA/L | - |
| 11 | LA/V | - |
| 12 | LA/BR | - |

| Connector No. | D73 |
|---|---|
| Connector Name | FRONT DOOR LOCK ASSEMBLY (PASSENGER SIDE) |
| Connector Type | FEA04FB-FHA2-LC |

H.S.




| Terminal No. | Color Of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | R | - |
| 2 | L | - |
| 3 | V | - |

| Connector No. | D83 |
|---|---|
| Connector Name | REAR POWER WINDOW SWITCH LH |
| Connector Type | NS08FW-CS |

H.S.




| Terminal No. | Color Of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | LA/GR | - |
| 2 | LA/BR | - |
| 3 | LA/Y | - |
| 4 | G | - |
| 5 | R | - |

| Connector No. | D85 |
|---|---|
| Connector Name | REAR DOOR LOCK ASSEMBLY LH |
| Connector Type | E06FGY-RS |

H.S.




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

| Connector No. | D93 |
|---|---|
| Connector Name | REAR POWER WINDOW SWITCH RH |
| Connector Type | NS08FW-CS |

H.S.




| Terminal No. | Color Of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | LA/GR | - |
| 2 | LA/BR | - |
| 3 | LA/Y | - |
| 4 | G | - |
| 5 | R | - |

| Connector No. | D98 |
|---|---|
| Connector Name | DOOR MIRROR (PASSENGER SIDE) |
| Connector Type | TH16MW-NH |

H.S.




| Terminal No. | Color Of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | LG | - |
| 3 | LA/P | - |
| 4 | LA/G | - |
| 5 | LA/W | - |
| 7 | L | - |
| 8 | V | - |
| 11 | LA/SB | - |
| 12 | LA/GR | - |
| 14 | LA/B | - |
| 15 | B | - |
| 16 | Y | - |

| Connector No. | D99 |
|---|---|
| Connector Name | REAR DOOR LOCK ASSEMBLY RH |
| Connector Type | FEA04FB-FHA2-LC |

H.S.




| Terminal No. | Color Of Wire | Signal Name [Specification] |
|---|---|---|
| 4 | SB | - |
| 5 | W | - |
| 6 | P | - |

| Connector No. | D103 |
|---|---|
| Connector Name | REAR POWER WINDOW SWITCH RH |
| Connector Type | NS08FW-CS |

H.S.



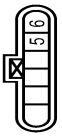

| Terminal No. | Color Of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | LA/GR | - |
| 2 | LA/BR | - |
| 3 | LA/Y | - |
| 4 | G | - |
| 5 | R | - |

JRMWF4042GB

BCM (BODY CONTROL MODULE)

| Connector No. | D105 |
|---|---|
| Connector Name | REAR DOOR LOCK ASSEMBLY RH |
| Connector Type | E06FGY-RS |

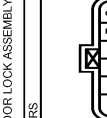
H.S.




| Terminal No. | Color Of Wire | Signal Name [Specification] |
|---|---|---|
| 5 | LA/L | - |
| 6 | LA/W | - |

| Connector No. | D113 |
|---|---|
| Connector Name | REAR POWER WINDOW SWITCH LH |
| Connector Type | NS08FW-CS |

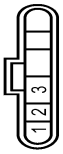
H.S.




| Terminal No. | Color Of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | LA/GR | - |
| 2 | LA/BR | - |
| 3 | LA/Y | - |
| 4 | G | - |
| 5 | R | - |

| Connector No. | D118 |
|---|---|
| Connector Name | REAR DOOR LOCK ASSEMBLY LH |
| Connector Type | FEA04FB-FHA2-LC |

H.S.




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

| Connector No. | D154 |
|---|---|
| Connector Name | HIGH-MOUNTED STOP LAMP |
| Connector Type | TK02MW |

H.S.


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

| Connector No. | D168 |
|---|---|
| Connector Name | BACK DOOR LOCK ASSEMBLY |
| Connector Type | NS04FW-CS |

H.S.


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

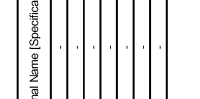
| Connector No. | D169 |
|---|---|
| Connector Name | BACK DOOR OPENER SWITCH ASSEMBLY |
| Connector Type | TH04MW-NH |

H.S.


| Terminal No. | Color Of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | W | - |
| 2 | GR | - |
| 3 | GR | - |
| 4 | BR | - [Without PBD]<br>- [With PBD] |
| 4 | W | |

| Connector No. | D170 |
|---|---|
| Connector Name | HANDS FREE SENSOR |
| Connector Type | TH08FW-NH |

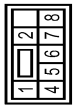
H.S.




| Terminal No. | Color Of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | W | Power_Management_Port |
| 2 | W | Output_Sensor |
| 3 | W | GND |
| 4 | W | Cancel_Signal |

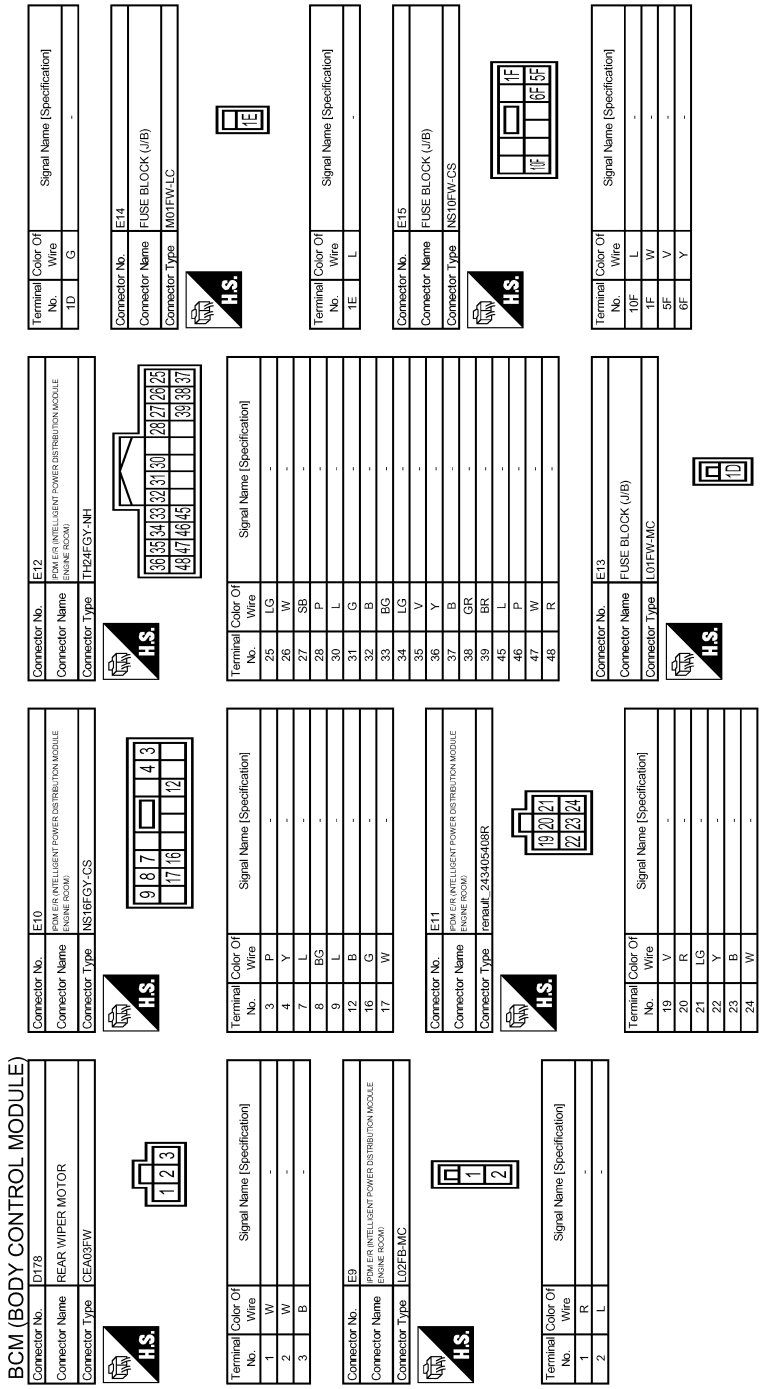
| Connector No. | D172 |
|---|---|
| Connector Name | BACK DOOR LOCK ASSEMBLY |
| Connector Type | NS08FW-CS |

H.S.




| Terminal No. | Color Of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | W | - |
| 2 | W | - |
| 4 | W | - |
| 5 | W | - |
| 6 | W | - |
| 7 | W | - |
| 8 | B | - |

JRMWF4043GB




JRMWF4044GB

BCM (BODY CONTROL MODULE)

| Connector No. | E23 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH24FB-NH |

H.S.




| Terminal No. | Color Of Wire | Signal Name [Specification] |
|---|---|---|
| 156 | V | CLUTCH INTERLOCK SW |
| 157 | LG | STOP LAMP SW 2 |
| 158 | W | STOP LAMP SW 1 |
| 159 | R | ASCD CLUTCH SWITCH |
| 164 | Y | INTELLIGENT KEY WARNING BUZZER |
| 166 | P | STEERING LOCK UNIT POWER SUPPLY |
| 167 | BR | TURN SIG LH (FRONT) |
| 168 | GR | TURN SIG RH (FRONT) |
| 170 | L | PTC RELAY-3 CONTROL |
| 171 | G | STARTER RELAY CONT |
| 172 | V | PTC RELAY-1 CONTROL |
| 173 | BG | PTC RELAY-2 CONTROL |

| Connector No. | E25 |
|---|---|
| Connector Name | INTELLIGENT KEY WARNING BUZZER |
| Connector Type | RK03FBR |

H.S.


| Terminal No. | Color Of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | G | - |
| 3 | B | - |

| Connector No. | E27 |
|---|---|
| Connector Name | FRONT TURN SIGNAL LAMP LH |
| Connector Type | RS02FGY |

H.S.


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

| Connector No. | E46 |
|---|---|
| Connector Name | FRONT TURN SIGNAL LAMP RH |
| Connector Type | RS02FGY |

H.S.


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

| Connector No. | E109 |
|---|---|
| Connector Name | CLUTCH INTERLOCK SWITCH |
| Connector Type | M02FBR-LC |

H.S.


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

| Connector No. | E111 |
|---|---|
| Connector Name | CLUTCH PEDAL POSITION SWITCH |
| Connector Type | M02FBR-LC |

H.S.


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

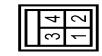
| Connector No. | E112 |
|---|---|
| Connector Name | BRAKE PEDAL POSITION SWITCH |
| Connector Type | M02FBR-LC |

H.S.


| Terminal No. | Color Of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | P | - |
| 2 | GR | - [With MR20 or QR25 Engine] |
| 2 | R | - [With R9M Engine] |

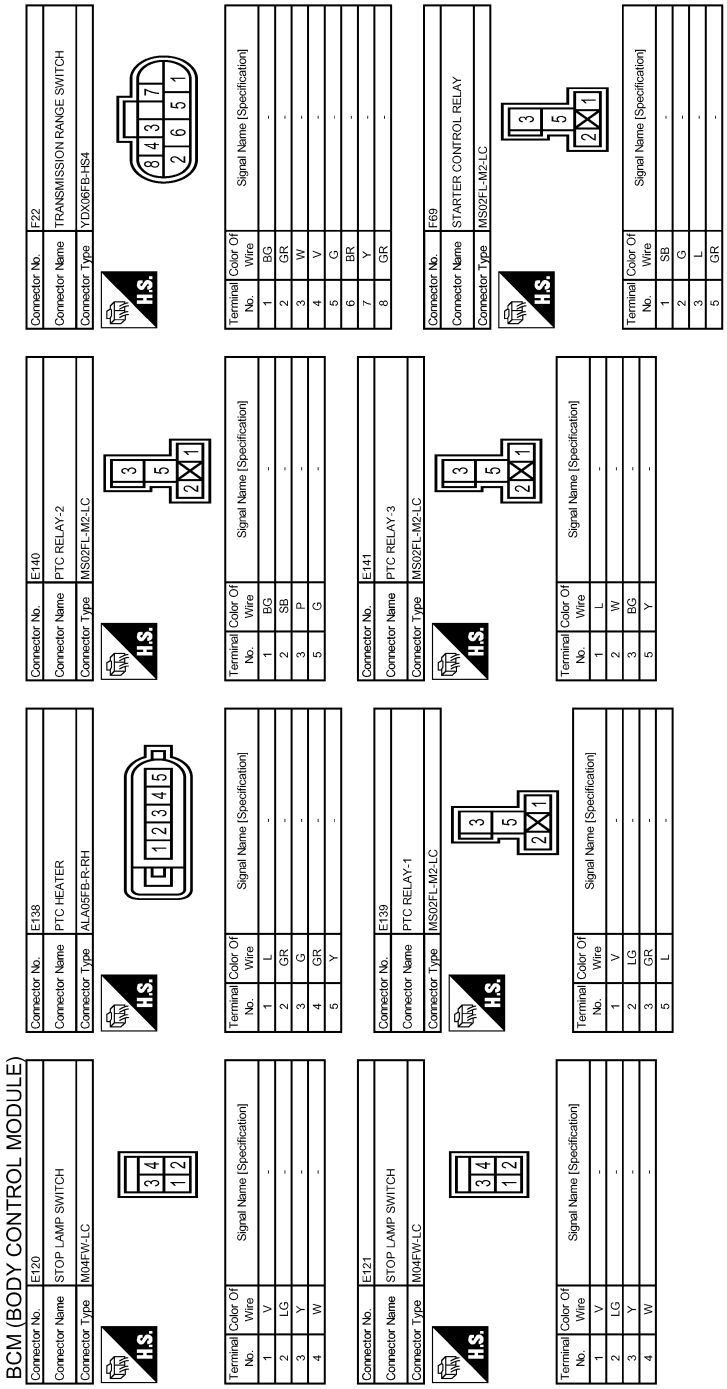
| Connector No. | E115 |
|---|---|
| Connector Name | STOP LAMP SWITCH |
| Connector Type | M04FW-LC |

H.S.

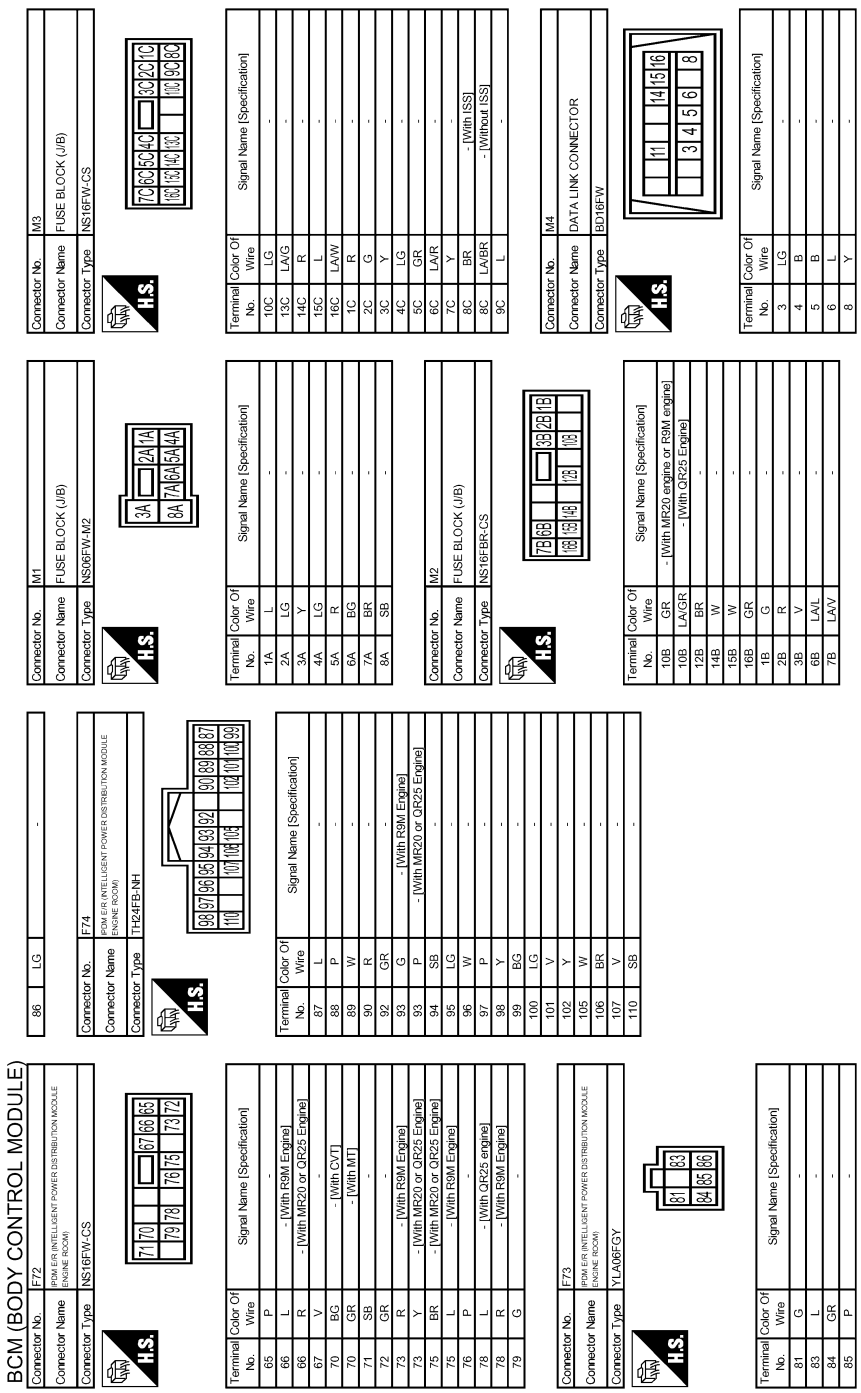



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | - |
| 2 | LG | - |
| 3 | L | - |
| 4 | W | - |

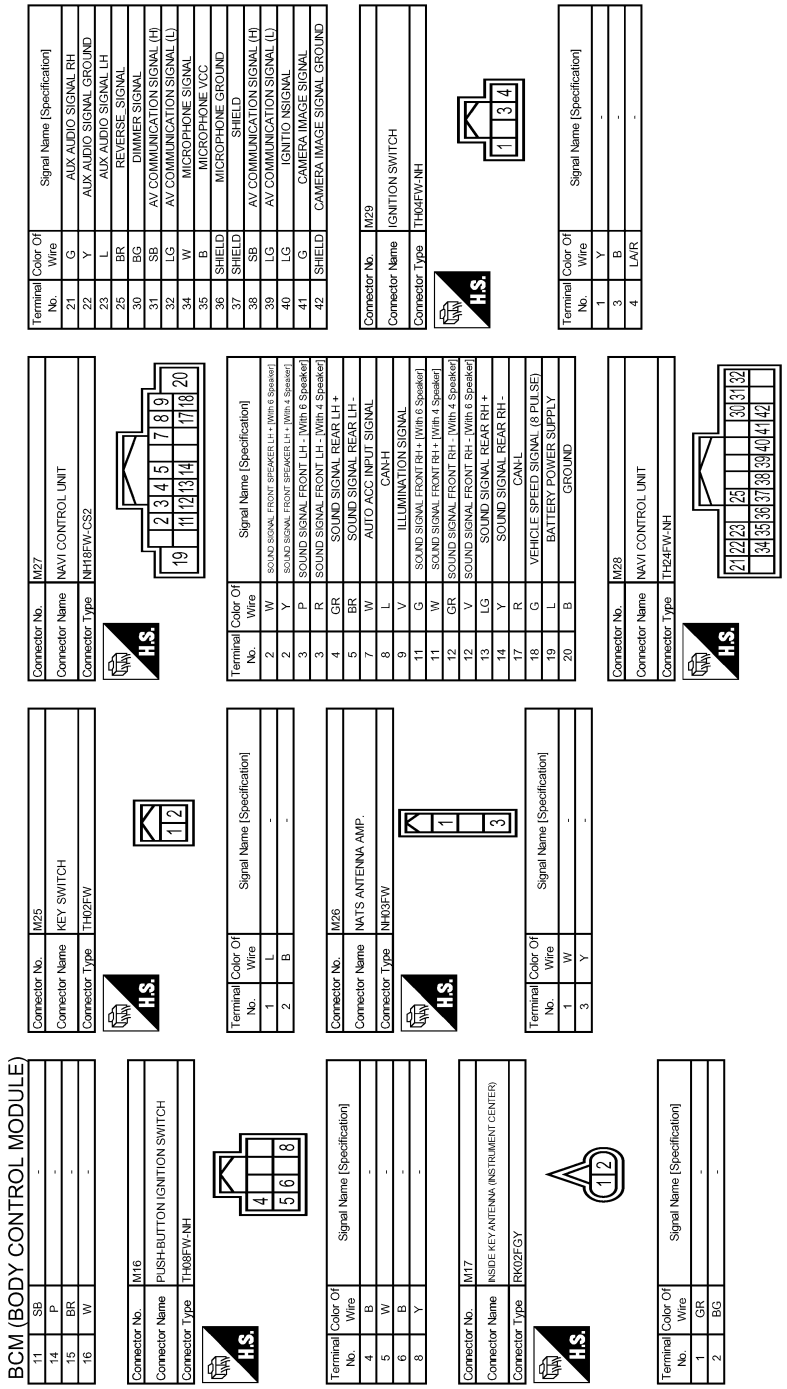
JRMWF4045GB




JRMWF4046GB




JRMWF4047GB

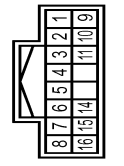



JRMWF4048GB

BCM (BODY CONTROL MODULE)

| Connector No. | M31 |
|---|---|
| Connector Name | COMBINATION SWITCH |
| Connector Type | TH16FW-NH |

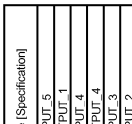
H.S.




| Terminal No. | Color Of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | LG | INPUT_5 |
| 2 | SB | OUTPUT_1 |
| 3 | GR | INPUT_4 |
| 4 | BG | OUTPUT_4 |
| 5 | G | INPUT_3 |
| 6 | W | INPUT_2 |
| 7 | Y | - |
| 8 | V | - |
| 9 | G | RR_WASH_MOTOR |
| 10 | BR | OUTPUT_2 |
| 11 | Y | FR_WASH_MOTOR |
| 14 | LG | IGN |
| 15 | P | OUTPUT_3 |
| 16 | GR | GND |

| Connector No. | M34 |
|---|---|
| Connector Name | COMBINATION METER |
| Connector Type | TH40FW-NH |

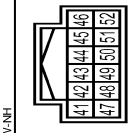
H.S.




| Terminal No. | Color Of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | B | GROUND |
| 7 | BG | SECURITY SIGNAL |
| 9 | GR | ECO MODE SWITCH SIGNAL |
| 15 | L | AMBIENT SENSOR SIGNAL |
| 17 | BG | METER CONTROL SWITCH GROUND |
| 18 | SB | TRIP RESET SWITCH SIGNAL |
| 20 | Y | AMBIENT SENSOR GROUND |
| 21 | L | STEERING SWITCH GROUND |
| 22 | Y | STEERING SWITCH SIGNAL A |
| 23 | GR | STEERING SWITCH SIGNAL B |
| 25 | V | BRAKE FLUID LEVEL SWITCH SIGNAL |
| 28 | Y | SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE) |
| 30 | LG | MANUAL MODE SIGNAL |
| 31 | SB | NON-MANUAL MODE SIGNAL |
| 32 | BG | MANUAL MODE SHIFT UP SIGNAL |
| 33 | BR | MANUAL MODE SHIFT DOWN SIGNAL |
| 36 | GR | ILLUMINATION CONTROL SWITCH SIGNAL (+) |
| 37 | V | ILLUMINATION CONTROL SWITCH SIGNAL (-) |
| 38 | G | VEHICLE SPEED SIGNAL (8-PULSE) |
| 39 | W | VEHICLE SPEED SIGNAL (2-PULSE) |

| Connector No. | M42 |
|---|---|
| Connector Name | COMBINATION METER |
| Connector Type | TH12FW-NH |

H.S.




| Terminal No. | Color Of Wire | Signal Name [Specification] |
|---|---|---|
| 41 | L | CAN-H |
| 42 | P | CAN-L |
| 43 | W | ILLUMINATION CONTROL SIGNAL |
| 44 | LA/B | FUEL LEVEL SENSOR GROUND |
| 45 | LA/G | BATTERY POWER SUPPLY |
| 46 | LA/BR | IGNITION SIGNAL [Without ISS] |
| 46 | V | IGNITION SIGNAL [With ISS] |
| 47 | SB | AV COMMUNICATION SIGNAL (H) |
| 48 | LG | AV COMMUNICATION SIGNAL (L) |
| 49 | Y | OIL LEVEL SENSOR SIGNAL |
| 50 | BG | OIL LEVEL SENSOR GROUND |
| 51 | LA/L | FUEL LEVEL SENSOR SIGNAL |
| 52 | B | GROUND |

| Connector No. | M44 |
|---|---|
| Connector Name | INTERIOR ROOM LAMP RELAY |
| Connector Type | MS02FL-M2-LC |

H.S.


| Terminal No. | Color Of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | LG | - |
| 2 | P | - |
| 3 | LG | - |
| 5 | V | - |

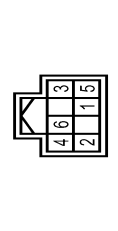
| Connector No. | M45 |
|---|---|
| Connector Name | HAZARD SWITCH |
| Connector Type | TH04FW-NH |

H.S.


| Terminal No. | Color Of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | GR | - |
| 2 | Y | - |
| 3 | R | - |
| 4 | GR | - |

| Connector No. | M47 |
|---|---|
| Connector Name | AUDIO UNIT |
| Connector Type | TH32FW-NH |

H.S.




| Terminal No. | Color Of Wire | Signal Name [Specification] |
|---|---|---|
| 21 | B | MICROPHONE VCC |
| 23 | L | AUX SOUND SIGNAL LH |
| 24 | G | AUX SOUND SIGNAL RH |
| 25 | Y | AUX SOUND SIGNAL GROUND |
| 26 | SHIELD | SHIELD |
| 30 | R | ILLUMINATION SIGNAL |
| 37 | W | MICROPHONE SIGNAL |
| 38 | SHIELD | MICROPHONE GROUND |
| 43 | B | EQ1 |
| 45 | W | AUTO ACC INPUT SIGNAL |
| 46 | SB | AV COMMUNICATION SIGNAL (H) |
| 47 | LG | AV COMMUNICATION SIGNAL (L) |
| 48 | SB | AV COMMUNICATION SIGNAL (H) |
| 49 | LG | AV COMMUNICATION SIGNAL (L) |

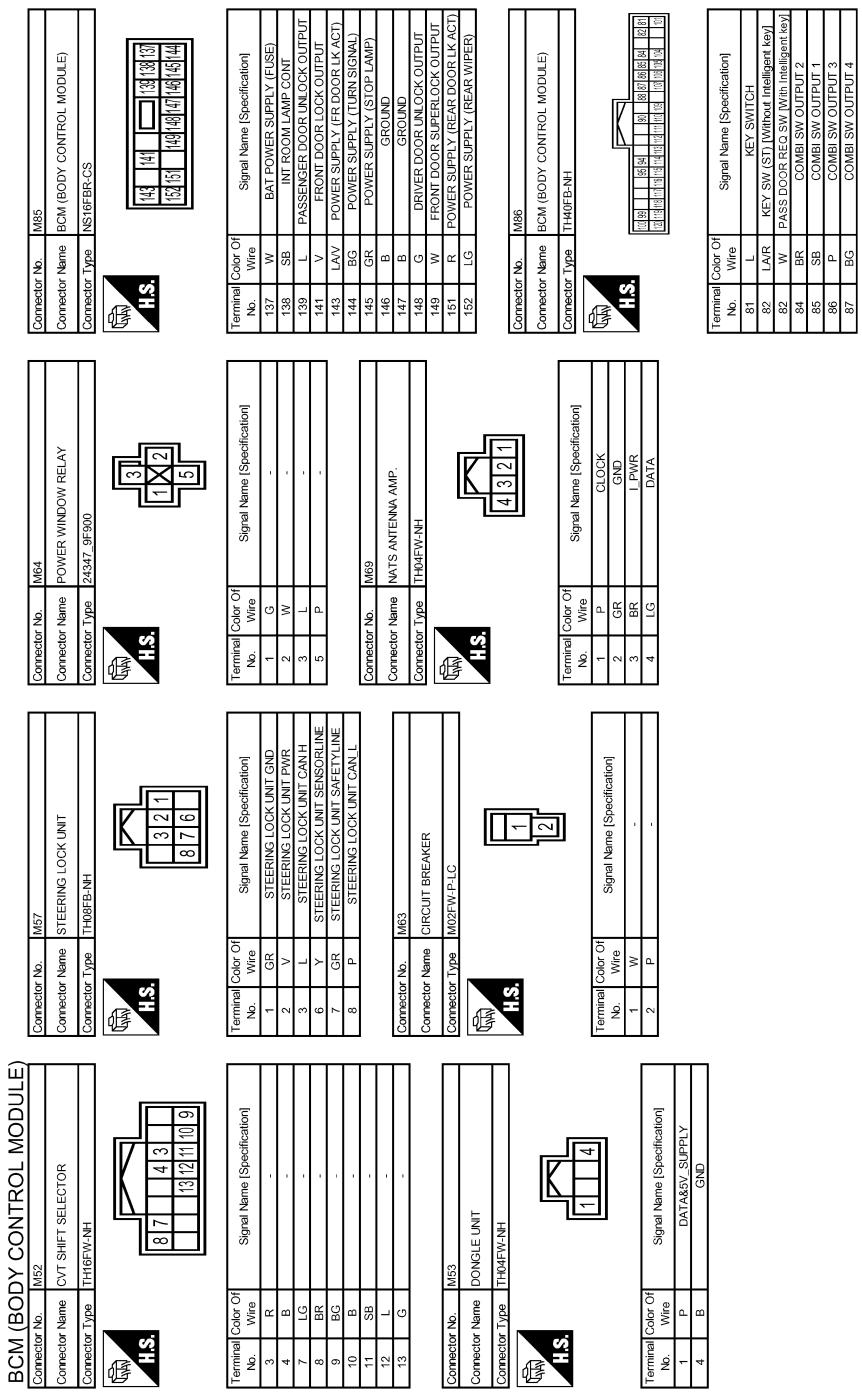
| Connector No. | M49 |
|---|---|
| Connector Name | STOP/START OFF SWITCH |
| Connector Type | TH08FL-NH |

H.S.

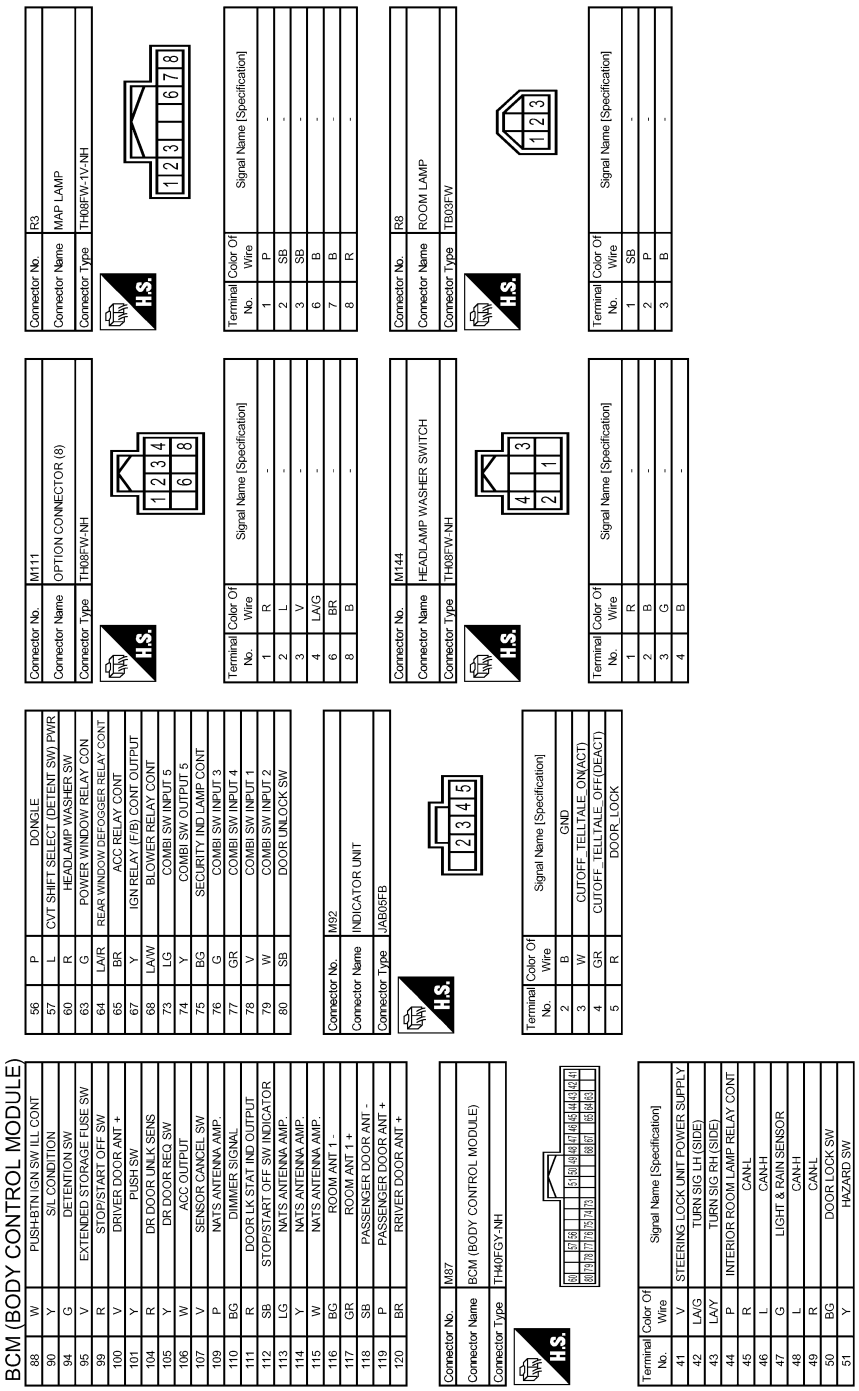



| Terminal No. | Color Of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | R | - |
| 2 | B | - |
| 3 | LG | - |
| 4 | GR | - |
| 5 | SB | - |
| 6 | B | - |

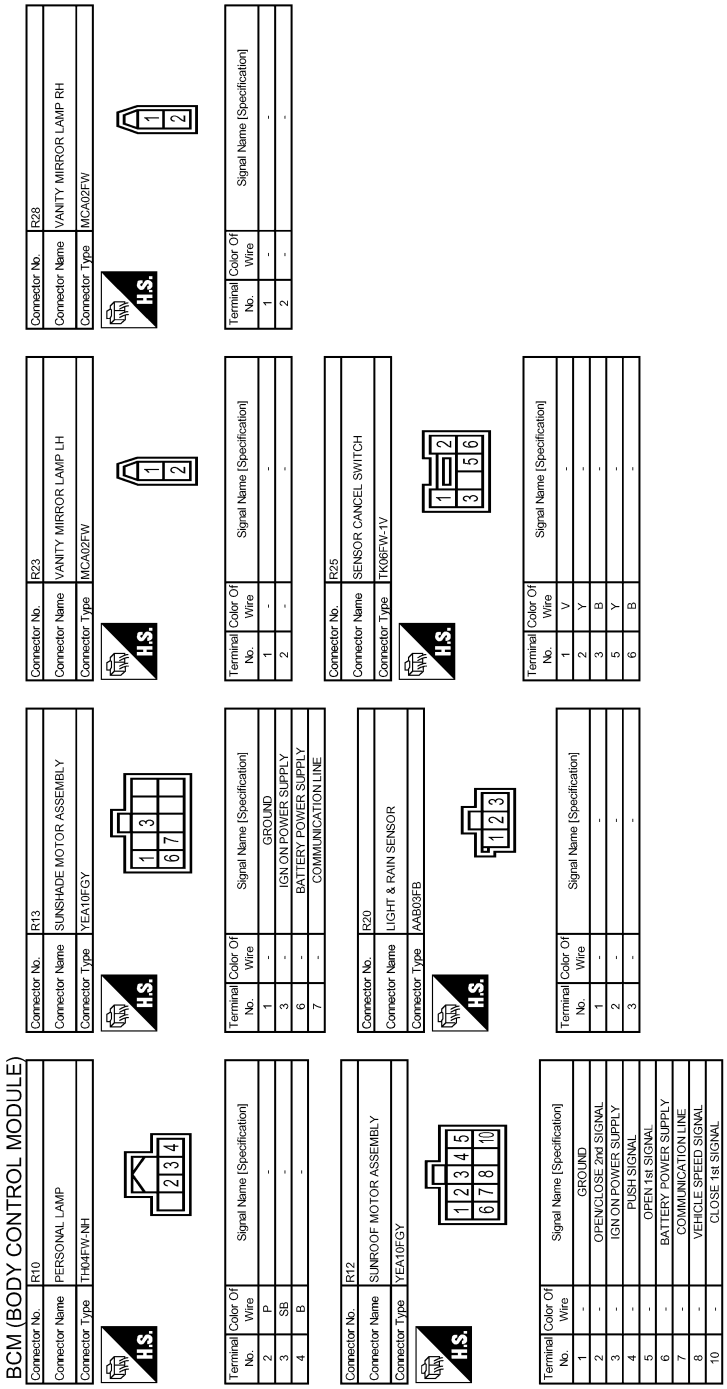
JRMWF4049GB




JRMWF4050GB




JRMWF4051GB




JRMWF4052GB

# BASIC INSPECTION

## ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

### Description

INFOID:0000000010688611

BEFORE REPLACEMENT

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

**NOTE:**

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

AFTER REPLACEMENT

**CAUTION:**

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

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

**NOTE:**

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

### Work Procedure

INFOID:0000000010688612

1. SAVING VEHICLE SPECIFICATION (BCM)

CONSULT Configuration

Perform “Before Replace ECU” of “Read/ Write Configuration” to save or print current vehicle specification. Refer to BCS-106, "Description".

**NOTE:**

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

>> GO TO 2.

2. SAVING VEHICLE SPECIFICATION (CAN GATEWAY)

CONSULT Configuration

Perform “Before Replace ECU” of “Read / Write Configuration” to save or print current vehicle specification.

**NOTE:**

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

>> GO TO 3.

3. REPLACE BCM

Replace BCM. Refer to BCS-121, "Removal and Installation".

>> GO TO 4.

4. WRITING VEHICLE SPECIFICATION (BCM)

CONSULT Configuration

Perform “After Replace ECU” of “Read / Write Configuration” or “Manual Configuration” to write vehicle specification. Refer to BCS-106, "Work Procedure".

>> GO TO 5.

5. INITIALIZE BCM (NATS) (IF EQUIPPED)

Perform BCM initialization. (NATS)

>> GO TO 6.

## 6. INITIALIZE CAN GATEWAY

Perform CAN GATEWAY initialization. Refer to LAN-113, "Work Procedure".

>> WORK END

# CONFIGURATION (BCM)

## Description

INFOID:0000000010688613

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 / Write Configuration | Before Replace ECU | • Reads the vehicle configuration of current BCM.<br>• Saves the read vehicle configuration. |
| | After Replace ECU | Writes the vehicle configuration with saved data. |
| Manual Configuration | | Writes the vehicle configuration with manual selection. |

**NOTE:**
Manual setting item: Items which need selection by vehicle specifications
Automatic setting item: Items which are written in automatically (Setting cannot be changed)
For some models and specifications, the automatic setting item may not be displayed.

**CAUTION:**
**When replacing BCM, always perform “Re/programming, Configuration” with CONSULT. Or not doing so, BCM control function does not operate normally.**
- **Complete the procedure of “Read / Write Configuration” in order.**
- **Configuration is different for each vehicle model. Confirm configuration of each vehicle model.**
- **Never perform “Read / Write Configuration” except for new BCM.**
- **If you set incorrect “Read / Write Configuration”, incidents might occur.**

## Work Procedure

INFOID:0000000010688614

### 1.WRITING MODE SELECTION

CONSULT Configuration
Select “Re/programming, Configuration” of BCM.

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

### 2.PERFORM “AFTER REPLACE ECU” OF “READ / WRITE CONFIGURATION”

CONSULT Configuration
Perform “After Replace ECU” of “Read / Write Configuration”.

>> WORK END

### 3.PERFORM “MANUAL CONFIGURATION”

CONSULT Configuration
1. Select “Manual Configuration”.
2. Identify the correct model and configuration list. Refer to BCS-107, "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 “Next”. Refer to BCS-107, "Configuration list" for written items and setting value.
4. Touch “Next”.
5. Touch “OK”.
   **CAUTION:**
   **Make sure to select “OK” even if the indicated configuration of brand new BCM is same as the desirable configuration. If not, configuration which is set automatically by selecting vehicle model cannot be memorized.**
6. Check that the configuration has been successfully written and touch “End”.

>> GO TO 4.

## 4. OPERATION CHECK

Confirm that each function controlled by BCM operates normally.

>> WORK END

## Configuration list

INFOID:0000000010688615

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

### WITH INTELLIGENT KEY SYSTEM

| SETTING ITEM | | NOTE |
|---|---|---|
| Items | Setting value | |
| SUPER LOCK | WITH ⇔ WITHOUT | — |
| H/L WASHER | WITHOUT ⇔ MODE1 | • WITHOUT: Without headlamp washer<br>• MODE1: With headlamp washer |
| HLW CYL SW INP NMB OF TIM | MODE1 ⇔ MODE2 | • MODE1: Except for Europe (LHD) models with headlamp washer<br>• MODE2: For Europe (LHD) models with headlamp washer |
| THEFT ALM AREA | WITHOUT ⇔ MODE4 | • WITHOUT: Except for Europe (RHD) models<br>• MODE4: For Europe (RHD) models |
| HANDLE | LHD ⇔ RHD | — |
| ECM TYPE | MODE1 ⇔ MODE2 | • MODE1: For MR engine or QR engine models<br>• MODE2: Except for MR engine or QR engine models |
| DONGLE | WITH ⇔ WITHOUT | • WITH: For Europe (RHD) models<br>• WITHOUT: Except for Europe (RHD) models |
| TPMS | WITH ⇔ WITHOUT | — |
| HBA SYSTEM | WITH ⇔ WITHOUT | • WITH: With high beam assist system<br>• WITHOUT: Without high beam assist system |
| Key Fob Type | LCK/UNLCK/PBD | — |
| ALT TYPE | MODE1 ⇔ MODE4 | • MODE1: For MR engine or QR engine models<br>• MODE4: Except for MR engine or QR engine models |
| TRANSMISSION | MT with ABS ⇔ AT with ABS | • MT with ABS: M/T models<br>• AT with ABS: Except M/T models |

⇔: Items which confirm vehicle specifications

### WITHOUT INTELLIGENT KEY SYSTEM

| SETTING ITEM | | NOTE |
|---|---|---|
| Items | Setting value | |
| AUTO LIGHT | WITHOUT ⇔ MODE5 | • WITHOUT: Without auto light<br>• MODE5: With auto light |
| SUPER LOCK | WITH ⇔ WITHOUT | — |
| H/L WASHER | WITHOUT ⇔ MODE1 | • WITHOUT: Without headlamp washer<br>• MODE1: With headlamp washer |
| HLW CYL SW INP NMB OF TIM | MODE1 ⇔ MODE2 | • MODE1: Except for Europe (LHD) models with headlamp washer<br>• MODE2: For Europe (LHD) models with headlamp washer |

| SETTING ITEM | | NOTE |
|---|---|---|
| Items | Setting value | |
| RAIN SENSOR CONFIG | WITH ⇔ WITHOUT | • WITH: With light & rain sensor<br>• WITHOUT: Without light & rain sensor |
| THEFT ALM AREA | WITHOUT ⇔ MODE4 | • WITHOUT: Except for Europe (RHD) models<br>• MODE4: For Europe (RHD) models |
| HANDLE | LHD ⇔ RHD | — |
| ECM TYPE | MODE1 ⇔ MODE2 | • MODE1: For MR engine or QR engine models<br>• MODE2: Except for MR engine or QR engine models |
| DONGLE | WITH ⇔ WITHOUT | • WITH: For Europe (RHD) models<br>• WITHOUT: Except for Europe (RHD) models |
| TPMS | WITH ⇔ WITHOUT | — |
| HBA SYSTEM | WITH ⇔ WITHOUT | • WITH: With high beam assist system<br>• WITHOUT: Without high beam assist system |
| Key Fob Type | LCK/UNLCK | — |
| ALT TYPE | MODE1 ⇔ MODE4 | • MODE1: For MR engine or QR engine models<br>• MODE4: Except for MR engine or QR engine models |
| TRANSMISSION | MT with ABS ⇔ AT with ABS | • MT with ABS: M/T models<br>• AT with ABS: Except M/T models |

⇔: Items which confirm vehicle specifications

# SHIPPING MODE CANCEL OPERATION

## Work Procedure

INFOID:0000000010688616

### 1.SHIPPING MODE CANCEL OPERATION

1. Turn ignition switch OFF.
2. Push in (switch on) the extended storage fuse switch. Refer to PG-129, "How To Check".
3. Turn ignition switch ON.
4. Turn ignition switch OFF and wait at least 2 seconds.

>> GO TO 2.

### 2.SHIPPING MODE CANCEL CHECK

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

>> WORK END

# DTC/CIRCUIT DIAGNOSIS

## U1000 CAN COMM

### DTC Description

INFOID:0000000010688617

#### DESCRIPTION

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-41, "CAN COMMUNICATION SYSTEM : CAN Communication Signal Chart".

#### DTC DETECTION LOGIC

| DTC | CONSULT display description | DTC Detection Condition |
|---|---|---|
| U1000–00 | CAN COMM<br>(CAN communication circuit) | When BCM cannot communicate CAN communication signal continuously for 2 seconds or more. |

#### POSSIBLE CAUSE

CAN communication system

#### FAIL-SAFE

—

#### DTC CONFIRMATION PROCEDURE

##### 1.CHECK SELF-DIAG RESULT

With CONSULT

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

Is malfunctioning part detected?

YES >> Refer to BCS-110, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-44, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

### Diagnosis Procedure

INFOID:0000000010688618

#### 1.CHECK CAN COMMUNICATION

Check CAN communication. Refer to LAN-17, "Trouble Diagnosis Flow Chart".

Is DTC “U1000–00” displayed?

YES >> Repair or replace the malfunctioning part.
NO >> Check intermittent incident. Refer to GI-44, "Intermittent Incident".

# U1010 CONTROL UNIT (CAN)

## DTC Description

INFOID:0000000010688619

### DTC DETECTION LOGIC

| DTC | CONSULT display description | DTC Detection Condition |
|---|---|---|
| U1010–00 | CONTROL UNIT (CAN) [Control unit (CAN)] | BCM detected internal CAN communication circuit malfunction. |

### POSSIBLE CAUSE

BCM

### FAIL-SAFE

—

### DTC CONFIRMATION PROCEDURE

#### 1.CHECK SELF-DIAG RESULT

With CONSULT

1. Turn ignition switch ON.
2. Perform “Self Diagnostic Result” mode of “BCM” using CONSULT.

Is malfunctioning part detected?

YES >> Refer to BCS-111, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-44, "Intermittent Incident".
NO-2 >> Confirmation after repair: INSPECTION END

## Diagnosis Procedure

INFOID:0000000010688620

#### 1.REPLACE BCM

When DTC “U1010–00” is detected, replace BCM.

>> Replace BCM. Refer to BCS-121, "Removal and Installation".

# U0415 VEHICLE SPEED

## DTC Description

INFOID:0000000010688621

### DTC DETECTION LOGIC

| DTC | CONSULT display description | DTC Detection Condition |
|---|---|---|
| U0415–00 | VEHICLE SPEED (Vehicle speed) | When the vehicle speed signal received from the ABS actuator and electric unit (control unit) remains abnormal for 2 seconds or more. |

### POSSIBLE CAUSE

- ABS actuator and electric unit (control unit)
- BCM

### FAIL-SAFE

Inhibit steering lock

### 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-112, "Diagnosis Procedure".
NO–1 >> To check malfunction symptom before repair: Refer to GI-44, "Intermittent Incident".
NO–2 >> Confirmation after repair: INSPECTION END

## Diagnosis Procedure

INFOID:0000000010688622

#### 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-84, "DTC Index".

Is any DTC detected?

YES >> Repair or replace the malfunctioning part.
NO >> Replace BCM. Refer to BCS-121, "Removal and Installation".

# B2562 LOW VOLTAGE

## DTC Description

INFOID:0000000010688623

### DTC DETECTION LOGIC

| DTC | CONSULT display description | DTC Detection Condition |
|---|---|---|
| B2562–00 | LOW VOLTAGE<br>(Low voltage) | When the power supply voltage to BCM remains less than 8.8 V for 120 seconds or more |

### POSSIBLE CAUSE

- Harness or connector (power supply circuit)
- BCM

### FAIL-SAFE

—

### 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-113, "Diagnosis Procedure".
NO–1 >> To check malfunction symptom before repair: Refer to GI-44, "Intermittent Incident".
NO–2 >> Confirmation after repair: INSPECTION END

## Diagnosis Procedure

INFOID:0000000010688624

#### 1.CHECK POWER SUPPLY CIRCUIT

Check BCM power supply circuit. Refer to BCS-114, "Diagnosis Procedure".

Is the circuit normal?

YES >> Replace BCM. Refer to BCS-121, "Removal and Installation".
NO >> Repair the malfunctioning part.

# POWER SUPPLY AND GROUND CIRCUIT

## Diagnosis Procedure

INFOID:0000000010688625

### 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 | 14 |
| | 7 |

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.

| (+) | | (–) | Voltage |
|---|---|---|---|
| BCM | | | |
| Connector | Terminal | | |
| M86 | 95 | Ground | 9 – 16 V |
| M85 | 137 | | |

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 | | |
| M85 | 146 | | Existed |
| | 147 | | |

Does continuity exist?

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

# COMBINATION SWITCH OUTPUT CIRCUIT

## Diagnosis Procedure

INFOID:0000000010688626

### 1.CHECK OUTPUT 1 - 5 CIRCUIT FOR OPEN

1. Turn ignition switch OFF.
2. Disconnect BCM and combination switch connectors.
   **NOTE:**
   BCM connector disconnects M86 and M87 only.
3. Check continuity between BCM harness connector and combination switch harness connector.

| System | BCM | | Combination switch | | Continuity |
|---|---|---|---|---|---|
| | Connector | Terminal | Connector | Terminal | |
| OUTPUT 1 | M86 | 85 | M31 | 2 | Existed |
| OUTPUT 2 | | 84 | | 10 | |
| OUTPUT 3 | | 86 | | 15 | |
| OUTPUT 4 | | 87 | | 4 | |
| OUTPUT 5 | M87 | 74 | | 7 | |

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 | | Ground | Continuity |
|---|---|---|---|---|
| | Connector | Terminal | | |
| OUTPUT 1 | M86 | 85 | Ground | Not existed |
| OUTPUT 2 | | 84 | | |
| OUTPUT 3 | | 86 | | |
| OUTPUT 4 | | 87 | | |
| OUTPUT 5 | M87 | 74 | | |

Does continuity exist?

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

### 3.CHECK COMBINATION SWITCH INTERNAL CIRCUIT

1. Connect combination switch connector.
2. Turn ON any switch in the system that is malfunctioning.
3. Check voltage between BCM harness connector and ground.
   **NOTE:**
   Check that the combination switch outputs a signal from combination switch input system.

| System | (+) | | (–) | Voltage (Approx.) |
|---|---|---|---|---|
| | Combination switch | | | |
| | Connector | Terminal | | |
| OUTPUT 1 | M31 | 2 | Ground | Refer to BCS-53, "Reference Value". |
| OUTPUT 2 | | 10 | | |
| OUTPUT 3 | | 15 | | |
| OUTPUT 4 | | 4 | | |
| OUTPUT 5 | | 7 | | |

Is the measurement value normal?

YES >> Replace BCM. Refer to BCS-121, "Removal and Installation".
NO >> Replace combination switch. Refer to BCS-122, "Removal and Installation".

# COMBINATION SWITCH INPUT CIRCUIT

## Diagnosis Procedure

INFOID:0000000010688627

### 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 | M87 | 78 | M31 | 8 | Existed |
| INPUT 2 | | 79 | | 6 | |
| INPUT 3 | | 76 | | 5 | |
| INPUT 4 | | 77 | | 3 | |
| INPUT 5 | | 73 | | 1 | |

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 | | | Continuity |
|---|---|---|---|---|
| | Connector | Terminal | | |
| INPUT 1 | M87 | 78 | Ground | Not existed |
| INPUT 2 | | 79 | | |
| INPUT 3 | | 76 | | |
| INPUT 4 | | 77 | | |
| INPUT 5 | | 73 | | |

Does continuity exist?

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

### 3.CHECK BCM OUTPUT SIGNAL

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

| System | (+) | | (–) | Voltage (Approx.) |
|---|---|---|---|---|
| | BCM | | | |
| | Connector | Terminal | | |
| INPUT 1 | M87 | 78 | Ground | Refer to BCS-53, "Reference Value". |
| INPUT 2 | | 79 | | |
| INPUT 3 | | 76 | | |
| INPUT 4 | | 77 | | |
| INPUT 5 | | 73 | | |

Is the measurement value normal?

Yes >> GO TO 4.
No >> Replace BCM. Refer to BCS-121, "Removal and Installation".

### 4.CHECK BCM INPUT SIGNAL

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

| System | (+) | | (–) | Voltage (Approx.) |
|---|---|---|---|---|
| | BCM | | | |
| | Connector | Terminal | | |
| INPUT 1 | M87 | 78 | Ground | Refer to BCS-53, "Reference Value". |
| INPUT 2 | | 79 | | |
| INPUT 3 | | 76 | | |
| INPUT 4 | | 77 | | |
| INPUT 5 | | 73 | | |

Is the measurement value normal?

Yes >> Replace BCM. Refer to BCS-121, "Removal and Installation".
No >> Replace combination switch. Refer to BCS-122, "Removal and Installation".

# SYMPTOM DIAGNOSIS

## COMBINATION SWITCH SYSTEM SYMPTOMS

### Symptom Table

INFOID:0000000010688628

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 | WIP VOLUME | RR WIPER ON | RR WIPER INT | RR WASHER SW | TURN SIGNAL R | TURN SIGNAL L | TAIL LAMP SW | HI BEAM SW | HEAD LAMP SW | LIGHT OFF SW | PASSING SW | AUTO LIGHT SW | FR FOG SW | RR 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 |
| All Items are normal | | | | | | | | | | | | | | | | | | M |

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-117, "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 toBCS-115, "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-121, "Removal and Installation". |
| L | Combination switch | Replace combination switch. Refer to BCS-122, "Removal and Installation". |
| M | Connector and harness | Check intermittent incident. Refer to GI-44, "Intermittent Incident". |

# NORMAL OPERATING CONDITION

## Description

INFOID:0000000010688629

### SHIPPING MODE

- Shipping mode inhibits battery power consumption during transportation or storage of the vehicle. Vehicle is set to shipping mode before being shipped from the factory.
- When ignition switch is OFF, BCM operates shipping mode.
- BCM control function is limited in shipping mode. Remote keyless entry function is not operated during the shipping mode.
- For shipping mode cancel operation, refer to BCS-109, "Work Procedure".

  **NOTE:**

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

# REMOVAL AND INSTALLATION

## BCM

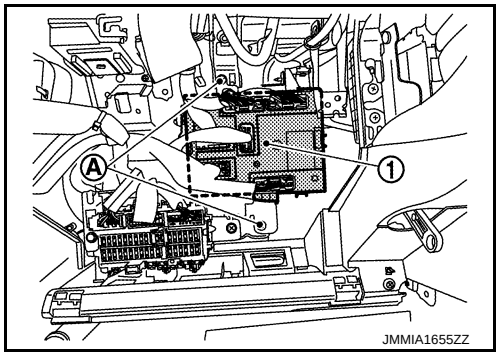
### Removal and Installation

INFOID:0000000010688630

**NOTE:**
Before replacing BCM, perform “Before Replace ECU” of “Read / Write Configuration” to save or print current vehicle specification. Refer to BCS-106, "Description".

REMOVAL (RHD MODELS)

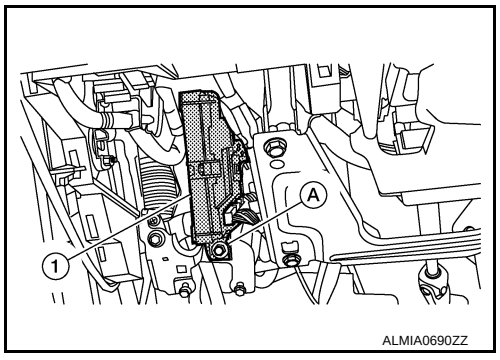
1. Disconnect the battery cable from the negative terminal. Refer to BCS-3, "Precautions for Removing Battery Terminal".
2. Remove the glove box assembly and glove box housing, Refer to IP-41, "Removal and Installation".
3. Disconnect the harness connectors from the BCM ①.
4. Remove the BCM mounting nuts Ⓐ.




5. Remove the BCM.

REMOVAL (LHD MODELS)

1. Disconnect the battery cable from the negative terminal. Refer to BCS-3, "Precautions for Removing Battery Terminal".
2. Remove the instrument lower panel LH. Refer to IP-14, "Removal and Installation".
3. Remove the BCM mounting nut Ⓐ, then pull out the BCM ①.




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

INSTALLATION

Install in the reverse order of removal.

**CAUTION:**
**Be sure to perform “After Replace ECU” of “Read / Write Configuration” or “Manual Configuration” when replacing BCM. Refer to BCS-104, "Work Procedure".**

**NOTE:**
- Be sure to perform the system initialization (NATS) when replacing BCM.
- Be sure to perform the system initialization (CAN gateway) when replacing BCM.

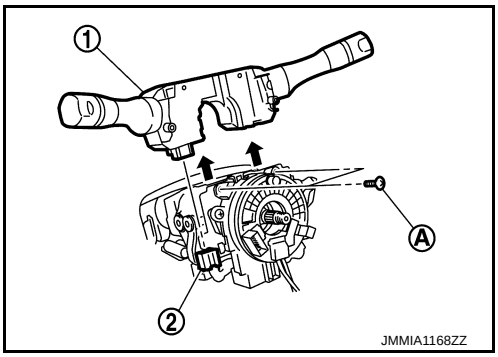
# COMBINATION SWITCH

## Removal and Installation

INFOID:0000000010688631

### REMOVAL

1. Remove steering column cover. Refer to IP-41, "Removal and Installation" (RHD models) or IP-14, "Removal and Installation" (LHD models).
2. Remove screws Ⓐ and disconnect connector ② then pull up combination switch ① to remove it.




### INSTALLATION

Install in the reverse order of removal.