

# SECTION **SEC**

## SECURITY CONTROL SYSTEM

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# PRECAUTIONS

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## PRECAUTION

### PRECAUTIONS

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

INFOID:000000012372833

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

INFOID:000000011933500

- 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.

# PREPARATION

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## PREPARATION

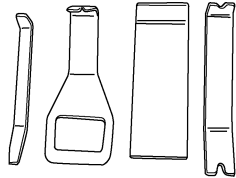
### PREPARATION

#### Special Service Tool

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

Tool number (TechMate No.) Tool name	Description
— (J-46534) Trim Tool Set	Removing trim components



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# COMPONENT PARTS

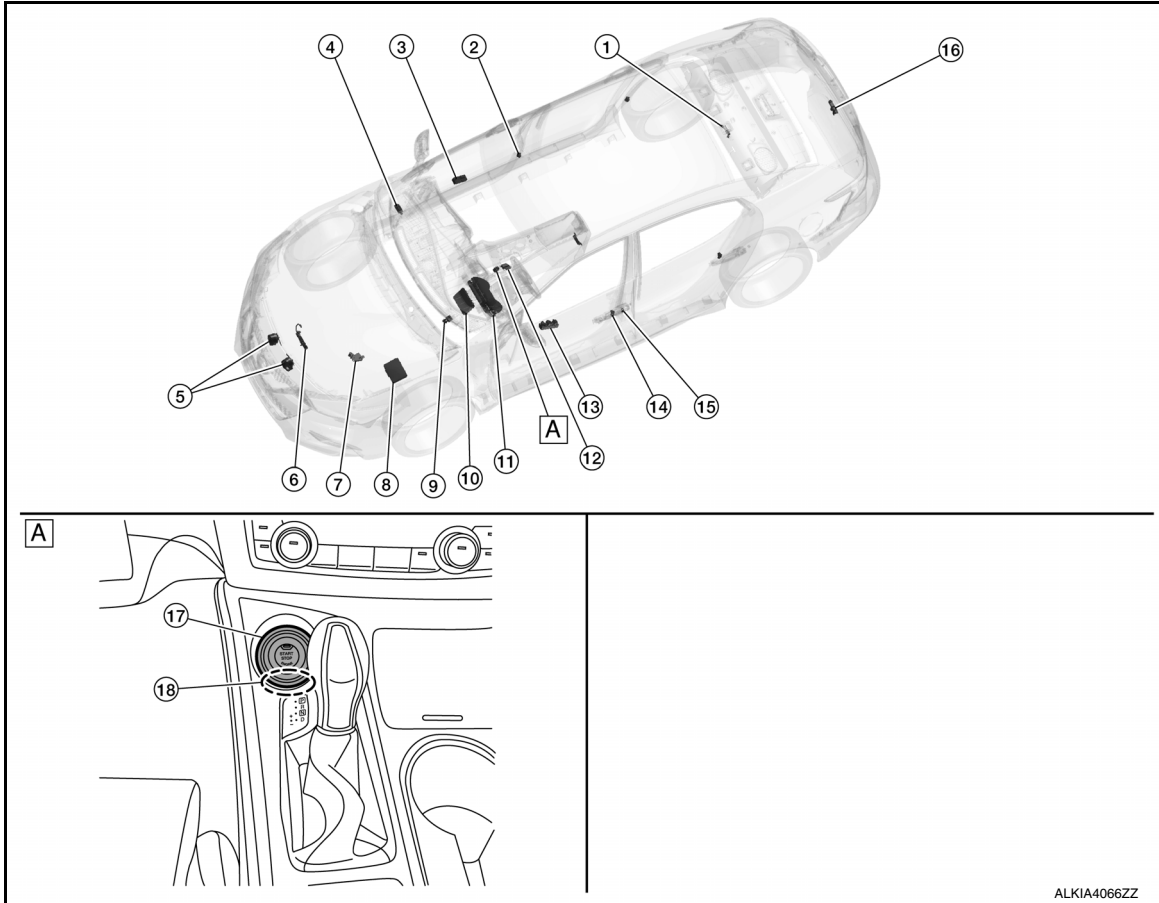
< SYSTEM DESCRIPTION >

## SYSTEM DESCRIPTION

### COMPONENT PARTS

#### Component Parts Location

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A. View of center console.

No.	Component	Function
1.	Inside key antenna (parcel shelf)	<ul style="list-style-type: none"> <li>Inside key antenna (parcel shelf) detects whether Intelligent Key is inside the vehicle or not, and then transmits the signal to the BCM.</li> <li>Refer to <a href="#">DLK-10, "INTELLIGENT KEY SYSTEM : Component Parts Location"</a>.</li> </ul>
2.	Front door switch RH	Door switch detects door open/close condition and then transmits ON/OFF signal to BCM.
3.	Power window and door lock/unlock switch RH	<ul style="list-style-type: none"> <li>Door lock and unlock switch is integrated into the power window switch.</li> <li>Door lock and unlock switch transmits door lock/unlock operation signal to BCM.</li> <li>Refer to <a href="#">PWC-6, "Component Parts Location"</a>.</li> </ul>
4.	Remote keyless entry receiver	<ul style="list-style-type: none"> <li>Remote keyless entry receiver receives button operation signal and key ID signal of Intelligent Key and then transmits them to BCM.</li> <li>Refer to <a href="#">DLK-15, "Remote Keyless Entry Receiver"</a>.</li> </ul>
5.	Horns	IPDM E/R energizes the horns when the security system is activated.
6.	Hood switch	<ul style="list-style-type: none"> <li>Hood switch transmits hood open/closed signal to the IPDM E/R.</li> <li>Refer to <a href="#">DLK-10, "INTELLIGENT KEY SYSTEM : Component Parts Location"</a>.</li> </ul>

## COMPONENT PARTS

### < SYSTEM DESCRIPTION >

No.	Component	Function
7.	Transmission range switch	<ul style="list-style-type: none"> <li>The transmission range switch detects the selector lever position.</li> <li>Refer to <a href="#">TM-14, "CVT CONTROL SYSTEM : Transmission Range Switch"</a>.</li> </ul>
8.	IPDM E/R	<ul style="list-style-type: none"> <li>IPDM E/R detects push-button ignition switch (push switch) status, and transmits push-button ignition switch status signal (CAN) to BCM.</li> <li>Refer to <a href="#">PCS-5, "Component Parts Location"</a>.</li> </ul>
9.	Stop lamp switch	<ul style="list-style-type: none"> <li>Stop lamp switch detects that brake pedal is depressed, and transmits the signal to BCM.</li> <li>Refer to <a href="#">PCS-5, "Component Parts Location"</a>.</li> </ul>
10.	BCM	<ul style="list-style-type: none"> <li>BCM controls INTELLIGENT KEY SYSTEM (ENGINE START FUNCTION), NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS [NVIS (NATS)] and VEHICLE SECURITY SYSTEM.</li> <li>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.</li> <li>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.</li> <li>Refer to <a href="#">BCS-5, "BODY CONTROL SYSTEM : Component Parts Location"</a> for detailed installation location.</li> </ul>
11.	Combination meter	<ul style="list-style-type: none"> <li>Combination meter transmits the vehicle speed signal to BCM via CAN communication.</li> <li>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.</li> <li>Security indicator lamp is located on combination meter.</li> <li>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.</li> <li>Refer to <a href="#">MWI-5, "METER SYSTEM : Component Parts Location"</a>.</li> </ul>
12.	CVT shift selector	CVT shift selector detects shift lever status, transmits detention switch signal to BCM.
13.	Main power window and door lock/unlock switch	<ul style="list-style-type: none"> <li>Door lock and unlock switch is integrated into the power window main switch.</li> <li>Door lock and unlock switch transmits door lock/unlock operation signal to BCM.</li> <li>Refer to <a href="#">PWC-6, "Component Parts Location"</a>.</li> </ul>
14.	Front door switch LH	Front door switch LH transmits door open/closed signal to the BCM.
15.	Front door lock assembly LH	<ul style="list-style-type: none"> <li>Door key cylinder switch is integrated into front door lock assembly (driver side).</li> <li>Door key cylinder switch detects door LOCK/UNLOCK operation using mechanical key, and then transmits the operation signal to BCM.</li> <li>Refer to <a href="#">DLK-17, "Front Door Lock Assembly (LH)"</a>.</li> </ul>
16.	Trunk lamp switch and trunk release solenoid (trunk release solenoid)	<ul style="list-style-type: none"> <li>Opens the trunk with the open signal from the BCM.</li> <li>Refer to <a href="#">DLK-14, "TRUNK LID OPENER SYSTEM : Component Parts Location"</a>.</li> </ul>
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.	<a href="#">SEC-8, "NATS Antenna Amp."</a>

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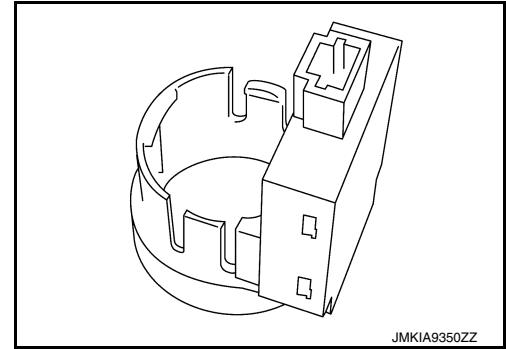
# COMPONENT PARTS

## < SYSTEM DESCRIPTION >

### NATS Antenna Amp.

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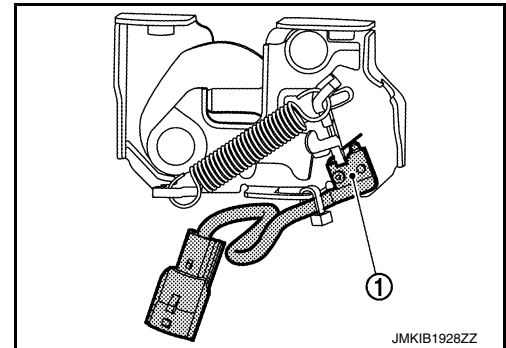
The ID verification is performed between BCM and transponder integrated into Intelligent Key via NATS antenna amp. when Intelligent Key backside is contacted to power switch, in case that Intelligent Key battery is discharged. If the ID verification result is OK, the operation of power switch is available.



### Hood Switch

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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.





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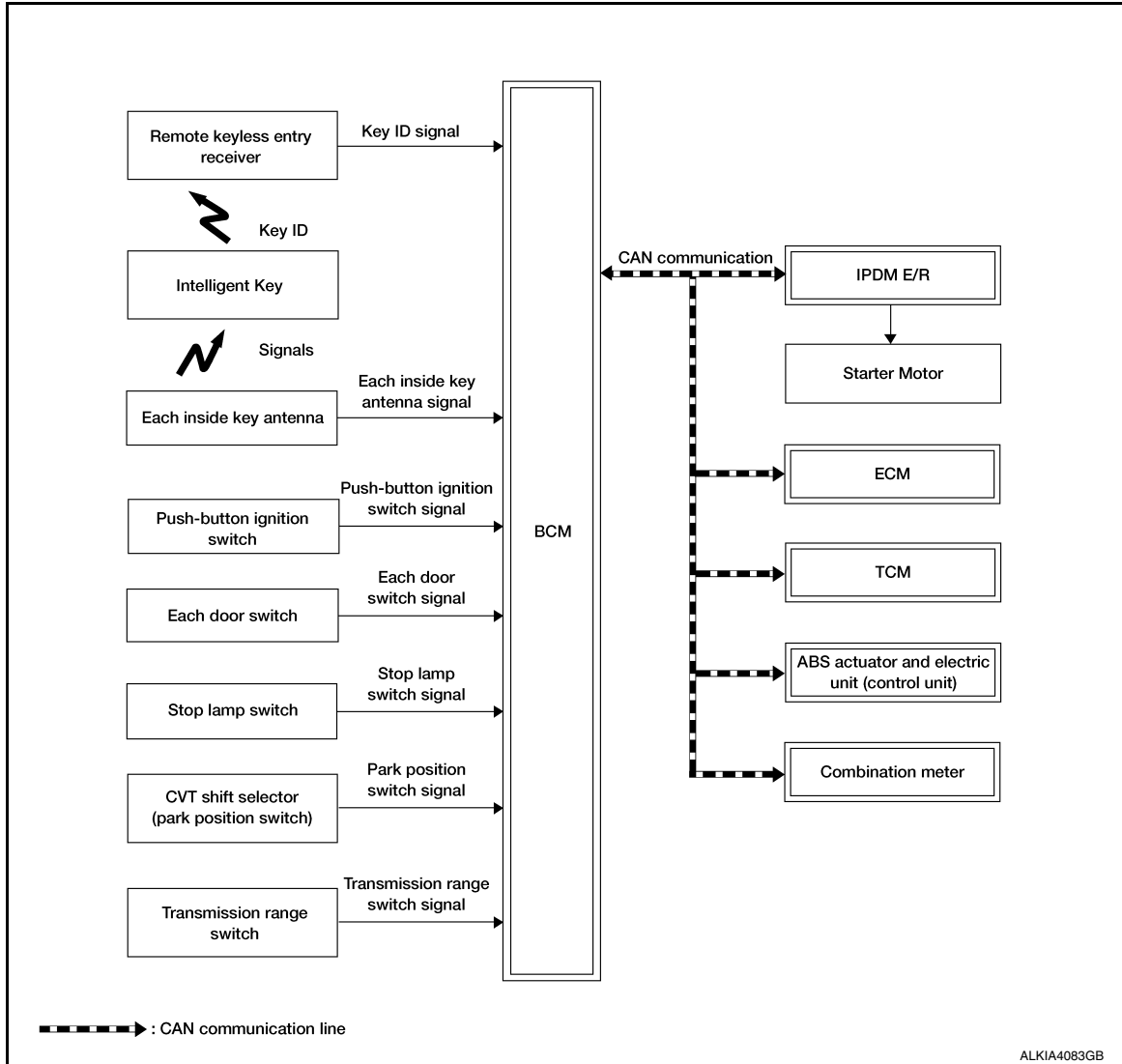
## SYSTEM

### INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

### INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION : System Description

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#### 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.

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### 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)

# SYSTEM

## < SYSTEM DESCRIPTION >

Power supply position	Engine start/stop condition		Push-button ignition switch operation frequency
	Selector lever	Brake pedal operation condition	
LOCK → ACC	—	Not depressed	1
LOCK → ACC → ON	—	Not depressed	2
LOCK → ACC → ON → OFF	—	Not depressed	3
LOCK → START ACC → START ON → START	P or N position	Depressed	1
Engine is running → OFF	—	—	1

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

Power supply position	Engine start/stop condition		Push-button ignition switch operation frequency
	Selector lever	Brake pedal operation condition	
Engine is running → ACC	—	—	Emergency stop operation
Engine stall return operation while driving	N position	Not depressed	1

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.

## NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS

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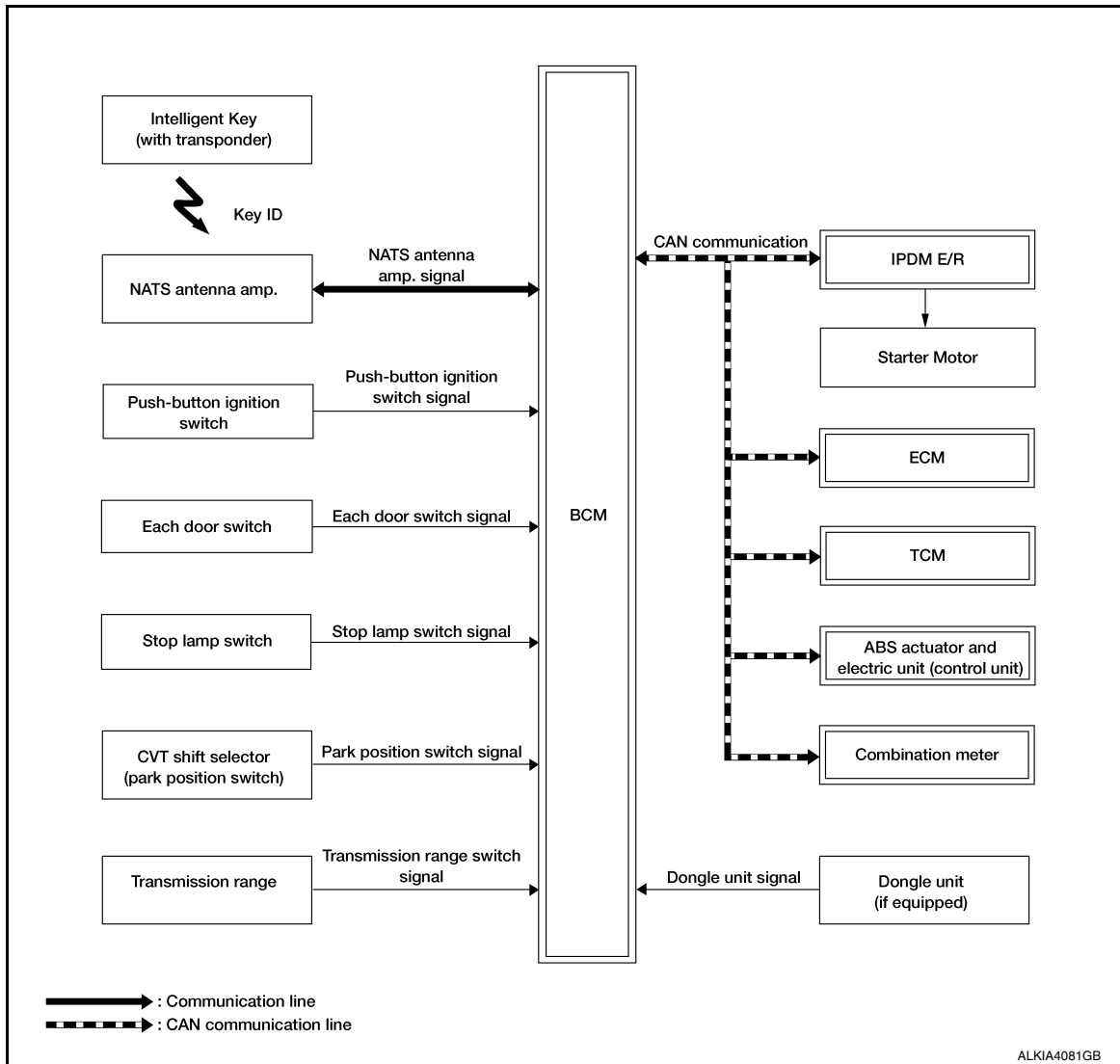
# SYSTEM

< SYSTEM DESCRIPTION >

## NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS : System Description

INFOID:000000012152437

### SYSTEM DIAGRAM



### 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

## < 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)

Power supply position	Engine start/stop condition		Push-button ignition switch operation frequency
	Selector lever	Brake pedal operation condition	
LOCK → ACC	—	Not depressed	1
LOCK → ACC → ON	—	Not depressed	2
LOCK → ACC → ON → OFF	—	Not depressed	3

# SYSTEM

## < SYSTEM DESCRIPTION >

Power supply position	Engine start/stop condition		Push-button ignition switch operation frequency
	Selector lever	Brake pedal operation condition	
LOCK → START ACC → START ON → START	P (Park) or N (Neutral) position	Depressed	1
Engine is running → OFF	—	—	1

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

Power supply position	Engine start/stop condition		Push-button ignition switch operation frequency
	Selector lever	Brake pedal operation condition	
Engine is running → ACC	—	—	Emergency stop operation
Engine stall return operation while driving	N (Neutral) position	Not depressed	1

Emergency stop operation

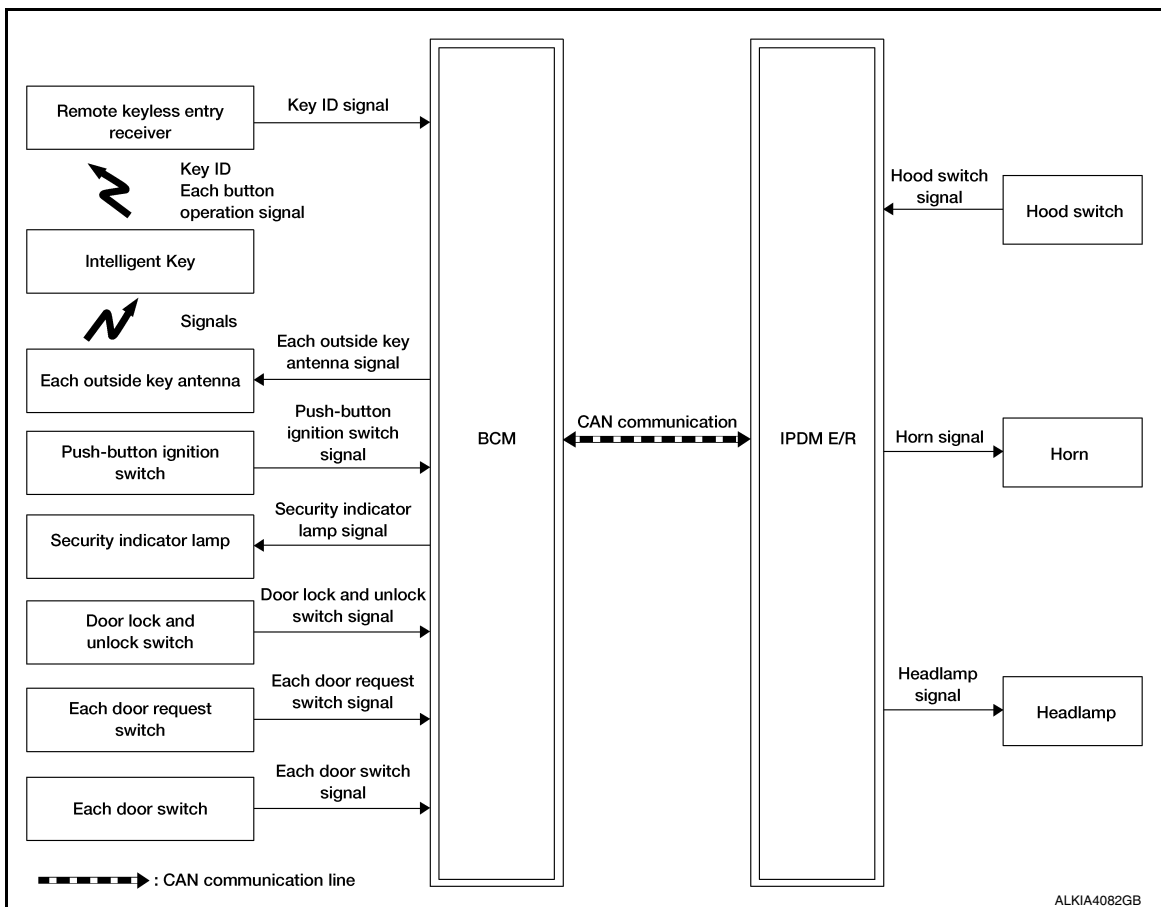
- Press and hold the push-button ignition switch for 2 seconds or more.
- Press the push-button ignition switch 3 times or more within 1.5 seconds.

## VEHICLE SECURITY SYSTEM

### VEHICLE SECURITY SYSTEM : System Description

INFOID:000000012152438

#### SYSTEM DIAGRAM



#### 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.

# SYSTEM

## < SYSTEM DESCRIPTION >

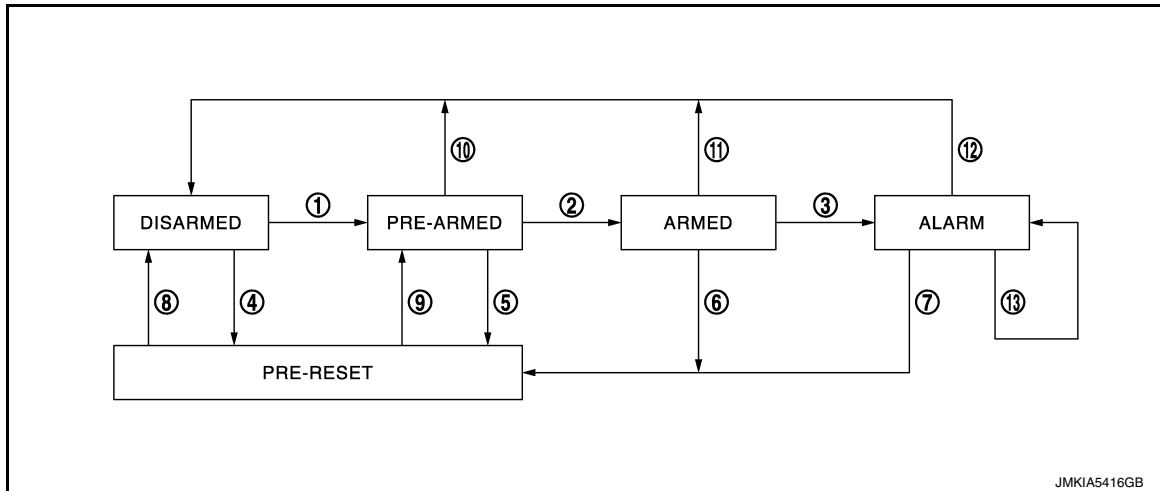
- The panic alarm does not start when the theft warning alarm is activating and the panic alarm stops when the theft warning alarm is activated.
- The priority of the functions are as per the following.

Priority	Function
1	Theft warning alarm
2	Panic alarm

## 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			
		A	B		
1	DISARMED to PRE-ARMED	When all conditions of A and one condition of B is satisfied.	<table border="1"> <tr> <td> <ul style="list-style-type: none"> <li>Power supply position: OFF/LOCK</li> <li>All doors: Closed</li> <li>Hood: Closed</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>All doors are locked by:               <ul style="list-style-type: none"> <li>Door key cylinder LOCK switch</li> <li>LOCK button of Intelligent Key</li> <li>Door request switch</li> </ul> </li> </ul> </td> </tr> </table>	<ul style="list-style-type: none"> <li>Power supply position: OFF/LOCK</li> <li>All doors: Closed</li> <li>Hood: Closed</li> </ul>	<ul style="list-style-type: none"> <li>All doors are locked by:               <ul style="list-style-type: none"> <li>Door key cylinder LOCK switch</li> <li>LOCK button of Intelligent Key</li> <li>Door request switch</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>Power supply position: OFF/LOCK</li> <li>All doors: Closed</li> <li>Hood: Closed</li> </ul>	<ul style="list-style-type: none"> <li>All doors are locked by:               <ul style="list-style-type: none"> <li>Door key cylinder LOCK switch</li> <li>LOCK button of Intelligent Key</li> <li>Door request switch</li> </ul> </li> </ul>				
2	PRE-ARMED to ARMED	When all of the following conditions are satisfied for 30 seconds.	<ul style="list-style-type: none"> <li>Power supply position: OFF/LOCK</li> <li>All doors: Locked</li> <li>Hood: Closed</li> </ul>		
3	ARMED to ALARM	When one condition of A and one condition of B are satisfied.	<table border="1"> <tr> <td>           A            Intelligent Key: Not used         </td> <td>           B  <ul style="list-style-type: none"> <li>Any door: Open</li> <li>Hood: Open</li> </ul> </td> </tr> </table>	A Intelligent Key: Not used	B <ul style="list-style-type: none"> <li>Any door: Open</li> <li>Hood: Open</li> </ul>
A Intelligent Key: Not used	B <ul style="list-style-type: none"> <li>Any door: Open</li> <li>Hood: Open</li> </ul>				
4	DISARMED to PRE-RESET	When all conditions of A and one condition of B is satisfied.	<table border="1"> <tr> <td>           A  <ul style="list-style-type: none"> <li>Power supply position: OFF/LOCK</li> <li>All doors: Closed</li> <li>Hood: Open</li> </ul> </td> <td>           B  <ul style="list-style-type: none"> <li>All doors are locked by:               <ul style="list-style-type: none"> <li>Door key cylinder LOCK switch</li> <li>LOCK button of Intelligent Key</li> <li>Door request switch</li> </ul> </li> </ul> </td> </tr> </table>	A <ul style="list-style-type: none"> <li>Power supply position: OFF/LOCK</li> <li>All doors: Closed</li> <li>Hood: Open</li> </ul>	B <ul style="list-style-type: none"> <li>All doors are locked by:               <ul style="list-style-type: none"> <li>Door key cylinder LOCK switch</li> <li>LOCK button of Intelligent Key</li> <li>Door request switch</li> </ul> </li> </ul>
A <ul style="list-style-type: none"> <li>Power supply position: OFF/LOCK</li> <li>All doors: Closed</li> <li>Hood: Open</li> </ul>	B <ul style="list-style-type: none"> <li>All doors are locked by:               <ul style="list-style-type: none"> <li>Door key cylinder LOCK switch</li> <li>LOCK button of Intelligent Key</li> <li>Door request switch</li> </ul> </li> </ul>				
5	PRE-ARMED to PRE-RESET	When one of the following conditions is satisfied.	<ul style="list-style-type: none"> <li>Hood: Open</li> </ul>		
6	ARMED to PRE-RESET	No conditions.			
7	ALARM to PRE-RESET				

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# SYSTEM

## < SYSTEM DESCRIPTION >

No.	System state	Switching condition	
8	PRE-RESET to DISARMED	When one of the following conditions is satisfied.	<ul style="list-style-type: none"> <li>Power supply position: ACC/ON/CRANKING/RUN</li> <li>Door key cylinder UNLOCK switch: ON</li> <li>UNLOCK button of Intelligent Key: ON</li> <li>Door request switch: ON</li> <li>UNLOCK switch of door lock and unlock switch: ON</li> <li>Any door: Open</li> </ul>
9	PRE-RESET to PRE-ARMED	When all of the following conditions are satisfied.	<ul style="list-style-type: none"> <li>Power supply position: OFF/LOCK</li> <li>All doors: Closed</li> <li>Hood: Closed</li> </ul>
10	PRE-ARMED to DISARMED	When one of the following conditions is satisfied.	<ul style="list-style-type: none"> <li>Power supply position: ACC/ON/CRANKING/RUN</li> <li>Door key cylinder UNLOCK switch: ON</li> <li>UNLOCK button of Intelligent Key: ON</li> <li>Door request switch: ON</li> <li>Any door: Open</li> </ul>
11	ARMED to DISARMED	When one of the following conditions is satisfied.	<ul style="list-style-type: none"> <li>Power supply position: ACC/ON/CRANKING/RUN</li> <li>Door key cylinder UNLOCK switch: ON</li> <li>UNLOCK button of Intelligent Key: ON</li> <li>Door request switch: ON</li> </ul>
12	ALARM to DISARMED		
13	RE-ALARM	When one of the following conditions is satisfied after the ALARM operation is finished.	<ul style="list-style-type: none"> <li>Any door: Open</li> <li>Hood: Open</li> </ul>

### 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"](#).

### 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.



# SYSTEM

## < SYSTEM DESCRIPTION >

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### 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

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## DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

### DIAGNOSIS SYSTEM (BCM)

#### COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:000000012250195

#### APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Direct Diagnostic Mode	Description
ECU Identification	The BCM part number is displayed.
Self Diagnostic Result	The BCM self diagnostic results are displayed.
Data Monitor	The BCM input/output data is displayed in real time.
Active Test	The BCM activates outputs to test components.
Work support	The settings for BCM functions can be changed.
Configuration	<ul style="list-style-type: none"> <li>• The vehicle specification can be read and saved.</li> <li>• The vehicle specification can be written when replacing BCM.</li> </ul>
CAN Diag Support Mntr	The result of transmit/receive diagnosis of CAN communication is displayed.

#### SYSTEM APPLICATION

BCM can perform the following functions:

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

#### FREEZE FRAME DATA (FFD)

# DIAGNOSIS SYSTEM (BCM)

## < SYSTEM DESCRIPTION >

The BCM records the following vehicle condition at the time a particular DTC is detected, and displays it on CONSULT.

CONSULT screen item	Indication/Unit	Description
Vehicle Speed	km/h	Vehicle speed at the moment a particular DTC is detected
Odo/Trip Meter	km	Total mileage (Odometer value) at the moment a particular DTC is detected
Vehicle Condition	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)	
IGN Counter	0 - 39	<p>The number of times that ignition switch is turned ON after DTC is detected</p> <ul style="list-style-type: none"> <li>• The number is 0 when a malfunction is detected now.</li> <li>• The number increases like 1 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition is switched OFF → ON.</li> <li>• The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.</li> </ul>

### 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)

INFOID:0000000012250196

### DATA MONITOR

## DIAGNOSIS SYSTEM (BCM)

### < SYSTEM DESCRIPTION >

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

# DIAGNOSIS SYSTEM (BCM)

## < SYSTEM DESCRIPTION >

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

## ACTIVE TEST

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

## WORK SUPPORT

Support Item	Setting	Description
IGN/ACC BATTERY SAVER	On*	Battery saver function ON.
	Off	Battery saver function OFF.

# DIAGNOSIS SYSTEM (BCM)

## < SYSTEM DESCRIPTION >

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

\*: Initial Setting

## THEFT ALM

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

INFOID:0000000012250197

## DATA MONITOR

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

# DIAGNOSIS SYSTEM (BCM)

## < SYSTEM DESCRIPTION >

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

## ACTIVE TEST

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

## WORK SUPPORT

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

## IMMU

### IMMU : CONSULT Function (BCM - IMMU)

INFOID:0000000012250198

### SELF DIAGNOSTIC RESULT

Refer to [BCS-53, "DTC Index"](#).

### DATA MONITOR

Monitor Item [Unit]	Description
CONFIRM ID ALL [Yet/DONE]	Switches to DONE when a registered Intelligent Key is inserted into the key slot.
CONFIRM ID4 [Yet/DONE]	
CONFIRM ID3 [Yet/DONE]	
CONFIRM ID2 [Yet/DONE]	
CONFIRM ID1 [Yet/DONE]	
NOT REGISTERED	Indicates [ID OK] when key ID that is registered is received or is not yet received. Indicates [ID NG] when key ID that is not registered is received.
TP 4 [Yet/DONE]	DONE indicates the number of Intelligent Key ID which has been registered.
TP 3 [Yet/DONE]	
TP 2 [Yet/DONE]	
TP 1 [Yet/DONE]	

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## DIAGNOSIS SYSTEM (BCM)

### < SYSTEM DESCRIPTION >

Monitor Item [Unit]	Description
PUSH SW [On/Off]	Indicates condition of push button ignition switch
TCU ID [Yet/DONE]	Indicates condition of telematics control unit

### ACTIVE TEST

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



# DIAGNOSIS SYSTEM (IPDM E/R)

< SYSTEM DESCRIPTION >

## DIAGNOSIS SYSTEM (IPDM E/R)

### CONSULT Function (IPDM E/R)

INFOID:000000012250199

#### APPLICATION ITEM

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

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

#### ECU IDENTIFICATION

The IPDM E/R part number is displayed.

#### SELF DIAGNOSTIC RESULT

Refer to [PCS-21, "DTC Index"](#).

#### DATA MONITOR

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

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## DIAGNOSIS SYSTEM (IPDM E/R)

### < SYSTEM DESCRIPTION >

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

### ACTIVE TEST

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

### CAN DIAG SUPPORT MNTR

Refer to [LAN-14. "CAN Diagnostic Support Monitor"](#).

# ECM, IPDM E/R, BCM

< ECU DIAGNOSIS INFORMATION >

## ECU DIAGNOSIS INFORMATION

ECM, IPDM E/R, BCM

List of ECU Reference

INFOID:0000000012152444

ECU	Reference
ECM	<a href="#">EC-86, "Reference Value"</a>
	<a href="#">EC-103, "Fail-safe"</a>
	<a href="#">EC-105, "DTC Inspection Priority Chart"</a>
	<a href="#">EC-107, "DTC Index"</a>
IPDM E/R	<a href="#">PCS-13, "Reference Value"</a>
	<a href="#">PCS-20, "Fail Safe"</a>
	<a href="#">PCS-21, "DTC Index"</a>
BCM	<a href="#">BCS-31, "Reference Value"</a>
	<a href="#">BCS-51, "Fail Safe"</a>
	<a href="#">BCS-52, "DTC Inspection Priority Chart"</a>
	<a href="#">BCS-53, "DTC Index"</a>

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# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

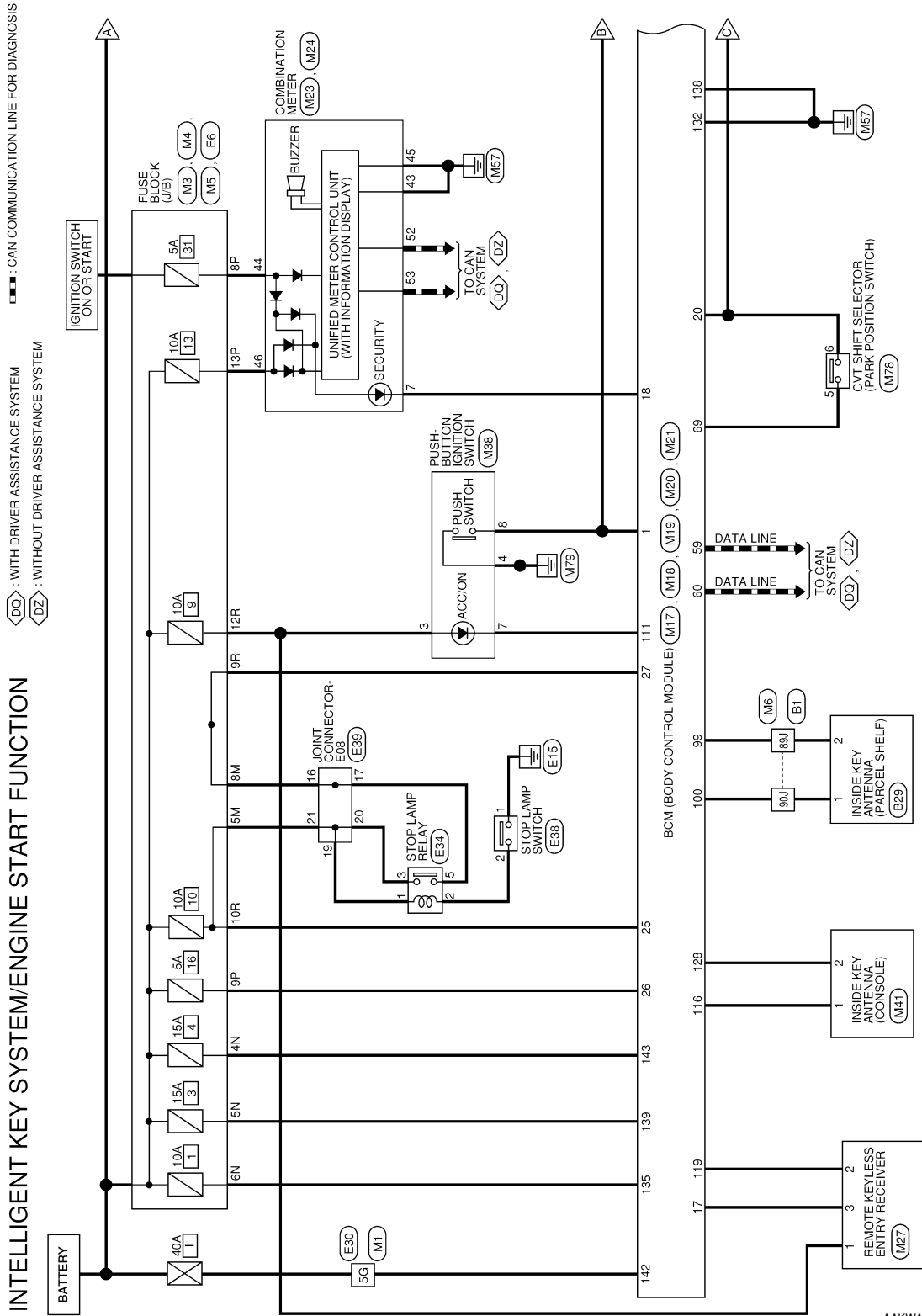
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## WIRING DIAGRAM

### INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

Wiring Diagram

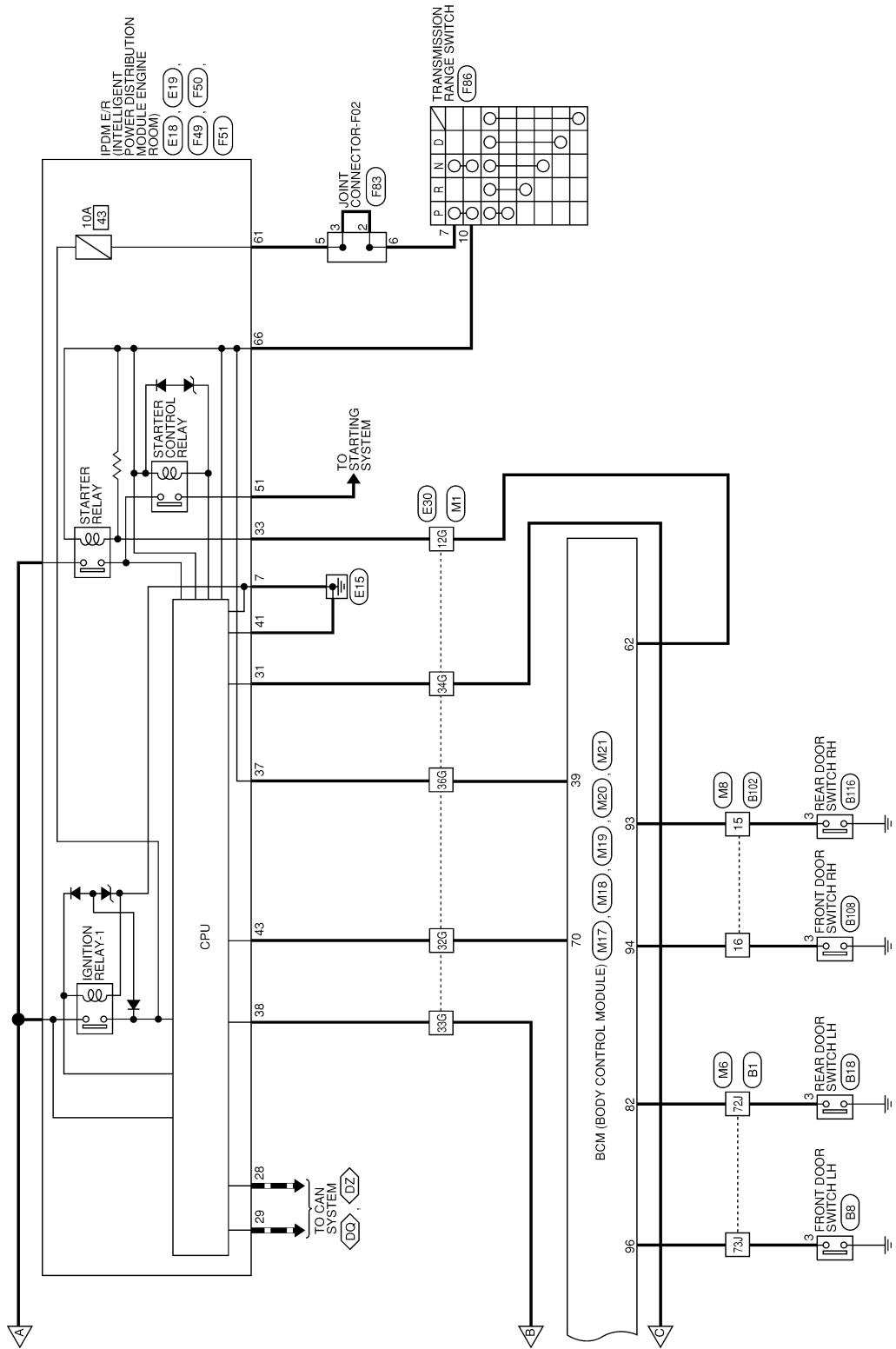
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AAKWA1275GB

# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >



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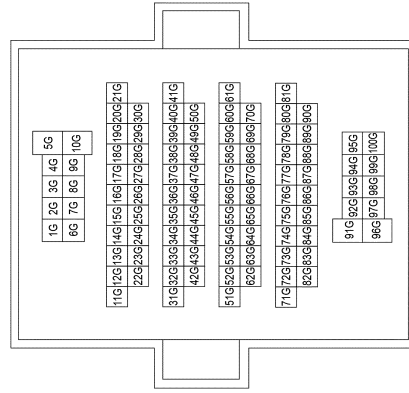
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# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

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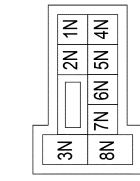
## INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION CONNECTORS

Connector No.	M1
Connector Name	WIRED TO WIRE
Connector Type	TH80FW-CS16-TM4
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5G	W	-
12G	V	-
32G	G	-
33G	R	-
34G	W	-
36G	L	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	CS06FW-M2
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
4N	V	-
5N	SB	-
6N	LG	-

Connector No.	M4
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FBR-CS
Connector Color	BROWN



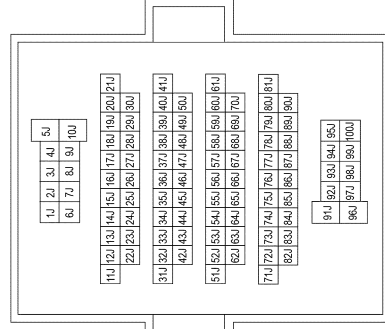
Terminal No.	Color of Wire	Signal Name
9R	G	-
10R	BG	-
12R	W	-

Connector No.	M5
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FW-CS
Connector Color	WHITE



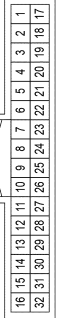
Terminal No.	Color of Wire	Signal Name
8P	BH	-
9P	Y	-
13P	G	-

Connector No.	M6
Connector Name	WIRED TO WIRE
Connector Type	TH80FDGY-CS16-TM4
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
72J	Y	-
73J	P	-
89J	G	-
90J	R	-

Connector No.	M8
Connector Name	WIRED TO WIRE
Connector Type	TH32FW-NH
Connector Color	WHITE




Terminal No.	Color of Wire	Signal Name
15	V	-
16	W	-

# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION


< WIRING DIAGRAM >

Connector No.	M21
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH
Connector Color	GREEN




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

Connector No.	M19
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH24FGY-NH
Connector Color	GRAY



92	91	90	89	88	87	86	85	84	83	82	81
104	103	102	101	100	99	98	97	96	95	94	93

Connector No.	M17
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA09FW-FHA6-SA
Connector Color	WHITE




129	130	131	132	133	134	135	136	137
138	139	140	141	142	143			

Terminal No.	Color of Wire	Signal Name
1	R	ENG START SW NO ESCL
17	B	GND RF A/L
18	G	SECURITY INDICATOR
20	W	SHIFT P
25	BG	BRAKE SW FUSE
26	Y	SHORTING INPUT
27	G	BRAKE SW LAMP
39	L	SHIFT N/P

Terminal No.	Color of Wire	Signal Name
82	Y	RL DOOR SW
83	V	RR DOOR SW
94	W	AS DOOR SW
96	P	DR DOOR SW
99	G	ROOM ANT 3 B
100	R	ROOM ANT 3 A


Terminal No.	Color of Wire	Signal Name
132	B	GND2
135	LG	BAT BCM FUSE
138	B	GND1
139	SB	BAT FRONT DOOR
142	W	BAT-POWER FIL
143	V	BAT REAR DOOR

Connector No.	M23
Connector Name	COMBINATION METER
Connector Type	TH16FW-NH
Connector Color	WHITE



41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56

Connector No.	M20
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH
Connector Color	BLACK



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

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH24FB-NH
Connector Color	BLACK



116	115	114	113	112	111	110	109	108	107	106	105
128	127	126	125	124	123	122	121	120	119	118	117

Terminal No.	Color of Wire	Signal Name
43	B	GND1
44	BR	POWER (IGN)
45	B	GND2
46	G	POWER (BAT)
52	P	CAN-L
53	L	CAN-H

Terminal No.	Color of Wire	Signal Name
59	P	CAN-L
60	L	CAN-H
62	V	STARTER RELAY OUT
69	L	AT DEVICE OUT
70	G	IGN USM OUT 1

Terminal No.	Color of Wire	Signal Name
111	Y	ACC LED
116	W	ROOM ANT 2 A
119	G	RF NIMOCO
128	BG	ROOM ANT 2 B

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SEC

# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

8M	W	-
Connector No.	E18	
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	
Connector Type	NS12FW-CS	
Connector Color	WHITE	



7	8	9	10	11
12	13	14	15	16
17	18			

Terminal No.	7	Color of Wire	B	Signal Name	P-GND
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Connector No.	E19	
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	
Connector Type	TH32FW-NH	
Connector Color	WHITE	



19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50

Terminal No.	28	31	33	37	38	41	43	Color of Wire	P	V	R	Y	B	LG	Signal Name	CAN-L	DETENT SW	START CONT	CLUTCH/L SW	PUSH START SW	S-GND	IGN SIGNAL
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8	R	-
Connector No.	M41	
Connector Name	INSIDE KEY ANTENNA (CONSOLE)	
Connector Type	RK02FGY	
Connector Color	GRAY	



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Terminal No.	1	2	Color of Wire	W	BG	Signal Name	-
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Connector No.	M78	
Connector Name	CVT SHIFT SELECTOR	
Connector Type	TH16FW-NH	
Connector Color	WHITE	



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

Terminal No.	5	6	Color of Wire	L	W	Signal Name	-
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Connector No.	E6	
Connector Name	FUSE BLOCK (J/B)	
Connector Type	NS10FW-CS	
Connector Color	WHITE	



4M	3M	2M	1M
10M	9M	8M	7M
6M	5M		

Terminal No.	5M	Color of Wire	P	Signal Name	-
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Connector No.	M24	
Connector Name	COMBINATION METER	
Connector Type	TH40FW-NH	
Connector Color	WHITE	



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

Terminal No.	7	Color of Wire	G	Signal Name	SECURITY
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Connector No.	M27	
Connector Name	REMOTE KEYLESS ENTRY RECEIVER	
Connector Type	AAC04FB	
Connector Color	BLACK	



1	2	3	4
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Terminal No.	1	2	3	Color of Wire	W	G	B	Signal Name	-	-	-
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Connector No.	M38	
Connector Name	PUSH-BUTTON IGNITION SWITCH	
Connector Type	TH08FW-NH	
Connector Color	WHITE	



4	3
5	6
7	8

Terminal No.	3	4	7	Color of Wire	W	B	Y	Signal Name	-	-	-
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# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

Connector No.	F49
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	M01FB-LC
Connector Color	BLACK



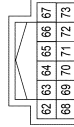
Terminal No.	Color of Wire	Signal Name
51	R	STARTER MOTOR

Connector No.	F50
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS10FW-CS
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
61	Y	AT ECU

Connector No.	F51
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	TH12PW-NH
Connector Color	WHITE



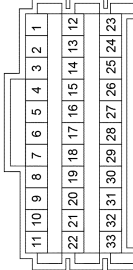
Terminal No.	Color of Wire	Signal Name
66	LG	NPSW

5	W	-
Connector No.	E38	STOP LAMP SWITCH
Connector Type	M04FW-LC	WHITE
Connector Color	WHITE	



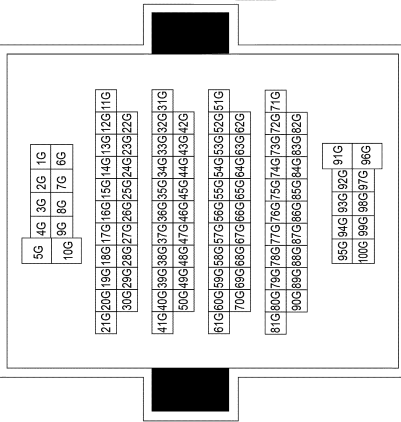
Terminal No.	Color of Wire	Signal Name
1	B	-
2	R	-

Connector No.	E39
Connector Name	JOINT CONNECTOR-E08
Connector Type	BU30FW
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
16	W	-
17	W	-
19	P	-
20	P	-
21	P	-

Connector No.	E30
Connector Name	WIRES TO WIRE
Connector Type	TH80MW-CS16-TM4
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5G	P	-
12G	R	-
32G	LG	-
33G	R	-
34G	V	-
36G	Y	-

Connector No.	E34
Connector Name	STOP LAMP RELAY
Connector Type	MS02FL-M2-LC
Connector Color	BLUE



Terminal No.	Color of Wire	Signal Name
1	P	-
2	R	-
3	P	-

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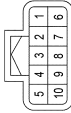
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# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

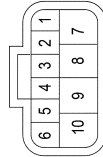
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Connector No.	F83
Connector Name	JOINT CONNECTOR-F02
Connector Type	RH10FB
Connector Color	BLACK



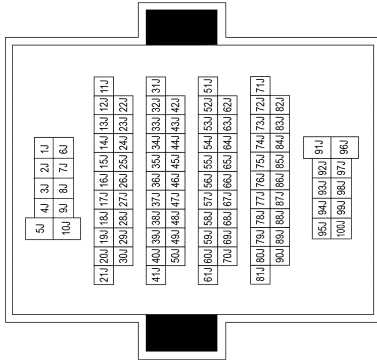
Terminal No.	Color of Wire	Signal Name
2	Y	-
3	Y	-
5	Y	-
6	Y	-

Connector No.	F86
Connector Name	TRANSMISSION RANGE SWITCH
Connector Type	YDX06FB-HS4
Connector Color	BLACK



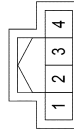
Terminal No.	Color of Wire	Signal Name
7	Y	-
10	LG	-

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80MDGY-CS16-TM4
Connector Color	GRAY



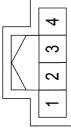
Terminal No.	Color of Wire	Signal Name
72J	Y	-
73J	BR	-
88J	R	-
90J	BG	-

Connector No.	B8
Connector Name	FRONT DOOR SWITCH LH
Connector Type	TH04FW-NH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	BR	-

Connector No.	B18
Connector Name	REAR DOOR SWITCH LH
Connector Type	TH04FW-NH
Connector Color	WHITE



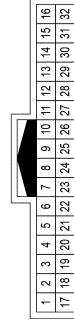
Terminal No.	Color of Wire	Signal Name
3	Y	-

Connector No.	B29
Connector Name	INSIDE KEY ANTENNA (PARCEL SHELF)
Connector Type	RK02FGY
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	BG	-
2	R	-

Connector No.	B102
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH
Connector Color	WHITE



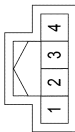
Terminal No.	Color of Wire	Signal Name
15	V	-
16	SB	-

# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

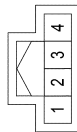
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Connector No.	B108
Connector Name	FRONT DOOR SWITCH RH
Connector Type	TH04FW-NH
Connector Color	WHITE



Terminal No.	3	Color of Wire	SB	Signal Name	-
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Connector No.	B116
Connector Name	REAR DOOR SWITCH RH
Connector Type	TH04FW-NH
Connector Color	WHITE



Terminal No.	3	Color of Wire	V	Signal Name	-
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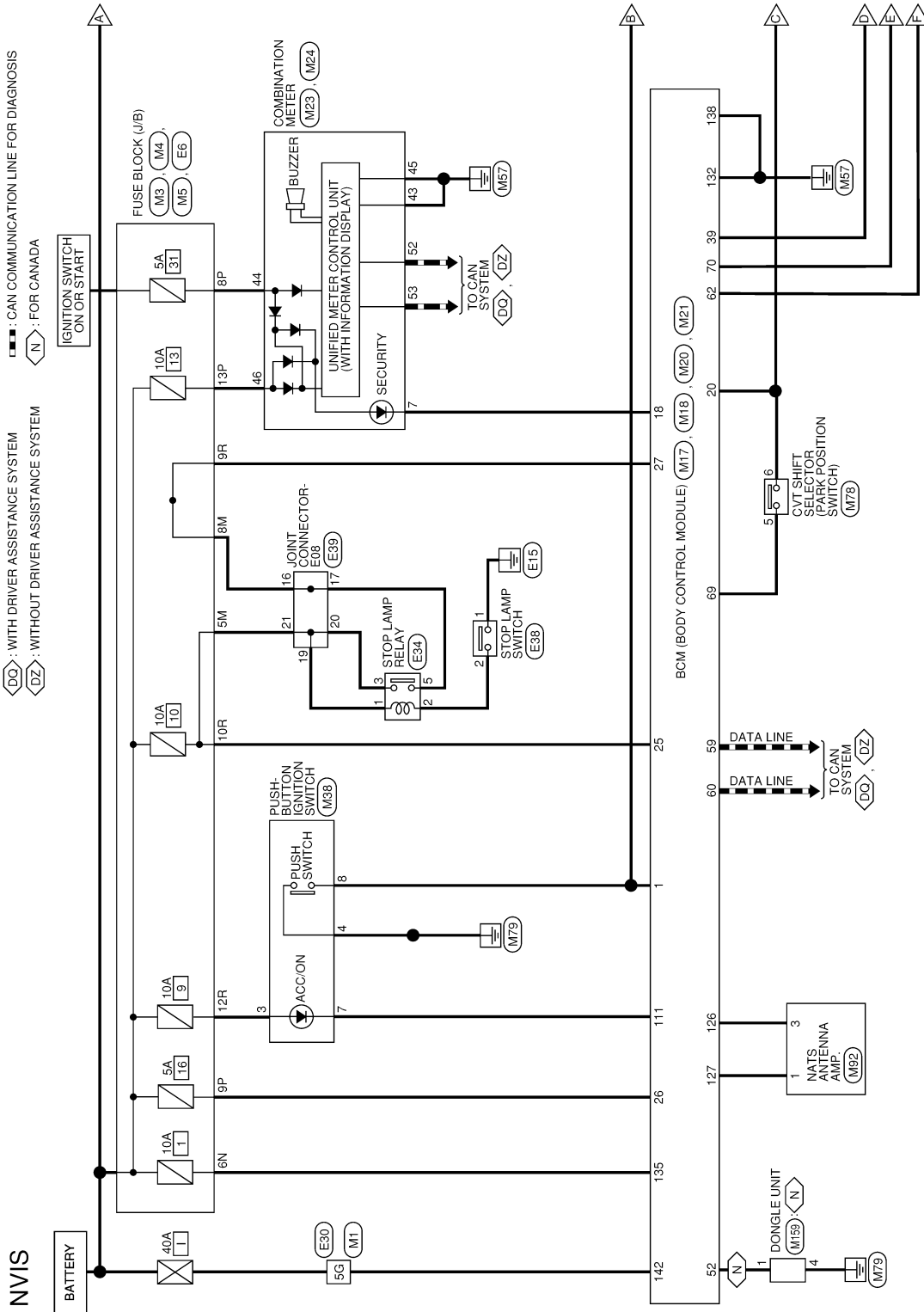
# NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS

< WIRING DIAGRAM >

## NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS

### Wiring Diagram

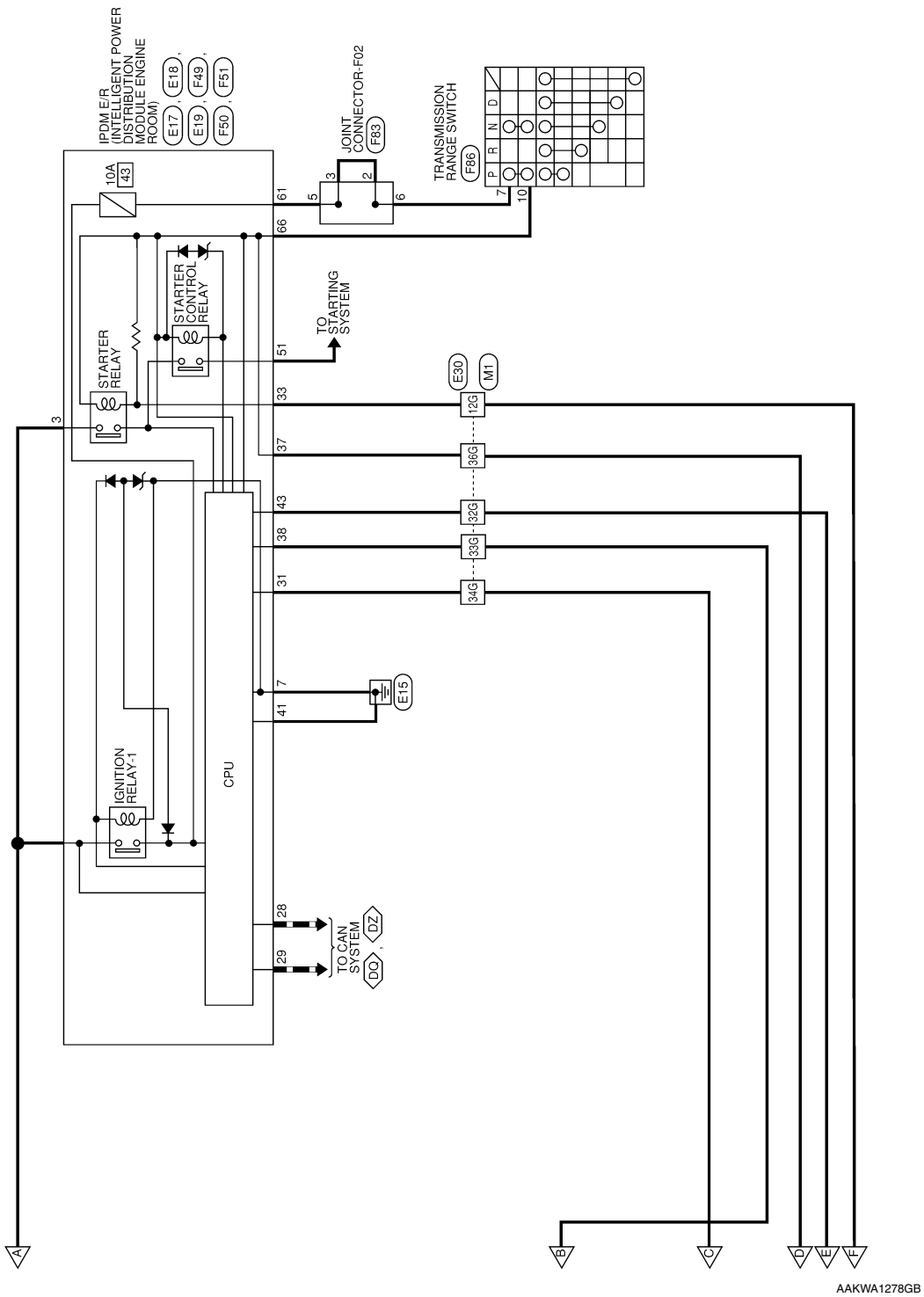
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# NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS

< WIRING DIAGRAM >



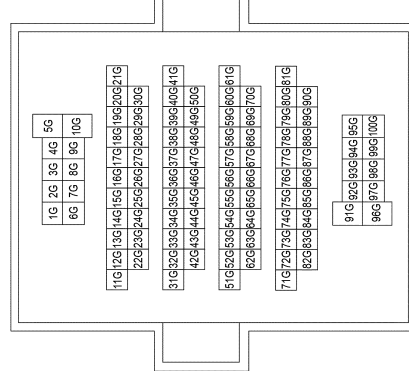
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# NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS

< WIRING DIAGRAM >

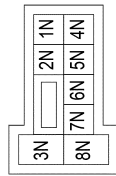
## NVIS CONNECTORS

Connector No.	M1
Connector Name	WIRES TO WIRE
Connector Type	TH80FW-CST6-TM4
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5G	W	-
12G	V	-
32G	G	-
33G	R	-
34G	W	-
36G	L	-

Connector No.	M3
Connector Name	FUSE BLOC (J/B)
Connector Type	CS06FW-M2
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
8N	LG	-

Connector No.	M4
Connector Name	FUSE BLOC (J/B)
Connector Type	NS16FBR-CS
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
9R	G	-
10R	BG	-
12R	W	-

Connector No.	M5
Connector Name	FUSE BLOC (J/B)
Connector Type	NS16FW-CS
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
8P	BH	-
9P	Y	-
13P	G	-

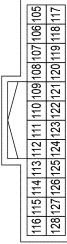
Connector No.	M17
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA09FW-FHA6-SA
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name						
129	130	131	132	133	134	135	136	137
138	139	140	141	142	143			

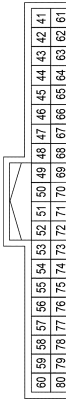
132	B	GND2
135	LG	BAT BCM FUSE
138	B	GND1
142	W	BAT-POWER F/L

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH24FB-NH
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
111	Y	ACC LED
126	G	IMMO ANT B
127	W	IMMO ANT A

Connector No.	M20
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
52	G	AUDIO DONGLE(FOR CANADA)
59	P	CAN-L
60	L	CAN-H
62	V	STARTER RELAY OUT
69	L	AT DEVICE OUT
70	G	IGN USM OUT.1

# NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS

< WIRING DIAGRAM >

6	W	-
Connector No.	M92	
Connector Name	NATS ANTENNA AMP.	
Connector Type	NH03FW	
Connector Color	WHITE	



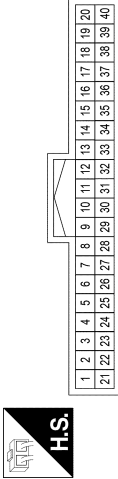
Terminal No.	Color of Wire	Signal Name
1	W	-
3	G	-

Connector No.	M159
Connector Name	DONGLE UNIT
Connector Type	TH04FW-NH
Connector Color	WHITE



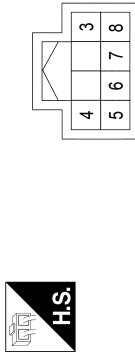
Terminal No.	Color of Wire	Signal Name
1	G	-
4	GR	-

Connector No.	M24
Connector Name	COMBINATION METER
Connector Type	TH40FW-NH
Connector Color	WHITE



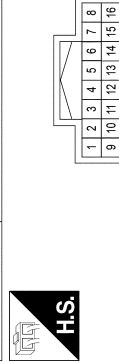
Terminal No.	Color of Wire	Signal Name
7	G	SECURITY

Connector No.	M38
Connector Name	PUSH-BUTTON IGNITION SWITCH
Connector Type	TH08FW-NH
Connector Color	WHITE



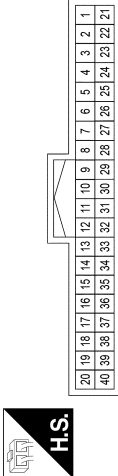
Terminal No.	Color of Wire	Signal Name
3	W	-
4	B	-
7	Y	-
8	R	-

Connector No.	M78
Connector Name	CVT SHIFT SELECTOR
Connector Type	TH16FW-NH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5	L	-

Connector No.	M21
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH
Connector Color	GREEN



Terminal No.	Color of Wire	Signal Name
1	R	ENG START SW NO ESCL
18	G	SECURITY INDICATOR
20	W	SHIFT P
25	BG	BRAKE SW FUSE
26	Y	SHORTING INPUT
27	G	BRAKE SW LAMP
39	L	SHIFT NP

Connector No.	M23
Connector Name	COMBINATION METER
Connector Type	TH16FW-NH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
43	B	GND1
44	BR	POWER (IGN)
45	B	GND2
46	G	POWER (BAT)
52	P	CAN-L
53	L	CAN-H

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# NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS

< WIRING DIAGRAM >

12G	R	-
32G	LG	-
33G	R	-
34G	V	-
36G	Y	-

Connector No.	E34
Connector Name	STOP LAMP RELAY
Connector Type	MS02FL-M2-LC
Connector Color	BLUE



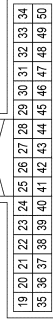
Terminal No.	Color of Wire	Signal Name
1	P	-
2	R	-
3	P	-
5	W	-

Connector No.	E38
Connector Name	STOP LAMP SWITCH
Connector Type	M04FW-LC
Connector Color	WHITE



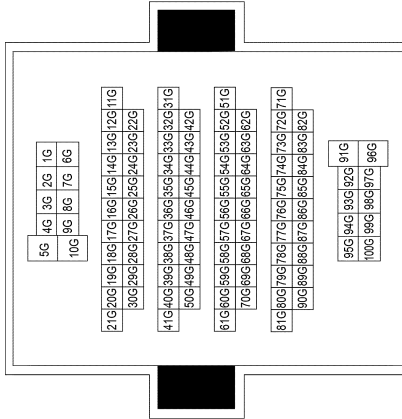
Terminal No.	Color of Wire	Signal Name
1	B	-
2	R	-

Connector No.	E19
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	TH32FW-NH
Connector Color	WHITE



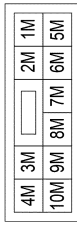
Terminal No.	Color of Wire	Signal Name
28	P	CAN-L
29	L	CAN-H
31	V	DETENT SW
33	R	START CONT
37	Y	CLUTCH IL SW
38	R	PUSH START SW
41	B	S-GND
43	LG	IGN SIGNAL

Connector No.	E30
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5G	P	-

Connector No.	E6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS10FW-CS
Connector Color	WHITE



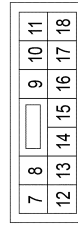
Terminal No.	Color of Wire	Signal Name
5M	P	-
8M	W	-

Connector No.	E17
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	M04FW-LC
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	G	F/LIGNSW

Connector No.	E18
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS12FW-CS
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
7	B	P-GND

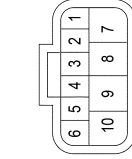
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# NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS

< WIRING DIAGRAM >

Connector No.	6	Y	-
Connector Name	F86		
Connector Type	TRANSMISSION RANGE SWITCH		
Connector Color	BLACK		



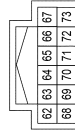
Terminal No.	Color of Wire	Signal Name
7	Y	-
10	LG	-

Connector No.	F50
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS10FW-CS
Connector Color	WHITE



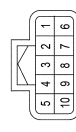
Terminal No.	Color of Wire	Signal Name
61	Y	AT ECU

Connector No.	F51
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	TH12FW-NH
Connector Color	WHITE



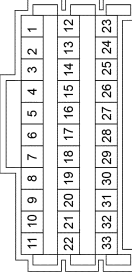
Terminal No.	Color of Wire	Signal Name
66	LG	NPSW

Connector No.	F83
Connector Name	JOINT CONNECTOR-F02
Connector Type	RH10FB
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
2	Y	-
3	Y	-
5	Y	-

Connector No.	E39
Connector Name	JOINT CONNECTOR-E08
Connector Type	BJ30FW
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
16	W	-
17	W	-
19	P	-
20	P	-
21	P	-

Connector No.	F49
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	M01FB-LC
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
51	R	STARTER MOTOR

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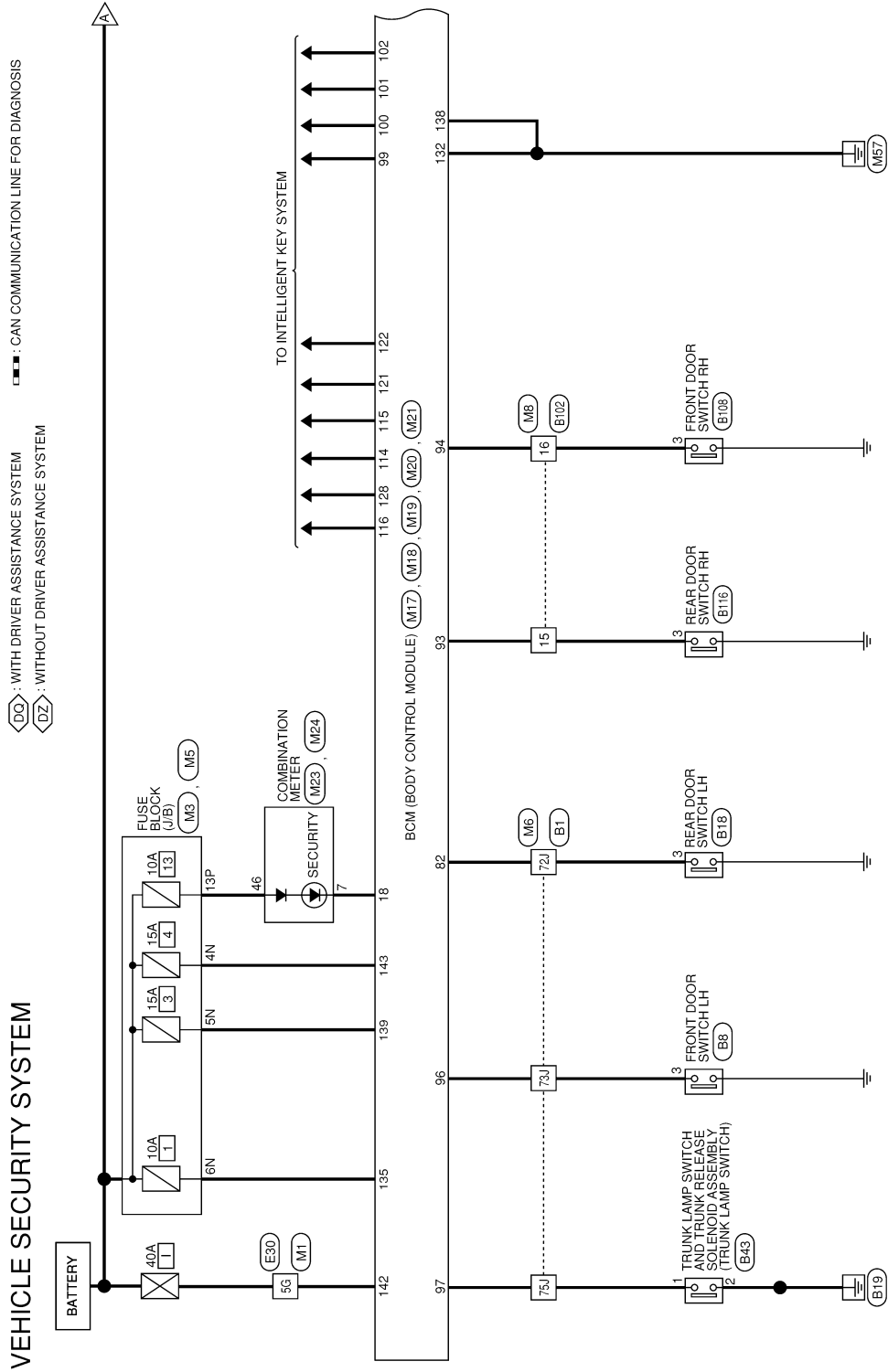
# VEHICLE SECURITY SYSTEM

< WIRING DIAGRAM >

## VEHICLE SECURITY SYSTEM

### Wiring Diagram

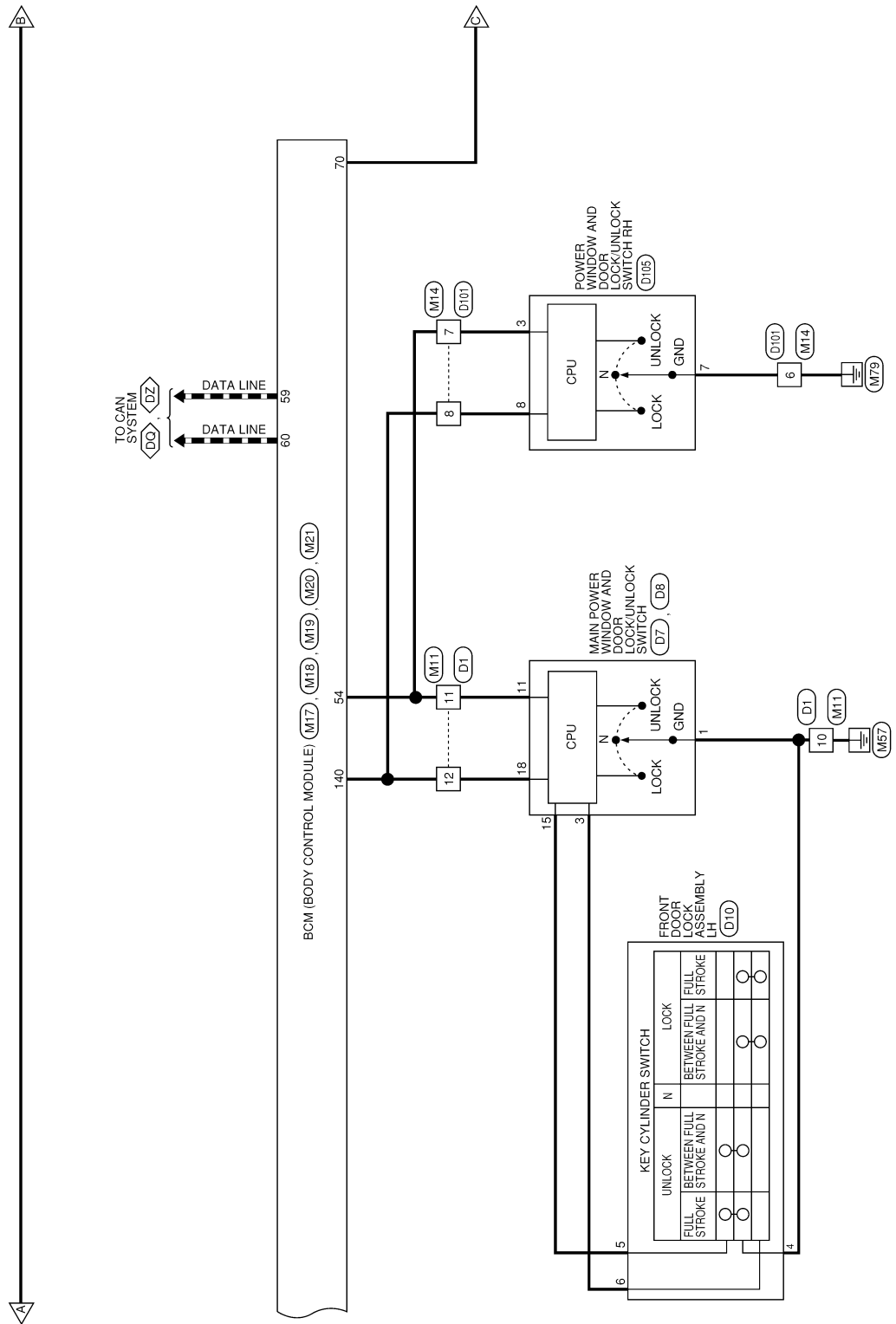
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# VEHICLE SECURITY SYSTEM

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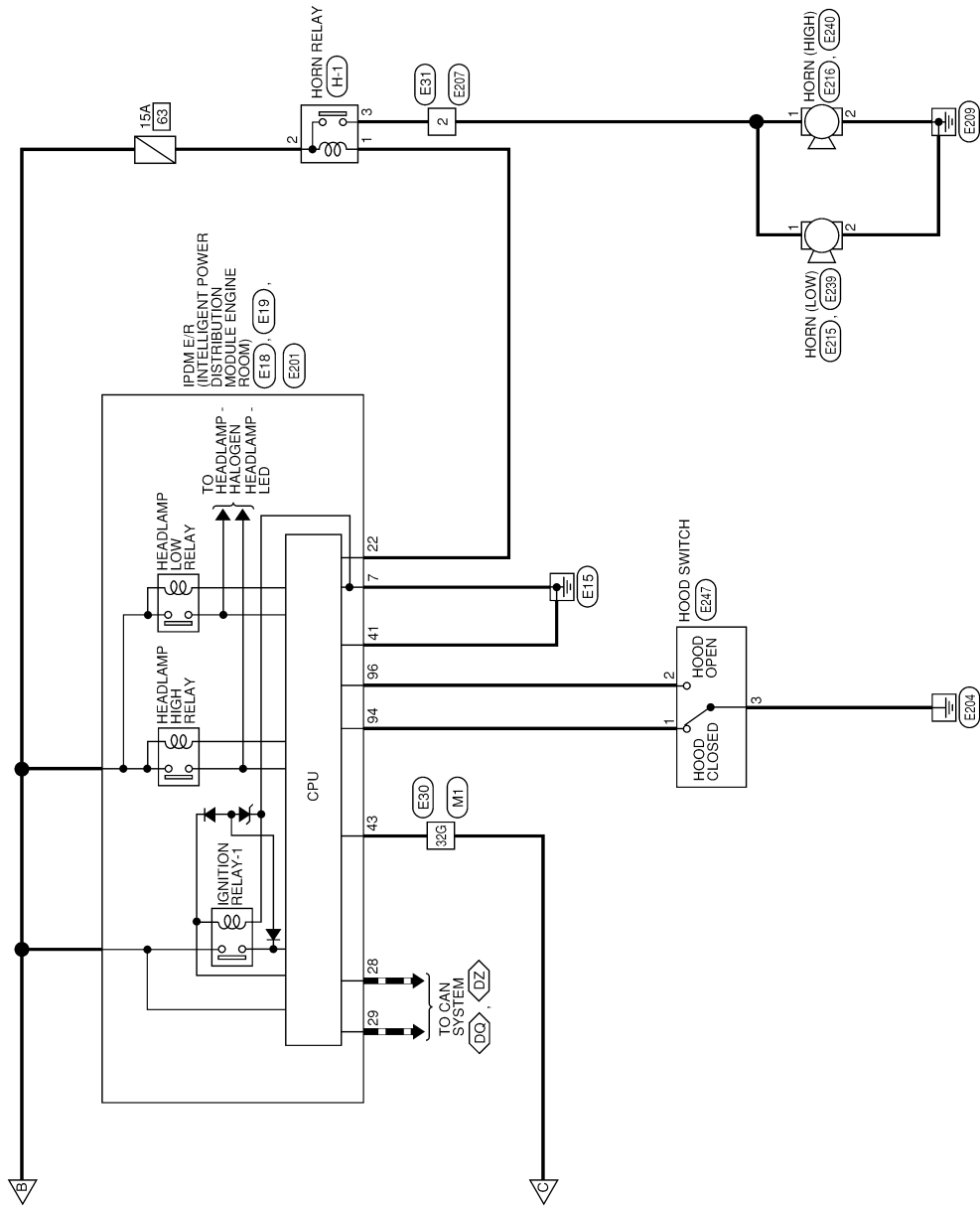
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# VEHICLE SECURITY SYSTEM

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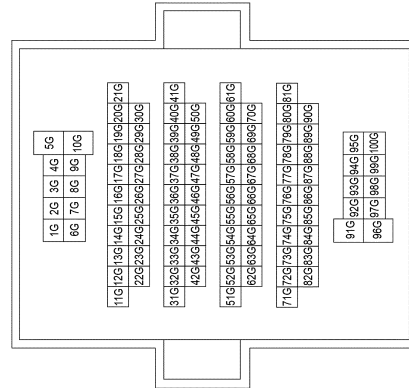
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# VEHICLE SECURITY SYSTEM

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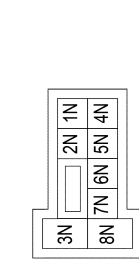
## VEHICLE SECURITY SYSTEM CONNECTORS

Connector No.	M1
Connector Name	WIRED TO WIRE
Connector Type	TH80FW-CS16-TM4
Connector Color	WHITE



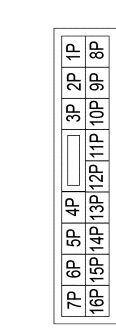
Terminal No.	5G	W	G
Color of Wire	W	W	G
Signal Name	-	-	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	CS06FW-M2
Connector Color	WHITE



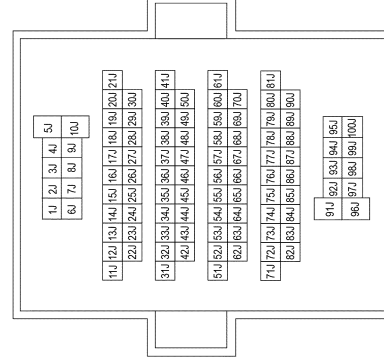
Terminal No.	4N	5N	6N
Color of Wire	V	SB	LG
Signal Name	-	-	-

Connector No.	M5
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FW-CS
Connector Color	WHITE



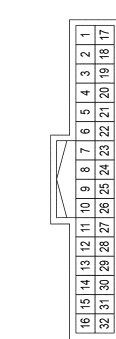
Terminal No.	13P	G
Color of Wire	G	G
Signal Name	-	-

Connector No.	M6
Connector Name	WIRED TO WIRE
Connector Type	TH80FDGY-CS16-TM4
Connector Color	GRAY



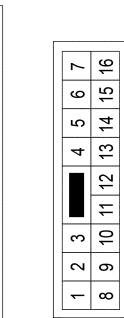
Terminal No.	72J	Y	-
Color of Wire	Y	P	L
Signal Name	-	-	-

Connector No.	M8
Connector Name	WIRED TO WIRE
Connector Type	TH32FW-NH
Connector Color	WHITE



Terminal No.	15	V	-
Color of Wire	V	W	-
Signal Name	-	-	-

Connector No.	M11
Connector Name	WIRED TO WIRE
Connector Type	NS16MM-CS
Connector Color	WHITE



Terminal No.	10	B	-
Color of Wire	B	P	V
Signal Name	-	-	-

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# VEHICLE SECURITY SYSTEM

< WIRING DIAGRAM >

Connector No.	M14
Connector Name	WIRES TO WIRE
Connector Type	NST0MW-CS
Connector Color	WHITE



1	2	3	4
5	6	7	8
9	10		

Terminal No.	Color of Wire	Signal Name
6	GR	-
7	P	-
8	V	-

Connector No.	M17
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA09FW-FHA6-SA
Connector Color	WHITE



129	130	131	132	133	134	135	136	137
138	139	140	141	142	143			

Terminal No.	Color of Wire	Signal Name
132	B	GND2
135	LG	BAT BCM FUSE
138	B	GND1
139	SB	BAT FRONT DOOR
140	V	P/W POWER SUPPLY BAT
142	W	BAT-POWER F/L
143	V	BAT REAR DOOR

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH24FB-NH
Connector Color	BLACK



116	115	114	113	112	111	110	109	108	107	106	105
128	127	126	125	124	123	122	121	120	119	118	117

Terminal No.	Color of Wire	Signal Name
114	P	AS DOOR ANT A
115	R	AS DOOR ANT B
116	W	ROOM ANT 2 A
121	R	DR DOOR ANT B
122	P	DR DOOR ANT A
128	BG	ROOM ANT 2 B

Connector No.	M19
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH24FGY-NH
Connector Color	GRAY



92	91	90	89	88	87	86	85	84	83	82	81
104	103	102	101	100	99	98	97	96	95	94	93

Terminal No.	Color of Wire	Signal Name
82	Y	RL DOOR SW
93	V	RR DOOR SW
94	W	AS DOOR SW
96	P	DR DOOR SW
97	L	TRUNK SW
99	G	ROOM ANT 3 B
100	R	ROOM ANT 3 A
101	G	TRUNK ANT B
102	W	TRUNK ANT A

Connector No.	M20
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH
Connector Color	BLACK



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

Terminal No.	Color of Wire	Signal Name
54	P	PW LIN
59	P	CAN-L
60	L	CAN-H
70	G	IGN USM OUT 1

Connector No.	M21
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH
Connector Color	GREEN



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

Terminal No.	Color of Wire	Signal Name
18	G	SECURITY INDICATOR

Connector No.	M23
Connector Name	COMBINATION METER
Connector Type	TH16FW-NH
Connector Color	WHITE

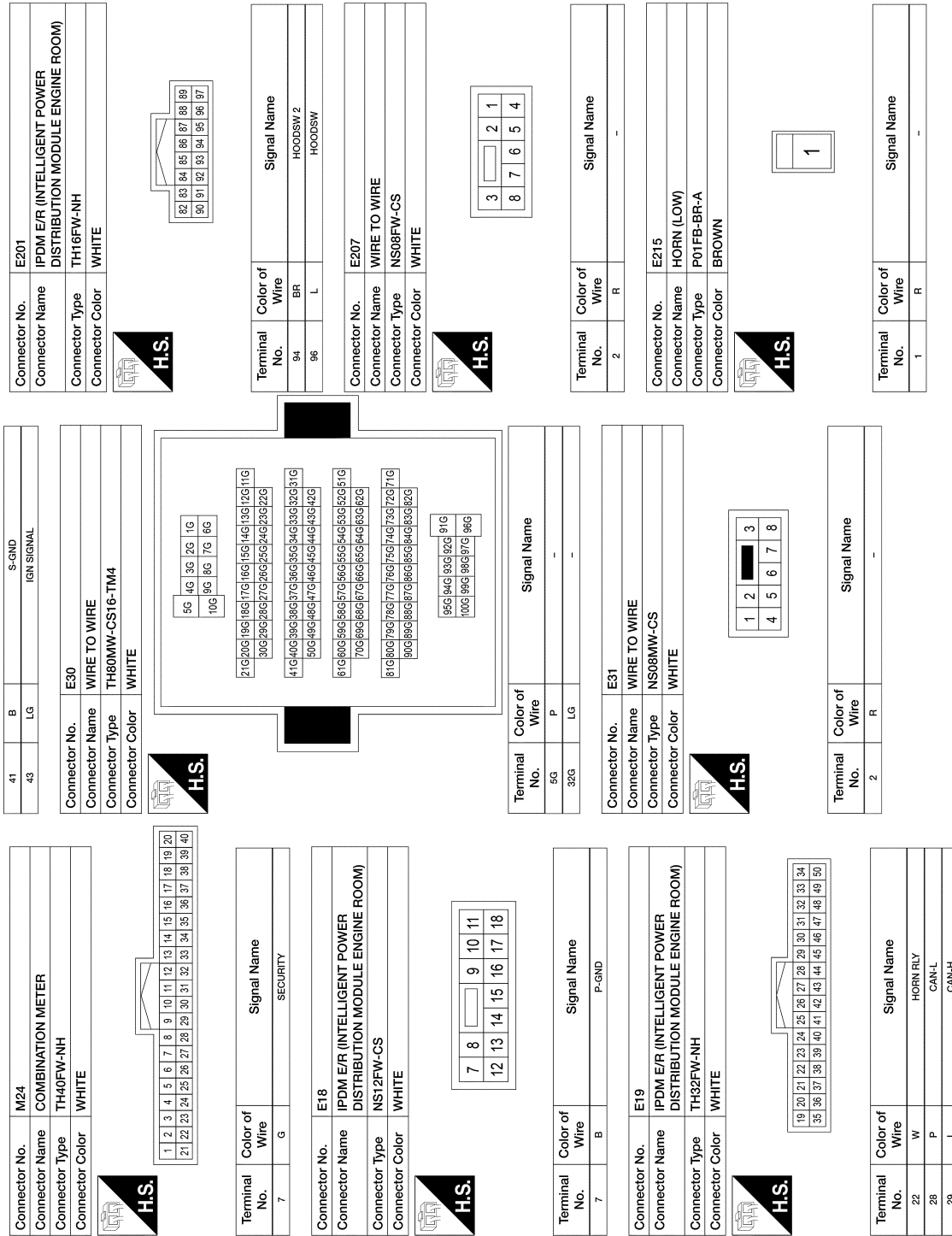


41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56

Terminal No.	Color of Wire	Signal Name
46	G	POWER (BAT)

# VEHICLE SECURITY SYSTEM

< WIRING DIAGRAM >



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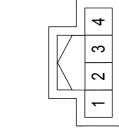
SEC

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# VEHICLE SECURITY SYSTEM

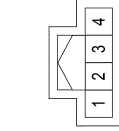
< WIRING DIAGRAM >

Connector No.	B8
Connector Name	FRONT DOOR SWITCH LH
Connector Type	TH04FW-NH
Connector Color	WHITE



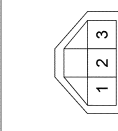
Terminal No.	3	Color of Wire	BR	Signal Name	-
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Connector No.	B18
Connector Name	REAR DOOR SWITCH LH
Connector Type	TH04FW-NH
Connector Color	WHITE



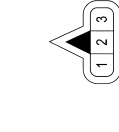
Terminal No.	3	Color of Wire	Y	Signal Name	-
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Connector No.	B43
Connector Name	TRUNK LAMP SWITCH AND TRUNK RELEASE SOLENOID ASSEMBLY
Connector Type	TB03FW-LC
Connector Color	WHITE



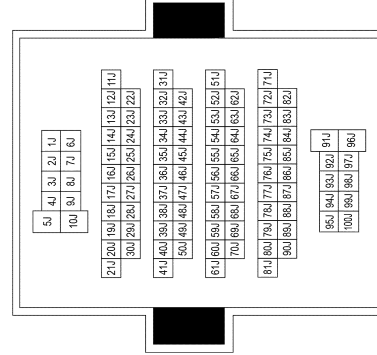
Terminal No.	1	Color of Wire	W	Signal Name	-
Terminal No.	2	Color of Wire	GR	Signal Name	-

Connector No.	E247
Connector Name	HOOD SWITCH
Connector Type	RK03MBR
Connector Color	BROWN



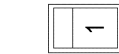
Terminal No.	1	Color of Wire	BR	Signal Name	-
Terminal No.	2	Color of Wire	L	Signal Name	-
Terminal No.	3	Color of Wire	B	Signal Name	-

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80MDGY-CS16-TM4
Connector Color	GRAY



Terminal No.	72J	Color of Wire	Y	Signal Name	-
Terminal No.	73J	Color of Wire	BR	Signal Name	-
Terminal No.	75J	Color of Wire	W	Signal Name	-

Connector No.	E216
Connector Name	HORN (HIGH)
Connector Type	P01FB-BR-A
Connector Color	BROWN



Terminal No.	1	Color of Wire	R	Signal Name	-
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Connector No.	E239
Connector Name	HORN (LOW)
Connector Type	P01FB-A
Connector Color	BLACK



Terminal No.	2	Color of Wire	B	Signal Name	-
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Connector No.	E240
Connector Name	HORN (HIGH)
Connector Type	P01FB-A
Connector Color	BLACK



Terminal No.	2	Color of Wire	B	Signal Name	-
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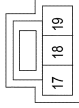
AAKIA3085GB



# VEHICLE SECURITY SYSTEM

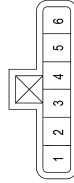
< WIRING DIAGRAM >

Connector No.	D8
Connector Name	MAIN POWER WINDOW AND DOOR LOCK/ UNLOCK SWITCH
Connector Type	NS03FW-CS
Connector Color	WHITE



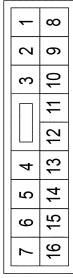
Terminal No.	Color of Wire	Signal Name
18	LG	BAT

Connector No.	D10
Connector Name	FRONT DOOR LOCK ASSEMBLY LH
Connector Type	E06FGY-RS
Connector Color	GRAY



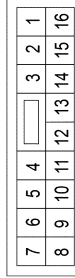
Terminal No.	Color of Wire	Signal Name
4	B	-
5	G	-
6	P	-

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
10	B	-
11	P	-
12	LG	-

Connector No.	D7
Connector Name	MAIN POWER WINDOW AND DOOR LOCK/ UNLOCK SWITCH
Connector Type	NS16FW-CS
Connector Color	WHITE



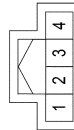
Terminal No.	Color of Wire	Signal Name
1	B	GND
3	P	D LOCK ACTR DR
11	P	COM
15	G	D LOCK ACTR DR

Connector No.	B102
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
15	V	-
16	SB	-

Connector No.	B108
Connector Name	FRONT DOOR SWITCH RH
Connector Type	TH04FW-NH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	SB	-

Connector No.	B116
Connector Name	REAR DOOR SWITCH RH
Connector Type	TH04FW-NH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	V	-

AAKIA3086GB

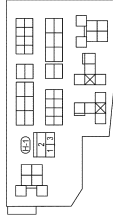
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# VEHICLE SECURITY SYSTEM

< WIRING DIAGRAM >

Connector No.	H-1
Connector Name	FUSE, FUSIBLE LINK AND RELAY BOX (HORN RELAY)
Connector Type	24381-7990A
Connector Color	-



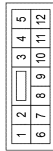
Terminal No.	Color of Wire	Signal Name
1	W	-
2	W	-
3	R	-

Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
6	B	-
7	P	-
8	LG	-

Connector No.	D105
Connector Name	POWER WINDOW AND DOOR LOCK/ UNLOCK SWITCH RH
Connector Type	NS12FW-CS
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	P	COM
7	B	GND
8	LG	BAT

AAKIA3087GB

# DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

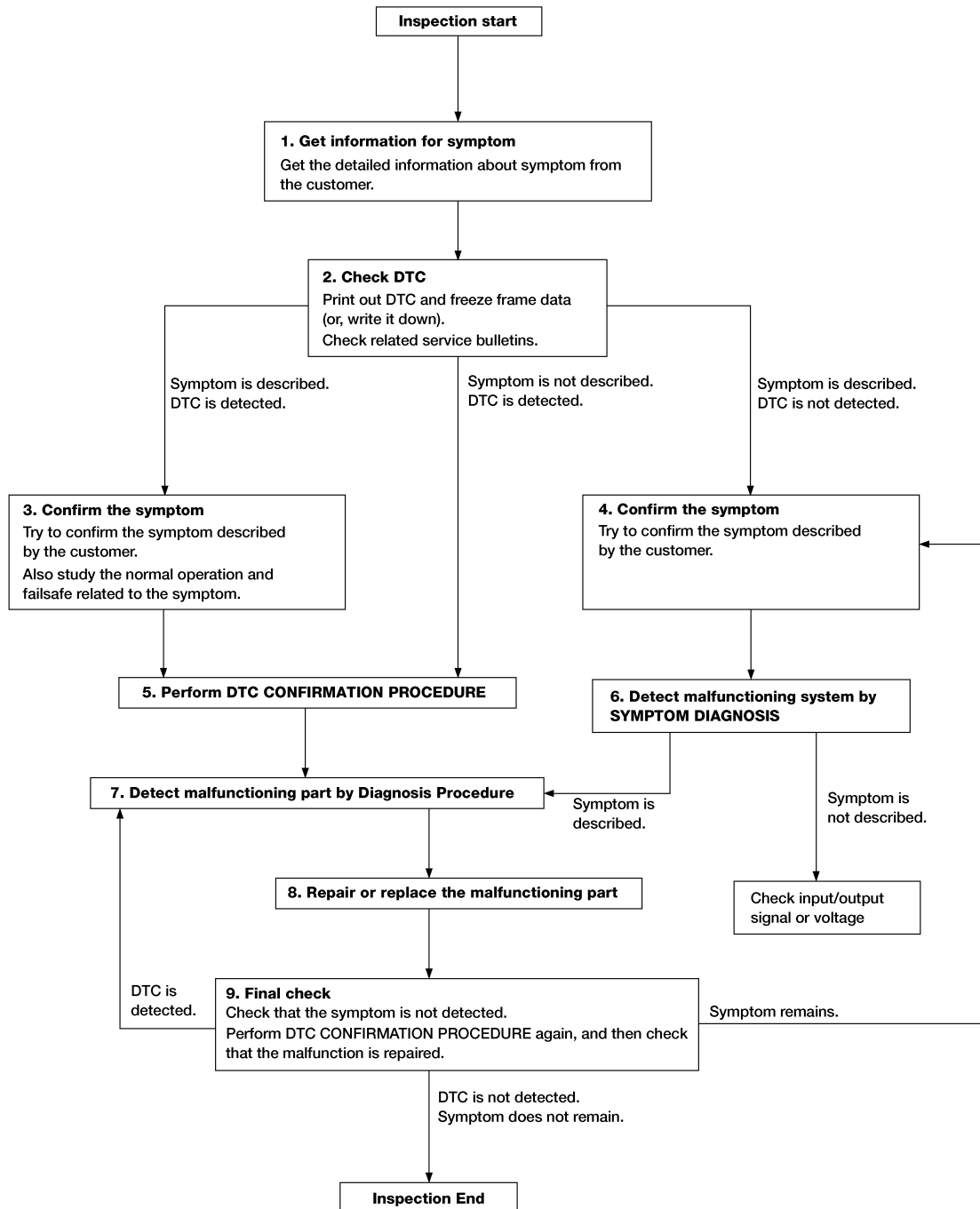
## BASIC INSPECTION

### DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:000000012152449

OVERALL SEQUENCE



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DETAILED FLOW

# DIAGNOSIS AND REPAIR WORK FLOW

## < 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

---

# DIAGNOSIS AND REPAIR WORK FLOW

## < 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.

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## ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

< BASIC INSPECTION >

---

### ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

#### ECM

##### ECM : Description

INFOID:0000000012152450

Performing the following procedure can automatically activate recommunication 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

INFOID:0000000012152451

#### 1. PERFORM ECM RECOMMUNICATING 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

INFOID:0000000012152452

##### 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

INFOID:0000000012152453

#### 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.

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# U1000 CAN COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

## DTC/CIRCUIT DIAGNOSIS

### U1000 CAN COMM CIRCUIT

#### DTC Description

INFOID:0000000012279295

#### 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

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
U1000	CAN COMM CIRCUIT (CAN communication circuit)	Diagnosis condition	When ignition switch is ON.
		Signal (terminal)	—
		Threshold	—
		Diagnosis delay time	2 seconds or more

#### POSSIBLE CAUSE

CAN communication system

#### FAIL-SAFE

—

#### Diagnosis Procedure

INFOID:0000000012279296

### 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.



# U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

## U1010 CONTROL UNIT (CAN)

### DTC Description

INFOID:000000012279299

### DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
		Diagnosis condition	When ignition switch is ON.
U1010	CONTROL UNIT (Control unit)	Signal (terminal)	—
		Threshold	—
		Diagnosis delay time	2 seconds or more

### POSSIBLE CAUSE

BCM

### FAIL-SAFE

—

### Diagnosis Procedure

INFOID:000000012279300

#### 1. REPLACE BCM

When DTC U1010 is detected, replace BCM.

>> Replace BCM. Refer to [BCS-82. "Removal and Installation"](#).

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# P1610 LOCK MODE

< DTC/CIRCUIT DIAGNOSIS >

## P1610 LOCK MODE

### DTC Description

INFOID:000000012152499

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.

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

### 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

INFOID:000000012152500

#### 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.

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# P1611 ID DISCORD, IMMUECM

< DTC/CIRCUIT DIAGNOSIS >

## P1611 ID DISCORD, IMMUECM

### DTC Description

INFOID:000000012152501

### DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
P1611	ID DISCORD, IMMUECM	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	—

### 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

INFOID:000000012152502

#### 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.

## P1611 ID DISCORD, IMMUECM

< DTC/CIRCUIT DIAGNOSIS >

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NO >> Inspection End.

**4**.REPLACE ECM

---

Replace ECM. Refer to [EC-586, "Removal and Installation"](#).

>> Inspection End.

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# P1612 CHAIN OF ECM-IMMU

< DTC/CIRCUIT DIAGNOSIS >

## P1612 CHAIN OF ECM-IMMU

### DTC Description

INFOID:000000012152503

### DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
		Diagnosis condition	When the ignition switch is ON.
P1612	CHAIN OF BCM-ECM	Signal (terminal)	—
		Threshold	Inactive communication between BCM and ECM
		Diagnosis delay time	—

### 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

INFOID:000000012152504

#### 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.

# P1612 CHAIN OF ECM-IMMU

< DTC/CIRCUIT DIAGNOSIS >

---

## 3.REPLACE ECM

---

Replace ECM. Refer to [EC-586. "Removal and Installation"](#).

>> Inspection End.

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# P1615 DIFFERENCE OF KEY

< DTC/CIRCUIT DIAGNOSIS >

## P1615 DIFFERENCE OF KEY

### DTC Description

INFOID:000000012152507

### DTC DETECTION LOGIC

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

### 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

INFOID:000000012152508

#### 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, IMMUECM

< DTC/CIRCUIT DIAGNOSIS >

## B2192 ID DISCORD, IMMUECM

### DTC Description

INFOID:000000012152509

### DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B2192	ID DISCORD BCM-ECM (Identification discord body control module - engine control module)	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	—

### 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

INFOID:000000012152510

#### 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.

## B2192 ID DISCORD, IMMU-ECM

< DTC/CIRCUIT DIAGNOSIS >

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### 4.REPLACE ECM

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Replace ECM. Refer to [EC-586. "Removal and Installation"](#).

>> Inspection End.

# B2193 CHAIN OF ECM-IMMU

< DTC/CIRCUIT DIAGNOSIS >

## B2193 CHAIN OF ECM-IMMU

### DTC Description

INFOID:000000012152511

### DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B2193	CHAIN OF BCM-ECM (Chain of body control module - engine control module)	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	Inactive communication between BCM and ECM
		Diagnosis delay time	—

### 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

INFOID:000000012152512

#### 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.

## B2193 CHAIN OF ECM-IMMU

< DTC/CIRCUIT DIAGNOSIS >

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### 3.REPLACE ECM

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Replace ECM. Refer to [EC-586. "Removal and Installation"](#).

>> Inspection End.

# B2195 ANTI-SCANNING

< DTC/CIRCUIT DIAGNOSIS >

## B2195 ANTI-SCANNING

### DTC Description

INFOID:000000012152513

### DTC DETECTION LOGIC

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

### 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

INFOID:000000012152514

#### 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.

## B2195 ANTI-SCANNING

< DTC/CIRCUIT DIAGNOSIS >

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NO >> Inspection End.

**4**.REPLACE BCM

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Replace BCM. Refer to [BCS-82, "Removal and Installation"](#).

>> Inspection End.

# B2196 DONGLE UNIT

< DTC/CIRCUIT DIAGNOSIS >

## B2196 DONGLE UNIT

### DTC Description

INFOID:000000012250309

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"](#).

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
		Diagnosis condition	Signal (terminal)
B2196	DONGLE NG	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	The ID verification results between BCM and dongle unit is not good
		Diagnosis delay time	—

### 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

INFOID:000000012250310

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.

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## B2196 DONGLE UNIT

### < DTC/CIRCUIT DIAGNOSIS >

2. Disconnect BCM connector and dongle unit connector.
3. Check continuity between BCM harness connector and dongle unit harness connector.

BCM		Dongle unit		Continuity
Connector	Terminal	Connector	Terminal	
M20	52	M159	1	Yes

4. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M20	52		No

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.

Dongle unit		Ground	Continuity
Connector	Terminal		
M159	4		Yes

Is the inspection result normal?

- YES >> Replace dongle unit.  
 NO >> Repair or replace harness.



# B2198 NATS ANTENNA AMP.

< DTC/CIRCUIT DIAGNOSIS >

## B2198 NATS ANTENNA AMP.

### DTC Description

INFOID:000000012152515

### DTC DETECTION LOGIC

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

### 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

INFOID:000000012152516

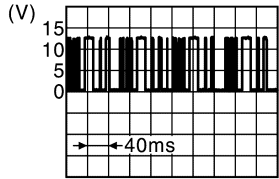
Regarding Wiring Diagram information, refer to [SEC-28, "Wiring Diagram"](#).

#### 1. CHECK NATS ANTENNA COMMUNICATION SIGNAL

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

## B2198 NATS ANTENNA AMP.

### < DTC/CIRCUIT DIAGNOSIS >

(+)		(-)	Condition		Voltage (Approx.)
NATS antenna amp.					
Connector	Terminals				
M92	1,3	Ground	Intelligent Key: Intelligent Key battery is removed	Brake pedal: Depressed	 <p style="text-align: right; font-size: small;">JMKIA6232JP</p>
				Brake pedal: Released	

**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.

NATS antenna amp.		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M92	1	M18	127	Yes
	3		126	

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

NATS antenna amp.		Ground	Continuity
Connector	Terminal		
M92	1		Ground
	3		

**Is the inspection result normal?**

YES >> Replace BCM. Refer to [BCS-82, "Removal and Installation"](#).

NO >> Repair or replace harness.

# B2555 STOP LAMP

< DTC/CIRCUIT DIAGNOSIS >

## B2555 STOP LAMP

### DTC Description

INFOID:000000012152517

### DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B2555	STOP LAMP (Stop lamp)	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	BCM makes a comparison between the upper voltage and lower voltage of stop lamp switch. It judges from their values to detect the malfunctioning circuit
		Diagnosis delay time	—

### 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

INFOID:000000012152518

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.

Signal name	Fuse No.
Battery power supply	10 (10 A)

##### 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

## < DTC/CIRCUIT DIAGNOSIS >

(+)		(-)	Voltage (Approx.)
BCM			
Connector	Terminal		
M21	25	Ground	Battery voltage

**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.

(+)		(-)	Voltage (Approx.)
Stop lamp relay			
Connector	Terminal		
E34	1	Ground	Battery voltage
	3		

**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.

(+)		(-)	Condition	Voltage (Approx.)
BCM				
Connector	Terminal			
M21	27	Ground	Stop lamp switch ON (Brake pedal is depressed)	Battery voltage
			OFF (Brake pedal is not depressed)	0 V

**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.

Stop lamp relay		BCM		Continuity
Connector	Terminal	Connector	Terminal	
E34	5	M21	27	Yes

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

Stop lamp relay		Ground	Continuity
Connector	Terminal		
E34	5		Ground

**Is the inspection result normal?**

YES >> GO TO 6.

NO >> Repair or replace harness.

# B2555 STOP LAMP

< DTC/CIRCUIT DIAGNOSIS >

## 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.

(+)		(-)	Voltage (Approx.)
Stop lamp switch			
Connector	Terminal	Ground	Battery voltage
E38	2		

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.

Stop lamp switch		Ground	Continuity
Connector	Terminal		
E38	1		Yes

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.

Stop lamp relay		Stop lamp switch		Continuity
Connector	Terminal	Connector	Terminal	
E34	2	E38	2	Yes

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

Stop lamp relay		Ground	Continuity
Connector	Terminal		
E34	2		No

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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# B2555 STOP LAMP

## < DTC/CIRCUIT DIAGNOSIS >

>> Inspection End.

### Component Inspection (Stop Lamp Switch)

INFOID:0000000012152519

#### 1.CHECK STOP LAMP SWITCH

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

Stop lamp switch		Condition	Continuity
Terminals			
1	2	Brake pedal Not depressed	No
		Brake pedal Depressed	Yes

Is the inspection result normal?

YES >> Inspection End.

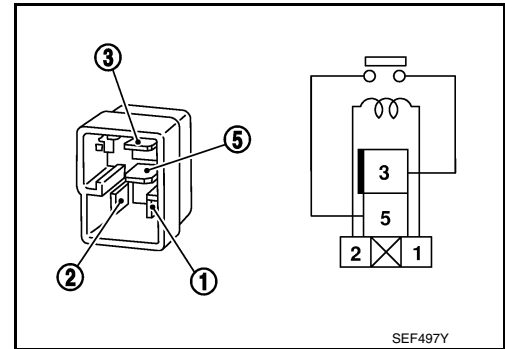
NO >> Replace stop lamp switch. Refer to [BR-20. "Exploded View"](#).

### Component Inspection (Stop Lamp Relay)

INFOID:0000000012152520

#### 1.CHECK STOP LAMP RELAY

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



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Stop lamp relay		Condition	Continuity
Terminals			
3	5	12 V direct current supply between terminals 1 and 2	Yes
		No current supply	No

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace stop lamp relay.

# B2556 PUSH-BUTTON IGNITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

## B2556 PUSH-BUTTON IGNITION SWITCH

### DTC Description

INFOID:000000012152521

### DTC DETECTION LOGIC

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

### 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

INFOID:000000012152522

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.

(+)		(-)	Voltage (Approx.)
Push-button ignition switch			
Connector	Terminal	Ground	Battery voltage
M38	8		

##### 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.

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## B2556 PUSH-BUTTON IGNITION SWITCH

### < DTC/CIRCUIT DIAGNOSIS >

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

Push-button ignition switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M38	8	M21	1	Yes

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

Push-button ignition switch		Ground	Continuity
Connector	Terminal		
M38	8		No

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.

Push-button ignition switch		Ground	Continuity
Connector	Terminal		
M38	4		Yes

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

INFOID:000000012152523

### 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.

Push-button ignition switch		Condition		Continuity
Terminals				
4	8	Push-button ignition switch	Pressed	Yes
			Not pressed	No

Is the inspection result normal?

YES >> Inspection End.



## B2556 PUSH-BUTTON IGNITION SWITCH

### < DTC/CIRCUIT DIAGNOSIS >

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NO >> Replace push-button ignition switch. Refer to [SEC-137. "Removal and Installation"](#).

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# B2557 VEHICLE SPEED

< DTC/CIRCUIT DIAGNOSIS >

## B2557 VEHICLE SPEED

### DTC Description

INFOID:000000012152524

### DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B2557	VEHICLE SPEED (Vehicle speed)	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	BCM detects one of the following conditions for 10 seconds continuously: <ul style="list-style-type: none"><li>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</li><li>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</li></ul>
		Diagnosis delay time	10 seconds

### 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

INFOID:000000012152525

#### 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"](#).

## B2557 VEHICLE SPEED

### < DTC/CIRCUIT DIAGNOSIS >

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NO >> GO TO 2.

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

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#### Ⓜ 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

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Refer to [GI-41, "Intermittent Incident"](#).

>> Inspection End.

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# B2560 STARTER CONTROL RELAY

< DTC/CIRCUIT DIAGNOSIS >

## B2560 STARTER CONTROL RELAY

### DTC Description

INFOID:000000012152526

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

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B2560	STARTER CONT RELAY (Starter control relay)	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	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.)
		Diagnosis delay time	2 seconds

### 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

- 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
- 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

INFOID:000000012152527

#### 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"](#).

## B2560 STARTER CONTROL RELAY

< DTC/CIRCUIT DIAGNOSIS >

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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

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Refer to [GI-41. "Intermittent Incident"](#).

>> Inspection End.

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# B2601 SHIFT POSITION

< DTC/CIRCUIT DIAGNOSIS >

## B2601 SHIFT POSITION

### DTC Description

INFOID:000000012152484

### 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"](#).

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B2601	SHIFT POSITION	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	When there is a difference between P (Park) range signal from CVT shift selector (park position switch) and P (Park) position signal from IPDM E/R (CAN)
		Diagnosis delay time	—

### 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.

### Diagnosis Procedure

INFOID:000000012152485

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 >

Monitor item	Condition		Indication
DETE/CANCEL SW	CVT Shift selector	In any position other than P (Park)	OFF
		P (Park)	ON
DETENT SW - IPDM	CVT Shift selector	In any position other than P (Park)	OFF
		P (Park)	ON

### 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.

CVT shift selector (park position switch)		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M78	6	M21	20	Yes

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

CVT shift selector (park position switch)		Ground	Continuity
Connector	Terminal		
M78	6		No

### 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.

CVT shift selector (park position switch)		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
M78	6	E19	31	Yes

### 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

INFOID:000000012152486

### 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.

CVT shift selector (park position switch)		Condition	Continuity	
Terminals				
5	6	Selector lever	P (Park) position	No
			Other than above	Yes

#### Is the inspection result normal?

- YES >> Inspection End.  
NO >> Replace CVT shift selector. Refer to [TM-185. "Removal and Installation"](#).



# B2602 SHIFT POSITION

< DTC/CIRCUIT DIAGNOSIS >

## B2602 SHIFT POSITION

### DTC Description

INFOID:000000012152487

### 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"](#).

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
		Diagnosis condition	Signal (terminal)
B2602	SHIFT POSITION	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	BCM detects the following status for 10 seconds: <ul style="list-style-type: none"> <li>• Selector lever is in the P (Park) position</li> <li>• Vehicle speed is 4 km/h (2.5 MPH) or more</li> <li>• Ignition switch is in the ON position</li> </ul>
		Diagnosis delay time	—

### 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

INFOID:000000012152488

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:

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## B2602 SHIFT POSITION

### < DTC/CIRCUIT DIAGNOSIS >

Monitor item	Condition		Indication
DETE/CANCEL SW	CVT Shift selector	In any position other than P (Park)	OFF
		P (Park)	ON
VEH SPEED 1	Vehicle not moving		0
	Vehicle moving		Varies

#### 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.

CVT shift selector (park position switch)		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M78	6	M21	20	Yes

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

CVT shift selector (park position switch)		Ground	Continuity
Connector	Terminal		
M78	6		No

#### 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.

# B2602 SHIFT POSITION

< DTC/CIRCUIT DIAGNOSIS >

## Component Inspection

INFOID:000000012152489

### 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.

CVT shift selector (park position switch)		Condition		Continuity
Terminals				
5	6	Selector lever	P (Park) position	No
			Other than above	Yes

Is the inspection result normal?

- YES >> Inspection End.  
NO >> Replace CVT shift selector. Refer to [TM-185, "Removal and Installation"](#).

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# B2603 SHIFT POSITION

< DTC/CIRCUIT DIAGNOSIS >

## B2603 SHIFT POSITION

### DTC Description

INFOID:000000012152490

### 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"](#).

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
		Diagnosis condition	Signal (terminal)
B2603	SHIFT POSI STATUS	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	BCM detects the following status when ignition switch is in the ON position: <ul style="list-style-type: none"><li>• P (Park) position signal from TCM: approx. 0V</li><li>• CVT shift selector (park position switch) signal: approx. 0V</li></ul>
		Diagnosis delay time	—

### 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

INFOID:000000012152491

Regarding Wiring Diagram information, refer to [SEC-28, "Wiring Diagram"](#).

## B2603 SHIFT POSITION

### < DTC/CIRCUIT DIAGNOSIS >

#### 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:

Monitor item	Condition		Indication
DETE/CANCEL SW	CVT Shift selector	In any position other than P (Park)	OFF
		P (Park)	ON
SFT PN/N SW	CVT Shift selector	In any position other than P (Park)	OFF
		P (Park)	ON

#### 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.

(+)		(-)	Condition	Voltage (Approx.)
BCM				
Connector	Terminal			
M21	39	Ground	Selector lever	P or N position Battery voltage
			Other than above	0

#### 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.

Transmission range switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
F86	10	M21	39	Yes

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

Transmission range switch		Ground	Continuity
Connector	Terminal		
F86	10		No

#### 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.

## B2603 SHIFT POSITION

### < DTC/CIRCUIT DIAGNOSIS >

#### 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.

(+)		(-)	Voltage (Approx.)
CVT shift selector (park position switch)			
Connector	Terminal		
M78	5	Ground	Battery voltage

##### 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.

CVT shift selector (park position switch)		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M78	5	M20	69	Yes

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

CVT shift selector (park position switch)		Ground	Continuity
Connector	Terminal		
M78	5		No

##### 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.

CVT shift selector (park position switch)		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M78	6	M21	20	Yes

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

CVT shift selector (park position switch)		Ground	Continuity
Connector	Terminal		
M78	6		No

##### Is the inspection result normal?

# B2603 SHIFT POSITION

## < 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

INFOID:000000012152492

### 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.

CVT shift selector (park position switch)		Condition	Continuity
Terminals			
5	6	Selector lever	P (Park) position No
			Other than above Yes

Is the inspection result normal?

- YES >> Inspection End.  
NO >> Replace CVT shift selector. Refer to [TM-185. "Removal and Installation"](#).

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# B2604 SHIFT POSITION

< DTC/CIRCUIT DIAGNOSIS >

## B2604 SHIFT POSITION

### DTC Description

INFOID:0000000012152493

### 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"](#).

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B2604	PNP/CLUTCH SW	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	The following states are detected for 5 seconds while ignition switch is ON: <ul style="list-style-type: none"><li>• P/N position signal is sent from TCM but shift position signal input (CAN) from TCM is other than P (Park) and N (Neutral)</li><li>• P/N position signal is not sent from TCM but shift position signal input (CAN) from TCM is P (Park) or N (Neutral)</li></ul>
		Diagnosis delay time	—

### 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

INFOID:0000000012152494

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:



## B2604 SHIFT POSITION

### < DTC/CIRCUIT DIAGNOSIS >

Monitor item	Condition		Indication
SFT P -MET	CVT Shift selector	Selector lever is in any position except the P (Park) position	OFF
		Selector lever is in the P (Park) position	ON
SFT N -MET	CVT Shift selector	Selector lever is in any position except the N (Neutral) position	OFF
		Selector lever is in the N (Neutral) position	ON
SFT PN/N SW	CVT Shift selector	Selector lever is in and position except the P (Park) or N (Neutral) position	OFF
		Selector lever is in the P (Park) or N (Neutral) position	ON

#### 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

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

(+)		(-)	Condition	Voltage (V) (Approx.)
BCM				
Connector	Terminal			
M21	39	Ground	Selector lever	P (Park) or N (Neutral) position Battery voltage
			Other than above	0

#### 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"](#).
- Perform initialization of BCM and registration of all Intelligent Keys using CONSULT.

>> Inspection End.

### 5. CHECK BCM INPUT SIGNAL CIRCUIT

- Turn ignition switch OFF.
- Disconnect transmission range switch connector.
- Disconnect BCM connector.
- Check continuity between transmission range switch harness connector and BCM harness connector.

## B2604 SHIFT POSITION

### < DTC/CIRCUIT DIAGNOSIS >

Transmission range switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
F86	10	M21	39	Yes

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

Transmission range switch		Ground	Continuity
Connector	Terminal		
F86	10		No

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:

Monitor item	Condition		Indication
SHIFT IND	CVT Shift selector	P (Park) position	P
		N (Neutral) position	N

Is the inspection result normal?

YES >> Inspection End.

NO >> Refer to [SEC-95, "Component Inspection"](#).

# B2605 SHIFT POSITION

< DTC/CIRCUIT DIAGNOSIS >

## B2605 SHIFT POSITION

### DTC Description

INFOID:000000012152495

### 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"](#).

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
		Diagnosis condition	Signal (terminal)
B2605	PNP/CLUTCH SW	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	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
		Diagnosis delay time	—

### 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

INFOID:000000012152496

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:

## B2605 SHIFT POSITION

### < DTC/CIRCUIT DIAGNOSIS >

Monitor item	Condition		Indication
SFT PN-IPDM	CVT Shift selector	Any position other than P (Park) or N (Neutral) position	OFF
		P (Park) or N (Neutral) position	ON
SFT PN/N SW	CVT Shift selector	Any position other than P (Park) or N (Neutral) position	OFF
		P (Park) or N (Neutral) position	ON

#### 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

- Turn ignition switch OFF.
- Disconnect IPDM E/R connector.
- Turn ignition switch ON.
- Check voltage between IPDM E/R harness connector and ground.

(+)		(-)	Condition	Voltage (Approx.)
IPDM E/R				
Connector	Terminal			
F51	66	Ground	Selector lever	P (Park) or N (Neutral) position Battery voltage
			Other than above	0

#### 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

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

IPDM E/R		Transmission range switch		Continuity
Connector	Terminal	Connector	Terminal	
E19	37	F86	10	Yes

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
E19	37		No

#### Is the inspection result normal?

- YES >> GO TO 4.  
 NO >> Repair or replace harness.

### 4. REPLACE IPDM E/R

- Replace IPDM E/R. Refer to [PCS-36, "Removal and Installation"](#).

>> Inspection End.

### 5. CHECK BCM INPUT SIGNAL

# B2605 SHIFT POSITION

## < DTC/CIRCUIT DIAGNOSIS >

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

(+)		(-)	Condition		Voltage (Approx.)
BCM					
Connector	Terminal				
M21	39	Ground	Selector lever	P (Park) or N (Neutral) position	Battery voltage
				Other than above	0

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.

Transmission range switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
F86	10	M21	39	Yes

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

Transmission range switch		Ground	Continuity
Connector	Terminal		
F86	10		

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.

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SEC

# B2608 STARTER RELAY

< DTC/CIRCUIT DIAGNOSIS >

## B2608 STARTER RELAY

### DTC Description

INFOID:000000012152497

### 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"](#).

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
		Diagnosis condition	When the ignition switch is ON.
B2608	STARTER RELAY	Signal (terminal)	—
		Threshold	BCM outputs starter motor relay OFF signal but BCM receives starter motor relay ON signal from IPDM E/R (CAN)
		Diagnosis delay time	—

### 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

INFOID:000000012152498

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

### < DTC/CIRCUIT DIAGNOSIS >

2. Check voltage between BCM harness connector and ground.

(+)		(-)	Condition		Voltage (Approx.)
BCM					
Connector	Terminal				
M20	62	Ground	Selector lever	N (Neutral) or P (Park) position	Battery voltage
				Other than above	0

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.

IPDM E/R		BCM		Continuity
Connector	Terminal	Connector	Terminal	
E19	33	M20	62	Yes

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
E19	33		

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.

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SEC

# B261E VEHICLE TYPE

< DTC/CIRCUIT DIAGNOSIS >

## B261E VEHICLE TYPE

### DTC Description

INFOID:000000012250289

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"](#).

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
		Diagnosis condition	When the ignition switch is ON.
B261E	VEHICLE TYPE	Signal (terminal)	—
		Threshold	Difference of BCM configuration
		Diagnosis delay time	—

### 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 [SEC-104, "Diagnosis Procedure"](#).  
NO >> Inspection End.

### Diagnosis Procedure

INFOID:000000012250290

#### 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.



## B261E VEHICLE TYPE

< DTC/CIRCUIT DIAGNOSIS >

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### 3.INSPECTION START

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#### ④CONSULT

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 4.

NO >> Inspection End.

---

### 4.CONFIRM ECM PART NUMBER.

---

Confirm the part number of the installed ECM is correct.

Is the ECM part number correct?

YES >> Replace BCM. Refer to [BCS-82, "Removal and Installation"](#).

NO >> Replace ECM. Refer to [EC-586, "Removal and Installation"](#).

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SEC

# B26F3 STARTER CONTROL RELAY

< DTC/CIRCUIT DIAGNOSIS >

## B26F3 STARTER CONTROL RELAY

### DTC Description

INFOID:000000012250291

### 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"](#).

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
		Diagnosis condition	When the ignition switch is ON.
B26F3	START CONT RLY ON	Signal (terminal)	—
		Threshold	BCM requests IPDM E/R to turn starter control relay OFF, but BCM cannot receive starter control relay OFF state signal from IPDM E/R (CAN)
		Diagnosis delay time	—

### 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

INFOID:000000012250292

#### 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/CIRCUIT DIAGNOSIS >

## B26F4 STARTER CONTROL RELAY

### DTC Description

INFOID:000000012250293

### 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"](#).

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
		Diagnosis condition	Signal (terminal)
B26F4	START CONT RELAY OFF	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		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
		Diagnosis delay time	—

### 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

INFOID:000000012250294

#### 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/CIRCUIT DIAGNOSIS >

## B26FC KEY REGISTRATION

### DTC Description

INFOID:000000012250295

### DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
		Diagnosis condition	When the ignition switch is ON.
B26FC	KEY REGISTRATION	Signal (terminal)	—
		Threshold	Intelligent Key that does not match the vehicle is registered
		Diagnosis delay time	—

### 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

INFOID:000000012250296

#### 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/CIRCUIT DIAGNOSIS >

## B26F7 BCM

### DTC Description

INFOID:000000012250297

### DTC DETECTION LOGIC

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
		Diagnosis condition	When the ignition switch is ON.
B26F7	BCM	Signal (terminal)	—
		Threshold	Inside key antenna output circuit in BCM is malfunctioning
		Diagnosis delay time	—

### 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

INFOID:000000012250298

#### 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

INFOID:000000012152528

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

### DTC DETECTION LOGIC

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

### 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 and wait 2 seconds or more.
2. Check DTC in "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

INFOID:000000012152529

#### 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"](#).

## B260F ENGINE STATUS

< 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.

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# B210B STARTER CONTROL RELAY

< DTC/CIRCUIT DIAGNOSIS >

## B210B STARTER CONTROL RELAY

### DTC Description

INFOID:000000012152472

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"](#).

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B210B	START CONT RLY ON	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	IPDM E/R detects that the relay is stuck at ON position even if the following conditions are met for about 1 second: <ul style="list-style-type: none"><li>• Starter control relay ON/OFF signal from BCM</li><li>• Transmission range switch input signal</li></ul>
		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-112. "Diagnosis Procedure"](#).  
NO >> Inspection End.

### Diagnosis Procedure

INFOID:000000012152473

#### 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/CIRCUIT DIAGNOSIS >

## B210C STARTER CONTROL RELAY

### DTC Description

INFOID:000000012152474

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"](#).

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B210C	START CONT RLY OFF	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	IPDM E/R detects that the relay is stuck at OFF position even if the following conditions are met for about 1 second: <ul style="list-style-type: none"><li>• Starter control relay ON/OFF signal from BCM</li><li>• Transmission range switch input signal</li></ul>
		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

INFOID:000000012152475

#### 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/CIRCUIT DIAGNOSIS >

## B210D STARTER RELAY

### DTC Description

INFOID:000000012152476

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"](#).

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B210D	STARTER RELAY ON	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	IPDM E/R terminal 3
		Threshold	IPDM E/R detects that the relay is stuck at ON position even if the following conditions are met for about 1 second: <ul style="list-style-type: none"><li>• Starter control relay ON/OFF signal from BCM</li><li>• Transmission range switch input</li></ul>
		Diagnosis delay time	—

### 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

INFOID:000000012152477

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 >

IPDM E/R		Ground	Voltage (Approx.)
Connector	Terminal		
E17	3	Ground	Battery voltage

#### 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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# B210E STARTER RELAY

< DTC/CIRCUIT DIAGNOSIS >

## B210E STARTER RELAY

### DTC Description

INFOID:000000012152478

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"](#).

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B210E	STARTER RELAY OFF	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	—
		Threshold	IPDM E/R detects that the relay is stuck at ON position even if the following conditions are met for about 1 second: <ul style="list-style-type: none"><li>• Starter control relay ON/OFF signal from BCM</li><li>• Transmission range switch input</li></ul>
		Diagnosis delay time	—

### POSSIBLE CAUSE

- IPDM E/R
- Harness or connector

### FAIL-SAFE

—

### 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 Diagnostic Result" mode.
3. Check DTC.

##### Is DTC detected?

- YES >> Refer to [SEC-116, "Diagnosis Procedure"](#).  
NO >> Inspection End.

### Diagnosis Procedure

INFOID:000000012152479

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 >

BCM connector		Ground	Condition			Voltage (Approx.)
Connector	Terminal		Ignition switch	Brake pedal	CVT selector lever	
M20	62	Ground	ON	Depressed	P (Park) or N (Neutral)	Battery voltage
					Other than above	0

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.

IPDM E/R		BCM		Continuity
Connector	Terminal	Connector	Terminal	
E19	33	M20	62	Yes

3. Check continuity between BCM harness connector and ground.

IPDM E/R		Ground	Continuity
Connector	Terminal		
E19	33	Ground	No

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.

IPDM E/R		Ground	Voltage (Approx.)
Connector	Terminal		
E19	33	Ground	Battery voltage

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.

# B210F TRANSMISSION RANGE SWITCH

< DTC/CIRCUIT DIAGNOSIS >

## B210F TRANSMISSION RANGE SWITCH

### DTC Description

INFOID:000000012152480

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"](#).

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
		Diagnosis condition	When the ignition switch is ON.
B210F	TRANSMISSION RANGE SWITCH	Signal (terminal)	—
		Threshold	IPDM E/R detects a mismatch between the signals below for 1 second or more: <ul style="list-style-type: none"><li>• Transmission range switch input signal</li><li>• Shift position signal from BCM (CAN)</li></ul>
		Diagnosis delay time	—

### 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 Diagnostic Result" mode.
3. Check DTC.

##### Is DTC detected?

- YES >> Refer to [SEC-118, "Diagnosis Procedure"](#).  
NO >> Inspection End.

### Diagnosis Procedure

INFOID:000000012152481

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

## B210F TRANSMISSION RANGE SWITCH

### < DTC/CIRCUIT DIAGNOSIS >

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:

IPDM E/R		Ground	Condition		Voltage (Approx.)
Connector	Terminal				
E19	37	Ground	CVT selector lever	P (Park) or N (Neutral)	Battery voltage
				Other than above	0

#### 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.

IPDM E/R		Condition		Continuity
Connector	Terminals			
F50	61	Transmission range switch	P or N	Yes
F51	66		Other	No

#### 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.

IPDM E/R		Ground	Continuity
Connector	Terminal		
F50	61	Ground	No
F51	66		

#### 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.

Transmission range switch		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
F86	7	F50	61	Yes
	10	F51	66	

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

Transmission range switch		Ground	Continuity
Connector	Terminal		
F86	7	Ground	No
	10		

#### Is the inspection result normal?

## B210F TRANSMISSION RANGE SWITCH

< DTC/CIRCUIT DIAGNOSIS >

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YES >> GO TO 6.

NO >> Repair harness or connector.

**6**.CHECK INTERMITTENT INCIDENT

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Refer to [GI-41. "Intermittent Incident"](#).

>> Inspection End.



# B2110 TRANSMISSION RANGE SWITCH

< DTC/CIRCUIT DIAGNOSIS >

## B2110 TRANSMISSION RANGE SWITCH

### DTC Description

INFOID:000000012152482

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"](#).

DTC No.	CONSULT screen terms (Trouble diagnosis content)	DTC Detection Condition	
B2110	TRANSMISSION RANGE SWITCH	Diagnosis condition	When the ignition switch is ON.
		Signal (terminal)	IPDM E/R terminals 63 and 66
		Threshold	IPDM E/R detects mismatch between the signal below for 1 second or more: <ul style="list-style-type: none"> <li>• Transmission range switch input signal</li> </ul>
		Diagnosis delay time	—

### 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

INFOID:000000012152483

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.

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## 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:

IPDM E/R		Ground	Condition		Voltage (Approx.)
Connector	Terminal				
E19	37	Ground	CVT selector lever	P (Park) or N (Neutral)	Battery voltage
				Other than above	0

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.

IPDM E/R		Condition	Continuity
Connector	Terminals		
F50	61	Transmission range switch	P or N
F51	66		Other

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.

IPDM E/R		Ground	Continuity
Connector	Terminal		
F50	61	Ground	No
F51	66		

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.

Transmission range switch		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
F86	7	F50	61	Yes
	10	F51	66	

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

Transmission range switch		Ground	Continuity
Connector	Terminal		
F86	7	Ground	No
	10		

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.

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# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

## POWER SUPPLY AND GROUND CIRCUIT

### BCM

#### BCM : Diagnosis Procedure

INFOID:000000012298764

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.

Signal name	Fuse and fusible link No.
Fusible link battery power	I (40A)
BCM battery fuse	1 (10A)

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.

Terminals		Voltage (Approx.)
(+)	(-)	
BCM		Ground
Connector	Terminal	
M17	135	
	142	Battery voltage

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.

BCM		Ground	Continuity
Connector	Terminal		
M17	138		Yes
	132		

Is the inspection result normal?

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

#### BCM : Special Repair Requirement

INFOID:000000012298765

### 1. REQUIRED WORK WHEN REPLACING BCM

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

>> Work End.

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

## IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

## IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) : Diagnosis Procedure

INFOID:000000012298766

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.

Signal name	Fuses and fusible link No.
Battery power supply	E (80A)
	B (100A)
	A (250A), C (80A)

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.

Terminals		Voltage (V) (Approx.)
(+)	(-)	
IPDM E/R		Battery voltage
Connector	Terminal	
E16	1	
	2	
E17	3	

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.

IPDM E/R		Ground	Continuity
Connector	Terminal		
E18	7		Yes
E19	41		

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness or connector.

# SECURITY INDICATOR LAMP

< DTC/CIRCUIT DIAGNOSIS >

## SECURITY INDICATOR LAMP

### Component Function Check

INFOID:0000000012376016

#### 1.CHECK FUNCTION

##### CONSULT

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

Test item		Description	
THEFT IND	ON	Security indicator lamp	Illuminates
	OFF		Does not illuminate

Is the inspection result normal?

- YES >> Inspection End.  
NO >> Go to [SEC-126, "Diagnosis Procedure"](#).

#### Diagnosis Procedure

INFOID:0000000012376017

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.

Signal name	Fuse No.
Battery power supply	13 (10 A)

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.

(+) Combination meter		(-)	Condition	Voltage (Approx.)
Connector	Terminal			
M23	46	Ground	Ignition switch	OFF
				ON

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 >

(+)		(-)	Voltage (Approx.)
BCM			
Connector	Terminal		
M21	18	Ground	Battery voltage

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.

Combination meter		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M24	7	M21	18	Yes

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

Combination meter		Ground	Continuity
Connector	Terminal		
M24	7		No

Is the inspection result normal?

YES >> Replace combination meter. Refer to [MWI-68. "Removal and Installation"](#).

NO >> Repair or replace harness.

SEC

# HORN FUNCTION

< DTC/CIRCUIT DIAGNOSIS >

## HORN FUNCTION

### Component Function Check

INFOID:000000012376018

#### 1.CHECK FUNCTION

##### CONSULT

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

Test item		Description	
VEHICLE SECURITY HORN	ON	Horn	Sounds (for 0.5 sec.)

Is the operation normal?

- YES >> Horn function is OK.  
NO >> Go to [SEC-128. "Diagnosis Procedure"](#).

#### Diagnosis Procedure

INFOID:000000012376019

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.

IPDM E/R		Horn relay		Continuity
Connector	Terminal	Connector	Terminal	
E19	22	H-1	1	Yes

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
E19	22		No

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

INFOID:0000000012152455

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

INFOID:0000000012152456

#### 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

INFOID:000000012152457

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

INFOID:000000012152458

#### 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

INFOID:0000000012152459

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

INFOID:0000000012152460

#### 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

INFOID:0000000012152461

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

INFOID:0000000012152462

#### 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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# VEHICLE SECURITY SYSTEM CANNOT BE SET

< 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

INFOID:0000000012152463

ARMED 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

INFOID:0000000012152464

## 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

INFOID:000000012152465

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

INFOID:000000012152466

#### 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.

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# PANIC ALARM FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

---

## PANIC ALARM FUNCTION DOES NOT OPERATE

### Description

INFOID:000000012152467

#### 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

INFOID:000000012152468

#### 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.

# NATS ANTENNA AMP.

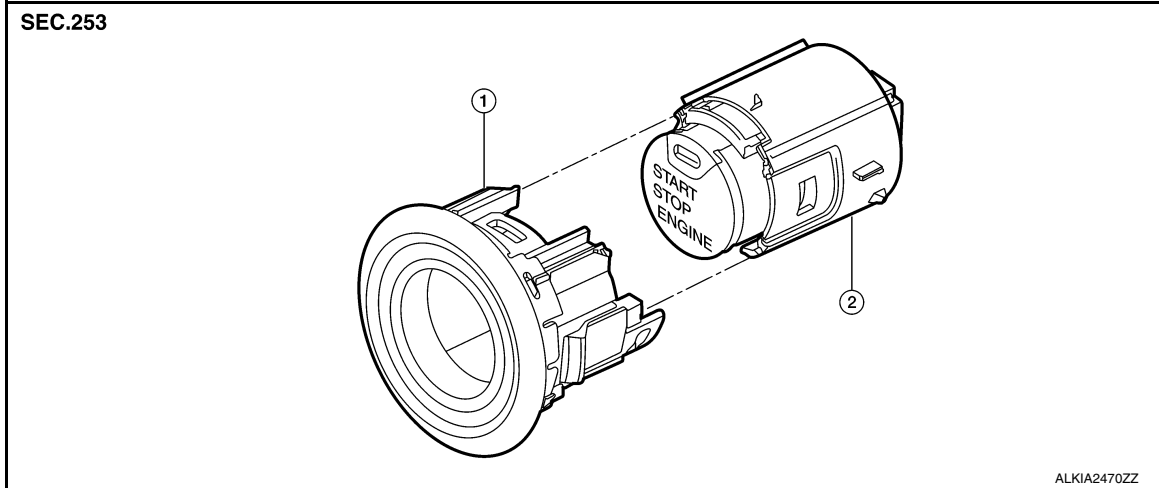
< REMOVAL AND INSTALLATION >

## REMOVAL AND INSTALLATION

### NATS ANTENNA AMP.

Exploded View

INFOID:0000000012217628



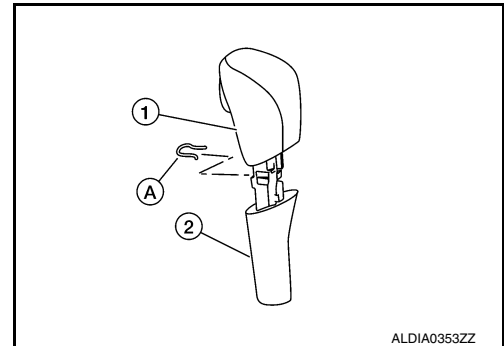
1. NATS antenna amp.
2. Push-button ignition switch

### Removal and Installation


INFOID:0000000012217629

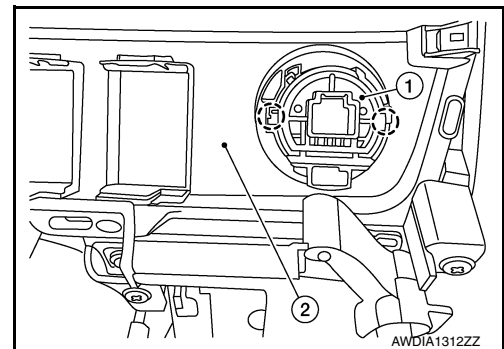
#### REMOVAL

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

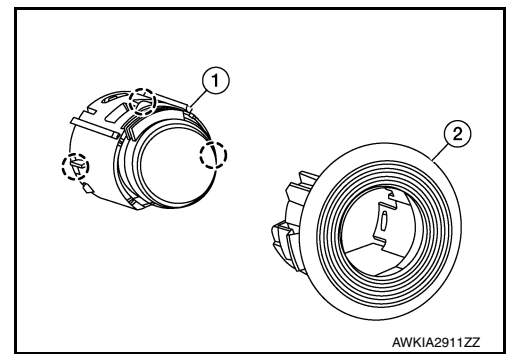


## NATS ANTENNA AMP.

### < 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).

 : Pawl



### INSTALLATION

Installation is in the reverse order of removal.



# PUSH BUTTON IGNITION SWITCH

< REMOVAL AND INSTALLATION >

## PUSH BUTTON IGNITION SWITCH

### Removal and Installation

INFOID:000000011933503

**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"](#).

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# IMMOBILIZER CONTROL MODULE

< REMOVAL AND INSTALLATION >

## IMMOBILIZER CONTROL MODULE

### Removal and Installation

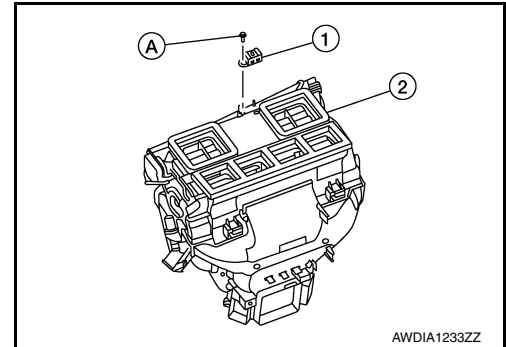
INFOID:000000012217627

#### 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 >

## HOOD SWITCH

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### Removal and Installation

INFOID:000000012217714

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

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