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

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

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

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

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

Precaution for Work

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with a new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components:
  - Water soluble dirt:
    - Dip a soft cloth into lukewarm water, wring the water out of the cloth and wipe the dirty area.
    - Then rub with a soft, dry cloth.
  - Oily dirt:
    - Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%) and wipe the dirty area.
    - Then dip a cloth into fresh water, wring the water out of the cloth and wipe the detergent off.
    - Then rub with a soft, dry cloth.
  - Do not use organic solvent such as thinner, benzene, alcohol or gasoline.
  - For genuine leather seats, use a genuine leather seat cleaner.
The actual shape of the tools may differ from those illustrated here.

<table>
<thead>
<tr>
<th>Tool number (TechMate No.)</th>
<th>Tool name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(J-46534)</td>
<td>Trim Tool Set</td>
<td>Removing trim components</td>
</tr>
</tbody>
</table>

![Diagram of Trim Tool Set](AWJIA0483ZZ)
## Component Parts Location

A. View of center console.

<table>
<thead>
<tr>
<th>No.</th>
<th>Component</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Inside key antenna (parcel shelf)</td>
<td>• Inside key antenna (parcel shelf) detects whether Intelligent Key is inside the vehicle or not, and then transmits the signal to the BCM. Refer to <a href="#">DLK-10, &quot;INTELLIGENT KEY SYSTEM : Component Parts Location&quot;.</a></td>
</tr>
<tr>
<td>2.</td>
<td>Front door switch RH</td>
<td>Door switch detects door open/close condition and then transmits ON/OFF signal to BCM.</td>
</tr>
</tbody>
</table>
| 3.  | Power window and door lock/unlock switch RH | • Door lock and unlock switch is integrated into the power window switch.  
  • Door lock and unlock switch transmits door lock/unlock operation signal to BCM.  
  • Refer to [PWC-6, "Component Parts Location".](#) |
| 4.  | Remote keyless entry receiver      | • Remote keyless entry receiver receives button operation signal and key ID signal of Intelligent Key and then transmits them to BCM.  
  • Refer to [DLK-15, "Remote Keyless Entry Receiver".](#) |
| 5.  | Horns                              | IPDM E/R energizes the horns when the security system is activated.                                                                                                                                      |
| 6.  | Hood switch                        | • Hood switch transmits hood open/closed signal to the IPDM E/R.  
  • Refer to [DLK-10, "INTELLIGENT KEY SYSTEM : Component Parts Location".](#) |
## COMPONENT PARTS

### SYSTEM DESCRIPTION

<table>
<thead>
<tr>
<th>No.</th>
<th>Component</th>
<th>Function</th>
</tr>
</thead>
</table>
| 7.  | Transmission range switch | - The transmission range switch detects the selector lever position.  
- Refer to TM-14, "CVT CONTROL SYSTEM : Transmission Range Switch". |
| 8.  | IPDM E/R | - IPDM E/R detects push-button ignition switch (push switch) status, and transmits push-button ignition switch status signal (CAN) to BCM.  
- Refer to PCS-5, "Component Parts Location". |
| 9.  | Stop lamp switch | - Stop lamp switch detects that brake pedal is depressed, and transmits the signal to BCM.  
- Refer to PCS-5, "Component Parts Location". |
| 10. | BCM | - BCM controls INTELLIGENT KEY SYSTEM (ENGINE START FUNCTION), NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS [NVIS (NATS)] and VEHICLE SECURITY SYSTEM.  
- BCM performs the ID verification between BCM and Intelligent Key when the Intelligent Key is carried into the detection area of inside key antenna, and push-button ignition switch is pressed. If the ID verification result is OK, ignition switch operation is available. Then, when the ignition switch is turned ON, BCM performs ID verification between BCM and ECM. If the ID verification result is OK, ECM can start engine.  
- Refer to BCS-5, "BODY CONTROL SYSTEM : Component Parts Location" for detailed installation location. |
| 11. | Combination meter | - Combination meter transmits the vehicle speed signal to BCM via CAN communication.  
- BCM also receives the vehicle speed signal from ABS actuator and electric unit (control unit) via CAN communication. BCM compares both signals to detect the vehicle speed.  
- Security indicator lamp is located on combination meter.  
- Security indicator lamp blinks when ignition switch is in any position other than ON to warn that NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS [NVIS (NATS)] is on board.  
- Refer to MWI-5, "METER SYSTEM : Component Parts Location". |
| 12. | CVT shift selector | CVT shift selector detects shift lever status, transmits detent switch signal to BCM. |
| 13. | Main power window and door lock/unlock switch | - Door lock and unlock switch is integrated into the power window main switch.  
- Door lock and unlock switch transmits door lock/unlock operation signal to BCM.  
- Refer to PWC-6, "Component Parts Location". |
| 14. | Front door switch LH | Front door switch LH transmits door open/closed signal to the BCM. |
| 15. | Front door lock assembly LH | - Door key cylinder switch is integrated into front door lock assembly (driver side).  
- Door key cylinder switch detects door LOCK/UNLOCK operation using mechanical key, and then transmits the operation signal to BCM.  
- Refer to DLK-17, "Front Door Lock Assembly (LH)". |
| 16. | Trunk lamp switch and trunk release solenoid (trunk release solenoid) | Opens the trunk with the open signal from the BCM.  
- Refer to DLK-14, "TRUNK LID OPENER SYSTEM : Component Parts Location". |
| 17. | Push-button ignition switch | Push-button ignition switch has push switch inside which detects that push-button ignition switch is pressed and then transmits ON/OFF signal to BCM. BCM changes the ignition switch position with the operation of push-button ignition switch. BCM maintains the ignition switch position status while push-button ignition switch is not operated. |
| 18. | NATS antenna amp. | SEC-8, "NATS Antenna Amp." |
The ID verification is performed between BCM and transponder integrated into Intelligent Key via NATS antenna amp. when Intelligent Key backside is contacted to power switch, in case that Intelligent Key battery is discharged. If the ID verification result is OK, the operation of power switch is available.

Hood Switch

Hood switch ① detects that hood is open and then transmits ON/OFF signal to IPDM E/R. IPDM E/R transmits hood switch signal to BCM via CAN communication. Hood switch is integrated into hood lock assembly LH.
SYSTEM

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION : System Description

SYSTEM DIAGRAM

SYSTEM DESCRIPTION

- The engine start function of Intelligent Key system makes it possible to start and stop the engine without using the key, based on the electronic ID verification. The electronic ID verification is performed between BCM and Intelligent Key when the push-button ignition switch is pressed, while the Intelligent Key is within the detection area of inside key antenna.

**NOTE:**

- The driver should carry the Intelligent Key at all times.
- Intelligent Key has 2 IDs [Intelligent Key ID and IVIS (NATS) ID]. It can perform the door lock/unlock operation and the push-button ignition switch operation when the registered Intelligent Key is carried.
- When Intelligent Key battery is discharged, engine can be started by operating push-button ignition switch after contacting Intelligent Key backside to push-button ignition switch. At that time, the IVIS (NATS) ID verification is performed.
- If the ID is successfully verified, when push-button ignition switch is pressed, the engine can be started.
- Up to 4 Intelligent Keys can be registered (including the standard Intelligent Key) upon request from the customer.
- For initialization and registration of Intelligent Key, refer to CONSULT Immobilizer mode and follow the on-screen instructions.

Revision: October 2015

SEC-9

2016 Maxima NAM
< SYSTEM DESCRIPTION >

NOTE:
Refer to SEC-9, "INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION : System Description" for any functions other than engine start function of Intelligent Key system.

PRECAUTIONS FOR INTELLIGENT KEY SYSTEM
The transponder [the chip for IVIS (NATS) ID verification] is integrated into the Intelligent Key. In that case, the IVIS (NATS) ID verification can be performed when Intelligent Key backside is contacted to push-button ignition switch. If verification result is OK, engine can be started.

OPERATION WHEN INTELLIGENT KEY IS CARRIED
1. When the push-button ignition switch is pressed, the BCM activates the inside key antenna and transmits the request signal to the Intelligent Key.
2. The Intelligent Key receives the request signal and transmits the Intelligent Key ID signal to the BCM.
3. BCM receives the Intelligent Key ID signal via remote keyless entry receiver and verifies it with the registered ID.
4. BCM turns ACC relay ON and transmits the ignition power supply ON signal to IPDM E/R.
5. IPDM E/R turns the ignition relay ON and starts the ignition power supply.
6. BCM detects the selector lever position and brake pedal operating condition.
7. BCM transmits the starter request signal to IPDM E/R and turns the starter relay in IPDM E/R ON, if BCM judges that the engine start condition* is satisfied.
8. IPDM E/R turns the starter control relay ON when receiving the starter request signal.
9. Power supply is supplied through the starter relay and the starter control relay to operate the starter motor.
   CAUTION:
   If a malfunction is detected in the Intelligent Key system, the “KEY” warning lamp in the combination meter illuminates. At that time, the engine cannot be started.
10. When BCM receives feedback signal from ECM indicating that the engine is started, the BCM transmits a stop signal to IPDM E/R and stops cranking by turning OFF the starter motor relay. (If engine start is unsuccessful, cranking stops automatically within 5 seconds.)
   CAUTION:
   When the Intelligent Key is carried outside of the vehicle (inside key antenna detection area) while the power supply is in the ACC or ON position, even if the engine start condition* is satisfied, the engine cannot be started.

*: For the engine start condition, refer to the table below “POWER SUPPLY POSITION CHANGE TABLE BY PUSH-BUTTON IGNITION SWITCH OPERATION”.

OPERATION RANGE
Engine can be started when Intelligent Key is inside the vehicle. However, sometimes engine may not start when Intelligent Key is on instrument panel or in glove box.

ENGINE START OPERATION WHEN INTELLIGENT KEY IS CONTACTED TO PUSH-BUTTON IGNITION SWITCH
When Intelligent Key battery is discharged, the IVIS (NATS) ID verification between transponder in Intelligent Key and BCM is performed when Intelligent Key backside is contacted to push-button ignition switch. If the verification result is OK, engine can be started.

POWER SUPPLY POSITION CHANGE TABLE BY PUSH-BUTTON IGNITION SWITCH OPERATION
The power supply position changing operation can be performed with the following operations.

NOTE:
• When an Intelligent Key is within the detection area of inside key antenna and when Intelligent Key backside is contacted to push-button ignition switch, it is equivalent to the operations below.
• When starting the engine, the BCM monitors under the engine start conditions:
  - Brake pedal operating condition
  - Selector lever position
  - Vehicle speed
Vehicle speed: less than 4 km/h (2.5 MPH)
## NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS

**Vehicle speed: 4 km/h (2.5 MPH) or more**

<table>
<thead>
<tr>
<th>Power supply position</th>
<th>Engine start/stop condition</th>
<th>Push-button ignition switch operation frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Engine start/stop condition</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Selector lever</td>
<td>Brake pedal operation condition</td>
</tr>
<tr>
<td>LOCK → ACC</td>
<td>—</td>
<td>Not depressed</td>
</tr>
<tr>
<td>LOCK → ACC → ON</td>
<td>—</td>
<td>Not depressed</td>
</tr>
<tr>
<td>LOCK → ACC → ON → OFF</td>
<td>—</td>
<td>Not depressed</td>
</tr>
<tr>
<td>LOCK → START</td>
<td>P or N position</td>
<td>Depressed</td>
</tr>
<tr>
<td>ACC → START</td>
<td>Depressed</td>
<td></td>
</tr>
<tr>
<td>ON → START</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engine is running → OFF</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

**Emergency stop operation**

- Press and hold the push-button ignition switch for 2 seconds or more.
- Press the push-button ignition switch 3 times or more within 1.5 seconds.
SYSTEM DESCRIPTION

• The NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS [NVIS (NATS)] prevents the engine from being started by an Intelligent Key whose ID is not registered to the vehicle (BCM). It has higher protection against auto theft involving the duplication of mechanical keys.

• The ignition key integrated in the Intelligent Key cannot start the engine. When the Intelligent Key battery is discharged, the NVIS (NATS) ID verification is performed between the transponder integrated with Intelligent Key and BCM via NATS antenna amp., when the Intelligent Key backside is contacted to push-button ignition switch. If the verification results are OK, the engine start operation can be performed by the push-button ignition switch operation.

• Locate the security indicator lamp and apply the anti-theft system equipment sticker that warns that the NVIS (NATS) is on-board the model.

• Security indicator lamp always blinks when the power supply position is any position other than ON.

• Up to 4 Intelligent Keys can be registered (including the standard ignition key) upon request from the owner.

• Specified registration is required when replacing ECM, BCM or Intelligent Key.

• For initialization and registration of Intelligent Key, refer to CONSULT Immobilizer mode and follow the on-screen instructions.

• Possible symptom of NVIS (NATS) malfunction is “Engine cannot start”. The engine can not be started because of other than NVIS (NATS) malfunction, so start the trouble diagnosis according to SEC-51, "Work Flow".

• If ECM other than genuine part is installed, the engine cannot be started. For ECM replacement procedure, refer to EC-586, "Removal and Installation".
<SYSTEM DESCRIPTION>

PRECAUTIONS FOR KEY REGISTRATION

• The ID registration is a procedure that erases the current NVIS (NATS) ID once, and then reregisters a new ID. Therefore, before starting the registration operation, collect all registered Intelligent Keys from the customer.
• When registering the Intelligent Key, perform only one procedure to simultaneously register both ID [NVIS (NATS) ID and Intelligent Key ID].

SECURITY INDICATOR LAMP

• Warns that the vehicle is equipped with NVIS (NATS).
• Security indicator lamp always blinks when the power supply position is any position other than ON.

NOTE:
Because security indicator lamp is highly efficient, the battery is barely affected.

ENGINE START OPERATION WHEN INTELLIGENT KEY IS CONTACTED TO PUSH-BUTTON IGNITION SWITCH

1. When the brake pedal is depressed while the selector lever is in the P (Park) position, the BCM activates the NATS antenna amp. that is located behind the push-button ignition switch.
2. When Intelligent Key (transponder built-in) backside is contacted to push-button ignition switch, BCM starts NVIS (NATS) ID verification between BCM and Intelligent Key (transponder built-in) via NATS antenna amp.
3. When the NVIS (NATS) ID verification result is OK, buzzer in combination meter sounds and BCM transmits the result to ECM.
4. BCM turns ACC relay ON and transmits ignition power supply ON signal to IPDM E/R.
5. IPDM E/R turns the ignition relay ON and starts the ignition power supply.
6. BCM detects that the selector lever position is P (Park) or N (Neutral).
7. BCM transmits starter request signal to IPDM E/R and turns the starter relay in IPDM E/R ON if BCM judges that the engine start condition* is satisfied.
8. IPDM E/R turns the starter control relay ON when receiving the starter request signal.
9. Power supply is supplied through the starter relay and the starter control relay to operate the starter motor.
10. When BCM receives feedback signal from ECM indicating that the engine is started, BCM transmits a stop signal to IPDM E/R and stops cranking by turning off the starter motor relay. (If engine start is unsuccessful, cranking stops automatically within 5 seconds.)

*: For the engine start condition, refer to the table "POWER SUPPLY POSITION CHANGE TABLE BY PUSH-BUTTON IGNITION SWITCH OPERATION" below.

POWER SUPPLY POSITION CHANGE TABLE BY PUSH-BUTTON IGNITION SWITCH OPERATION

The power supply position changing operation can be performed with the following operations.

NOTE:
• When an Intelligent Key is within the detection area of inside key antenna and when Intelligent Key backside is contacted to push-button ignition switch, it is equivalent to the operations below.
• When starting the engine, the BCM monitors under the engine start conditions:
  - Brake pedal operating condition
  - Selector lever position
  - Vehicle speed

Vehicle speed: less than 4 km/h (2.5 MPH)

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</tr>
<tr>
<td>LOCK → ACC → ON</td>
<td>—</td>
<td>Not depressed</td>
</tr>
<tr>
<td>LOCK → ACC → ON → OFF</td>
<td>—</td>
<td>Not depressed</td>
</tr>
</tbody>
</table>
## SYSTEM DESCRIPTION

- The vehicle security system has two alarm functions (theft warning alarm and panic alarm) and reduces the possibility of a theft or mischief by activating horns and headlamps intermittently.

### Emergency stop operation
- Press and hold the push-button ignition switch for 2 seconds or more.
- Press the push-button ignition switch 3 times or more within 1.5 seconds.

### VEHICLE SECURITY SYSTEM

<table>
<thead>
<tr>
<th>System Description</th>
<th>System Diagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remote keyless entry receiver</td>
<td>Hood switch</td>
</tr>
<tr>
<td>Key ID</td>
<td>Push-button ignition switch</td>
</tr>
<tr>
<td>Each button operation signal</td>
<td>Security indicator lamp</td>
</tr>
<tr>
<td>Intelligent Key</td>
<td>Door lock and unlock switch</td>
</tr>
<tr>
<td>Signals</td>
<td>Each door request switch</td>
</tr>
<tr>
<td>Each outside key antenna</td>
<td>Each door switch</td>
</tr>
<tr>
<td>Push-button ignition switch</td>
<td>: CAN communication line</td>
</tr>
<tr>
<td>Security indicator lamp</td>
<td>BCM</td>
</tr>
<tr>
<td>Door lock and unlock switch</td>
<td>IPDM E/R</td>
</tr>
<tr>
<td>Each door request switch</td>
<td>Horn</td>
</tr>
<tr>
<td>Each door switch</td>
<td>Headlamp</td>
</tr>
</tbody>
</table>

---

**SYSTEM DIAGRAM**

- Vehicle speed: 4 km/h (2.5 MPH) or more

<table>
<thead>
<tr>
<th>Power supply position</th>
<th>Engine start/stop condition</th>
<th>Push-button ignition switch operation frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOCK → START</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACC → START</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ON → START</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engine is running → OFF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P (Park) or N (Neutral) position</td>
<td>Depressed</td>
<td>1</td>
</tr>
</tbody>
</table>

**Vehicles with push-button ignition switch:**

- Engine stall return operation while driving
  - Engine is running → ACC
  - Emergency stop operation
  - Engine stall return operation while driving
    - N (Neutral) position
    - Not depressed
    - 1
The panic alarm does not start when the theft warning alarm is activating and the panic alarm stops when the theft warning alarm is activated. The priority of the functions are as per the following.

<table>
<thead>
<tr>
<th>Priority</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Theft warning alarm</td>
</tr>
<tr>
<td>2</td>
<td>Panic alarm</td>
</tr>
</tbody>
</table>

**THEFT WARNING ALARM**
- The theft warning alarm function activates horns and headlamps intermittently when BCM detects that any door or hood is opened by unauthorized means while the system is in the ARMED state.
- Security indicator lamp on combination meter always blinks when power supply position is any position other than ON. Security indicator lamp blinking warns that the vehicle is equipped with a vehicle security system.

**Operation Flow**

```
 No.  System state                  Switching condition
 1    DISARMED to PRE-ARMED         When all conditions of A and one condition of B is satisfied.
     | A                      | B                     |
     | • Power supply position: OFF/LOCK | • Door key cylinder LOCK switch |
     | • All doors: Closed           | • LOCK button of Intelligent Key |
     | • Hood: Closed               | • Door request switch |
 2    PRE-ARMED to ARMED           When all of the following conditions are satisfied for 30 seconds.
     | A                      | B                     |
     | • Power supply position: OFF/LOCK | • Any door: Open |
     | • All doors: Locked          | • Hood: Open |
     | • Hood: Closed               | |
 3    ARMED to ALARM               When one condition of A and one condition of B are satisfied.
     | A                      | B                     |
     | Intelligent Key: Not used    | • Any door: Open |
     | • Hood: Closed               | • Hood: Open |
 4    DISARMED to PRE-RESET        When all conditions of A and one condition of B is satisfied.
     | A                      | B                     |
     | • Power supply position: OFF/LOCK | • Door key cylinder LOCK switch |
     | • All doors: Closed          | • LOCK button of Intelligent Key |
     | • Hood: Open                 | • Door request switch |
 5    PRE-ARMED to PRE-RESET       When one of the following conditions is satisfied.
     | A                      | B                     |
     | • Hood: Open                | |
 6    ARMED to PRE-RESET           No conditions.
 7    ALARM to PRE-RESET           |
```
### SYSTEM

#### SYSTEM DESCRIPTION

**NOTE:**
- BCM ignores the door key cylinder UNLOCK switch signal input for 1 second after the door key cylinder LOCK switch signal input.
- To lock/unlock all doors by operating remote control button of Intelligent Key or door request switch, Intelligent Key must be within the detection area of outside key antenna. For details, refer to SEC-9, "INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION: System Description".
- To open trunk by operating trunk opener switch, Intelligent Key must be within the detection area of outside key antenna. For details, refer to DLK-34, "System Description".

<table>
<thead>
<tr>
<th>No.</th>
<th>System state</th>
<th>Switching condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>PRE-RESET to DISARMED</td>
<td>When one of the following conditions is satisfied.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Power supply position: ACC/ON/CRANKING/RUN</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Door key cylinder UNLOCK switch: ON</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• UNLOCK button of Intelligent Key: ON</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Door request switch: ON</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• UNLOCK switch of door lock and unlock switch: ON</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Any door: Open</td>
</tr>
<tr>
<td>9</td>
<td>PRE-RESET to PRE-ARMED</td>
<td>When all of the following conditions are satisfied.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Power supply position: OFF/LOCK</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• All doors: Closed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Hood: Closed</td>
</tr>
<tr>
<td>10</td>
<td>PRE-ARMED to DISARMED</td>
<td>When one of the following conditions is satisfied.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Power supply position: ACC/ON/CRANKING/RUN</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Door key cylinder UNLOCK switch: ON</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• UNLOCK button of Intelligent Key: ON</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Door request switch: ON</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Any door: Open</td>
</tr>
<tr>
<td>11</td>
<td>ARMED to DISARMED</td>
<td>When one of the following conditions is satisfied.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Power supply position: ACC/ON/CRANKING/RUN</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Door key cylinder UNLOCK switch: ON</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• UNLOCK button of Intelligent Key: ON</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Door request switch: ON</td>
</tr>
<tr>
<td>12</td>
<td>ALARM to DISARMED</td>
<td>When one of the following conditions is satisfied after the ALARM operation is finished.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Any door: Open</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Hood: Open</td>
</tr>
</tbody>
</table>

#### DISARMED Phase

The vehicle security system is not set in the DISARMED phase. The vehicle security system stays in this phase while any door is open because it is assumed that the owner is inside or nearby the vehicle. Security indicator lamp blinks every 2.4 seconds.

When the vehicle security system is reset, each phase switches to the DISARMED phase directly.

#### PRE-ARMED Phase

The PRE-ARMED phase is the transient state between the DISARMED phase and the ARMED phase. This phase is maintained for 30 seconds so that the owner can reset the setting due to a mis-operation. This phase switches to the ARMED phase when vehicle conditions are not changed for 30 seconds. Security indicator lamp illuminates while being in this phase.

To reset the PRE-ARMED phase, refer to the switching condition of No. 10 in the table above.

#### ARMED Phase

The vehicle security system is set and BCM monitors all necessary inputs. If any door or hood is opened without using Intelligent Key, vehicle security system switches to the ALARM phase. Security indicator lamp blinks every 2.4 seconds.

To reset the ARMED phase, refer to the switching condition of No. 11 in the table above.

#### ALARM Phase

BCM transmits “Theft Warning Horn Request” signal and “High Beam Request” signal intermittently to IPDM E/R via CAN communication. In this phase, horns and headlamps are activated intermittently for approximately 50 seconds to warn that the vehicle is accessed by unauthorized means. ON/OFF timing of horns and headlamps are synchronized. After 50 seconds, the vehicle security system returns to the ARMED phase. At this time, if BCM still detects unauthorized access to the vehicle, the system is switched to the ALARM phase again. This RE-ALARM operation is carried out a maximum of 2 times.

To cancel the ALARM operation, refer to the switching condition of No. 12 in the table above.

#### NOTE:
If a battery terminal is disconnected during the ALARM phase, theft warning alarm stops. But when the battery terminal is reconnected, theft warning alarm is activated again.
PRE-RESET Phase

The PRE-RESET phase is the transient state between each phase and DISARMED phase. If only the condition of hood is not satisfied, the system switches to the PRE-RESET phase. Then, when any condition is changed, the system switches to the DISARMED phase or PRE-ARMED phase.

PANIC ALARM

- The panic alarm function activates horns and headlamps intermittently when the owner presses the PANIC ALARM button of Intelligent Key outside the vehicle while the power supply position is OFF or LOCK.
- When BCM receives panic alarm signal from Intelligent Key, BCM transmits “Theft Warning Horn Request” signal and “High Beam Request” signal intermittently to IPDM E/R via CAN communication. To prevent the activation due to mis-operation of Intelligent Key by owner, the panic alarm function is activated when BCM receives the signal for 0.4 - 0.6 seconds.
- Panic alarm operation is maintained for 25 seconds.
- Panic alarm operation is cancelled when BCM receives one of the following signals:
  - LOCK button of Intelligent Key: ON
  - UNLOCK button of Intelligent Key: ON
  - PANIC ALARM button of Intelligent Key: Long pressed
  - Any door request switch: ON
APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

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

SYSTEM APPLICATION

BCM can perform the following functions:

<table>
<thead>
<tr>
<th>System</th>
<th>Sub System</th>
<th>Direct Diagnostic Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ECU Identification</td>
</tr>
<tr>
<td>Door lock</td>
<td>DOOR LOCK</td>
<td>x</td>
</tr>
<tr>
<td>Rear window defogger</td>
<td>REAR DEFOGGER</td>
<td>x</td>
</tr>
<tr>
<td>Warning chime</td>
<td>BUZZER</td>
<td>x</td>
</tr>
<tr>
<td>Interior room lamp timer</td>
<td>INT LAMP</td>
<td>x</td>
</tr>
<tr>
<td>Exterior lamp</td>
<td>HEADLAMP</td>
<td>x</td>
</tr>
<tr>
<td>Wiper and washer</td>
<td>WIPER</td>
<td>x</td>
</tr>
<tr>
<td>Turn signal and hazard warning lamps</td>
<td>FLASHER</td>
<td>x</td>
</tr>
<tr>
<td>Air conditioner</td>
<td>AIR CONDITIONER</td>
<td>x</td>
</tr>
<tr>
<td>Intelligent Key system</td>
<td>INTELLIGENT KEY</td>
<td>x</td>
</tr>
<tr>
<td>Combination switch</td>
<td>COMB SW</td>
<td>x</td>
</tr>
<tr>
<td>BCM</td>
<td>BCM</td>
<td>x</td>
</tr>
<tr>
<td>Immobilizer</td>
<td>IMMU</td>
<td>x</td>
</tr>
<tr>
<td>Interior room lamp battery saver</td>
<td>BATTERY SAVER</td>
<td>x</td>
</tr>
<tr>
<td>Trunk</td>
<td>TRUNK</td>
<td>x</td>
</tr>
<tr>
<td>Vehicle security system</td>
<td>THEFT ALM</td>
<td>x</td>
</tr>
<tr>
<td>RAP system</td>
<td>RETAINED PWR</td>
<td>x</td>
</tr>
<tr>
<td>Signal buffer system</td>
<td>SIGNAL BUFFER</td>
<td>x</td>
</tr>
<tr>
<td>TPMS</td>
<td>AIR PRESSURE MONITOR</td>
<td>x</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>CONSULT screen item</th>
<th>Indication/Unit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle Speed</td>
<td>km/h</td>
<td>Vehicle speed at the moment a particular DTC is detected</td>
</tr>
<tr>
<td>Odo/Trip Meter</td>
<td>km</td>
<td>Total mileage (Odometer value) at the moment a particular DTC is detected</td>
</tr>
</tbody>
</table>

- **SLEEP>LOCK**: While turning BCM status from low power consumption mode to normal mode (Power supply position is “LOCK”**).
- **SLEEP>OFF**: While turning BCM status from low power consumption mode to normal mode (Power supply position is “OFF”).
- **LOCK>ACC**: While turning power supply position from “LOCK”** to “ACC”.
- **ACC>ON**: While turning power supply position from “ACC” to “IGN”.
- **RUN>ACC**: While turning power supply position from “RUN” to “ACC” (Vehicle is stopped and selector lever is in P position.)
- **CRANK>RUN**: While turning power supply position from “CRANKING” to “RUN” (From cranking up the engine to run it)
- **RUN>URGENT**: While turning power supply position from “RUN” to “ACC” (Emergency stop operation)
- **ACC>OFF**: While turning power supply position from “ACC” to “OFF”.
- **OFF>LOCK**: While turning power supply position from “OFF” to “LOCK”**.
- **OFF>ACC**: While turning power supply position from “OFF” to “ACC”.
- **ON>CRANK**: While turning power supply position from “IGN” to “CRANKING”.
- **OFF>SLEEP**: While turning BCM status from normal mode (Power supply position is “OFF”). to low power consumption mode
- **LOCK>SLEEP**: While turning BCM status from normal mode (Power supply position is “LOCK”**.) to low power consumption mode
- **LOCK**: Power supply position is “LOCK” (Ignition switch OFF)*
- **OFF**: Power supply position is “OFF” (Ignition switch OFF)
- **ACC**: Power supply position is “ACC” (Ignition switch ACC)
- **ON**: Power supply position is “IGN” (Ignition switch ON with engine stopped)
- **ENGINE RUN**: Power supply position is “RUN” (Ignition switch ON with engine running)
- **CRANKING**: Power supply position is “CRANKING” (At engine cranking)

**NOTE:**
*: Power supply position shifts to “LOCK” from “OFF”, when ignition switch is in the OFF position, selector lever is in the P position, and any of the following conditions are met:
- Closing door
- Opening door
- Door is locked using door request switch
- Door is locked using Intelligent Key

The power supply position shifts to “ACC” when the push-button ignition switch (push switch) is pushed at “LOCK”.

**INTELLIGENT KEY**

**INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)**

**DATA MONITOR**
<table>
<thead>
<tr>
<th>Monitor Item [Unit]</th>
<th>Main</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>REQ SW -DR [On/Off]</td>
<td>×</td>
<td>Indicates condition of door request switch LH</td>
</tr>
<tr>
<td>REQ SW -AS [On/Off]</td>
<td>×</td>
<td>Indicates condition of door request switch RH</td>
</tr>
<tr>
<td>REQ SW -BD/TR [On/Off]</td>
<td>×</td>
<td>Indicates condition of trunk opener request switch</td>
</tr>
<tr>
<td>PUSH SW [On/Off]</td>
<td></td>
<td>Indicates condition of push button ignition switch</td>
</tr>
<tr>
<td>SHFTLCK SLNID PWR SPLY [On/Off]</td>
<td></td>
<td>Indicates condition of shiftlock solenoid power supply</td>
</tr>
<tr>
<td>BRAKE SW 1 [On/Off]</td>
<td></td>
<td>Indicates condition of brake switch</td>
</tr>
<tr>
<td>BRAKE SW 2 [On/Off]</td>
<td></td>
<td>Indicates condition of brake switch</td>
</tr>
<tr>
<td>DETE/CANCL SW [On/Off]</td>
<td></td>
<td>Indicates condition of P position</td>
</tr>
<tr>
<td>SFT PN/N SW [On/Off]</td>
<td></td>
<td>Indicates condition of P or N position</td>
</tr>
<tr>
<td>UNLK SEN -DR [On/Off]</td>
<td></td>
<td>Indicates condition of door unlock sensor</td>
</tr>
<tr>
<td>PUSH SW -IPDM [On/Off]</td>
<td></td>
<td>Indicates condition of push button ignition switch received from IPDM E/R on CAN communication line</td>
</tr>
<tr>
<td>IGN RLY1 -F/B [On/Off]</td>
<td></td>
<td>Indicates condition of ignition relay 1 received from IPDM E/R on CAN communication line</td>
</tr>
<tr>
<td>DETE SW -IPDM [On/Off]</td>
<td></td>
<td>Indicates condition of detent switch received from TCM on CAN communication line</td>
</tr>
<tr>
<td>SFT PN -IPDM [On/Off]</td>
<td></td>
<td>Indicates condition of P or N position from TCM on CAN communication line</td>
</tr>
<tr>
<td>SFT P -MET [On/Off]</td>
<td></td>
<td>Indicates condition of P position from TCM on CAN communication line</td>
</tr>
<tr>
<td>SFT N -MET [On/Off]</td>
<td></td>
<td>Indicates condition of N position from IPDM E/R on CAN communication line</td>
</tr>
<tr>
<td>ENGINE STATE [Stop/Start/Crank/Run]</td>
<td>×</td>
<td>Indicates condition of engine state from ECM on CAN communication line</td>
</tr>
<tr>
<td>VEH SPEED 1 [mph/km/h]</td>
<td></td>
<td>Indicates condition of vehicle speed signal received from ABS on CAN communication line</td>
</tr>
<tr>
<td>VEH SPEED 2 [mph/km/h]</td>
<td></td>
<td>Indicates condition of vehicle speed signal received from combination meter on CAN communication line</td>
</tr>
<tr>
<td>DOOR STAT -DR [LOCK/READY/UNLK]</td>
<td>×</td>
<td>Indicates condition of driver side door status</td>
</tr>
<tr>
<td>DOOR STAT -AS [LOCK/READY/UNLK]</td>
<td>×</td>
<td>Indicates condition of passenger side door status</td>
</tr>
<tr>
<td>DOOR STAT -RR [LOCK/READY/UNLK]</td>
<td>×</td>
<td>Indicates condition of rear right side door status</td>
</tr>
<tr>
<td>DOOR STAT -RL [LOCK/READY/UNLK]</td>
<td>×</td>
<td>Indicates condition of rear left side door status</td>
</tr>
<tr>
<td>ID OK FLAG [Set/Reset]</td>
<td></td>
<td>Indicates condition of intelligent key ID</td>
</tr>
<tr>
<td>PRMT ENG START [Set/Reset]</td>
<td></td>
<td>Indicates condition of engine start possibility from intelligent key</td>
</tr>
<tr>
<td>I-KEY OK FLAG [Set/Reset]</td>
<td></td>
<td>Indicates condition of Intelligent Key ID</td>
</tr>
<tr>
<td>ID AUTHENT CANCEL TiMER [under a stop]</td>
<td></td>
<td>Indicates condition of Intelligent Key ID authentication.</td>
</tr>
<tr>
<td>ACC BATTERY SAVER [under a stop]</td>
<td></td>
<td>Indicates condition of battery saver.</td>
</tr>
<tr>
<td>CRNK PRBT TMR [On/Off]</td>
<td></td>
<td>Indicates condition of crank prohibit timer.</td>
</tr>
<tr>
<td>AUT CRNK TMR [On/Off]</td>
<td></td>
<td>Indicates condition of automatic engine crank timer from Intelligent Key.</td>
</tr>
<tr>
<td>CRANKING TME [sec]</td>
<td></td>
<td>Indicates condition of engine cranking time from Intelligent Key.</td>
</tr>
<tr>
<td>SHORT CRANK</td>
<td></td>
<td>Indicates condition of condition of short crank from intelligent key</td>
</tr>
<tr>
<td>ST RLY -REQ</td>
<td></td>
<td>Indicates condition of starter relay.</td>
</tr>
<tr>
<td>IGN RLY 1 -REQ</td>
<td></td>
<td>Indicates condition of ignition 1 relay.</td>
</tr>
<tr>
<td>IGN RLY 2 -REQ</td>
<td></td>
<td>Indicates condition of ignition 2 relay.</td>
</tr>
<tr>
<td>DETE SW PWR [On/Off]</td>
<td></td>
<td>Indicates condition of park position switch voltage.</td>
</tr>
<tr>
<td>IGN RLY 3 -REQ</td>
<td></td>
<td>Indicates condition of ignition 3 relay.</td>
</tr>
<tr>
<td>ACC RLY -REQ</td>
<td></td>
<td>Indicates condition of ACC relay.</td>
</tr>
<tr>
<td>PRBT ENG STRT [Set/Reset]</td>
<td></td>
<td>Indicates condition of engine start possibility.</td>
</tr>
<tr>
<td>PRMT RKE STRT [Set/Reset]</td>
<td></td>
<td>Indicates condition of engine start possibility from Intelligent Key.</td>
</tr>
</tbody>
</table>

Revision: October 2015
## DIAGNOSIS SYSTEM (BCM)

### < SYSTEM DESCRIPTION >

<table>
<thead>
<tr>
<th>Monitor Item [Unit]</th>
<th>Main Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRNK/HAT MNTR [On/Off]</td>
<td>Indicates condition of trunk lid.</td>
</tr>
<tr>
<td>RKE-LOCK [On/Off]</td>
<td>Indicates condition of lock signal from Intelligent Key.</td>
</tr>
<tr>
<td>RKE-UNLOCK [On/Off]</td>
<td>Indicates condition of unlock signal from Intelligent Key.</td>
</tr>
<tr>
<td>RKE-TR/BD [On/Off]</td>
<td>Indicates condition of trunk open signal from Intelligent Key.</td>
</tr>
<tr>
<td>RKE-PANIC [On/Off]</td>
<td>Indicates condition of panic signal from Intelligent Key.</td>
</tr>
<tr>
<td>RKE-MODE CHG [On/Off]</td>
<td>Indicates condition of mode change signal from Intelligent Key.</td>
</tr>
<tr>
<td>RKE PBD</td>
<td>Indicates condition of trunk signal from Intelligent Key.</td>
</tr>
<tr>
<td>RKE OPE COUN1 [0-19]</td>
<td>× When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing.</td>
</tr>
<tr>
<td>RKE OPE COUN2 [0-19]</td>
<td>× When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing.</td>
</tr>
</tbody>
</table>

### ACTIVE TEST

<table>
<thead>
<tr>
<th>Test Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTELLIGENT KEY LINK (CAN)</td>
<td>This test is able to check Intelligent Key identification number [Off/ID No1/ID No2/ID No3/ID No4/ID No5].</td>
</tr>
<tr>
<td>INT LAMP</td>
<td>This test is able to check interior room lamp operation [On/Off].</td>
</tr>
<tr>
<td>FLASHER</td>
<td>This test is able to check hazard lamp operation [LH/RH/Off].</td>
</tr>
<tr>
<td>HORN</td>
<td>This test is able to check horn operation [On].</td>
</tr>
<tr>
<td>BATTERY SAVER</td>
<td>This test is able to check battery saver operation [On/Off].</td>
</tr>
<tr>
<td>TRUNK/BACK DOOR</td>
<td>This test is able to check trunk actuator operation [Open].</td>
</tr>
<tr>
<td>OUTSIDE BUZZER</td>
<td>This test is able to check Intelligent Key warning buzzer operation [On/Off].</td>
</tr>
<tr>
<td>INSIDE BUZZER</td>
<td>This test is able to check combination meter warning chime operation [Take Out/Key/Off].</td>
</tr>
<tr>
<td>INDICATOR</td>
<td>This test is able to check combination meter warning lamp operation [KEY ON/KEY IND/Off].</td>
</tr>
<tr>
<td>IGN CONT2</td>
<td>This test is able to check ignition relay-2 control operation [On/Off].</td>
</tr>
<tr>
<td>ENGINE SW ILLUMI</td>
<td>This test is able to check push-button ignition switch START indicator operation [On/Off].</td>
</tr>
<tr>
<td>PUSH SWITCH INDICATOR</td>
<td>This test is able to check push-button ignition switch indicator operation [On/Off].</td>
</tr>
<tr>
<td>ACC CONT</td>
<td>This test is able to check accessory relay control operation [On/Off].</td>
</tr>
<tr>
<td>IGN CONT1</td>
<td>This test is able to check ignition relay-1 control operation [On/Off].</td>
</tr>
<tr>
<td>ST CONT LOW</td>
<td>This test is able to check starter control relay operation [On/Off].</td>
</tr>
<tr>
<td>IGNITION RELAY</td>
<td>This test is able to check ignition relay operation [On/Off].</td>
</tr>
<tr>
<td>REVERSE LAMP TEST</td>
<td>This test is able to check reverse lamp illumination operation [On/Off].</td>
</tr>
<tr>
<td>DOOR HANDLE LAMP TEST</td>
<td>This test is able to check door handle lamp illumination operation [On/Off].</td>
</tr>
<tr>
<td>DR SEAT LAMP TEST</td>
<td>This test is able to check driver seat lamp operation [On/Off].</td>
</tr>
<tr>
<td>AS SEAT LAMP TEST</td>
<td>This test is able to check passenger seat lamp operation [On/Off].</td>
</tr>
<tr>
<td>SHIFT SPOT LAMP TEST</td>
<td>This test is able to check shift spot lamp operation [On/Off].</td>
</tr>
<tr>
<td>TRUNK/LUGGAGE LAMP TEST</td>
<td>This test is able to check cargo lamp illumination operation [On/Off].</td>
</tr>
<tr>
<td>KEYFOB PW TEST</td>
<td>This test is able to check power window operation using the Intelligent Key [P/W up/down OFF/Send P/W down ON/Send P/W up ON].</td>
</tr>
<tr>
<td>SHIFTLOCK SOLENOID TEST</td>
<td>This test is able to check shift lock solenoid operation [On/Off].</td>
</tr>
</tbody>
</table>

### WORK SUPPORT

<table>
<thead>
<tr>
<th>Support Item</th>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IGN/ACC BATTERY SAVER</td>
<td>On*</td>
<td>Battery saver function ON.</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Battery saver function OFF.</td>
</tr>
</tbody>
</table>
### DIAGNOSIS SYSTEM (BCM)

#### SYSTEM DESCRIPTION

**THEFT ALM**

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

**DATA MONITOR**

<table>
<thead>
<tr>
<th>Support Item</th>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>REMOTE ENGINE STARTER</td>
<td>On*</td>
<td>Remote engine start function ON.</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Remote engine start function OFF.</td>
</tr>
<tr>
<td>ANSWERBACK I-KEY LOCK UNLOCK</td>
<td>BUZZER*</td>
<td>Buzzer reminder function by door lock/unlock request switch ON.</td>
</tr>
<tr>
<td></td>
<td>HORN</td>
<td>Horn chirp reminder function by door lock request switch ON.</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>No reminder function by door lock/unlock request switch.</td>
</tr>
<tr>
<td></td>
<td>INVALID</td>
<td>This mode is not used.</td>
</tr>
<tr>
<td>ANSWERBACK KEYLESS LOCK UNLOCK</td>
<td>On*</td>
<td>Buzzer or horn chirp reminder when doors are locked/unlocked with Intelligent Key.</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>No buzzer or horn chirp reminder when doors are locked/unlocked with Intelligent Key.</td>
</tr>
<tr>
<td>ANSWER BACK</td>
<td>On*</td>
<td>Horn chirp reminder when doors are locked with Intelligent Key.</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>No horn chirp reminder when doors are locked with Intelligent Key.</td>
</tr>
<tr>
<td>RETRACTABLE MIRROR SET</td>
<td>On</td>
<td>Retractable mirror set ON.</td>
</tr>
<tr>
<td></td>
<td>Off*</td>
<td>Retractable mirror set OFF.</td>
</tr>
<tr>
<td>LOCK/UNLOCK BY I-KEY</td>
<td>On*</td>
<td>Door lock/unlock function from Intelligent Key ON.</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Door lock/unlock function from Intelligent Key OFF.</td>
</tr>
<tr>
<td>ENGINE START BY I-KEY</td>
<td>On*</td>
<td>Engine start function from Intelligent Key ON.</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Engine start function from Intelligent Key OFF.</td>
</tr>
<tr>
<td>TRUNK/GLASS HATCH OPEN</td>
<td>On*</td>
<td>Buzzer reminder function by trunk request switch ON.</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Buzzer reminder function by trunk request switch OFF.</td>
</tr>
<tr>
<td>CONFIRM KEY FOB ID</td>
<td>—</td>
<td>Intelligent Key ID code can be checked.</td>
</tr>
<tr>
<td>SHORT CRANKING OUTPUT</td>
<td>Start</td>
<td>70 msec</td>
</tr>
<tr>
<td></td>
<td>100 msec</td>
<td>Starter motor operation duration times.</td>
</tr>
<tr>
<td></td>
<td>200 msec</td>
<td></td>
</tr>
<tr>
<td></td>
<td>End</td>
<td>—</td>
</tr>
<tr>
<td>INSIDE ANT DIAGNOSIS</td>
<td>—</td>
<td>This function allows inside key antenna self-diagnosis.</td>
</tr>
<tr>
<td>AUTO LOCK SET</td>
<td>MODE7</td>
<td>5 min</td>
</tr>
<tr>
<td></td>
<td>MODE6</td>
<td>4 min</td>
</tr>
<tr>
<td></td>
<td>MODE5</td>
<td>3 min</td>
</tr>
<tr>
<td></td>
<td>MODE4</td>
<td>2 min</td>
</tr>
<tr>
<td></td>
<td>MODE3*</td>
<td>1 min</td>
</tr>
<tr>
<td></td>
<td>MODE2</td>
<td>30 sec</td>
</tr>
<tr>
<td></td>
<td>MODE1</td>
<td>Off</td>
</tr>
</tbody>
</table>

*: Initial Setting

**DATA MONITOR**

<table>
<thead>
<tr>
<th>Monitored Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>REQ SW -DR [On/Off]</td>
<td>Indicates condition of door request switch LH</td>
</tr>
<tr>
<td>REQ SW -AS [On/Off]</td>
<td>Indicates condition of door request switch RH</td>
</tr>
<tr>
<td>REQ SW -BD/TR [On/Off]</td>
<td>Indicates condition of trunk opener request switch</td>
</tr>
<tr>
<td>PUSH SW [On/Off]</td>
<td>Indicates condition of push button ignition switch</td>
</tr>
<tr>
<td>UNLK SEN -DR [On/Off]</td>
<td>Indicates condition of door unlock sensor</td>
</tr>
</tbody>
</table>

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< SYSTEM DESCRIPTION >

<table>
<thead>
<tr>
<th>Monitored Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOOR SW-DR [On/Off]</td>
<td>Indicates condition of front door switch LH</td>
</tr>
<tr>
<td>DOOR SW-AS [On/Off]</td>
<td>Indicates condition of front door switch RH</td>
</tr>
<tr>
<td>DOOR SW-RR [On/Off]</td>
<td>Indicates condition of rear door switch RH</td>
</tr>
<tr>
<td>DOOR SW-RL [On/Off]</td>
<td>Indicates condition of rear door switch LH</td>
</tr>
<tr>
<td>DOOR SW-BK [On/Off]</td>
<td>Indicates condition of trunk switch</td>
</tr>
<tr>
<td>CDL LOCK SW [On/Off]</td>
<td>Indicates condition of lock signal from door lock and unlock switch</td>
</tr>
<tr>
<td>CDL UNLOCK SW [On/Off]</td>
<td>Indicates condition of unlock signal from door lock and unlock switch</td>
</tr>
<tr>
<td>KEY CYL LK-SW [On/Off]</td>
<td>Indicates condition of lock signal from door key cylinder switch</td>
</tr>
<tr>
<td>KEY CYL UN-SW [On/Off]</td>
<td>Indicates condition of unlock signal from door key cylinder switch</td>
</tr>
<tr>
<td>TR/BD OPEN SW [On/Off]</td>
<td>Indicates condition of trunk lid opener switch</td>
</tr>
<tr>
<td>TRNK/HAT MNTR [On/Off]</td>
<td>Indicates condition of trunk room lamp switch</td>
</tr>
<tr>
<td>RKE-LOCK [On/Off]</td>
<td>Indicates condition of lock signal from Intelligent Key</td>
</tr>
<tr>
<td>RKE-UNLOCK [On/Off]</td>
<td>Indicates condition of unlock signal from Intelligent Key</td>
</tr>
<tr>
<td>RKE-TR/BD [On/Off]</td>
<td>Indicates condition of trunk open signal from Intelligent Key</td>
</tr>
</tbody>
</table>

ACTIVE TEST

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

WORK SUPPORT

<table>
<thead>
<tr>
<th>Support Item</th>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SECURITY ALARM SET</td>
<td>On</td>
<td>Security alarm ON</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Security alarm OFF</td>
</tr>
</tbody>
</table>

IMMU

IMMU : CONSULT Function (BCM - IMMU)

SELF DIAGNOSTIC RESULT
Refer to BCS-53, "DTC Index".

DATA MONITOR

<table>
<thead>
<tr>
<th>Monitor Item [Unit]</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONFIRM ID ALL [Yet/DONE]</td>
<td>Switches to DONE when a registered Intelligent Key is inserted into the key slot.</td>
</tr>
<tr>
<td>CONFIRM ID4 [Yet/DONE]</td>
<td></td>
</tr>
<tr>
<td>CONFIRM ID3 [Yet/DONE]</td>
<td></td>
</tr>
<tr>
<td>CONFIRM ID2 [Yet/DONE]</td>
<td></td>
</tr>
<tr>
<td>CONFIRM ID1 [Yet/DONE]</td>
<td></td>
</tr>
<tr>
<td>NOT REGISTERED</td>
<td>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.</td>
</tr>
<tr>
<td>TP 4 [Yet/DONE]</td>
<td></td>
</tr>
<tr>
<td>TP 3 [Yet/DONE]</td>
<td></td>
</tr>
<tr>
<td>TP 2 [Yet/DONE]</td>
<td></td>
</tr>
<tr>
<td>TP 1 [Yet/DONE]</td>
<td></td>
</tr>
</tbody>
</table>

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### SYSTEM DESCRIPTION

**DIAGNOSIS SYSTEM (BCM)**

<table>
<thead>
<tr>
<th>Monitor Item [Unit]</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUSH SW [On/Off]</td>
<td>Indicates condition of push button ignition switch</td>
</tr>
<tr>
<td>TCU ID [Yet/DONE]</td>
<td>Indicates condition of telematics control unit</td>
</tr>
</tbody>
</table>

### ACTIVE TEST

<table>
<thead>
<tr>
<th>Test Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>THEFT IND</td>
<td>This test is able to check security indicator operation [On/Off].</td>
</tr>
</tbody>
</table>
CONSULT Function (IPDM E/R)

APPLICATION ITEM
CONSULT performs the following functions via CAN communication with IPDM E/R.

<table>
<thead>
<tr>
<th>Direct Diagnostic Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECU Identification</td>
<td>The IPDM E/R part number is displayed.</td>
</tr>
<tr>
<td>Self Diagnostic Result</td>
<td>The IPDM E/R self diagnostic results are displayed.</td>
</tr>
<tr>
<td>Data Monitor</td>
<td>The IPDM E/R input/output data is displayed in real time.</td>
</tr>
<tr>
<td>Active Test</td>
<td>The IPDM E/R activates outputs to test components.</td>
</tr>
<tr>
<td>CAN Diag Support Mntr</td>
<td>The result of transmit/receive diagnosis of CAN communication is displayed.</td>
</tr>
</tbody>
</table>

ECU IDENTIFICATION
The IPDM E/R part number is displayed.

SELF DIAGNOSTIC RESULT
Refer to PCS-21, "DTC Index".

DATA MONITOR

<table>
<thead>
<tr>
<th>Monitor Item [Unit]</th>
<th>Main Signals</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOTOR FAN REQ [1/2/3/4]</td>
<td>×</td>
<td>Indicates cooling fan speed signal received from ECM on CAN communication line</td>
</tr>
<tr>
<td>AC COMP REQ [On/Off]</td>
<td>×</td>
<td>Indicates A/C compressor request signal received from ECM on CAN communication line</td>
</tr>
<tr>
<td>TAIL&amp;CLR REQ [On/Off]</td>
<td>×</td>
<td>Indicates position light request signal received from BCM on CAN communication line</td>
</tr>
<tr>
<td>HL LO REQ [On/Off]</td>
<td>×</td>
<td>Indicates low beam request signal received from BCM on CAN communication line</td>
</tr>
<tr>
<td>HL HI REQ [On/Off]</td>
<td>×</td>
<td>Indicates high beam request signal received from BCM on CAN communication line</td>
</tr>
<tr>
<td>FR FOG REQ [On/Off]</td>
<td>×</td>
<td>Indicates front fog light request signal received from BCM on CAN communication line</td>
</tr>
<tr>
<td>FR WIP REQ [Stop/1LOW/Low/Hi]</td>
<td>×</td>
<td>Indicates front wiper request signal received from BCM on CAN communication line</td>
</tr>
<tr>
<td>WIP AUTO STOP [STOP P/ACT P]</td>
<td>×</td>
<td>Indicates condition of front wiper auto stop signal</td>
</tr>
<tr>
<td>WIP PROT [Off/BLOCK]</td>
<td>×</td>
<td>Indicates condition of front wiper fail-safe operation</td>
</tr>
<tr>
<td>IGN RLY1 -REQ [On/Off]</td>
<td></td>
<td>Indicates ignition switch ON signal received from BCM on CAN communication line</td>
</tr>
<tr>
<td>IGN RLY [On/Off]</td>
<td>×</td>
<td>Indicates condition of ignition relay-1</td>
</tr>
<tr>
<td>PUSH SW [On/Off]</td>
<td></td>
<td>Indicates condition of push-button ignition switch</td>
</tr>
<tr>
<td>INTER/NP SW [On/Off]</td>
<td></td>
<td>Indicates condition of CVT shift position</td>
</tr>
<tr>
<td>ST RLY CONT [On/Off]</td>
<td></td>
<td>Indicates starter relay status signal received from BCM on CAN communication line</td>
</tr>
<tr>
<td>IHBT RLY -REQ [On/Off]</td>
<td></td>
<td>Indicates starter control relay signal received from BCM on CAN communication line</td>
</tr>
<tr>
<td>ST/INHI RLY [Off/ST /INHI]</td>
<td></td>
<td>Indicates condition of starter relay and starter control relay</td>
</tr>
<tr>
<td>DETENT SW [On/Off]</td>
<td></td>
<td>Indicates condition of CVT shift selector (park position switch)</td>
</tr>
<tr>
<td>DTRL REQ [Off]</td>
<td></td>
<td>Indicates daytime running light request signal received from BCM on CAN communication line</td>
</tr>
<tr>
<td>HOOD SWITCH</td>
<td></td>
<td>Indicates condition of hood switch</td>
</tr>
</tbody>
</table>
< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (IPDM E/R)

<table>
<thead>
<tr>
<th>Monitor Item [Unit]</th>
<th>Main Signals</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>THFT HRN REQ [On/Off]</td>
<td>Indicates theft warning horn request signal received from BCM on CAN communication line</td>
<td></td>
</tr>
<tr>
<td>HORN CHIRP [On/Off]</td>
<td>Indicates horn reminder signal received from BCM on CAN communication line</td>
<td></td>
</tr>
<tr>
<td>HOOD SWITCH 2</td>
<td>Indicates condition of hood switch 2</td>
<td></td>
</tr>
</tbody>
</table>

ACTIVE TEST

<table>
<thead>
<tr>
<th>Test item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HORN</td>
<td>This test is able to check horn operation [On].</td>
</tr>
<tr>
<td>FRONT WIPER</td>
<td>This test is able to check wiper motor operation [Hi/Lo/Off].</td>
</tr>
<tr>
<td>MOTOR FAN</td>
<td>This test is able to check cooling fan operation [4/3/2/1].</td>
</tr>
<tr>
<td>EXTERNAL LAMPS</td>
<td>This test is able to check external lamp operation [Fog/Hi/Lo/Tail/Off].</td>
</tr>
</tbody>
</table>

CAN DIAG SUPPORT MNTR
Refer to LAN-14, "CAN Diagnostic Support Monitor".
## ECU DIAGNOSIS INFORMATION

### ECM, IPDM E/R, BCM

#### List of ECU Reference

<table>
<thead>
<tr>
<th>ECU</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECM</td>
<td>EC-86, &quot;Reference Value&quot;</td>
</tr>
<tr>
<td>ECM</td>
<td>EC-103, &quot;Fail-safe&quot;</td>
</tr>
<tr>
<td>ECM</td>
<td>EC-105, &quot;DTC Inspection Priority Chart&quot;</td>
</tr>
<tr>
<td>ECM</td>
<td>EC-107, &quot;DTC Index&quot;</td>
</tr>
<tr>
<td>IPDM E/R</td>
<td>PCS-13, &quot;Reference Value&quot;</td>
</tr>
<tr>
<td>IPDM E/R</td>
<td>PCS-20, &quot;Fail Safe&quot;</td>
</tr>
<tr>
<td>IPDM E/R</td>
<td>PCS-21, &quot;DTC Index&quot;</td>
</tr>
<tr>
<td>BCM</td>
<td>BCS-31, &quot;Reference Value&quot;</td>
</tr>
<tr>
<td>BCM</td>
<td>BCS-51, &quot;Fail Safe&quot;</td>
</tr>
<tr>
<td>BCM</td>
<td>BCS-52, &quot;DTC Inspection Priority Chart&quot;</td>
</tr>
<tr>
<td>BCM</td>
<td>BCS-53, &quot;DTC Index&quot;</td>
</tr>
</tbody>
</table>

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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >
### NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS

<table>
<thead>
<tr>
<th>Connector No.</th>
<th>Connector Name</th>
<th>Connector Type</th>
<th>Connector Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>E17</td>
<td>POWER INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM</td>
<td>H01061</td>
<td>WHITE</td>
</tr>
<tr>
<td>E18</td>
<td>FUSE BLOCK (LB)</td>
<td>H01061</td>
<td>WHITE</td>
</tr>
<tr>
<td>E19</td>
<td>IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)</td>
<td>H01061</td>
<td>WHITE</td>
</tr>
</tbody>
</table>

### Wiring Diagram

- **Terminal No.**
- **Color of Wire**
- **Signal Name**
- **Terminal Color**
- **Signal Name**

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2016 Maxima NAM
### VEHICLE SECURITY SYSTEM

#### Wiring Diagram

**Connector No.**: D1  
**Connector Name**: MAIN POWER WINDOW AND DOOR LOCK/L.fa  
**Connector Type**: NSP16P-03  
**Connector Color**: WHITE

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
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</table>

**Connector No.**: D10  
**Connector Name**: FRONT DOOR LOCK ASSEMBLY L  
**Connector Type**: NSP16P-03  
**Connector Color**: GRAY

<table>
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<tr>
<th>Terminal No.</th>
<th>Color of Wire</th>
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**Connector No.**: B16  
**Connector Name**: FRONT DOOR SWITCH RH  
**Connector Type**: NSP16P-03  
**Connector Color**: WHITE

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
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<tbody>
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</table>

**Connector No.**: B16  
**Connector Name**: REAR DOOR SWITCH RH  
**Connector Color**: WHITE

<table>
<thead>
<tr>
<th>Terminal No.</th>
<th>Color of Wire</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

**Revision**: October 2015  
**2016 Maxima NAM**
< BASIC INSPECTION >

BASIC INSPECTION

OVERALL SEQUENCE

1. Get information for symptom
   Get the detailed information about symptom from the customer.

2. Check DTC
   Print out DTC and freeze frame data (or, write it down).
   Check related service bulletins.

   Symptom is described. DTC is detected.
   Symptom is not described. DTC is detected.
   Symptom is described. DTC is not detected.

3. Confirm the symptom
   Try to confirm the symptom described by the customer.
   Also study the normal operation and failsafe related to the symptom.

4. Confirm the symptom
   Try to confirm the symptom described by the customer.

5. Perform DTC CONFIRMATION PROCEDURE

6. Detect malfunctioning system by SYMPTOM DIAGNOSIS

   Symptom is described.
   Symptom is not described.

7. Detect malfunctioning part by Diagnosis Procedure

   DTC is detected.

8. Repair or replace the malfunctioning part

9. Final check
   Check that the symptom is not detected.
   Perform DTC CONFIRMATION PROCEDURE again, and then check that the malfunction is repaired.

   DTC is not detected.
   Symptom does not remain.

Inspection End
< BASIC INSPECTION >

1. GET INFORMATION FOR SYMPTOM
1. Get detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurs).
2. Check operation condition of the function that is malfunctioning.

>> GO TO 2.

2. CHECK DTC
1. Check DTC.
2. Perform the following procedure if DTC is detected.
   - Record DTC and freeze frame data (Print them out using CONSULT.)
   - Erase DTC.
   - Study the relationship between the cause detected by DTC and the symptom described by the customer.
3. Check related service bulletins for information.
   Are any symptoms described and any DTC detected?
   Symptom is described, DTC is detected >> GO TO 3.
   Symptom is described, DTC is not detected >> GO TO 4.
   Symptom is not described, DTC is detected >> GO TO 5.

3. CONFIRM THE SYMPTOM
Try to confirm the symptom described by the customer.
Also study the normal operation and fail-safe related to the symptom.
Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 5.

4. CONFIRM THE SYMPTOM
Try to confirm the symptom described by the customer.
Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 6.

5. PERFORM DTC CONFIRMATION PROCEDURE
Perform DTC CONFIRMATION PROCEDURE for the detected DTC, and then check that DTC is detected again. At this time, always connect CONSULT to the vehicle, and check self diagnostic results in real time.
If two or more DTCs are detected, refer to BCS-52, "DTC Inspection Priority Chart" and determine trouble diagnosis order.

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

Is DTC detected?
YES >> GO TO 7.
NO  >> Check according to GI-41, "Intermittent Incident".

6. DETECT MALFUNCTIONING SYSTEM BY SYMPTOM DIAGNOSIS
Detect malfunctioning system according to SYMPTOM DIAGNOSIS based on the confirmed symptom in step 4, and determine the trouble diagnosis order based on possible causes and symptom.

Is the symptom described?
YES >> GO TO 7.
NO  >> Monitor input data from related sensors or check voltage of related module terminals using CONSULT.

7. DETECT MALFUNCTIONING PART BY DIAGNOSIS PROCEDURE
< BASIC INSPECTION >
Inspect according to Diagnosis Procedure of the system.

Is malfunctioning part detected?
- YES >> GO TO 8.
- NO >> Check according to GI-41, "Intermittent Incident".

8. REPAIR OR REPLACE THE MALFUNCTIONING PART

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

>> GO TO 9.

9. FINAL CHECK

When DTC is detected in step 2, perform DTC CONFIRMATION PROCEDURE again, and then check that the malfunction is repaired securely.
When symptom is described by the customer, refer to confirmed symptom in step 3 or 4, and check that the symptom is not detected.

Is DTC detected and does symptom remain?
- YES-1 >> DTC is detected: GO TO 7.
- YES-2 >> Symptom remains: GO TO 4.
- NO >> Before returning the vehicle to the customer, always erase DTC.
ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ECM

ECM : Description

Performing the following procedure can automatically activate recommination of ECM and BCM, but only when the ECM is replaced with a new one*.
*: New one means an ECM that has never been energized on-board.
(In this step, initialization procedure by CONSULT is not necessary)

NOTE:
• If multiple keys are attached to the key holder, separate them before beginning work.
• Distinguish keys with unregistered key IDs from those with registered IDs.

ECM : Work Procedure

1. PERFORM ECM RECOMMUNICATION FUNCTION

1. Install ECM.
2. Contact back side of registered Intelligent Key* to push-button ignition switch, then turn ignition switch to ON.
*: To perform this step, use the key that is used before performing ECM replacement.
3. Maintain ignition switch in the ON position for at least 5 seconds.
4. Turn ignition switch to OFF.
5. Check that the engine starts.

>> GO TO 2.

2. PERFORM ADDITIONAL SERVICE WHEN REPLACING ECM

Perform EC-156. "Work Procedure".

>> End.

BCM

BCM : Description

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

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

AFTER REPLACEMENT
CAUTION:
When replacing BCM, always perform “WRITE CONFIGURATION” with CONSULT. Not doing so will cause the BCM control function to not operate normally.
• Complete the procedure of “WRITE CONFIGURATION” in order.
• Configuration is different for each vehicle model. Confirm configuration of each vehicle model.
• If you set incorrect “WRITE CONFIGURATION”, incidents might occur.

NOTE:
When replacing BCM, perform the system initialization (NATS).

BCM : Work Procedure

1. SAVING VEHICLE SPECIFICATION

CONSULT Configuration
Perform “READ CONFIGURATION” to save or print current vehicle specification. Refer to BCS-64, "CONFIGURATION (BCM) : Description".

NOTE:
ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

< BASIC INSPECTION >

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

>> GO TO 2.

2. REPLACE BCM

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

>> GO TO 3.

3. WRITING VEHICLE SPECIFICATION

CONSULT Configuration

Perform “WRITE CONFIGURATION - Config file” or “WRITE CONFIGURATION - Manual selection” to write vehicle specification. Refer to BCS-64, "CONFIGURATION (BCM) : Work Procedure".

>> GO TO 4.

4. INITIALIZE BCM (NATS)

Perform BCM initialization. (NATS)

>> Inspection End.
U1000 CAN COMM CIRCUIT

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM CIRCUIT

DTC Description

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 high line, CAN low 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-32, "CAN COMMUNICATION SYSTEM : CAN Communication Signal Chart".

DTC DETECTION LOGIC

<table>
<thead>
<tr>
<th>DTC No.</th>
<th>CONSULT screen terms (Trouble diagnosis content)</th>
<th>DTC Detection Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1000</td>
<td>CAN COMM CIRCUIT (CAN communication circuit)</td>
<td>Diagnosis condition: When ignition switch is ON.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Signal (terminal): —</td>
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<tr>
<td></td>
<td></td>
<td>Threshold: —</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Diagnosis delay time: 2 seconds or more</td>
</tr>
</tbody>
</table>

POSSIBLE CAUSE
CAN communication system

FAIL-SAFE

—

Diagnosis Procedure

1. SELF DIAGNOSTIC RESULT

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

Is DTC “U1000” displayed?

YES >> Refer to LAN-17, "Trouble Diagnosis Flow Chart".
NO–1 >> To check malfunction symptom before repair: Refer to GI-41, "Intermittent Incident".
NO–2 >> Confirmation after repair: Inspection End.
### DTC DETECTION LOGIC

<table>
<thead>
<tr>
<th>DTC No.</th>
<th>CONSULT screen terms (Trouble diagnosis content)</th>
<th>DTC Detection Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1010</td>
<td>CONTROL UNIT (Control unit)</td>
<td>Diagnosis condition</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Signal (terminal)</td>
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<td></td>
<td>Threshold</td>
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<tr>
<td></td>
<td></td>
<td>Diagnosis delay time</td>
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</tbody>
</table>

### POSSIBLE CAUSE

- BCM
- FAIL-SAFE

### Diagnosis Procedure

1. REPLACE BCM

When DTC U1010 is detected, replace BCM.

>> Replace BCM. Refer to BCS-82, "Removal and Installation".
< DTC/CIRCUIT DIAGNOSIS >

P1610 LOCK MODE

DTC Description

ECM forcibly switches to the mode that inhibits engine start, when engine start operation is performed 5 times or more while communication between ECM and BCM is not normal.

DTC DETECTION LOGIC

NOTE:
If DTC P1610 is displayed with other DTC (for BCM or ENGINE), first perform the trouble diagnosis for other DTC.

<table>
<thead>
<tr>
<th>DTC No.</th>
<th>CONSULT screen terms (Trouble diagnosis content)</th>
<th>DTC Detection Condition</th>
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</thead>
<tbody>
<tr>
<td>P1610</td>
<td>LOCK MODE</td>
<td>Diagnosis condition: When ignition switch is ON.</td>
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<td>Signal (terminal): —</td>
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<td></td>
<td>Threshold: When ECM detects a communication malfunction between ECM and BCM 5 times or more</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Diagnosis delay time: —</td>
</tr>
</tbody>
</table>

POSSIBLE CAUSE

Engine start operation is performed five times or more under the following conditions:
• Nissan Vehicle Immobilizer System malfunction
• Operation by unregistered key

FAIL-SAFE

Inhibit engine cranking

DTC CONFIRMATION PROCEDURE

1. CHECK DTC PRIORITY

If DTC P1610 is displayed with other DTC (for BCM or ENGINE), first perform the trouble diagnosis for other DTC.

Is applicable DTC detected?

YES  >> Perform diagnosis of applicable. BCM: Refer to BCS-53, "DTC Index". ECM: Refer to EC-107, "DTC Index".

NO   >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Check DTC in "Self Diagnostic Result" mode of “ENGINE”.

Is DTC detected?

YES  >> Refer to SEC-58, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-41, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

1. CHECK DTC PRIORITY

If DTC P1610 is displayed with other DTC (for BCM or ENGINE), first perform the trouble diagnosis for other DTC.

Is applicable DTC detected?

YES  >> Perform diagnosis of applicable. BCM: Refer to BCS-53, "DTC Index". ECM: Refer to EC-107, "DTC Index".

NO   >> GO TO 2.

2. CHECK ENGINE START FUNCTION

1. Check that DTC except for DTC P1610 is not detected.
P1610 LOCK MODE

< DTC/CIRCUIT DIAGNOSIS >

If detected, erase the DTC after fixing.
2. Turn ignition switch OFF.
3. Depress brake pedal and contact the registered Intelligent Key backside to push-button ignition switch, then wait 5 seconds.
4. Turn ignition switch ON.
5. Turn ignition switch OFF and wait 5 seconds.
6. Repeat steps 3 and 5 twice (a total of 3 times).
7. Check that engine can start.

>> Inspection End.
P1611 ID DISCORD, IMMU-ECM

DTC Description

DTC DETECTION LOGIC

<table>
<thead>
<tr>
<th>DTC No.</th>
<th>CONSULT screen terms (Trouble diagnosis content)</th>
<th>DTC Detection Condition</th>
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</thead>
<tbody>
<tr>
<td>P1611</td>
<td>ID DISCORD, IMMU-ECM</td>
<td>Diagnosis condition</td>
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<td>When the ignition switch is ON.</td>
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<tr>
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<td>Signal (terminal) —</td>
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<td>Threshold</td>
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<td></td>
<td>The ID verification results between BCM and ECM are not good</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Diagnosis delay time</td>
</tr>
<tr>
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</tbody>
</table>

POSSIBLE CAUSE

• BCM
• Harness or connectors
  (The CAN communication line is open or shorted.
• ECM

FAIL-SAFE

Inhibit engine cranking

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Check DTC in “Self Diagnostic Result” mode of “ENGINE”.

Is DTC detected?

YES >> Refer to SEC-60, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-41, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

1. INTELLIGENT KEY REGISTRATION

CONSULT

Register all Intelligent Keys again.

Can engine be started with the registered Intelligent Key?

YES >> Inspection End.
NO >> GO TO 2.

2. CHECK SELF DIAGNOSTIC RESULT

CONSULT

1. Select “Self Diagnostic Result” mode of “ENGINE”.
2. Erase DTC.
3. Perform DTC CONFIRMATION PROCEDURE for DTC P1611. Refer to SEC-60, "DTC Description".

Is DTC detected?

YES >> GO TO 3.
NO >> Inspection End.

3. REPLACE BCM

1. Replace BCM. Refer to BCS-82, "Removal and Installation".
2. Perform DTC CONFIRMATION PROCEDURE for DTC P1611. Refer to SEC-60, "DTC Description".

Is DTC detected?

YES >> GO TO 4.
Replace ECM. Refer to EC-586, "Removal and Installation".

>> Inspection End.
< DTC/CIRCUIT DIAGNOSIS >

**P1612 CHAIN OF ECM-IMMU**

**DTC Description**

**DTC DETECTION LOGIC**

<table>
<thead>
<tr>
<th>DTC No.</th>
<th>CONSULT screen terms (Trouble diagnosis content)</th>
<th>DTC Detection Condition</th>
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<tbody>
<tr>
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<td>CHAIN OF BCM-ECM</td>
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<tr>
<td></td>
<td>Signal (terminal): —</td>
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<tr>
<td></td>
<td>Threshold: Inactive communication between BCM and ECM</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Diagnosis delay time: —</td>
<td></td>
</tr>
</tbody>
</table>

**POSSIBLE CAUSE**

- Harness or connectors
  (The CAN communication line is open or shorted.)
- BCM
- ECM

**FAIL-SAFE**

Inhibit engine cranking

**DTC CONFIRMATION PROCEDURE**

1. **CHECK DTC PRIORITY**

   If DTC P1612 is displayed with DTC U1000 (for BCM) or U1010 (for BCM), first perform the trouble diagnosis for DTC U1000 (for BCM) or U1010 (for BCM).

   **Is applicable DTC detected?**

   YES  >> Perform diagnosis of applicable. U1000 (for BCM): Refer to BCS-67, "DTC Description". U1010 (for BCM): Refer to BCS-68, "DTC Description".

   NO >> GO TO 2.

2. **PERFORM DTC CONFIRMATION PROCEDURE**

   **CONSULT**

   1. Turn ignition switch ON.
   2. Check DTC in "Self Diagnostic Result" mode of "ENGINE".

   **Is DTC detected?**

   YES  >> Refer to SEC-62, "Diagnosis Procedure".
   NO-1 >> To check malfunction symptom before repair: Refer to GI-41, "Intermittent Incident".
   NO-2 >> Confirmation after repair: Inspection End.

**Diagnosis Procedure**

1. **CHECK DTC PRIORITY**

   If DTC P1612 is displayed with DTC U1000 (for BCM) or U1010 (for BCM), first perform the trouble diagnosis for DTC U1000 (for BCM) or U1010 (for BCM).

   **Is applicable DTC detected?**

   YES  >> Perform diagnosis of applicable. U1000 (for BCM): Refer to BCS-67, "DTC Description". U1010 (for BCM): Refer to BCS-68, "DTC Description".

   NO >> GO TO 2.

2. **REPLACE BCM**

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

   **Does the engine start?**

   YES  >> Inspection End.
   NO >> GO TO 3.
3. REPLACE ECM

Replace ECM. Refer to EC-586, "Removal and Installation".

>> Inspection End.
### P1615 DIFFERENCE OF KEY

**DTC Description**

**DTC DETECTION LOGIC**

<table>
<thead>
<tr>
<th>DTC No.</th>
<th>CONSULT screen terms (Trouble diagnosis content)</th>
<th>DTC Detection Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1615</td>
<td>DIFFERENCE OF KEY (Difference of key)</td>
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<tr>
<td></td>
<td>Diagnosis condition</td>
<td>When the ignition switch is ON.</td>
</tr>
<tr>
<td></td>
<td>Signal (terminal)</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Threshold</td>
<td>The ID verification results between combination meter (BCM) and ignition key are not good</td>
</tr>
<tr>
<td></td>
<td>Diagnosis delay time</td>
<td>—</td>
</tr>
</tbody>
</table>

**POSSIBLE CAUSE**

- Ignition key
- Combination meter

**FAIL-SAFE**

Fuel cut

**DTC CONFIRMATION PROCEDURE**

1. **PERFORM DTC CONFIRMATION PROCEDURE**

   **CONSULT**

   1. Turn ignition switch ON.
   2. Check DTC in "Self Diagnostic Result" mode of “ENGINE”.

   **Is DTC detected?**

   - YES >> Refer to SEC-64, "Diagnosis Procedure".
   - NO-1 >> To check malfunction symptom before repair: Refer to GI-41, "Intermittent Incident".
   - NO-2 >> Confirmation after repair: Inspection End.

**Diagnosis Procedure**

1. **PERFORM INITIALIZATION**

   **CONSULT**

   Perform initialization of combination meter (BCM) and registration of all ignition keys.

   **Can the system be initialized and can the engine be started with registered ignition key?**

   - YES >> Inspection End.
   - NO >> GO TO 2.

2. **REPLACE IGNITION KEY**

   **CONSULT**

   1. Replace ignition key.
   2. Perform initialization of combination meter (BCM) and registration of all ignition keys.

   **Can the system be initialized and can the engine be started with registered ignition key?**

   - YES >> Inspection End.
   - NO >> GO TO 3.

3. **REPLACE COMBINATION METER**

   **CONSULT**

   1. Replace combination meter. Refer to MWI-68, "Removal and Installation".
   2. Perform initialization of BCM and registration of all ignition keys.

   >> Inspection End.
B2192 ID DISCORD, IMMU-ECM

DTC Description

DTC DETECTION LOGIC

<table>
<thead>
<tr>
<th>DTC No.</th>
<th>CONSULT screen terms (Trouble diagnosis content)</th>
<th>DTC Detection Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>B2192</td>
<td>ID DISCORD BCM-ECM (Identification discord body control module - engine control module)</td>
<td>Diagnosis condition: When the ignition switch is ON. Signal (terminal): — Threshold: The ID verification results between BCM and ECM are not good Diagnosis delay time: —</td>
</tr>
</tbody>
</table>

POSSIBLE CAUSE

• BCM
• ECM

FAIL-SAFE

Inhibit engine cranking

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Check DTC in “Self Diagnostic Result” mode of “BCM”.

Is DTC detected?

YES >> Refer to SEC-65, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-41, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

1. INTELLIGENT KEY REGISTRATION

CONSULT

Register all Intelligent Keys again.

Can engine be started with the registered Intelligent Key?

YES >> Inspection End.
NO >> GO TO 2.

2. CHECK SELF-DIAGNOSIS RESULT

CONSULT

1. Select “Self Diagnostic Result” mode of “BCM”.
2. Erase DTC.
3. Perform DTC CONFIRMATION PROCEDURE for DTC B2192. Refer to SEC-65, "DTC Description".

Is DTC detected?

YES >> GO TO 3.
NO >> Inspection End.

3. REPLACE BCM

1. Replace BCM. Refer to BCS-82, "Removal and Installation".
2. Perform DTC CONFIRMATION PROCEDURE for DTC B2192. Refer to SEC-65, "DTC Description".

Is DTC detected?

YES >> GO TO 4.
NO >> Inspection End.
4. REPLACE ECM

Replace ECM. Refer to EC-586, "Removal and Installation".

>> Inspection End.
## DTC Detection Logic

<table>
<thead>
<tr>
<th>DTC No.</th>
<th>CONSULT Screen Terms (Trouble Diagnosis Content)</th>
<th>DTC Detection Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>B2193</td>
<td>CHAIN OF BCM-ECM (Chain of body control module - engine control module)</td>
<td>Diagnosis condition: When the ignition switch is ON. Signal (terminal): — Threshold: Inactive communication between BCM and ECM Diagnosis delay time: —</td>
</tr>
</tbody>
</table>

### Possible Cause

- Harness or connectors
  *(The CAN communication line is open or shorted.)*
- ECM
- BCM

### Fail-Safe

Inhibit engine cranking

### DTC Confirmation Procedure

#### 1. Check DTC Priority

If DTC B2193 is displayed with DTC U1000 or U1010, first perform the trouble diagnosis for DTC U1000 or U1010.

Is applicable DTC detected?

- **YES** >> Perform diagnosis of applicable. U1000: Refer to BCS-67, "DTC Description". U1010: Refer to BCS-68, "DTC Description".
- **NO** >> GO TO 2.

#### 2. Perform DTC Confirmation Procedure

**CONSULT**

1. Turn ignition switch ON.
2. Check DTC in "Self Diagnostic Result" mode of "BCM".

Is DTC detected?

- **YES** >> Refer to SEC-67, "Diagnosis Procedure".
- **NO-1** >> To check malfunction symptom before repair: Refer to GI-41, "Intermittent Incident".
- **NO-2** >> Confirmation after repair: Inspection End.

### Diagnosis Procedure

#### 1. Check DTC Priority

If DTC B2193 is displayed with DTC U1000 or U1010, first perform the trouble diagnosis for DTC U1000 or U1010.

Is applicable DTC detected?

- **YES** >> Perform diagnosis of applicable. U1000: Refer to BCS-67, "DTC Description". U1010: Refer to BCS-68, "DTC Description".
- **NO** >> GO TO 2.

#### 2. Replace BCM

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

Does the engine start?

- **YES** >> Inspection End.
- **NO** >> GO TO 3.
3. REPLACE ECM

Replace ECM. Refer to EC-586, "Removal and Installation".

>> Inspection End.
## B2195 ANTI-SCANNING

### DTC Description

#### POSSIBLE CAUSE
- ID verification request out of the specified specification

#### FAIL-SAFE
- Inhibits engine cranking

### DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

   **CONSULT**
   1. Turn ignition switch ON.
   2. Check DTC in “Self Diagnostic Result” mode of “BCM”.
   Is DTC detected?
     - YES >> Refer to SEC-69, "Diagnosis Procedure".
     - NO-1 >> To check malfunction symptom before repair: Refer to GI-41, "Intermittent Incident".
     - NO-2 >> Confirmation after repair: Inspection End.

### Diagnosis Procedure

1. CHECK SELF DIAGNOSTIC RESULT 1

   **CONSULT**
   1. Select “Self Diagnostic Result” mode of “BCM”.
   2. Erase DTC.
   3. Perform DTC CONFIRMATION PROCEDURE for DTC B2195. Refer to SEC-69, "DTC Description".
   Is DTC detected?
     - YES >> GO TO 2.
     - NO >> Inspection End.

2. CHECK EQUIPMENT OF THE VEHICLE

   Check that unspecified accessory part related to engine start is not installed.
   Is unspecified accessory part related to engine start installed?
     - YES >> GO TO 3.
     - NO >> GO TO 4.

3. CHECK SELF DIAGNOSTIC RESULT 2

   **CONSULT**
   1. Obtain the customers approval to remove unspecified accessory part related to engine start, and then remove it.
   2. Select “Self Diagnostic Result” mode of “BCM”.
   3. Erase DTC.
   4. Perform DTC CONFIRMATION PROCEDURE for DTC B2195. Refer to SEC-69, "DTC Description".
   Is DTC detected?
     - YES >> GO TO 4.

### DTC DETECTION LOGIC

<table>
<thead>
<tr>
<th>DTC No.</th>
<th>CONSULT screen terms (Trouble diagnosis content)</th>
<th>DTC Detection Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>B2195</td>
<td>ANTI-SCANNING (Anti-scanning)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Diagnosis condition</td>
<td>When the ignition switch is ON.</td>
</tr>
<tr>
<td></td>
<td>Signal (terminal)</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Threshold</td>
<td>ID verification between BCM and ECM that is out of the specified specification is detected</td>
</tr>
<tr>
<td></td>
<td>Diagnosis delay time</td>
<td>—</td>
</tr>
</tbody>
</table>

### DTC No. CONSULT screen terms (Trouble diagnosis content)

- **B2195 ANTI-SCANNING**
  - Diagnosis condition: When the ignition switch is ON.
  - Signal (terminal): —
  - Threshold: ID verification between BCM and ECM that is out of the specified specification is detected
  - Diagnosis delay time: —

---

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NO  >> Inspection End.

4. REPLACE BCM

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

>> Inspection End.
**DTC Description**

BCM performs ID verification between BCM and dongle unit. When verification result is OK, BCM permits cranking.

**DTC DETECTION LOGIC**

**NOTE:**
- If DTC B2196 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-67, "DTC Description".
- If DTC B2196 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-68, "DTC Description".

<table>
<thead>
<tr>
<th>DTC No.</th>
<th>CONSULT screen terms (Trouble diagnosis content)</th>
<th>DTC Detection Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>B2196</td>
<td>DONGLE NG</td>
<td>Diagnosis condition</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Signal (terminal)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Threshold</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Diagnosis delay time</td>
</tr>
</tbody>
</table>

**POSSIBLE CAUSE**

- Dongle unit
- Harness or connector
  (Dongle unit circuit is open or shorted.)

**FAIL-SAFE**

**DTC CONFIRMATION PROCEDURE**

1. **PERFORM DTC CONFIRMATION PROCEDURE**

   **CONSULT**

   1. Turn ignition switch ON.
   2. Turn ignition switch OFF.
   3. Turn ignition switch ON.
   4. Select "Self Diagnosis Result" mode.
   5. Check DTC.

   Is the DTC detected?

   YES >> Refer to SEC-71, "Diagnosis Procedure".
   NO >> Inspection End.

**Diagnosis Procedure**

Regarding Wiring Diagram information, refer to SEC-28, "Wiring Diagram".

1. **PERFORM INITIALIZATION**

   1. Perform initialization of BCM and reregistration of all Intelligent Keys using CONSULT.
   2. Start the engine.

   Does the engine start?

   YES >> Inspection End.
   NO >> GO TO 2.

2. **CHECK DONGLE UNIT CIRCUIT**

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

<table>
<thead>
<tr>
<th>BCM</th>
<th>Dongle unit</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>M20</td>
<td>52</td>
<td>M159</td>
</tr>
</tbody>
</table>

4. Check continuity between BCM harness connector and ground.

<table>
<thead>
<tr>
<th>BCM</th>
<th>Ground</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Ground</td>
</tr>
<tr>
<td>M20</td>
<td>52</td>
<td></td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES  >> GO TO 3.
NO   >> Repair or replace harness.

3. CHECK DONGLE UNIT GROUND CIRCUIT

Check continuity between dongle unit harness connector and ground.

<table>
<thead>
<tr>
<th>Dongle unit</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
</tr>
<tr>
<td>M159</td>
<td>4</td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES  >> Replace dongle unit.
NO   >> Repair or replace harness.
B2198 NATS ANTENNA AMP.

DTC Description

DTC DETECTION LOGIC

<table>
<thead>
<tr>
<th>DTC No.</th>
<th>CONSULT screen terms (Trouble diagnosis content)</th>
<th>DTC Detection Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>B2198</td>
<td>NATS ANTENNA AMP (Nissan Anti-Theft System antenna amplifier)</td>
<td>Diagnosis condition: When the ignition switch is ON.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Signal (terminal): --</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Threshold: Inactive communication between NATS antenna amp. and BCM is detected when BCM enters in the low power consumption mode (BCM sleep condition)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Diagnosis delay time: --</td>
</tr>
</tbody>
</table>

POSSIBLE CAUSE

- Harness or connectors (NATS antenna amp. circuit is open or shorted.)
- NATS antenna amp.
- BCM

FAIL-SAFE

Inhibit engine cranking

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Make the conditions that BCM enters in the low power consumption mode (BCM sleep condition). Refer to BCS-7, "BODY CONTROL SYSTEM : System Description".
2. Turn ignition switch ON.
3. Check DTC in "Self Diagnostic Result" mode of "BCM".

Is DTC detected?

YES >> Refer to SEC-73, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-41, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-28, "Wiring Diagram".

1. CHECK NATS ANTENNA COMMUNICATION SIGNAL

Check voltage signal between NATS antenna amp. harness connector and ground using an oscilloscope.
B2198 NATS ANTENNA AMP.

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<table>
<thead>
<tr>
<th>(+)</th>
<th>NATS antenna amp. Terminals</th>
<th>Condition</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M92 1,3 Ground</td>
<td>Intelligent Key: Intelligent Key battery is removed</td>
<td>Brake pedal: Depressed Waveform varies each time when brake pedal is depressed</td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES >> Replace NATS antenna amp. Refer to SEC-135, "Removal and Installation".
NO >> GO TO 2.

2. CHECK NATS ANTENNA AMP. OUTPUT SIGNAL CIRCUIT

1. Disconnect NATS antenna amp. connector and BCM connector.
2. Check continuity between NATS antenna amp. harness connector and BCM connector.

<table>
<thead>
<tr>
<th>NATS antenna amp. Connector</th>
<th>Terminal</th>
<th>BCM Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M92</td>
<td>1</td>
<td>M18</td>
<td>127</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
<td>126</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between NATS antenna amp. harness connector and ground.

<table>
<thead>
<tr>
<th>NATS antenna amp. Connector</th>
<th>Terminal</th>
<th>Ground</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M92</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
<td>No</td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES >> Replace BCM. Refer to BCS-82, "Removal and Installation".
NO >> Repair or replace harness.
B2555 STOP LAMP

DTC Description

DTC DETECTION LOGIC

<table>
<thead>
<tr>
<th>DTC No.</th>
<th>CONSULT screen terms (Trouble diagnosis content)</th>
<th>DTC Detection Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>B2555</td>
<td>STOP LAMP (Stop lamp)</td>
<td></td>
</tr>
</tbody>
</table>

POSSIBLE CAUSE
- Harness or connectors
  (Stop lamp switch circuit is open or shorted.)
- Harness or connectors
  (Stop lamp relay circuit is open or shorted.)
- Stop lamp switch
- Stop lamp relay
- Fuse
- BCM

FAIL-SAFE

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Depress brake pedal and wait 1 second or more.
2. Check DTC in “Self Diagnostic Result” mode of “BCM”.

Is DTC detected?

YES >> Refer to SEC-75, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-41, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-28, "Wiring Diagram".

1. CHECK FUSE

Check that the following fuse in the fuse block (J/B) is not blown.

<table>
<thead>
<tr>
<th>Signal name</th>
<th>Fuse No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery power supply</td>
<td>10 (10 A)</td>
</tr>
</tbody>
</table>

Is the inspection normal?

YES >> GO TO 2.
NO    >> Replace the blown fuse after replacing the cause of blowing.

2. CHECK STOP LAMP SWITCH 2 SIGNAL

1. Disconnect BCM connector.
2. Check voltage between BCM harness connector and ground.
B2555 STOP LAMP

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Is the inspection normal?

YES >> GO TO 3.
NO >> Check harness for open or short between BCM and fuse.

3. CHECK STOP LAMP RELAY POWER SUPPLY CIRCUIT

1. Disconnect stop lamp relay.
2. Check voltage between stop lamp relay harness connector and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>BCM</th>
<th>Terminal</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M21</td>
<td>25</td>
</tr>
</tbody>
</table>

Is the inspection result normal?

YES >> GO TO 4.
NO >> Check harness for open or short between stop lamp relay and fuse.

4. CHECK STOP LAMP RELAY 1 SIGNAL

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

<table>
<thead>
<tr>
<th>(+)</th>
<th>Stop lamp relay</th>
<th>(-)</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>E34</td>
<td>1</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Is the inspecting result normal?

YES >> Replace BCM. Refer to BCS-82, "Removal and Installation".
NO >> GO TO 5.

5. CHECK STOP LAMP RELAY 1 SIGNAL CIRCUIT

1. Disconnect stop lamp relay.
2. Check continuity between stop lamp relay harness connector and BCM harness connector.

<table>
<thead>
<tr>
<th>BCM</th>
<th>(+)</th>
<th>(-)</th>
<th>Condition</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M21</td>
<td>27</td>
<td>Ground</td>
<td>Stop lamp switch</td>
</tr>
</tbody>
</table>

Is the inspection result normal?

YES >> GO TO 6.
NO >> Repair or replace harness.

---

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6. CHECK STOP LAMP RELAY

Refer to SEC-78, "Component Inspection (Stop Lamp Relay)".

Is the inspection result normal?

YES >> GO TO 7.

NO >> Replace stop lamp relay.

7. CHECK STOP LAMP SWITCH POWER SUPPLY

1. Connect stop lamp relay.
2. Disconnect stop lamp switch connector.
3. Check voltage between stop lamp switch harness connector and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(–)</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stop lamp switch</td>
<td>Connector</td>
<td>Terminal</td>
</tr>
<tr>
<td>E38</td>
<td>2</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Is the inspection result normal?

YES >> GO TO 8.

NO >> GO TO 10.

8. CHECK STOP LAMP SWITCH GROUND CIRCUIT

Check continuity between stop lamp switch harness connector and ground.

<table>
<thead>
<tr>
<th>Stop lamp switch</th>
<th>Ground</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>E38</td>
</tr>
</tbody>
</table>

Is the inspection result normal?

YES >> GO TO 9.

NO >> Repair or replace harness.

9. CHECK STOP LAMP SWITCH

Refer to SEC-78, "Component Inspection (Stop Lamp Switch)".

Is the inspection result normal?

YES >> GO TO 11.

NO >> Replace stop lamp switch. Refer to BR-20, "Exploded View".

10. CHECK STOP LAMP SWITCH POWER SUPPLY CIRCUIT

1. Disconnect stop lamp relay.
2. Check continuity between stop lamp relay harness connector and stop lamp switch harness connector.

<table>
<thead>
<tr>
<th>Stop lamp relay</th>
<th>Stop lamp switch</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>E34</td>
<td>2</td>
<td>E38</td>
</tr>
</tbody>
</table>

3. Check continuity between stop lamp relay harness connector and ground.

<table>
<thead>
<tr>
<th>Stop lamp relay</th>
<th>Ground</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>E34</td>
</tr>
</tbody>
</table>

Is the inspection result normal?

YES >> GO TO 11.

NO >> Repair or replace harness.

11. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

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>> Inspection End.

Component Inspection (Stop Lamp Switch)

1. CHECK STOP LAMP SWITCH

1. Turn ignition switch OFF.
2. Disconnect stop lamp switch connector.
3. Check continuity between stop lamp switch terminals.

<table>
<thead>
<tr>
<th>Stop lamp switch</th>
<th>Condition</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terminals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>Brake pedal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not depressed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Depressed</td>
</tr>
</tbody>
</table>

Is the inspection result normal?

YES  >> Inspection End.
NO   >> Replace stop lamp switch. Refer to BR-20, "Exploded View".

Component Inspection (Stop Lamp Relay)

1. CHECK STOP LAMP RELAY

1. Disconnect stop lamp relay.
2. Check continuity between stop lamp relay terminals.

<table>
<thead>
<tr>
<th>Stop lamp relay</th>
<th>Condition</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terminals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>12 V direct current supply between terminals 1 and 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No current supply</td>
</tr>
</tbody>
</table>

Is the inspection result normal?

YES  >> Inspection End.
NO   >> Replace stop lamp relay.
B2556 PUSH-BUTTON IGNITION SWITCH

DTC Description

DTC DETECTION LOGIC

<table>
<thead>
<tr>
<th>DTC No.</th>
<th>CONSULT screen terms (Trouble diagnosis content)</th>
<th>DTC Detection Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>B2556</td>
<td>PUSH-BTN IGN SW (Push-button ignition switch)</td>
<td>Diagnosis condition: When the ignition switch is ON.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Signal (terminal): —</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Threshold: BCM detects the push-button ignition switch stuck at ON for 100 seconds or more</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Diagnosis delay time: 100 seconds</td>
</tr>
</tbody>
</table>

POSSIBLE CAUSE

- Harness or connectors (Push-button ignition switch circuit is shorted.)
- Push-button ignition switch
- BCM

FAIL-SAFE

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Press push-button ignition switch under the following condition:
   - Brake pedal: Not depressed
2. Release push-button ignition switch and wait 100 seconds or more.
3. Check DTC in "Self Diagnostic Result" mode of "BCM".

Is DTC detected?

YES >> Refer to SEC-79, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-41, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-28, "Wiring Diagram".

1. CHECK PUSH-BUTTON IGNITION SWITCH INPUT SIGNAL

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

<table>
<thead>
<tr>
<th>(+)</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Push-button ignition switch</td>
<td></td>
</tr>
<tr>
<td>Connector</td>
<td>Terminal</td>
</tr>
<tr>
<td>M38</td>
<td>8</td>
</tr>
</tbody>
</table>

Is the inspection result normal?

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

2. CHECK PUSH-BUTTON IGNITION SWITCH CIRCUIT

1. Disconnect BCM connector and IPDM E/R connector.
B2556 PUSH-BUTTON IGNITION SWITCH

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2. Check continuity between push-button ignition switch harness connector and BCM harness connector.

<table>
<thead>
<tr>
<th>Push-button ignition switch</th>
<th>BCM</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>M38</td>
<td>8</td>
<td>M21</td>
</tr>
</tbody>
</table>

3. Check continuity between push-button ignition switch harness connector and ground.

<table>
<thead>
<tr>
<th>Push-button ignition switch</th>
<th>Ground</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>M38</td>
<td>8</td>
<td>No</td>
</tr>
</tbody>
</table>

Is the inspection result normal?

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

3. REPLACE BCM

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

>> Inspection End.

4. CHECK PUSH-BUTTON IGNITION SWITCH GROUND CIRCUIT

Check continuity between push-button ignition switch harness connector and ground.

<table>
<thead>
<tr>
<th>Push-button ignition switch</th>
<th>Ground</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>M38</td>
<td>4</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Is the inspection result normal?

YES >> GO TO 5.
NO >> Repair or replace harness.

5. CHECK PUSH-BUTTON IGNITION SWITCH

Refer to SEC-80, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 6.
NO >> Replace push-button ignition switch. Refer to SEC-137, "Removal and Installation".

6. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End

Component Inspection

1. CHECK PUSH-BUTTON IGNITION SWITCH

1. Turn ignition switch OFF.
2. Disconnect push-button ignition switch connector.
3. Check continuity between push-button ignition switch terminals.

<table>
<thead>
<tr>
<th>Push-button ignition switch</th>
<th>Condition</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terminals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>8</td>
<td>Pressed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not pressed</td>
</tr>
</tbody>
</table>

Is the inspection result normal?

YES >> Inspection End.
NO  >> Replace push-button ignition switch. Refer to SEC-137, "Removal and Installation".
< DTC/CIRCUIT DIAGNOSIS >

B2557 VEHICLE SPEED

DTC Description

DTC DETECTION LOGIC

<table>
<thead>
<tr>
<th>DTC No.</th>
<th>CONSULT screen terms (Trouble diagnosis content)</th>
<th>DTC Detection Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>B2557</td>
<td>VEHICLE SPEED (Vehicle speed)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Diagnosis condition: When the ignition switch is ON.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Signal (terminal): —</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Threshold: BCM detects one of the following conditions for 10 seconds continuously:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Vehicle speed signal from “combination meter” is 10 km/h (6.2 MPH) or more and vehicle speed signal from “ABS actuator and electric unit (control unit)” is 4 km/h (2.5 MPH) or less</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Vehicle speed signal from “combination meter” is 4 km/h (2.5 MPH) or less and vehicle speed signal from “ABS actuator and electric unit (control unit)” is 10 km/h (6.2 MPH) or more</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Diagnosis delay time: 10 seconds</td>
<td></td>
</tr>
</tbody>
</table>

POSSIBLE CAUSE

• Harness or connectors
  (The CAN communication line is open or shorted.)
• Combination meter
• ABS actuator and electric unit (control unit)

FAIL-SAFE

Inhibit steering lock

DTC CONFIRMATION PROCEDURE

1. CHECK DTC PRIORITY

If DTC B2557 is displayed with DTC U1000 or U1010, first perform the trouble diagnosis for DTC U1000 or U1010.

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. U1000: Refer to BCS-67, "DTC Description". U1010: Refer to BCS-68, "DTC Description".

NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Start engine and wait 10 seconds or more.
2. Drive the vehicle at a vehicle speed of 10 km/h (6.2 MPH) or more for 10 seconds or more.
3. Check DTC in "Self Diagnostic Result" mode of "BCM".

Is DTC detected?

YES >> Refer to SEC-82, "Diagnosis Procedure".

NO-1 >> To check malfunction symptom before repair: Refer to GI-41, "Intermittent Incident".

NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

1. CHECK DTC PRIORITY

If DTC B2557 is displayed with DTC U1000 or U1010, first perform the trouble diagnosis for DTC U1000 or U1010.

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. U1000: Refer to BCS-67, "DTC Description". U1010: Refer to BCS-68, "DTC Description".

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SEC-82 2016 Maxima NAM
B257 VEHICLE SPEED

< DTC/CIRCUIT DIAGNOSIS >

NO  >> GO TO 2.

2. CHECK DTC OF “ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)”

CONSULT
Check DTC in “Self Diagnostic Result” mode of “ABS”.

Is DTC detected?
YES  >> Perform the trouble diagnosis related to the detected DTC. Refer to BRC-227, "DTC Index".
NO   >> GO TO 3.

3. CHECK DTC OF “COMBINATION METER”

CONSULT
Check DTC in “Self Diagnostic Result” mode of “METER/M&A”.

Is DTC detected?
YES  >> Perform the trouble diagnosis related to the detected DTC. Refer to MWI-29, "DTC Index".
NO   >> GO TO 4.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.
B2560 STARTER CONTROL RELAY

DTC Description

Starter control relay, integrated in IPDM E/R, permits the starter relay operation when in the N or P position and the steering is locked or unlocked. It is installed in parallel with the starter relay.

DTC DETECTION LOGIC

<table>
<thead>
<tr>
<th>DTC No.</th>
<th>CONSULT screen terms (Trouble diagnosis content)</th>
<th>DTC Detection Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>B2560</td>
<td>STARTER CONT RELAY (Starter control relay)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Diagnosis condition</td>
<td>When the ignition switch is ON.</td>
</tr>
<tr>
<td></td>
<td>Signal (terminal)</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Threshold</td>
<td>BCM detects a discrepancy between the OFF request of starter control relay to IPDM E/R and the feedback. (The feedback is ON instead of OFF.)</td>
</tr>
<tr>
<td></td>
<td>Diagnosis delay time</td>
<td>2 seconds</td>
</tr>
</tbody>
</table>

POSSIBLE CAUSE

IPDM E/R

FAIL-SAFE

Inhibit engine cranking

DTC CONFIRMATION PROCEDURE

1. CHECK DTC PRIORITY

If DTC B2560 is displayed with DTC U1000 or U1010, first perform the trouble diagnosis for DTC U1000 or U1010.

Is applicable DTC detected?

YES    >> Perform diagnosis of applicable. U1000: Refer to BCS-67, "DTC Description". U1010: Refer to BCS-68, "DTC Description".

NO     >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON under the following conditions and wait for at least 2 seconds:
   - Selector lever is in the P or N position
   - Do not depress brake pedal
2. Check “Self diagnostic result” mode.

Is DTC detected?

YES    >> Refer to SEC-82, "Diagnosis Procedure".

NO-1   >> To check malfunction symptom before repair: Refer to GI-41, "Intermittent Incident".

NO-2   >> Confirmation after repair: Inspection End.

Diagnosis Procedure

1. CHECK DTC PRIORITY

If DTC B2560 is displayed with DTC U1000 or U1010, first perform the trouble diagnosis for DTC U1000 or U1010.

Is applicable DTC detected?

YES    >> Perform diagnosis of applicable. U1000: Refer to BCS-67, "DTC Description". U1010: Refer to BCS-68, "DTC Description".

NO     >> GO TO 2.

2. CHECK DTC WITH IPDM E/R

CONSULT

Check “Self Diagnostic Result” mode. Refer to PCS-21, "DTC Index".
Is the inspection result normal?

YES  >> GO TO 3.
NO   >> Replace IPDM E/R. Refer to PCS-36, "Removal and Installation".

3. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.
B2601 SHIFT POSITION

DTC Description

DTC DETECTION LOGIC

NOTE:
• If DTC B2601 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-67, "DTC Description".
• If DTC B2601 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-68, "DTC Description".

POSSIBLE CAUSE
• CVT shift selector (park position switch)
• BCM
• Harness or connector
  (The CAN communication line is open or shorted.)
• Harness or connector
  [CVT shift selector (park position switch) circuit is open or shorted.]

FAIL-SAFE

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Shift the selector lever to the P (Park) position.
2. Turn ignition switch ON and wait 2 seconds or more.
3. Shift the selector lever to any position other than P (Park) and wait 2 seconds or more.
4. Select “Self Diagnostic Result” mode of “BCM”.
5. Check DTC.

Is DTC detected?
YES >> Go to SEC-86, "Diagnosis Procedure".
NO >> Inspection End.

Regarding Wiring Diagram information, refer to SEC-28, "Wiring Diagram".

1. CHECK CVT SHIFT SELECTOR SWITCH FUNCTION

CONSULT
1. Turn ignition switch ON.
2. Select “DETE/CANCEL SW” and “DETENT SW - IPDM” in “Data Monitor” mode.
3. Check “DETE/CANCEL SW” and “DETENT SW - IPDM” indication under the following conditions:
B2601 SHIFT POSITION

< DTC/CIRCUIT DIAGNOSIS >

<table>
<thead>
<tr>
<th>Monitor item</th>
<th>Condition</th>
<th>Indication</th>
</tr>
</thead>
<tbody>
<tr>
<td>DETE/CANCEL SW</td>
<td>CVT Shift selector</td>
<td>In any position other than P (Park)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P (Park)</td>
</tr>
<tr>
<td>DETENT SW - IPDM</td>
<td>CVT Shift selector</td>
<td>In any position other than P (Park)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P (Park)</td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES    >> Refer to GI-41, "Intermittent Incident".
NO-1   >> If “DETE/CANCEL SW” function is incorrect. GO TO 2.
NO-2   >> If “DETENT SW - IPDM” function is incorrect. GO TO 5.

2. CHECK CVT SHIFT SELECTOR CIRCUIT (BCM)

1. Disconnect BCM connector and IPDM E/R connector.
2. Check continuity between CVT shift selector (park position switch) harness connector and BCM harness connector.

<table>
<thead>
<tr>
<th>Connector (park position switch)</th>
<th>BCM</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M78 Terminal 6</td>
<td>M21 Terminal 20</td>
<td>Yes</td>
</tr>
</tbody>
</table>

3. Check continuity between CVT shift selector (park position switch) harness connector and ground.

<table>
<thead>
<tr>
<th>Connector (park position switch)</th>
<th>Ground</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M78 Terminal 6</td>
<td></td>
<td>No</td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES    >> GO TO 3.
NO     >> Repair or replace harness.

3. CONNECTOR INSPECTION

1. Disconnect BCM.
2. Check connectors and terminals for deformation, disconnection, looseness or damage.

Is the inspection result normal?
YES    >> GO TO 4.
NO     >> Repair or replace as necessary.

4. REPLACE BCM

1. Replace BCM. Refer to BCS-82, "Removal and Installation".
2. Perform initialization of BCM and registration of all Intelligent Keys using CONSULT.

>> Inspection End.

5. CHECK CVT SHIFT SELECTOR CIRCUIT (IPDM E/R)

Check continuity between CVT shift selector (park position switch) harness connector and IPDM E/R harness connector.

<table>
<thead>
<tr>
<th>Connector (park position switch)</th>
<th>IPDM E/R</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M78 Terminal 6</td>
<td>E19 Terminal 31</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES    >> GO TO 6.
NO     >> Repair or replace harness.

6. CONNECTOR INSPECTION...
B2601 SHIFT POSITION

< DTC/CIRCUIT DIAGNOSIS >

1. Disconnect IPDM E/R.
2. Check connectors and terminals for deformation, disconnection, looseness or damage.

Is the inspection result normal?

YES  >> GO TO 7.
NO    >> Repair or replace as necessary.

7. REPLACE IPDM E/R

1. Replace IPDM E/R. Refer to PCS-36, "Removal and Installation".

>> Inspection End.

Component Inspection

1. CHECK CVT SHIFT SELECTOR (PARK POSITION SWITCH)

1. Turn ignition switch OFF.
2. Disconnect CVT shift selector connector.
3. Check continuity between CVT shift selector (park position switch) terminals.

<table>
<thead>
<tr>
<th>CVT shift selector (park position switch)</th>
<th>Condition</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terminals</td>
<td>Selector lever</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>P (Park) position</td>
<td>No</td>
</tr>
<tr>
<td>6</td>
<td>Other than above</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Is the inspection result normal?

YES  >> Inspection End.
NO    >> Replace CVT shift selector. Refer to TM-185, "Removal and Installation".
B2602 SHIFT POSITION

DTC Description

DTC DETECTION LOGIC

NOTE:
• If DTC B2602 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-67, "DTC Description".
• If DTC B2602 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-68, "DTC Description".

Possible cause
• Harness or connectors (CAN communication line is open or shorted.)
• Harness or connectors
  [CVT shift selector (park position switch) circuit is open or shorted.]
• CVT shift selector (park position switch)
• Combination meter
• BCM

FAIL-SAFE —

DTC CONFIRMATION PROCEDURE
1. PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Start engine.
2. Drive vehicle at a speed of 4 km/h (2.5 MPH) or more for 10 seconds or more.
3. Select “Self Diagnostic Result” mode of “BCM”.
4. Check DTC.

Is DTC detected?
YES >> Go to SEC-89, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-28, "Wiring Diagram".

1. CHECK CVT SHIFT SELECTOR SWITCH FUNCTION

CONSULT
1. Turn ignition switch ON.
2. Select “DETE/CANCEL SW” and “VEH SPEED 1” in “Data Monitor” mode.
3. Check “DETE/CANCEL SW” and “VEH SPEED 1” indication under the following conditions:
< DTC/CIRCUIT DIAGNOSIS >

B2602 SHIFT POSITION

Is the inspection result normal?
YES >> Refer to GI-41, "Intermittent Incident".
NO-1 >> If "DETE/CANCEL SW" is incorrect. GO TO 4.
NO-2 >> If "VEH SPEED 1" is incorrect. GO TO 2.

2. CHECK DTC OF COMBINATION METER

CONSULT
Check DTC in “Self Diagnostic Result” mode of “METER/M&A”.

Is DTC detected?
YES >> Perform the trouble diagnosis related to the detected DTC. Refer to MWI-29, "DTC Index".
NO >> GO TO 3.

3. CHECK DTC OF ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)

CONSULT
Check DTC in “Self Diagnostic Result” mode of “ABS”.

Is DTC detected?
YES >> Perform the trouble diagnosis related to the detected DTC. Refer to BRC-227, "DTC Index".
NO >> GO TO 6.

4. CHECK CVT SHIFT SELECTOR CIRCUIT

1. Disconnect BCM connector and IPDM E/R connector.
2. Check continuity between CVT shift selector (park position switch) harness connector and BCM harness connector.

<p>| CVT shift selector (park position switch) | BCM | Continuity |</p>
<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Connector</th>
<th>Terminal</th>
</tr>
</thead>
<tbody>
<tr>
<td>M78</td>
<td>6</td>
<td>M21</td>
<td>20</td>
</tr>
</tbody>
</table>

3. Check continuity between CVT shift selector (park position switch) harness connector and ground.

<p>| CVT shift selector (park position switch) | Ground | Continuity |</p>
<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal</th>
<th>Ground</th>
</tr>
</thead>
<tbody>
<tr>
<td>M78</td>
<td>6</td>
<td>No</td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES >> GO TO 5.
NO >> Repair or replace harness.

5. CHECK CVT SHIFT SELECTOR (PARK POSITION SWITCH)

Refer to SEC-91, "Component Inspection".

Is the inspection result normal?
YES >> GO TO 6.
NO >> Replace CVT shift selector. Refer to TM-185, "Removal and Installation".

6. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.
Component Inspection

1. CHECK CVT SHIFT SELECTOR (PARK POSITION SWITCH)

1. Turn ignition switch OFF.
2. Disconnect CVT shift selector connector.
3. Check continuity between CVT shift selector (park position switch) terminals.

<table>
<thead>
<tr>
<th>CVT shift selector (park position switch)</th>
<th>Condition</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terminals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Selector lever</td>
<td>P (Park) position</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Other than above</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Is the inspection result normal?

YES  >> Inspection End.
NO   >> Replace CVT shift selector. Refer to TM-185, "Removal and Installation".
< DTC/CIRCUIT DIAGNOSIS >

B2603 SHIFT POSITION

DTC Description

DTC DETECTION LOGIC

NOTE:
• If DTC B2603 is displayed with DTC B2601, first perform the trouble diagnosis for DTC B2601. Refer to SEC-86, "DTC Description".

POSSIBLE CAUSE
• Harness or connector
  [CVT shift selector (park position switch) circuit is open or shorted.]
• Harness or connectors
  (TCM circuit is open or shorted.)
• CVT shift selector (park position switch)
• CVT assembly (TCM)
• BCM

FAIL-SAFE
—

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE 1

CONSULT
1. Shift the selector lever to the P (Park) position.
2. Turn ignition switch ON and wait 1 second or more.
3. Select “Self Diagnostic Result” mode of “BCM”.
4. Check DTC.

Is DTC detected?

YES  >> Go to SEC-92, "Diagnosis Procedure".
NO   >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE 2

CONSULT
1. Shift the selector lever to any position other than P (Park) and wait 1 second or more.
2. Select “Self Diagnostic Result” mode of “BCM”.
3. Check DTC.

Is DTC detected?

YES  >> Go to SEC-92, "Diagnosis Procedure".
NO   >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-28, "Wiring Diagram".
1. CHECK CVT SHIFT SELECTOR SWITCH FUNCTION

1. Turn ignition switch ON.
2. Select “DETE/CANCEL SW” and “SFT PN/N SW” in “Data Monitor” mode.
3. Check “DETE/CANCEL SW” and “SFT PN/N SW” indication under the following conditions:

<table>
<thead>
<tr>
<th>Monitor item</th>
<th>Condition</th>
<th>Indication</th>
</tr>
</thead>
<tbody>
<tr>
<td>DETE/CANCEL SW</td>
<td>CVT Shift selector</td>
<td>In any position other than P (Park)</td>
</tr>
<tr>
<td>SFT PN/N SW</td>
<td>CVT Shift selector</td>
<td>In any position other than P (Park)</td>
</tr>
</tbody>
</table>

Is the inspection result normal?

YES >> Refer to GI-41, "Intermittent Incident".
NO-1 >> If “DETE/CANCEL SW” is incorrect. GO TO 6.
NO-2 >> If “SFT PN/N SW” is incorrect. GO TO 2.

2. CHECK BCM INPUT SIGNAL

1. Turn ignition switch ON.
2. Check voltage between BCM harness connector and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Condition</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M21 39</td>
<td>Ground</td>
<td>Selector lever</td>
<td>Battery voltage</td>
</tr>
</tbody>
</table>

Is the inspection result normal?

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

3. CHECK BCM INPUT SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector.
3. Disconnect transmission range switch connector.
4. Check continuity between transmission range switch harness connector and BCM harness connector.

<table>
<thead>
<tr>
<th>Transmission range switch</th>
<th>BCM</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>F86 10</td>
<td>M21 39</td>
<td>Yes</td>
</tr>
</tbody>
</table>

5. Check continuity between transmission range switch harness connector and ground.

<table>
<thead>
<tr>
<th>Transmission range switch</th>
<th>Ground</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>F86 10</td>
<td></td>
<td>No</td>
</tr>
</tbody>
</table>

Is the inspection result normal?

YES >> GO TO 4.
NO >> GO TO 5.

4. REPLACE BCM

1. Replace BCM. Refer to BCS-82, "Removal and Installation".
2. Perform initialization of BCM and registration of all Intelligent Keys using CONSULT.

>> Inspection End.
5. CHECK DTC OF TCM

CONSULT
Check DTC in “Self Diagnostic Result” mode of “TCM”.
Is DTC detected?
YES  >> Perform the trouble diagnosis related to the detected DTC. Refer to TM-58, "DTC Index".
NO   >> Perform the trouble diagnosis related to the TCM power and ground circuits. Refer to TM-174, "Diagnosis Procedure".

6. CHECK CVT SHIFT SELECTOR POWER SUPPLY

1. Turn ignition switch OFF.
2. Disconnect CVT shift selector (park position switch) connector.
3. Check voltage between CVT shift selector (park position switch) harness connector and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(–)</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CVT shift selector (park position switch) Connector Terminal</td>
<td>Ground Battery voltage</td>
<td></td>
</tr>
<tr>
<td>M78 5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES  >> GO TO 7.
NO   >> Repair or replace harness.

7. CHECK CVT SHIFT SELECTOR POWER SUPPLY CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between CVT shift selector (park position switch) harness connector and BCM harness connector.

<table>
<thead>
<tr>
<th>CVT shift selector (park position switch) Connector Terminal</th>
<th>BCM Connector Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M78 5</td>
<td>M20 6</td>
<td>Yes</td>
</tr>
</tbody>
</table>

3. Check continuity between CVT shift selector (park position switch) harness connector and ground.

<table>
<thead>
<tr>
<th>CVT shift selector (park position switch) Connector Terminal</th>
<th>Ground</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M78 5</td>
<td></td>
<td>No</td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES  >> GO TO 8.
NO   >> Repair or replace harness.

8. CHECK CVT SHIFT SELECTOR CIRCUIT

1. Disconnect BCM connector and IPDM E/R connector.
2. Check continuity between CVT shift selector (park position switch) harness connector and BCM harness connector.

<table>
<thead>
<tr>
<th>CVT shift selector (park position switch) Connector Terminal</th>
<th>BCM Connector Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M78 6</td>
<td>M21 20</td>
<td>Yes</td>
</tr>
</tbody>
</table>

3. Check continuity between CVT shift selector (park position switch) harness connector and ground.

<table>
<thead>
<tr>
<th>CVT shift selector (park position switch) Connector Terminal</th>
<th>Ground</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M78 6</td>
<td></td>
<td>No</td>
</tr>
</tbody>
</table>

Is the inspection result normal?
< DTC/CIRCUIT DIAGNOSIS >

YES  >> GO TO 9.
NO    >> Repair or replace harness.

9. CHECK CVT SHIFT SELECTOR (PARK POSITION SWITCH)

Refer to SEC-95, "Component Inspection".

Is the inspection result normal?

YES  >> GO TO 10.
NO    >> Replace CVT shift selector. Refer to TM-185, "Removal and Installation".

10. REPLACE BCM

1. Replace BCM. Refer to BCS-82, "Removal and Installation".
2. Perform initialization of BCM and registration of all Intelligent Keys using CONSULT.

>> Inspection End.

Component Inspection

1. CHECK CVT SHIFT SELECTOR (PARK POSITION SWITCH)

1. Turn ignition switch OFF.
2. Disconnect CVT shift selector connector.
3. Check continuity between CVT shift selector (park position switch) terminals.

<table>
<thead>
<tr>
<th>CVT shift selector (park position switch)</th>
<th>Condition</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terminals</td>
<td>Selector lever</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>P (Park) position</td>
<td>No</td>
</tr>
<tr>
<td>6</td>
<td>Other than above</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Is the inspection result normal?

YES  >> Inspection End.
NO    >> Replace CVT shift selector. Refer to TM-185, "Removal and Installation".
B2604 SHIFT POSITION

DTC Description

DTC DETECTION LOGIC

NOTE:
- If DTC B2604 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-67, "DTC Description".
- If DTC B2604 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-68, "DTC Description".

<table>
<thead>
<tr>
<th>DTC No.</th>
<th>CONSULT screen terms (Trouble diagnosis content)</th>
<th>DTC Detection Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>B2604</td>
<td>PNP/CLUTCH SW</td>
<td>Diagnosis condition</td>
</tr>
<tr>
<td></td>
<td></td>
<td>When the ignition switch is ON.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Signal (terminal)</td>
</tr>
<tr>
<td></td>
<td>Threshold</td>
<td>The following states are detected for 5 seconds while ignition switch is ON:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• P/N position signal is sent from TCM but shift position signal input (CAN) from TCM is other than P (Park) and N (Neutral)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• P/N position signal is not sent from TCM but shift position signal input (CAN) from TCM is P (Park) or N (Neutral)</td>
</tr>
<tr>
<td></td>
<td>Diagnosis delay time</td>
<td>—</td>
</tr>
</tbody>
</table>

POSSIBLE CAUSE
- Harness or connectors (CAN communication line is open or shorted.)
- BCM
- TCM
- Harness or connector (TCM circuit is open or shorted.)

FAIL-SAFE

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Shift the selector lever to the P (Park) position.
2. Turn ignition switch ON and wait 5 seconds or more.
3. Shift the selector lever to the N (Neutral) position and wait 5 seconds or more.
4. Shift the selector lever to any position other than P (Park) and N (Neutral) and wait 5 seconds or more.
5. Select “Self Diagnostic Result” mode of “BCM”.
6. Check DTC.
Is DTC detected?
YES >> Go to SEC-96, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-28, "Wiring Diagram".

1. CHECK CVT SHIFT SELECTOR SWITCH FUNCTION

1. Turn ignition switch ON.
2. Select “SFT P -MET”, “SFT N -MET” and “SFT PN/N SW” in “Data Monitor” mode.
3. Check “SFT P -MET”, “SFT N -MET” and “SFT PN/N SW” indication under the following conditions:
### Is the inspection result normal?

**YES** >> Refer to GI-41, "Intermittent Incident".

**NO-1** >> If "SFT N -MET" or "SFT P -MET" is incorrect. GO TO 7.

**NO-2** >> If "SFT PN/N SW" is incorrect. GO TO 2.

### 2. CHECK DTC OF TCM

**CONSULT**
Check DTC in “Self Diagnostic Result” mode of “TCM”.

**Is DTC detected?**

**YES** >> Perform the trouble diagnosis related to the detected DTC. Refer to TM-58, "DTC Index".

**NO** >> GO TO 3.

### 3. CHECK BCM INPUT SIGNAL

1. Turn ignition switch **ON**.
2. Check voltage between BCM harness connector and ground.

<table>
<thead>
<tr>
<th>(+) Connector</th>
<th>(-) Terminal</th>
<th>Condition</th>
<th>Voltage (V) (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCM M21 39</td>
<td>Ground</td>
<td>Selector lever P (Park) or N (Neutral) position</td>
<td>Battery voltage Other than above</td>
</tr>
</tbody>
</table>

**Is the inspection result normal?**

**YES** >> GO TO 4.

**NO** >> GO TO 5.

### 4. REPLACE BCM

1. Replace BCM. Refer to BCS-82, "Removal and Installation".
2. Perform initialization of BCM and registration of all Intelligent Keys using CONSULT.

>> Inspection End.

### 5. CHECK BCM INPUT SIGNAL CIRCUIT

1. Turn ignition switch **OFF**.
2. Disconnect transmission range switch connector.
3. Disconnect BCM connector.
4. Check continuity between transmission range switch harness connector and BCM harness connector.
5. Check continuity between transmission range switch harness connector and ground.

<table>
<thead>
<tr>
<th>Transmission range switch</th>
<th>BCM</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector Terminal</td>
<td>Connector Terminal</td>
<td></td>
</tr>
<tr>
<td>F86 10</td>
<td>M21 39</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES >> GO TO 6.
NO >> Repair or replace harness.

6. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

7. CHECK CVT SHIFT SELECTOR RANGE SWITCH FUNCTION (METER)

CONSULT
1. Turn ignition switch ON.
2. Select “SHIFT IND” in “Data Monitor” mode of "METER".
3. Check “SHIFT IND” indication under the following conditions:

<table>
<thead>
<tr>
<th>Monitor item</th>
<th>Condition</th>
<th>Indication</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHIFT IND</td>
<td>CVT Shift selector</td>
<td>P (Park) position</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N (Neutral) position</td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES >> Inspection End.
NO >> Refer to SEC-95, "Component Inspection".
B2605 SHIFT POSITION

DTC Description

DTC DETECTION LOGIC

NOTE:
- If DTC B2605 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-67, “DTC Description”.
- If DTC B2605 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-68, “DTC Description”.

<table>
<thead>
<tr>
<th>DTC No.</th>
<th>CONSULT screen terms (Trouble diagnosis content)</th>
<th>DTC Detection Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>B2605</td>
<td>PNP/CLUTCH SW</td>
<td>Diagnosis condition</td>
</tr>
<tr>
<td></td>
<td></td>
<td>When the ignition switch is ON.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Signal (terminal)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>—</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Threshold</td>
</tr>
<tr>
<td></td>
<td></td>
<td>When ignition switch is ON, P/N position signal input from TCM and P/N position signal (CAN) input from IPDM E/R do not match</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Diagnosis delay time</td>
</tr>
<tr>
<td></td>
<td></td>
<td>—</td>
</tr>
</tbody>
</table>

POSSIBLE CAUSE
- IPDM E/R
- BCM
- Harness or connectors
  (TCM circuit is open or shorted.)
- Harness or connector
  (The CAN communication line is open or shorted.)

FAIL-SAFE

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Shift the selector lever to the P (Park) position.
2. Turn ignition switch ON and wait 1 second or more.
3. Shift the selector lever to the N (Neutral) position and wait 1 second or more.
4. Shift the selector lever to any position other than P (Park) and N (Neutral) and wait 1 second or more.
5. Select “Self Diagnostic Result” mode of “BCM”.
6. Check DTC.

Is DTC detected?
YES >> Go to SEC-99, "Diagnosis Procedure".
NO  >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-28, "Wiring Diagram".

1. CHECK CVT SHIFT SELECTOR SWITCH FUNCTION

CONSULT
1. Turn ignition switch ON.
2. Select “SFT PN-IPDM” and “SFT PN/N SW” in “Data Monitor” mode.
3. Check “SFT PN-IPDM” and “SFT PN/N SW” indication under the following conditions:
< DTC/CIRCUIT DIAGNOSIS >

B2605 SHIFT POSITION

Is the inspection result normal?
YES >> Refer to GI-41, "Intermittent Incident".
NO-1 >> If “SFT PN-IPDM” is incorrect. GO TO 2.
NO-2 >> If “SFT PN/N SW” is incorrect. GO TO 5.

2. CHECK IPDM E/R INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Turn ignition switch ON.
4. Check voltage between IPDM E/R harness connector and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Condition</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IPDM E/R</td>
<td>Connector</td>
<td>Terminal</td>
<td>Selector lever</td>
</tr>
<tr>
<td>F51</td>
<td>66</td>
<td>Ground</td>
<td>Battery voltage</td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES >> Replace IPDM E/R. Refer to PCS-36, "Removal and Installation".
NO >> GO TO 3.

3. CHECK IPDM E/R INPUT SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector.
3. Check continuity between IPDM E/R harness connector and transmission range switch harness connector.

<table>
<thead>
<tr>
<th>IPDM E/R</th>
<th>Transmission range switch</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>E19</td>
<td>37</td>
<td>F86</td>
</tr>
</tbody>
</table>

4. Check continuity between IPDM E/R harness connector and ground.

<table>
<thead>
<tr>
<th>IPDM E/R</th>
<th>Connector</th>
<th>Terminal</th>
<th>Ground</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>E19</td>
<td>37</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES >> GO TO 4.
NO >> Repair or replace harness.

4. REPLACE IPDM E/R

1. Replace IPDM E/R. Refer to PCS-36, "Removal and Installation".

>> Inspection End.

5. CHECK BCM INPUT SIGNAL

Revision: October 2015

SEC-100
1. Turn ignition switch ON.
2. Check voltage between BCM harness connector and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>BCM Connector</th>
<th>Terminal</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(-)</td>
<td>M21</td>
<td>39</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 7.

6. REPLACE BCM

1. Replace BCM. Refer to BCS-82, "Removal and Installation".
2. Perform initialization of BCM and registration of all Intelligent Keys using CONSULT.

>> Inspection End.

7. CHECK BCM INPUT SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect transmission range switch connector.
3. Disconnect BCM connector.
4. Check continuity between transmission range switch harness connector and BCM harness connector.

<table>
<thead>
<tr>
<th>Transmission range switch</th>
<th>BCM</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>F86</td>
<td>10</td>
<td>M21</td>
</tr>
</tbody>
</table>

5. Check continuity between transmission range switch harness connector and ground.

<table>
<thead>
<tr>
<th>Transmission range switch</th>
<th>Ground</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>F86</td>
<td>10</td>
<td>No</td>
</tr>
</tbody>
</table>

Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair or replace harness.

8. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.
B2608 STARTER RELAY

DTC Description

DTC DETECTION LOGIC

NOTE:
• If DTC B2608 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-67, "DTC Description".
• If DTC B2608 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-68, "DTC Description".

POSSIBLE CAUSE
• IPDM E/R
• Harness or connectors
  (Starter relay circuit is open or shorted.)
• Harness or connector
  (The CAN communication line is open or shorted.)

FAIL-SAFE

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Press push-button ignition switch under the following conditions to start engine:
   - Shift selector lever: In the P (Park) position
   - Brake pedal: Depressed
2. Wait 1 second after engine started.
3. Select “Self Diagnostic Result” mode of “BCM”.
4. Check DTC.

Is DTC detected?

YES  >> Go to SEC-102, "Diagnosis Procedure".
NO   >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-28, "Wiring Diagram".

1. CHECK DTC OF IPDM E/R

CONSULT
Check DTC in “Self Diagnostic Result” mode of “IPDM E/R”.

Is DTC detected?

YES  >> Perform the trouble diagnosis related to the detected DTC. Refer to PCS-21, "DTC Index".
NO   >> GO TO 2.

2. CHECK BCM POWER SUPPLY CIRCUIT

1. Turn ignition switch ON.
B2608 STARTER RELAY

2. Check voltage between BCM harness connector and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>BCM Connector</th>
<th>Terminal</th>
<th>Condition</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(-)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M20</td>
<td>62</td>
<td>Ground</td>
<td>Selector lever</td>
<td>N (Neutral) or P (Park) position Battery voltage</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Other than above</td>
</tr>
</tbody>
</table>

Is the inspection result normal?

YES   >> GO TO 4.
NO    >> GO TO 3.

3. CHECK STARTER RELAY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Disconnect BCM connector.
4. Check continuity between IPDM E/R harness connector and BCM harness connector.

<table>
<thead>
<tr>
<th>IPDM E/R</th>
<th>BCM</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>E19</td>
<td>33</td>
<td>M20</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. Check continuity between IPDM E/R harness connector and ground.

<table>
<thead>
<tr>
<th>IPDM E/R</th>
<th>Terminal</th>
<th>Ground</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>E19</td>
<td>33</td>
<td></td>
<td>No</td>
</tr>
</tbody>
</table>

Is the inspection result normal?

YES   >> Replace IPDM E/R. Refer to PCS-36, "Removal and Installation".
NO    >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.
< DTC/CIRCUIT DIAGNOSIS >

B261E VEHICLE TYPE

DTC Description

There are two types of vehicles.
• HEV
• Conventional

DTC DETECTION LOGIC

NOTE:
• If DTC B261E is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-67, "DTC Description".
• If DTC B261E is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-68, "DTC Description".

<table>
<thead>
<tr>
<th>DTC No.</th>
<th>CONSULT screen terms (Trouble diagnosis content)</th>
<th>DTC Detection Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>B261E</td>
<td>VEHICLE TYPE</td>
<td>Diagnosis condition</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Signal (terminal)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Threshold</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Diagnosis delay time</td>
</tr>
</tbody>
</table>

POSSIBLE CAUSE
• BCM mis-configuration
• Wrong ECM installed

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

consult
1. Turn ignition switch ON under the following conditions:
   - Shift selector lever is in the P (Park) or N (Neutral) position.
   - Do not depress brake pedal.
2. Select “Self Diagnostic Result” mode.
3. Check DTC.

Is DTC detected?
YES  >> GO TO 2.
NO   >> Inspection End.

Diagnosis Procedure

1. INSPECTION START

consult
1. Turn ignition switch ON.
2. Check “Self Diagnostic Result” mode.
3. Touch “ERASE”.
4. Perform DTC Confirmation Procedure. Refer to SEC-104, "DTC Description".

Is the 1st trip DTC B261E displayed again?
YES  >> GO TO 2.
NO   >> Inspection End.

2. PERFORM BCM CONFIGURATION.

Perform the BCM configuration. Refer to BCS-64, "CONFIGURATION (BCM) : Work Procedure".

>> GO TO 3.
3. INSPECTION START

CONSULT
1. Turn ignition switch ON.
2. Check "Self Diagnostic Result" mode.
3. Touch "ERASE".
4. Perform DTC Confirmation Procedure.
   Refer to SEC-104, "DTC Description".

Is the 1st trip DTC B261E displayed again?

<table>
<thead>
<tr>
<th>YES</th>
<th>&gt;&gt; GO TO 4.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO</td>
<td>&gt;&gt; Inspection End.</td>
</tr>
</tbody>
</table>

4. CONFIRM ECM PART NUMBER.

Confirm the part number of the installed ECM is correct.

Is the ECM part number correct?

<table>
<thead>
<tr>
<th>YES</th>
<th>&gt;&gt; Replace BCM. Refer to BCS-82, &quot;Removal and Installation&quot;.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO</td>
<td>&gt;&gt; Replace ECM. Refer to EC-586, &quot;Removal and Installation&quot;.</td>
</tr>
</tbody>
</table>
B26F3 STARTER CONTROL RELAY

DTC Description

DTC DETECTION LOGIC

NOTE:
• If DTC B26F3 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-67, "DTC Description".
• If DTC B26F3 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-68, "DTC Description".

POSSIBLE CAUSE
• IPDM E/R
• Harness or connector
  (The CAN communication line is open or shorted.)

FAIL-SAFE

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Press push-button ignition switch under the following conditions to start engine:
   - Shift selector lever: In the P (Park) position.
   - Brake pedal: Depressed
2. Wait 2 seconds after engine started.
3. Select “Self Diagnostic Result” mode of “BCM”.
4. Check DTC.

Is DTC detected?
YES >> GO TO SEC-106, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

1. CHECK DTC OF IPDM E/R

CONSULT

Check DTC in “Self Diagnostic Result” mode of “IPDM E/R”.

Is DTC detected?
YES >> Perform the diagnosis procedure related to the detected DTC. Refer to PCS-21, "DTC Index".
NO >> GO TO 2.

2. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.
B26F4 STARTER CONTROL RELAY

DTC Description

DTC DETECTION LOGIC

NOTE:
• If DTC B26F4 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-67, "DTC Description".
• If DTC B26F4 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-68, "DTC Description".

<table>
<thead>
<tr>
<th>DTC No.</th>
<th>CONSULT screen terms (Trouble diagnosis content)</th>
<th>DTC Detection Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>B26F4</td>
<td>START CONT Relay OFF</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Diagnosis condition: When the ignition switch is ON.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Signal (terminal): —</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Threshold: BCM requests IPDM E/R to turn starter control relay ON, but BCM cannot receive starter control relay ON state signal from IPDM E/R.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Diagnosis delay time: —</td>
<td></td>
</tr>
</tbody>
</table>

POSSIBLE CAUSE
• IPDM E/R
• Harness or connector
  (The CAN communication line is open or shorted.)

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Press push-button ignition switch under the following conditions to start engine, and wait 1 second or more:
   - Shift selector lever: In the P (Park) position
   - Brake pedal: Depressed
2. Select “Self Diagnostic Result” mode of “BCM”.
3. Check DTC.
   Is DTC detected?
   YES >> GO TO SEC-107, "Diagnosis Procedure".
   NO >> Inspection End.

Diagnosis Procedure

1. CHECK DTC OF IPDM E/R

CONSULT
Check DTC in “Self Diagnostic Result” mode of “IPDM E/R”.
   Is DTC detected?
   YES >> Perform the diagnosis procedure related to the detected DTC. Refer to PCS-21, "DTC Index".
   NO >> GO TO 2.

2. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.
B26FC KEY REGISTRATION

DTC Description

DTC DETECTION LOGIC

<table>
<thead>
<tr>
<th>DTC No.</th>
<th>CONSULT screen terms (Trouble diagnosis content)</th>
<th>DTC Detection Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>B26FC</td>
<td>KEY REGISTRATION</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Diagnosis condition</td>
<td>When the ignition switch is ON.</td>
</tr>
<tr>
<td></td>
<td>Signal (terminal)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Threshold</td>
<td>Intelligent Key that does not match the vehicle is registered</td>
</tr>
<tr>
<td></td>
<td>Diagnosis delay time</td>
<td></td>
</tr>
</tbody>
</table>

POSSIBLE CAUSE

- Improper registration operation
- Intelligent Key
- BCM

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Perform initialization of BCM and reregistration of all Intelligent Keys.
2. Select “Self Diagnostic Result” mode of “BCM”.
3. Check DTC.

Is DTC detected?

YES >> Go to SEC-108, "Diagnosis Procedure"
NO >> Inspection End.

Diagnosis Procedure

1. REPLACE INTELLIGENT KEY

CONSULT

1. Prepare Intelligent Key that matches the vehicle.
2. Perform initialization of BCM and registration of Intelligent Key using CONSULT.
3. Select “Self Diagnostic Result” mode of “BCM”.
4. Check DTC.

Is DTC detected?

YES >> GO TO 2.
NO >> Inspection End.

2. REPLACE BCM

1. Replace BCM. Refer to BCS-82, "Removal and Installation".
2. Perform initialization of BCM and registration of all Intelligent Keys. For initialization and registration of Intelligent Keys, refer to CONSULT Immobilizer mode and follow the on-screen instructions.

>> Inspection End.
B26F7 BCM

DTC DESCRIPTION

DTC DETECTION LOGIC

<table>
<thead>
<tr>
<th>DTC No.</th>
<th>DTC Description</th>
<th>DTC Detection Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>B26F7</td>
<td>BCM</td>
<td>Diagnosis condition: When the ignition switch is ON.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Signal (terminal): —</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Threshold: Inside key antenna output circuit in BCM is malfunctioning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Diagnosis delay time: —</td>
</tr>
</tbody>
</table>

POSSIBLE CAUSE

• BCM

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Press door request switch.
2. Turn ignition switch ON.
3. Select “Self Diagnostic Result” mode of “BCM”.
4. Check DTC.

Is DTC detected?

YES >> GO TO SEC-109, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

1. INSPECTION START

CONSULT

1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “BCM”.
3. Touch “ERASE”.
4. Perform DTC CONFIRMATION PROCEDURE for DTC B26F7. Refer to SEC-109, "DTC Description".

Is DTC detected?

YES >> GO TO 2.
NO >> Inspection End.

2. REPLACE BCM

1. Replace BCM. Refer to BCS-82, "Removal and Installation".
2. Perform initialization of BCM and registration of all Intelligent Keys using CONSULT.

>> Inspection End.
B260F ENGINE STATUS

< DTC/CIRCUIT DIAGNOSIS >

B260F ENGINE STATUS

DTC Description

BCM receives the engine status signal from ECM via CAN communication.

DTC DETECTION LOGIC

<table>
<thead>
<tr>
<th>DTC No.</th>
<th>CONSULT screen terms (Trouble diagnosis content)</th>
<th>DTC Detection Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>B260F</td>
<td>ENG STATE SIG LOST (Engine state signal lost)</td>
<td>Diagnosis condition: When the ignition switch is ON.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Signal (terminal): —</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Threshold: BCM has not yet received the engine status signal from ECM when ignition switch is in the ON position</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Diagnosis delay time: 2 seconds</td>
</tr>
</tbody>
</table>

POSSIBLE CAUSE

- Harness or connectors
  (The CAN communication line is open or shorted.)
- ECM

FAIL-SAFE

Inhibit engine cranking

DTC CONFIRMATION PROCEDURE

1. CHECK DTC PRIORITY

If DTC B260F is displayed with DTC U1000 or U1010, first perform the trouble diagnosis for DTC U1000 or U1010.

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. U1000: Refer to BCS-67, "DTC Description". U1010: Refer to BCS-68, "DTC Description".

NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “BCM”.

Is DTC detected?

YES >> Refer to SEC-110, "Diagnosis Procedure".
NO-1 >> To check malfunction symptom before repair: Refer to GI-41, "Intermittent Incident".
NO-2 >> Confirmation after repair: Inspection End.

Diagnosis Procedure

1. CHECK DTC PRIORITY

If DTC B260F is displayed with DTC U1000 or U1010, first perform the trouble diagnosis for DTC U1000 or U1010.

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. U1000: Refer to BCS-67, "DTC Description". U1010: Refer to BCS-68, "DTC Description".

NO >> GO TO 2.

2. INSPECTION START

CONSULT

1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “BCM”.
3. Touch “ERASE”.
4. Perform DTC CONFIRMATION PROCEDURE for DTC B260F. Refer to SEC-110, "DTC Description".

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< DTC/CIRCUIT DIAGNOSIS >

Is DTC detected?

YES  >> GO TO 3.
NO   >> Inspection End.

3. REPLACE ECM

Replace ECM. Refer to EC-586, "Removal and Installation".

>> Inspection End.
DTC Description

Starter control relay, integrated in IPDM E/R, permits the starter relay operation when in N (Neutral) or P (Park) position. It is installed in parallel with the starter relay.

DTC DETECTION LOGIC

NOTE:
- If DTC B210B is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-67, "DTC Description".
- If DTC B210B is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-68, "DTC Description".

POSSIBLE CAUSE
- IPDM E/R
- Harness or connector

FAIL-SAFE

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn the power supply position to start under the following conditions and wait for at least 1 second:
   - CVT selector lever is in the P (Park) or N (Neutral) position.
   - Depress the brake pedal
2. Check “Self Diagnostic Result” mode.

Is DTC detected?

YES >> Refer to SEC-112, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

1. INSPECTION START

CONSULT

1. Turn ignition switch ON.
2. Check “Self Diagnostic Result” mode.
3. Touch “ERASE”.
4. Perform DTC Confirmation Procedure.
   See PCS-21, "DTC Index".

Is the DTC B210B displayed again?

YES >> Replace IPDM E/R. Refer to PCS-36, "Removal and Installation".
NO >> Inspection End.
B210C STARTER CONTROL RELAY

DTC Description

Starter control relay, integrated in IPDM E/R, permits the starter relay operation when in N (Neutral) or P (Park) position. It is installed in parallel with the starter relay.

DTC DETECTION LOGIC

NOTE:
- If DTC B210C is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-67, "DTC Description".
- If DTC B210C is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-68, "DTC Description".

<table>
<thead>
<tr>
<th>DTC No.</th>
<th>CONSULT screen terms (Trouble diagnosis content)</th>
<th>Diagnosis condition</th>
<th>DTC Detection Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>B210C</td>
<td>START CONT RLY OFF</td>
<td></td>
<td>When the ignition switch is ON.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Signal (terminal)</td>
<td>—</td>
</tr>
</tbody>
</table>
|         |                                                  | Threshold           | IPDM E/R detects that the relay is stuck at OFF position even if the following conditions are met for about 1 second:  
|         |                                                  |                     | • Starter control relay ON/OFF signal from BCM  
|         |                                                  |                     | • Transmission range switch input signal |
|         |                                                  | Diagnosis delay time| —                       |

POSSIBLE CAUSE

• IPDM E/R
• Harness or connector

FAIL-SAFE

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

CONSULT
1. Turn the power supply position to start under the following conditions and wait for at least 1 second:
   - CVT selector lever is in the P (Park) or N (Neutral) position.
   - Depress the brake pedal
2. Check "Self Diagnostic Result" mode.

Is DTC detected?

YES >> Refer to SEC-113, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

1. INSPECTION START

CONSULT
1. Turn ignition switch ON.
2. Check "Self Diagnostic Result" mode.
3. Touch “ERASE”.
4. Perform DTC Confirmation Procedure.  
   Refer to PCS-21, "DTC Index".

Is the DTC B210C displayed again?

YES >> Replace IPDM E/R. Refer to PCS-36, "Removal and Installation".
NO >> Inspection End.
B210D STARTER RELAY

DTC Description

Located in IPDM E/R, the starter relay runs the starter motor. The starter relay is turned ON by the BCM when the ignition switch is in START position. IPDM E/R transmits the starter relay ON signal to BCM via CAN communication.

DTC DETECTION LOGIC

NOTE:
• If DTC B210D is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-67, "DTC Description".
• If DTC B210D is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-68, "DTC Description".

POSSIBLE CAUSE
• IPDM E/R
• Harness or connector

FAIL-SAFE

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Ignition switch ON under the following conditions and wait for at least 1 second:
   - CVT selector lever is in the P (Park) or N (Neutral) position
   - Do not depress the brake pedal
2. Select “Self Diagnostic Result” mode.
3. Check DTC.

Is DTC detected?

YES >> Refer to SEC-114, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-28, "Wiring Diagram".

1. CHECK STARTER RELAY POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R harness connector.
3. Check voltage between IPDM E/R harness connector and ground.
### B210D STARTER RELAY

**< DTC/CIRCUIT DIAGNOSIS >**

<table>
<thead>
<tr>
<th>IPDM E/R</th>
<th>Connector</th>
<th>Terminal</th>
<th>Ground</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>E17</td>
<td>3</td>
<td>Ground</td>
<td>Battery voltage</td>
<td></td>
</tr>
</tbody>
</table>

Is the inspection result normal?

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;&gt; Replace IPDM E/R. Refer to PCS-36, &quot;Removal and Installation&quot;.</td>
<td>&gt;&gt; Check harness for open or short between IPDM E/R and battery.</td>
</tr>
</tbody>
</table>
B210E STARTER RELAY

DTC Description

Located in IPDM E/R, it runs the starter motor. The starter relay is turned ON by the BCM when the ignition switch is in START position. IPDM E/R transmits the starter relay ON signal to BCM via CAN communication.

DTC DETECTION LOGIC

NOTE:
• If DTC B210E is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-67, "DTC Description".
• If DTC B210E is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-68, "DTC Description".

DIAGNOSIS PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

   a. CONSULT

      1. Turn ignition switch ON under the following conditions and wait for at least 1 second:
         - CVT selector lever is in the P (Park) or N (Neutral) position.
         - Do not depress the brake pedal.
      2. Select "Self Diagnostic Result" mode.
      3. Check DTC.

Is DTC detected?

YES  >> Refer to SEC-116, "Diagnosis Procedure".
NO   >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-28, "Wiring Diagram".

1. CHECK STARTER RELAY OUTPUT SIGNAL/CVT MODELS

   1. Turn ignition switch OFF.
   2. Disconnect BCM harness connector.
   3. Check voltage between BCM harness connector ground.
B210E STARTER RELAY

< DTC/CIRCUIT DIAGNOSIS >

<table>
<thead>
<tr>
<th>BCM connector</th>
<th>Ground</th>
<th>Condition</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M20</td>
<td>62</td>
<td>Ground</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ON</td>
<td>Battery voltage</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Depressed</td>
<td>Other than above</td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES >> GO TO 3.
NO >> GO TO 2.

2. CHECK STARTER RELAY OUTPUT SIGNAL CIRCUIT

1. Disconnect IPDM E/R harness connector.
2. Check continuity between IPDM E/R harness connector and BCM harness connector.

<table>
<thead>
<tr>
<th>IPDM E/R</th>
<th>BCM</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>E19</td>
<td>33</td>
<td>M20</td>
</tr>
</tbody>
</table>

3. Check continuity between BCM harness connector and ground.

<table>
<thead>
<tr>
<th>IPDM E/R</th>
<th>Ground</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>E19</td>
<td>33</td>
<td>Ground</td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES >> Replace IPDM E/R. Refer to PCS-36, "Removal and Installation".
NO >> Repair harness connector.

3. CHECK STARTER RELAY POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R harness connector.
3. Check voltage between IPDM E/R harness connector and ground.

<table>
<thead>
<tr>
<th>IPDM E/R</th>
<th>Ground</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>E19</td>
<td>33</td>
<td>Ground Battery voltage</td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES >> Replace IPDM E/R. Refer to PCS-36, "Removal and Installation".
NO >> Check harness for open or short between IPDM E/R and battery.

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SEC-117
2016 Maxima NAM
B210F TRANSMISSION RANGE SWITCH

DTC Description

IPDM E/R confirms the shift position with the following signals:
- Transmission range switch
- Shift position signal from BCM (CAN)

DTC DETECTION LOGIC

NOTE:
- If DTC B210F is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-67, "DTC Description".
- If DTC B210F is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-68, "DTC Description".

FAIL-SAFE

POSSIBLE CAUSE
- Transmission range switch
- Harness or connector
  Transmission range switch circuit is open or shorted

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

   CONSULT
   1. Turn ignition switch ON under the following conditions and wait for at least 1 second:
   - CVT selector lever is in the P (Park) or N (Neutral) position
   - Do not depress the brake pedal
   2. Select “Self Diagostic Result” mode.
   3. Check DTC.

   Is DTC detected?
   YES  >> Refer to SEC-118, "Diagnosis Procedure".
   NO    >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-28, "Wiring Diagram".

1. CHECK DTC WITH BCM

   Refer to BCS-53, "DTC Index".

   Is the inspection result normal?
   YES  >> GO TO 2.
   NO    >> Repair or replace malfunctioning parts.

2. CHECK TRANSMISSION RANGE SWITCH INPUT SIGNAL

Revision: October 2015
1. Turn ignition switch OFF.
2. Disconnect IPDM E/R harness connector.
3. Turn ignition switch ON.
4. Check voltage between IPDM E/R harness connector and ground under following condition:

<table>
<thead>
<tr>
<th>IPDM E/R Connector</th>
<th>Ground</th>
<th>Condition</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>E19</td>
<td>37</td>
<td>CVT selector lever</td>
<td>Battery voltage</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES >> Replace IPDM E/R. Refer to PCS-36, "Removal and Installation".
NO >> GO TO 3.

3. CHECK TRANSMISSION RANGE SWITCH CIRCUIT FOR CONTINUITY

1. Turn ignition switch OFF.
2. Check continuity between IPDM E/R harness connector.

<table>
<thead>
<tr>
<th>IPDM E/R Connector</th>
<th>Condition</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>F50</td>
<td>Transmission range switch</td>
<td>P or N</td>
</tr>
<tr>
<td>F51</td>
<td>Transmission range switch</td>
<td>Other</td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES >> GO TO 4.
NO >> GO TO 5.

4. CHECK TRANSMISSION RANGE SWITCH CIRCUIT FOR SHORT

Check continuity between IPDM E/R harness connector and ground.

<table>
<thead>
<tr>
<th>IPDM E/R Connector</th>
<th>Ground</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>F50</td>
<td>Ground</td>
<td>No</td>
</tr>
<tr>
<td>F51</td>
<td>Ground</td>
<td>No</td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES >> Replace the IPDM E/R. Refer to PCS-36, "Removal and Installation".
NO >> Repair or replace harness.

5. CHECK TRANSMISSION RANGE SWITCH INPUT SIGNAL CIRCUIT

1. Disconnect transmission range switch harness connector.
2. Check continuity between transmission range switch and IPDM E/R harness connectors.

<table>
<thead>
<tr>
<th>Transmission range switch</th>
<th>IPDM E/R Connector</th>
<th>Terminal</th>
<th>Connector</th>
<th>Terminal</th>
</tr>
</thead>
<tbody>
<tr>
<td>F86</td>
<td>7</td>
<td>F50</td>
<td>61</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>F51</td>
<td>66</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between transmission range switch harness connector and ground.

<table>
<thead>
<tr>
<th>Transmission range switch</th>
<th>Ground</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>F86</td>
<td>Ground</td>
<td>No</td>
</tr>
</tbody>
</table>

Is the inspection result normal?
B210F TRANSMISSION RANGE SWITCH

< DTC/CIRCUIT DIAGNOSIS >

YES  >> GO TO 6.
NO   >> Repair harness or connector.

6. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.
B2110 TRANSMISSION RANGE SWITCH

DTC Description

IPDM E/R confirms the shift position with the following signals:
• Transmission range switch
• Shift position signal from BCM (CAN)

DTC DETECTION LOGIC

NOTE:
• If DTC B2110 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-67, "DTC Description".
• If DTC B2110 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-68, "DTC Description".

POSSIBLE CAUSE
• Transmission range switch
• Transmission range switch circuit is open or shorted.
• Harness or connector

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

CONSULT

1. Turn the ignition switch ON under the following conditions and wait for at least 1 second:
- CVT selector lever is in the P (Park) or N (Neutral) position.
- Do not depress the brake pedal.
2. Select “Self Diagnostic Result” mode.
3. Check DTC.

Is DTC detected?

YES >> Refer to SEC-121, "Diagnosis Procedure".
NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-28, "Wiring Diagram".

1. CHECK DTC WITH BCM

Refer to BCS-53, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Repair or replace malfunctioning parts.

2. CHECK TRANSMISSION RANGE SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.
**B2110 TRANSMISSION RANGE SWITCH**

< DTC/CIRCUIT DIAGNOSIS >

2. Disconnect IPDM E/R harness connector.
3. Turn ignition switch ON.
4. Check voltage between IPDM E/R harness connector and ground under following condition:

<table>
<thead>
<tr>
<th>IPDM E/R Connector</th>
<th>Terminal</th>
<th>Ground</th>
<th>Condition</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>E19</td>
<td>37</td>
<td>Ground</td>
<td>CVT selector lever</td>
<td>P (Park) or N (Neutral) Battery voltage Other than above 0</td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES >> Replace IPDM E/R. Refer to PCS-36, "Removal and Installation".
NO >> GO TO 3.

3. CHECK TRANSMISSION RANGE SWITCH CIRCUIT FOR CONTINUITY

1. Turn ignition switch OFF.
2. Check continuity between IPDM E/R harness connector.

<table>
<thead>
<tr>
<th>IPDM E/R Connector</th>
<th>Terminals</th>
<th>Condition</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>F50</td>
<td>61</td>
<td>Transmission range switch</td>
<td>P or N Yes</td>
</tr>
<tr>
<td>F51</td>
<td>66</td>
<td>Ground</td>
<td>Other No</td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES >> GO TO 4.
NO >> GO TO 5.

4. CHECK TRANSMISSION RANGE SWITCH CIRCUIT FOR SHORT

Check continuity between IPDM E/R harness connector and ground.

<table>
<thead>
<tr>
<th>IPDM E/R Connector</th>
<th>Terminal</th>
<th>Ground</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>F50</td>
<td>61</td>
<td>Ground</td>
<td>No</td>
</tr>
<tr>
<td>F51</td>
<td>66</td>
<td>Ground</td>
<td></td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES >> Replace the IPDM E/R. Refer to PCS-36, "Removal and Installation".
NO >> Repair or replace harness.

5. CHECK TRANSMISSION RANGE SWITCH INPUT SIGNAL CIRCUIT

1. Disconnect transmission range switch harness connector.
2. Check continuity between transmission range switch and IPDM E/R harness connectors.

<table>
<thead>
<tr>
<th>Transmission range switch Connector</th>
<th>Terminal</th>
<th>IPDM E/R Connector</th>
<th>Terminal</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>F86</td>
<td>7</td>
<td>F50</td>
<td>61</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>F51</td>
<td>66</td>
<td></td>
</tr>
</tbody>
</table>

3. Check continuity between transmission range switch harness connector and ground.

<table>
<thead>
<tr>
<th>Transmission range switch Connector</th>
<th>Terminal</th>
<th>Ground</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>F86</td>
<td>7</td>
<td>Ground</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>Ground</td>
<td></td>
</tr>
</tbody>
</table>

Is the inspection result normal?
B2110 TRANSMISSION RANGE SWITCH

< DTC/CIRCUIT DIAGNOSIS >

YES  >> GO TO 6.
NO   >> Repair harness or connector.

6. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.
POWER SUPPLY AND GROUND CIRCUIT

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM : Diagnosis Procedure

Regarding Wiring Diagram information, refer to BCS-56, "Wiring Diagram".

1. CHECK FUSE AND FUSIBLE LINK

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

<table>
<thead>
<tr>
<th>Signal name</th>
<th>Fuse and fusible link No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fusible link battery power</td>
<td>1 (40A)</td>
</tr>
<tr>
<td>BCM battery fuse</td>
<td>1 (10A)</td>
</tr>
</tbody>
</table>

Is the fuse or fusible link blown?

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

2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector M17.
3. Check voltage between BCM harness connector M17 and ground.

<table>
<thead>
<tr>
<th>Terminals</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(+)</td>
<td>(-)</td>
</tr>
<tr>
<td>BCM</td>
<td></td>
</tr>
<tr>
<td>Connector</td>
<td>Terminal</td>
</tr>
<tr>
<td>M17</td>
<td>135</td>
</tr>
<tr>
<td></td>
<td>142</td>
</tr>
</tbody>
</table>

Is the measurement normal?

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

3. CHECK GROUND CIRCUIT

Check continuity between BCM harness connector M17 and ground.

<table>
<thead>
<tr>
<th>BCM</th>
<th>Ground</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>M17</td>
<td>138</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>132</td>
<td></td>
</tr>
</tbody>
</table>

Is the inspection result normal?

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

BCM : Special Repair Requirement

1. REQUIRED WORK WHEN REPLACING BCM

Initialize control unit. Refer to BCS-63, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM) : Work Procedure".

>> Work End.

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2016 Maxima NAM
Regarding Wiring Diagram information, refer to PCS-23, "Wiring Diagram".

1. CHECK FUSES AND FUSIBLE LINK

Check that the following IPDM E/R fusible links are not blown.

<table>
<thead>
<tr>
<th>Signal name</th>
<th>Fuses and fusible link No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery power supply</td>
<td>E (80A)</td>
</tr>
<tr>
<td></td>
<td>B (100A)</td>
</tr>
<tr>
<td></td>
<td>A (250A), C (80A)</td>
</tr>
</tbody>
</table>

Is the fusible link blown?
- YES >> Replace the blown fusible link after repairing the affected circuit.
- NO  >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connectors E16 and E17.
3. Check voltage between IPDM E/R harness connector and ground.

<table>
<thead>
<tr>
<th>Terminals</th>
<th>Voltage (V) (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(+)</td>
<td>(-)</td>
</tr>
<tr>
<td>IPDM E/R</td>
<td></td>
</tr>
<tr>
<td>Connector</td>
<td>Terminal</td>
</tr>
<tr>
<td>E16</td>
<td>1</td>
</tr>
<tr>
<td>E17</td>
<td>2</td>
</tr>
</tbody>
</table>

Is the inspection result normal?
- YES >> GO TO 3.
- NO  >> Repair or replace harness or connector.

3. CHECK GROUND CIRCUIT

1. Disconnect connectors.
2. Check continuity between IPDM E/R harness connectors and ground.

<table>
<thead>
<tr>
<th>IPDM E/R</th>
<th>Ground</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>E18</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>E19</td>
<td>41</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Is the inspection result normal?
- YES >> Inspection End.
- NO  >> Repair or replace harness or connector.
Component Function Check

1. CHECK FUNCTION

CONSULT
1. Perform “THEFT IND” in “Active Test” mode of “IMMU” of “BCM”.
2. Check security indicator lamp operation.

<table>
<thead>
<tr>
<th>Test item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>THEFT IND ON OFF</td>
<td>Security indicator lamp Illuminates Does not illuminate</td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES  >> Inspection End.
NO   >> Go to SEC-126, "Diagnosis Procedure".

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-42, "Wiring Diagram".

1. CHECK FUSE

1. Turn power switch OFF.
2. Check that the following fuse in the fuse block (J/B) is not blown.

<table>
<thead>
<tr>
<th>Signal name</th>
<th>Fuse No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery power supply</td>
<td>13 (10 A)</td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES  >> GO TO 2.
NO   >> Replace the blown fuse after repairing the cause of blowing.

2. CHECK SECURITY INDICATOR LAMP POWER SUPPLY CIRCUIT

1. Disconnect combination meter connector.
2. Check voltage between combination meter harness connector and ground.

<table>
<thead>
<tr>
<th>(+)</th>
<th>(-)</th>
<th>Condition</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combination meter Connector</td>
<td>Terminal M23</td>
<td>Ground</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>46</td>
<td>Ignition switch</td>
<td>Battery voltage</td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES  >> GO TO 3.
NO   >> Repair or replace harness.

3. CHECK SECURITY INDICATOR LAMP SIGNAL

1. Connect combination meter connector.
2. Disconnect BCM connector.
3. Check voltage between BCM harness connector and ground.
SECURITY INDICATOR LAMP

< DTC/CIRCUIT DIAGNOSIS >

<table>
<thead>
<tr>
<th>(+)</th>
<th>BCM</th>
<th>(−)</th>
<th>Voltage (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
<td>Ground</td>
</tr>
<tr>
<td>M21</td>
<td>18</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Is the inspection result normal?

YES >> GO TO 4.
NO >> GO TO 5.

4. REPLACE BCM

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

>> Inspection End.

5. CHECK SECURITY INDICATOR LAMP CIRCUIT

1. Disconnect combination meter connector.
2. Check continuity between combination meter harness connector and BCM harness connector.

<table>
<thead>
<tr>
<th>Combination meter</th>
<th>BCM</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>M24</td>
<td>7</td>
<td>M21</td>
</tr>
</tbody>
</table>

3. Check continuity between combination meter harness connector and ground.

<table>
<thead>
<tr>
<th>Combination meter</th>
<th>Ground</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>M24</td>
<td>7</td>
<td>No</td>
</tr>
</tbody>
</table>

Is the inspection result normal?

YES >> Replace combination meter. Refer to MWI-68, "Removal and Installation".
NO >> Repair or replace harness.
< DTC/CIRCUIT DIAGNOSIS >

HORN FUNCTION

Component Function Check

1. CHECK FUNCTION

CONSULT
1. Perform “VEHICLE SECURITY HORN” in “Active Test” mode of “THEFT ALM” of “BCM”.
2. Check the horn operation.

<table>
<thead>
<tr>
<th>Test Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VEHICLE SECURITY HORN ON</td>
<td>Horn Sounds (for 0.5 sec.)</td>
</tr>
</tbody>
</table>

Is the operation normal?
YES >> Horn function is OK.
NO  >> Go to SEC-128, "Diagnosis Procedure".

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-42, "Wiring Diagram".

1. CHECK HORN FUNCTION

Check horn function with horn switch.
Do horns sound?
YES >> GO TO 2.
NO  >> Perform the trouble diagnosis for horn circuit. Refer to HRN-4, "Wiring Diagram".

2. CHECK IPDM E/R POWER SUPPLY CIRCUIT

1. Disconnect horn relay connector.
2. Check continuity between IPDM E/R harness connector and horn relay harness connector.

<table>
<thead>
<tr>
<th>IPDM E/R</th>
<th>Horn relay</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td>Connector</td>
</tr>
<tr>
<td>E19</td>
<td>22</td>
<td>H-1</td>
</tr>
</tbody>
</table>

3. Check continuity between IPDM E/R harness connector and ground.

<table>
<thead>
<tr>
<th>IPDM E/R</th>
<th>Ground</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal</td>
<td></td>
</tr>
<tr>
<td>E19</td>
<td>22</td>
<td></td>
</tr>
</tbody>
</table>

Is the inspection result normal?
YES >> GO TO 3.
NO  >> Repair or replace harness.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.
ENGINE DOES NOT START WHEN INTELLIGENT KEY IS INSIDE OF VEHICLE

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

ENGINE DOES NOT START WHEN INTELLIGENT KEY IS INSIDE OF VEHICLE

Description

Engine does not start when push-button ignition switch is pressed while carrying Intelligent Key.

NOTE:

• Check that vehicle is under the condition shown in “Conditions of vehicle” before starting diagnosis, and check each symptom.
• The engine start function, door lock function, power distribution system, and NATS-IVIS/NVIS in the Intelligent Key system are closely related to each other regarding control. The vehicle security function can operate only when the door lock and power distribution system are operating normally.

Conditions of Vehicle (Operating Conditions)

CONSULT

“ENGINE START BY I-KEY” in “Work support” is ON when setting in CONSULT.
• One or more of the Intelligent Keys with registered Intelligent Key ID is in the vehicle.

Diagnosis Procedure

1. PERFORM WORK SUPPORT

CONSULT

Perform “INSIDE ANT DIAGNOSIS” in “Work support” mode of “INTELLIGENT KEY”. Refer to BCS-23, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".

>> GO TO 2.

2. PERFORM SELF-DIAGNOSIS RESULT

CONSULT

Perform “Self Diagnosis Result” mode of “BCM”, and check whether or not DTC of inside key antenna is detected.

Is DTC detected?

YES >> Refer to BCS-53, "DTC Index".
NO >> GO TO 3.

3. CHECK PUSH-BUTTON IGNITION SWITCH

Check push-button ignition switch. Refer to SEC-80, "Component Inspection".

Is the operation normal?

YES >> GO TO 4.
NO >> Repair or replace malfunctioning parts.

4. CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> GO TO 1.
SECURITY INDICATOR LAMP DOES NOT TURN ON OR BLINK

< SYMPTOM DIAGNOSIS >

SECURITY INDICATOR LAMP DOES NOT TURN ON OR BLINK

Description

Security indicator lamp does not blink when ignition switch is in a position other than ON.

NOTE:
• Before performing the diagnosis, check “Work Flow”. Refer to SEC-51, "Work Flow".
• Check that vehicle is under the condition shown in “Conditions of vehicle” before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)
Ignition switch is not in the ON position.

Diagnosis Procedure

1. CHECK SECURITY INDICATOR LAMP

Check security indicator lamp.
Refer to SEC-126, "Component Function Check".
Is the inspection result normal?
YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.

2. CONFIRM THE OPERATION

Confirm the operation again.
Is the result normal?
YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> GO TO 1.
VEHICLE SECURITY SYSTEM CANNOT BE SET

< SYMPTOM DIAGNOSIS >

VEHICLE SECURITY SYSTEM CANNOT BE SET

INTELLIGENT KEY

INTELLIGENT KEY : Description

ARMED phase is not activated when door is locked using Intelligent Key.

NOTE:
Check that vehicle is under the condition shown in “Conditions of vehicle” before starting diagnosis and check each symptom.

CONDITION OF VEHICLE (OPERATING CONDITION)

CONSULT
Confirm the setting of “SECURITY ALARM SET” is ON in “Work support” mode in “THEFT ALM” of “BCM”.

INTELLIGENT KEY : Diagnosis Procedure

1. CHECK INTELLIGENT KEY SYSTEM (REMOTE KEYLESS ENTRY FUNCTION)

Lock/unlock door with Intelligent Key.
Refer to DLK-19, "System Description".

Is the inspection result normal?

YES  >> GO TO 2.
NO   >> Check Intelligent Key system (remote keyless entry function). Refer to DLK-111, "Diagnosis Procedure".

2. CHECK HOOD SWITCH

Check hood switch.
Refer to DLK-120, "Component Function Check".

Is the inspection result normal?

YES  >> GO TO 3.
NO   >> Repair or replace hood switch.

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES  >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO   >> GO TO 1.

DOOR REQUEST SWITCH

DOOR REQUEST SWITCH : Description

ARMED phase is not activated when door is locked using door request switch.

NOTE:
Check that vehicle is under the condition shown in “Conditions of vehicle” before starting diagnosis, and check each symptom.

CONDITION OF VEHICLE (OPERATING CONDITION)

CONSULT
Confirm the setting of “SECURITY ALARM SET” is ON in “Work support” mode of “THEFT ALM” in “BCM”.

DOOR REQUEST SWITCH : Diagnosis Procedure

1. CHECK INTELLIGENT KEY SYSTEM (DOOR LOCK FUNCTION)

Lock/unlock door with door request switch.
Refer to DLK-21, "INTELLIGENT KEY SYSTEM : System Description".

Is the inspection result normal?

YES  >> GO TO 2.
NO   >> Check Intelligent Key system (door lock function). Refer to DLK-100, "DRIVER SIDE : Component Function Check".

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< SYMPTOM DIAGNOSIS >

2. CHECK HOOD SWITCH

Check hood switch.
Refer to DLK-120, "Component Function Check".

Is the inspection result normal?
YES >> GO TO 3.
NO >> Repair or replace hood switch.

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?
YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> GO TO 1.

DOOR KEY CYLINDER

DOOR KEY CYLINDER : Description

ARME D phase is not activated when door is locked using mechanical key.

NOTE:
Check that vehicle is under the condition shown in “Conditions of vehicle” before starting diagnosis, and check each symptom.

CONDITION OF VEHICLE (OPERATING CONDITION)

CONSULT
Confirm the setting of “SECURITY ALARM SET” is ON in “Work support” mode of “THEFT ALM” in “BCM”.

DOOR KEY CYLINDER : Diagnosis Procedure

1. CHECK POWER DOOR LOCK SYSTEM

Lock/unlock door with mechanical key.
Refer to DLK-19, "System Description".

Is the inspection result normal?
YES >> GO TO 2.
NO >> Check power door lock system. Refer to DLK-22, "DOOR LOCK FUNCTION : System Description".

2. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?
YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> GO TO 1.
VEHICLE SECURITY ALARM DOES NOT ACTIVATE

< SYMPTOM DIAGNOSIS >

VEHICLE SECURITY ALARM DOES NOT ACTIVATE

Description

Alarm does not operate when alarm operating condition is satisfied.

NOTE:
Check that vehicle is under the condition shown in “Conditions of vehicle” before starting diagnosis and check each symptom.

CONDITIONS OF VEHICLE (OPERATING CONDITIONS)

CONSULT
Confirm the setting of “SECURITY ALARM SET” is ON in “Work support” mode of “THEFT ALM” in “BCM”.

Diagnosis Procedure

1. CHECK DOOR SWITCH

Check door switch.
Refer to DLK-98, "Component Function Check".
Is the inspection result normal?

YES  >> GO TO 2.
NO   >> Replace the malfunctioning door switch.

2. CHECK HOOD SWITCH

Check hood switch.
Refer to DLK-120, "Component Function Check".
Is the inspection result normal?

YES  >> GO TO 3.
NO   >> Repair or replace hood switch.

3. CHECK HORN FUNCTION

Check horn function.
Refer to SEC-128, "Component Function Check".
Is the inspection result normal?

YES  >> GO TO 4.
NO   >> Repair or replace the malfunctioning parts.

4. CHECK HEADLAMP FUNCTION

Check headlamp function.
Refer to EXL-72, "Component Function Check".
Is the inspection result normal?

YES  >> GO TO 5.
NO   >> Repair or replace the malfunctioning parts.

5. CONFIRM THE OPERATION

Confirm the operation again.
Is the result normal?

YES  >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO   >> GO TO 1.
PANIC ALARM FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

PANIC ALARM FUNCTION DOES NOT OPERATE

Description

NOTE:
• Before performing the diagnosis following procedure, check “Work Flow”. Refer to SEC-51, "Work Flow".
• Check that vehicle is under the condition shown in “Conditions of vehicle” before starting diagnosis and check each symptom.

CONDITIONS OF VEHICLE (OPERATION CONDITIONS)
• Ignition switch is in OFF or LOCK position.

Diagnosis Procedure

1. CHECK REMOTE KEYLESS ENTRY FUNCTION

Check remote keyless entry function.

Does door lock/unlock with Intelligent Key button?

YES >> GO TO 2.
NO >> Go to DLK-111, "Component Function Check".

2. CHECK VEHICLE SECURITY ALARM OPERATION

Check vehicle security alarm operation.

Does alarm (headlamps and horns) active?

YES >> GO TO 3.
NO >> Go to SEC-14, "VEHICLE SECURITY SYSTEM : System Description".

3. CHECK “PANIC ALARM SET” SETTING IN “WORK SUPPORT”

CONSULT
Check “PANIC ALARM SET” setting in “Work support”.
Refer to BCS-23, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Set “PANIC ALARM SET” setting in “Work support”.

4. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".
NO >> GO TO 1.
REMOVAL AND INSTALLATION
NATS ANTENNA AMP.

Exploded View

1. NATS antenna amp. 2. Push-button ignition switch

Removal and Installation

REMOVAL

1. Remove the shift selector handle (1).
   a. Release the shift selector handle cover (2) using a suitable tool from the base of the shift selector handle (1).
   b. Remove the shift selector handle clip (A).
   c. Pull upward and remove the shift selector handle (1).

2. Remove the shift selector finisher. Refer to IP-20, "Exploded View".
3. Release the pawl on each side of NATS antenna amp (1) using suitable tool and remove from the shift selector finisher (2).

( ) : Pawl
NATS ANTENNA AMP.

< REMOVAL AND INSTALLATION >

4. Release the pawl on each side, using suitable tool, and remove the NATS antenna amp (2) from the push-button ignition switch (1).

INSTALLATION
Installation is in the reverse order of removal.
NOTE:
Push-button ignition switch removal and installation procedure is the same as the NATS antenna amp. removal and installation procedure. Refer to SEC-135, "Removal and Installation".
IMMOBILIZER CONTROL MODULE

Removal and Installation

Removal
The immobilizer control module is integrated into the body control module (BCM). For removal and installation, refer to BCS-82, "Removal and Installation".

Removal (Canada only)
1. Remove instrument panel assembly. IP-15, "Removal and Installation".
2. Disconnect the harness connector from the dongle unit (1).
3. Remove screw (A) and dongle unit (1) from heating and cooling unit assembly(2).

INSTALLATION
Installation is in the reverse order of removal.
HOOD SWITCH

Removal and Installation

The hood switch is part of the hood lock assembly. For removal and installation, refer to DLK-176, "HOOD LOCK : Removal and Installation".