

## SECTION **SEC** SECURITY CONTROL SYSTEM

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## PRECAUTION

### PRECAUTIONS

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

INFOID:0000000010940906

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

#### **WARNING:**

Always observe the following items for preventing accidental activation.

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

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

#### **WARNING:**

Always observe the following items for preventing accidental activation.

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

#### Precaution Necessary for Steering Wheel Rotation After Battery Disconnect

INFOID:0000000010941031

#### **CAUTION:**

Comply with the following cautions to prevent any error and malfunction.

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

For vehicle with steering lock unit, if the battery is disconnected or discharged, the steering wheel will lock and cannot be turned.

If turning the steering wheel is required with the battery disconnected or discharged, follow the operation procedure below before starting the repair operation.

#### OPERATION PROCEDURE

1. Connect both battery cables.

#### **NOTE:**

Supply power using jumper cables if battery is discharged.

2. Open driver door.
3. Turn the ignition switch to the ON position.  
(At this time, the steering lock will be released.)
4. Turn the ignition switch to OFF position with driver door open.
5. Wait for 3 minutes or longer with driver door open.

#### **NOTE:**

- Do not close driver door because the steering wheel locks when driver door is closed.

## PRECAUTIONS

### < PRECAUTION >

### [WITH INTELLIGENT KEY SYSTEM]

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

### Precautions for Removing Battery Terminal

INFOID:000000010941036

- With the adoption of Auto ACC function, ACC power is automatically supplied by operating the intelligent key or remote keyless entry or by opening/closing the driver side door. In addition, ACC power is supplied even after the ignition switch is turned to the OFF position, i.e. ACC power is supplied for a certain fixed time.
- When disconnecting the 12V battery terminal, turn off the ACC power before disconnecting the 12V battery terminal, observing "How to disconnect 12V battery terminal" described below.

#### NOTE:

Some ECUs operate for a certain fixed time even after ignition switch is turned OFF and ignition power supply is stopped. If the battery terminal is disconnected before ECU stops, accidental DTC detection or ECU data damage may occur.

- For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch.

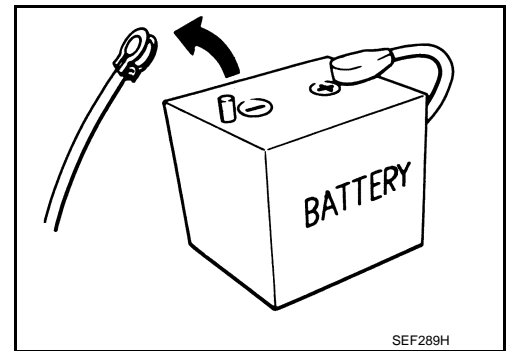
#### NOTE:

If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.

- After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC.

#### NOTE:

The removal of 12V battery may cause a DTC detection error.



SEF289H

### HOW TO DISCONNECT 12V BATTERY TERMINAL

Disconnect 12V battery terminal according to Instruction 1 or Instruction 2 described below.

For vehicles parked by ignition switch OFF, refer to Instruction 2.

#### INSTRUCTION 1

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

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

#### CAUTION:

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

5. Remove 12V battery terminal.

#### CAUTION:

After installing 12V battery, always check self-diagnosis results of all ECUs and erase DTC.

#### INSTRUCTION 2 (FOR VEHICLES PARKED BY IGNITION SWITCH OFF)

1. Unlock the door with intelligent key or remote keyless entry.

## PRECAUTIONS

< PRECAUTION >

[WITH INTELLIGENT KEY SYSTEM]

### NOTE:

At this moment, ACC power is supplied.

2. Open the driver side door.
3. Open the hood.
4. Close the driver side door.
5. Wait at least 3 minutes.

### CAUTION:

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

6. Remove 12V battery terminal.

### CAUTION:

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

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## COMPONENT PARTS

< SYSTEM DESCRIPTION >

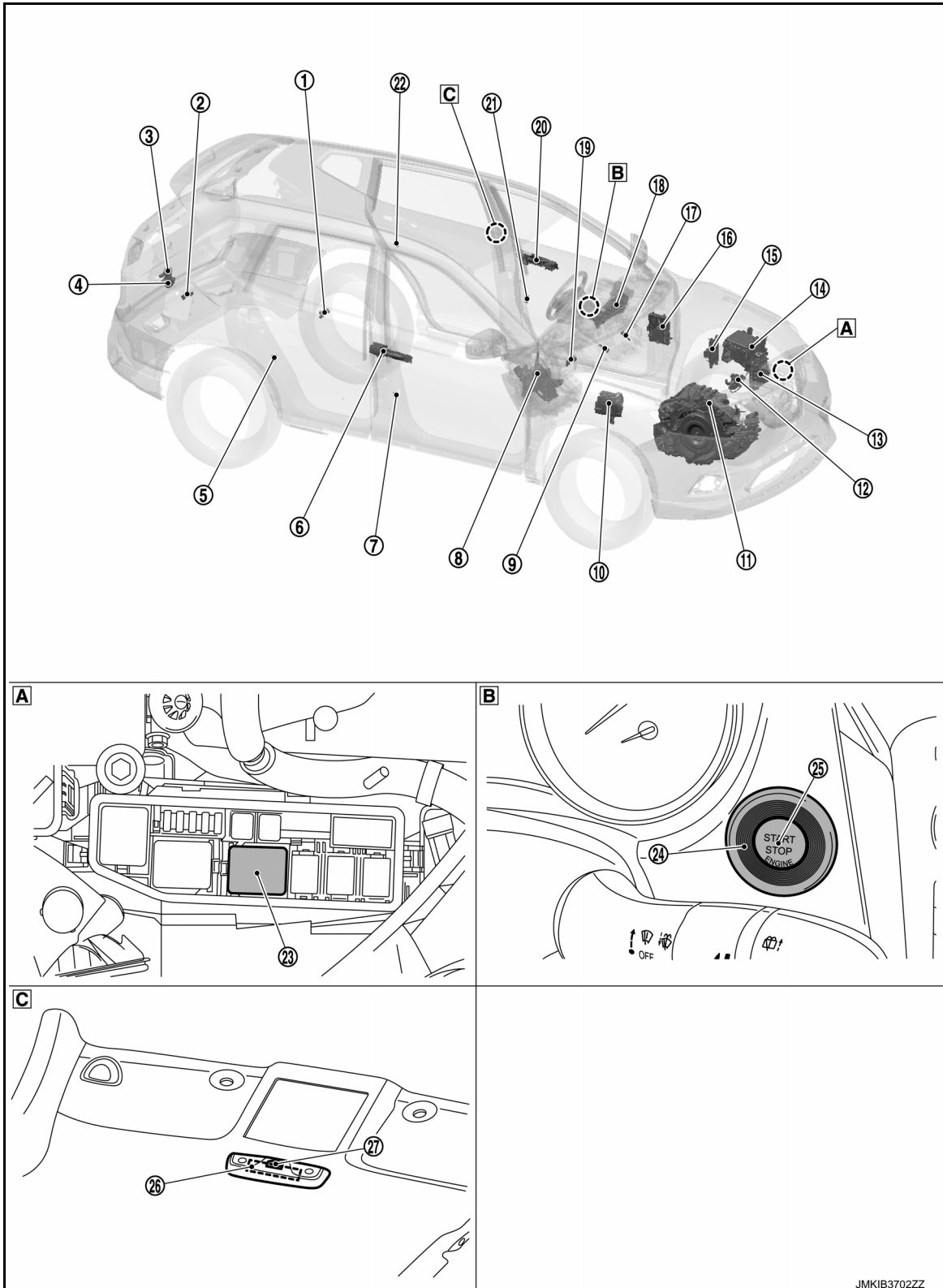
[WITH INTELLIGENT KEY SYSTEM]

# SYSTEM DESCRIPTION

## COMPONENT PARTS

### Component Parts Location

INFOID:0000000010922112



**A** View with F/L Fuse holder No.2

**B** View with cluster lid A

**C** View with headlining

# COMPONENT PARTS

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

No.	Component	Function
①	Inside key antenna (luggage room)	Inside key antenna (luggage room) detects whether Intelligent Key is inside the vehicle, and transmits the signal to BCM. Refer to <a href="#">DLK-25, "DOOR LOCK SYSTEM : Component Parts Location"</a> for detailed installation location.
②	Outside key antenna (rear bumper)	Detects whether or not Intelligent Key is within the outside key antenna detection area. Refer to <a href="#">DLK-25, "DOOR LOCK SYSTEM : Component Parts Location"</a> for detailed installation location.
③	Back door opener request switch	Back door opener request switch transmits door lock/unlock request signal to BCM. Refer to <a href="#">DLK-25, "DOOR LOCK SYSTEM : Component Parts Location"</a> for detailed installation location.
④	Back door lock assembly	Back door switch is integrated into back door lock assembly. Back door switch detects back door open/close condition, and then transmits ON/OFF signal to BCM. Refer to <a href="#">DLK-25, "DOOR LOCK SYSTEM : Component Parts Location"</a> for detailed installation location.
⑤	Rear door switch RH	Door switch detects door open/close condition and then transmits ON/OFF signal to BCM.
⑥	Outside key antenna (passenger side)	Outside key antenna and door request switch are integrated into outside door handle. Outside key antenna detects whether Intelligent Key is within the detection area or not, and then transmits signal to BCM. Refer to <a href="#">DLK-25, "DOOR LOCK SYSTEM : Component Parts Location"</a> for detailed installation location.
	Front door request switch (passenger side)	Front door request switch transmits door lock/unlock request signal to BCM.
⑦	Front door switch (Passenger side)	Door switch detects door open/close condition and then transmits ON/OFF signal to BCM.
⑧	CVT shift selector (detention switch) (CVT models)	Detention switch is integrated into CVT shift sector, and detects that selector lever is locked in the P position, then transmits ON/OFF signal to BCM.
⑨	Stop lamp switch	Stop lamp switch detects that brake pedal is depressed, and then transmits ON/OFF signal to BCM. Refer to <a href="#">BRC-14, "Component Parts Location"</a> for detailed installation location.
⑩	ABS actuator and electric unit (control unit)	ABS actuator and electric unit (control unit) transmits the vehicle speed signal to BCM via CAN communication. BCM also receives the vehicle speed signal from combination meter via CAN communication. BCM compares both signals to detect the vehicle speed. Refer to <a href="#">BRC-14, "Component Parts Location"</a> for detailed installation location.
⑪	Transmission range switch (CVT models)	Transmission range switch detects the selector lever position, and then transmits the P/N position signal to IPDM E/R. BCM confirms the CVT shift selector position with the following 4 signals. <ul style="list-style-type: none"> <li>• P position signal from CVT shift selector (detention switch)</li> <li>• P position signal from IPDM E/R (CAN)</li> <li>• Neutral position signal from IPDM E/R (CAN)</li> <li>• P/N position signal from TCM (CAN)</li> </ul> IPDM E/R confirms the CVT shift selector position with the following 2 signals. <ul style="list-style-type: none"> <li>• P/N position signal from transmission range switch</li> <li>• P/N position signal from BCM (CAN)</li> </ul> Refer to <a href="#">TM-235, "CVT CONTROL SYSTEM : Component Parts Location"</a> for detailed installation location.
	Reverse/neutral position switch (M/T models)	Reverse/neutral position switch detects that shift lever is in the neutral position, and then transmits ON/OFF signal to IPDM E/R. Refer to <a href="#">TM-21, "Component Parts Location"</a> for detailed installation location.
⑫	Hood switch	Refer to <a href="#">SEC-13, "Hood Switch"</a> .

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# COMPONENT PARTS

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

No.	Component	Function
⑬	ECM	<p>ECM controls the engine.</p> <p>When ignition switch is turned ON, BCM starts communication with ECM and performs the ID verification between BCM and ECM.</p> <p>If the verification result is OK, the engine can start. If the verification result is NG, the engine cannot start.</p> <p>Refer to <a href="#">EC-28, "ENGINE CONTROL SYSTEM : Component Parts Location"</a> (MR20DD engine models), <a href="#">EC-812, "Component Parts Location"</a> (R9M engine models) or <a href="#">EC-440, "Component Parts Location"</a> (QR25DE engine models) for detailed installation location.</p>
⑭	IPDM E/R	<ul style="list-style-type: none"> <li>• Starter relay are integrated in IPDM E/R, and used for the engine starting function.</li> <li>• Starter control relay is controlled by BCM, and starter relay is controlled by IPDM E/R while communicating with BCM.</li> <li>• IPDM E/R sends the starter control relay/starter relay status signal to BCM.</li> <li>• Transmits neutral position signal to BCM via CAN communication line.</li> </ul> <p>Refer to <a href="#">PCS-5, "Component Parts Location"</a> for detailed installation location.</p>
⑮	TCM (CVT models)	<p>TCM receives the shift position signal from transmission range switch, and then transmits the P/N position signal to BCM via CAN communication.</p> <p>BCM confirms the selector lever position with the following 4 signals.</p> <ul style="list-style-type: none"> <li>• P position signal from CVT shift selector (detention switch)</li> <li>• P position signal from IPDM E/R (CAN)</li> <li>• Neutral position signal from IPDM E/R (CAN)</li> <li>• P/N position signal from TCM (CAN)</li> </ul> <p>IPDM E/R confirms the selector lever position with the following 2 signals.</p> <ul style="list-style-type: none"> <li>• P/N position signal from transmission range switch</li> <li>• P/N position signal from BCM (CAN)</li> </ul> <p>Refer to <a href="#">TM-235, "CVT CONTROL SYSTEM : Component Parts Location"</a> for detailed installation location.</p>
⑯	BCM	<p>BCM controls INTELLIGENT KEY SYSTEM (ENGINE START FUNCTION), NISSAN ANTI-THEFT SYSTEM (NATS) and VEHICLE SECURITY SYSTEM.</p> <p>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.</p> <p>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.</p> <p>Refer to <a href="#">BCS-6, "BODY CONTROL SYSTEM : Component Parts Location"</a> for detailed installation location.</p>
⑰	Clutch interlock switch (M/T models)	<p>Clutch interlock switch detects that clutch pedal is depressed and transmits ON/OFF signal to BCM.</p> <p>Clutch pedal position switch detects that clutch pedal is depressed, and then transmits ON/OFF signal to BCM.</p>
⑱	Combination meter	<p>Combination meter transmits the vehicle speed signal to BCM via CAN communication.</p> <p>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.</p> <p>Security indicator lamp is located on combination meter.</p> <p>Security indicator lamp blinks when ignition switch is in any position other than ON to warn that Nissan Anti-Theft System (NATS) is on board.</p>
⑲	Inside key antenna (instrument center)	<p>Inside key antenna (instrument center) detects whether Intelligent Key is inside the vehicle, and transmits the signal to BCM.</p> <p>Refer to <a href="#">DLK-25, "DOOR LOCK SYSTEM : Component Parts Location"</a> for detailed installation location.</p>
⑳	Outside key antenna (driver side)	<p>Outside key antenna and door request switch are integrated into outside door handle.</p> <p>Outside key antenna detects whether Intelligent Key is within the detection area or not, and then transmits signal to BCM.</p> <p>Refer to <a href="#">DLK-25, "DOOR LOCK SYSTEM : Component Parts Location"</a> for detailed installation location.</p>
	Front door request switch (driver side)	<p>Front door request switch transmits door lock/unlock request signal to BCM.</p>
㉑	Front door switch (driver side)	<p>Door switch detects door open/close condition and then transmits ON/OFF signal to BCM.</p>
㉒	Rear door switch LH	<p>Door switch detects door open/close condition and then transmits ON/OFF signal to BCM.</p>

# COMPONENT PARTS

## < SYSTEM DESCRIPTION >

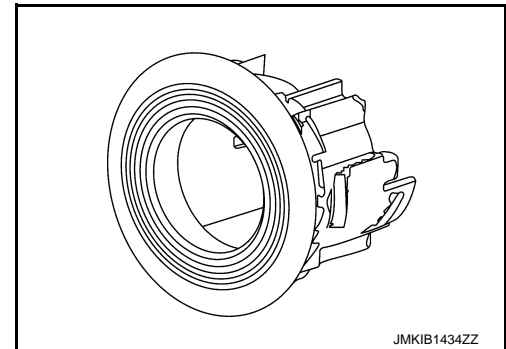
## [WITH INTELLIGENT KEY SYSTEM]

No.	Component	Function
②③	Starter control relay	BCM controls the starter control relay according to a starter control relay request signal from ECM.
②④	NATS antenna amp.	Refer to <a href="#">SEC-13, "NATS Antenna Amp."</a> .
②⑤	Push-button ignition switch	Push-button ignition switch has push switch inside which detects that push-button ignition switch is pressed, and then transmits the 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. Refer to <a href="#">PCS-65, "Component Parts Location"</a> for detailed installation location.
②⑥	Intruder sensor	Refer to <a href="#">SEC-14, "Intruder Sensor"</a> .
②⑦	Sensor cancel switch	Refer to <a href="#">SEC-14, "Sensor Cancel Switch"</a> .

### NATS Antenna Amp.

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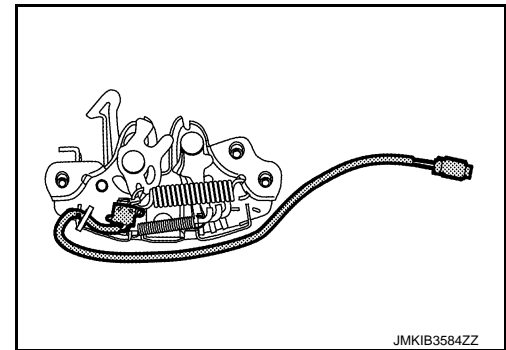
The ID verification is performed between BCM and transponder integrated into Intelligent Key via NATS antenna amp. when Intelligent Key backside is contacted to push-button ignition switch in case that Intelligent Key battery is discharged. If the ID verification result is OK, the operation of ignition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



### Hood Switch

INFOID:0000000010922114

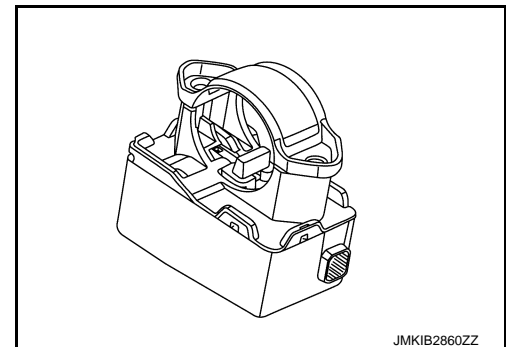
Hood switch detects that hood is open, and then transmits ON/OFF signal to IPDM E/R. IPDM E/R transmits hood switch signal to BCM via CAN communication.



### Steering Lock Unit

INFOID:0000000010922115

- Steering lock unit performs steering lock/unlock operation on request and power source is supplied from BCM.
- When push-button ignition switch is pressed while the Intelligent Key is inside the vehicle, BCM performs the ID verification with steering lock unit. Steering lock unit releases the steering lock based on the result of the ID verification.
- BCM judges the lock/unlock status of the steering according to a Lock/Unlock status signal transmitted from the steering lock unit via CAN communication.
- The steering lock unit has an interlock function that prohibits lock operation at ignition switch ON.



### Siren Control Unit

INFOID:0000000010941040

Siren control unit monitors the vehicle condition and controls the vehicle security system.

## COMPONENT PARTS

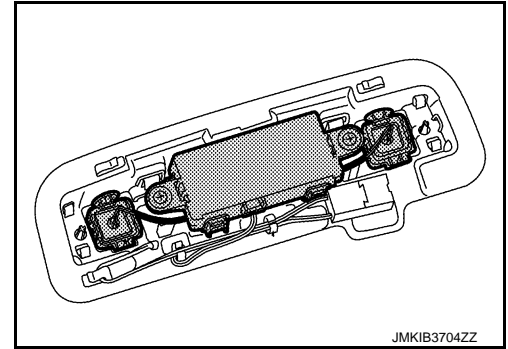
< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

### Intruder Sensor

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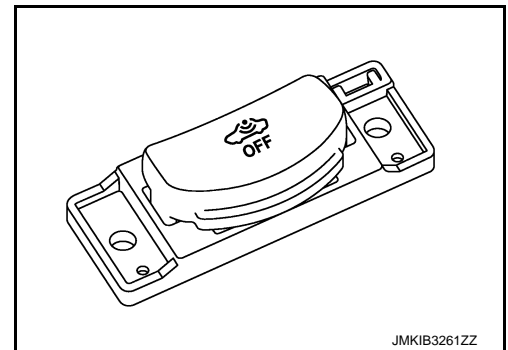
Intruder sensor detects a movement entering passenger compartment, then transmits the signal to siren control unit.



### Sensor Cancel Switch

INFOID:0000000010941042

BCM deactivates intruder sensor for the vehicle security system when BCM receives sensor cancel switch ON signal.



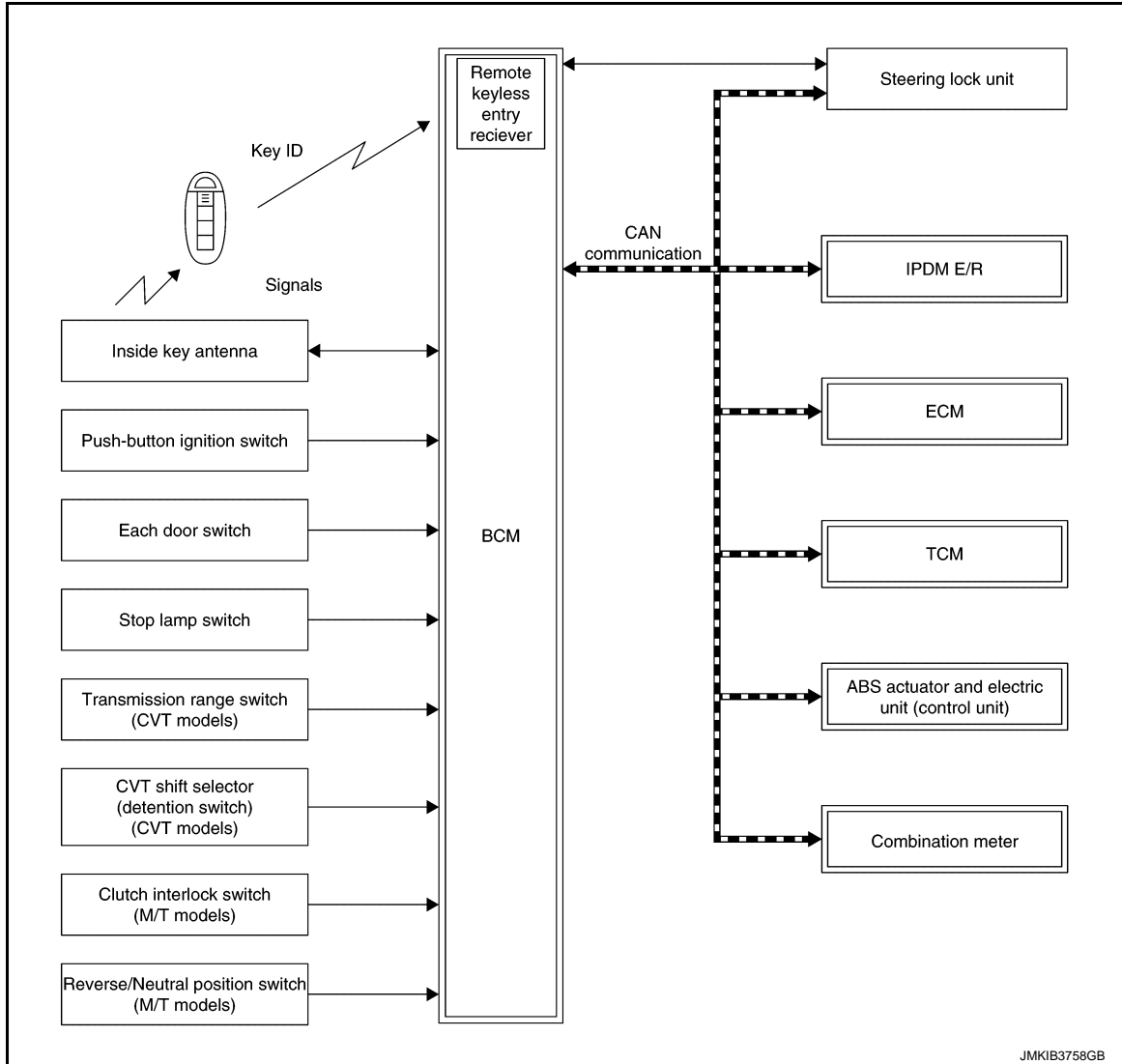
## SYSTEM

## INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

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

INFOID:0000000010922116

## SYSTEM DIAGRAM



## BCM INPUT/OUTPUT SIGNAL CHART

Input Signal Item

# SYSTEM

## < SYSTEM DESCRIPTION >

## [WITH INTELLIGENT KEY SYSTEM]

Transmit unit	Signal name	
ECM	CAN communication	<ul style="list-style-type: none"> <li>• Engine status signal</li> <li>• Starter control relay request signal</li> </ul>
IPDM E/R		<ul style="list-style-type: none"> <li>• Push-button ignition switch status signal</li> <li>• Ignition ON signal</li> <li>• Starter relay/Starter control relay status signal</li> <li>• Starter control relay status signal</li> <li>• Neutral position signal</li> </ul>
Combination meter		Vehicle speed signal (Meter)
ABS actuator and electric unit (control unit)		Vehicle speed signal (ABS)
TCM (CVT models)		Shift position signal
Steering lock unit		<ul style="list-style-type: none"> <li>• Steering lock unit lock status signal</li> <li>• Steering lock unit unlock status signal</li> <li>• Lock/unlock position signal</li> <li>• Steering lock undefined position signal</li> <li>• Steering lock wrong code signal</li> </ul>
Push-button ignition switch	Push-button ignition switch operation signal	
Each door switch	Door open/close condition signal	
Stop lamp switch	Brake pedal operation signal	
CVT shift selector (detention switch) (CVT models)	P position signal	
Transmission range switch (CVT models)	P/N position signal	
Clutch interlock switch (M/T models)	Clutch interlock switch signal	
Reverse/Neutral position switch	Neutral position switch signal	

### Output Signal Item

Reception unit	Signal name	
IPDM E/R	CAN communication	Ignition ON signal
Combination meter		Key warning lamp signal
Steering lock unit		<ul style="list-style-type: none"> <li>• Steering lock unit unlock request signal</li> <li>• Steering lock unit lock request signal</li> <li>• Steering lock code signal</li> <li>• Ignition ON signal</li> </ul>
Inside key antenna		Key ID request signal

### 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 have ID (NATS ID). It can perform the door lock/unlock operation and the push-button ignition switch operation when the registered Intelligent Key is carried.
- If the ID is successfully verified, when push-button ignition switch is pressed, steering lock is released and the engine can be started.
- Up to 4 Intelligent Keys can be registered (Including the standard Intelligent Key) upon request from the customer.

#### NOTE:

Refer to [DLK-38. "INTELLIGENT KEY SYSTEM : System Description"](#) (With super lock) or [DLK-348. "INTELLIGENT KEY SYSTEM : System Description"](#) (Without super lock) for any functions other than engine start function of Intelligent Key system.

## PRECAUTIONS FOR INTELLIGENT KEY SYSTEM

The transponder (the chip for NATS ID verification) is integrated into the Intelligent Key. (For the conventional models, it is integrated into the mechanical key.) Therefore, ID verification cannot be performed by mechanical key only.

In that case, NATS ID verification can be performed when Intelligent Key backside is contacted to push-button ignition switch while brake pedal is depressed. 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 NATS ID signal to the BCM.
3. BCM receives the NATS ID signal verifies it with the registered ID.
4. When immobilizer verification result is OK, BCM supplies power to the steering lock unit, and transmits the steering lock unit unlock request signal via CAN communication.
5. When the steering lock unit receives a steering lock unit unlock request signal from the BCM, it sends the following signals to the BCM.
  - Lock/unlock position signal
  - Steering lock unit lock status signal
  - Steering lock undefined position signal
  - Steering lock wrong code signal
6. When BCM receives a steering lock unit unlock status signal from the steering lock unit, it stops the steering lock unit unlock request signal.
7. When the ignition switch is turned to ON, BCM performs ID verification with the ECM. When the result is OK, engine start is permitted.
8. BCM detects the selector lever position and brake pedal operation condition.
9. When ECM detects that the start engine conditions\* are satisfied, it transmits a starter control relay request signal to BCM.
10. When BCM receives a starter control relay request signal from ECM, the starter control relay is turned ON.
11. When starter control relay is turned ON, IPDM E/R turns ON the starter relay and drives the starter motor.
12. When BCM receives an engine status signal from ECM, it turns the starter relay and starter control relay OFF and stops cranking.

**CAUTION:**

**When the Intelligent Key is carried outside of the vehicle (inside key antenna detection area) while the power supply is in the ON position, even if the engine start condition\* is satisfied, the engine cannot be started.**

\*: For the engine start condition, refer to "IGNITION SWITCH 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.

## STEERING LOCK OPERATION

When the shift position is P and the ignition switch is turned OFF, when BCM detects the following statuses, a steering lock unit lock request signal is transmitted to the steering lock unit via CAN communication, and steering wheel is locked.

- Closing door
- Opening door
- Door is locked using door request switch
- Door is locked using Intelligent Key

## IGNITION SWITCH POSITION CHANGE TABLE BY PUSH-BUTTON IGNITION SWITCH OPERATION

The ignition switch position can be changed by the following operations.

**NOTE:**

- When an Intelligent Key is within the detection area of inside key antenna or when Intelligent Key backside is contacted to push-button ignition switch, it is equivalent to the operations below.

# SYSTEM

## < SYSTEM DESCRIPTION >

## [WITH INTELLIGENT KEY SYSTEM]

- When starting the engine, the BCM monitors under the engine start conditions,
  - CVT models
    - Brake pedal operation condition
    - Selector lever position
    - Vehicle speed
  - M/T models
    - Clutch pedal operation condition
    - Brake pedal operation condition
    - Vehicle speed
    - Shift lever position

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

Power supply position	Condition						Push-button ignition switch operation frequency
	CVT models		M/T models				
	Selector lever	Brake pedal operation condition	Normal condition		Special condition		
			Shift lever	Clutch pedal operation condition	Shift lever	Brake pedal operation condition	
LOCK → ON	—	Not depressed	—	Not depressed	—	Not depressed	1
LOCK → ON → OFF	—	Not depressed	—	Not depressed	—	Not depressed	2
LOCK → START ON → START	P or N position	Depressed	—	Depressed	Neutral	Depressed	1
Engine is running → LOCK	—	—	—	—	—	—	1

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

Power supply position	Condition						Push-button ignition switch operation frequency
	CVT models		M/T models				
	Selector lever	Brake pedal operation condition	Normal condition		Special condition		
			Shift lever	Clutch pedal operation condition	Shift lever	Brake pedal operation condition	
Engine is running → OFF	—	—	—	—	—	—	Emergency stop operation
Engine stall return operation while driving	N position	Not depressed	—	Depressed	Neutral	—	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.

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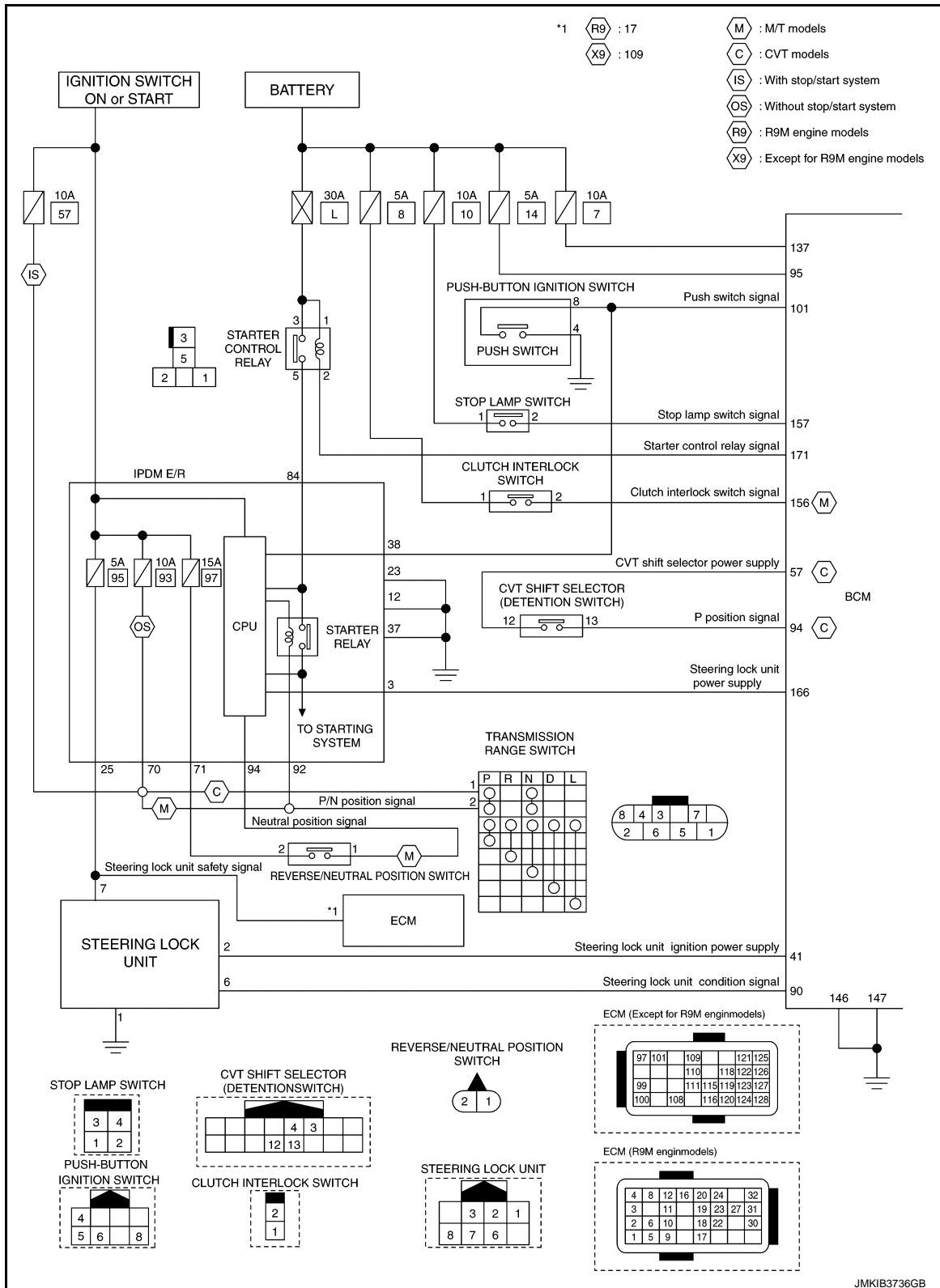
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[WITH INTELLIGENT KEY SYSTEM]

## INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION : Circuit Diagram

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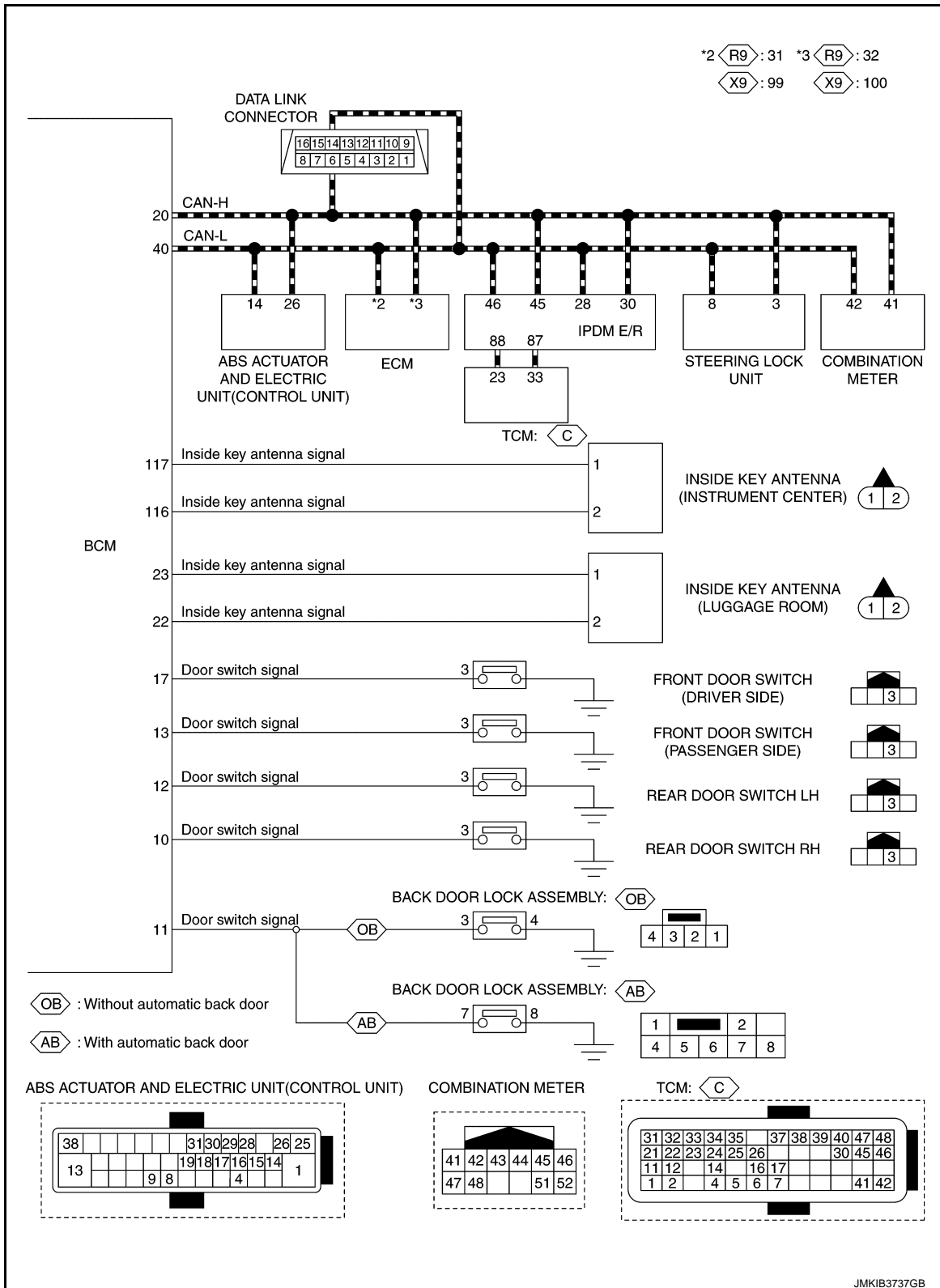
LHD models

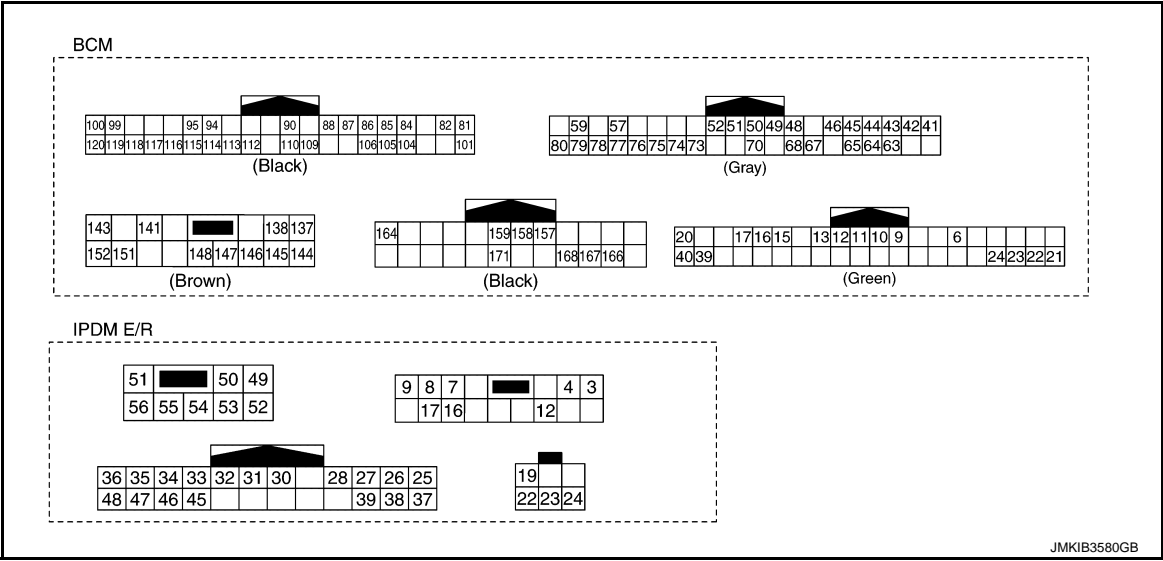


# SYSTEM

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]





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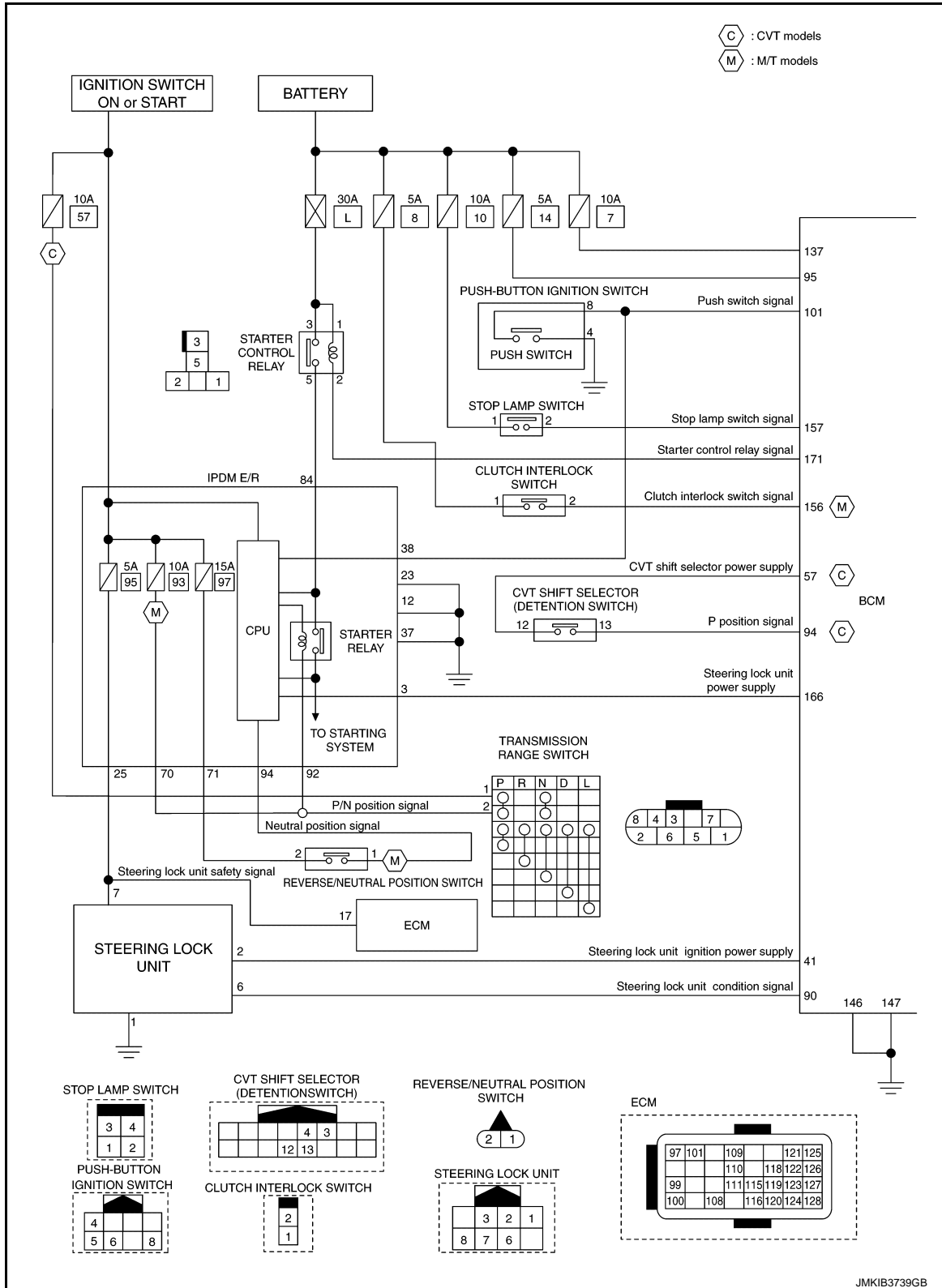
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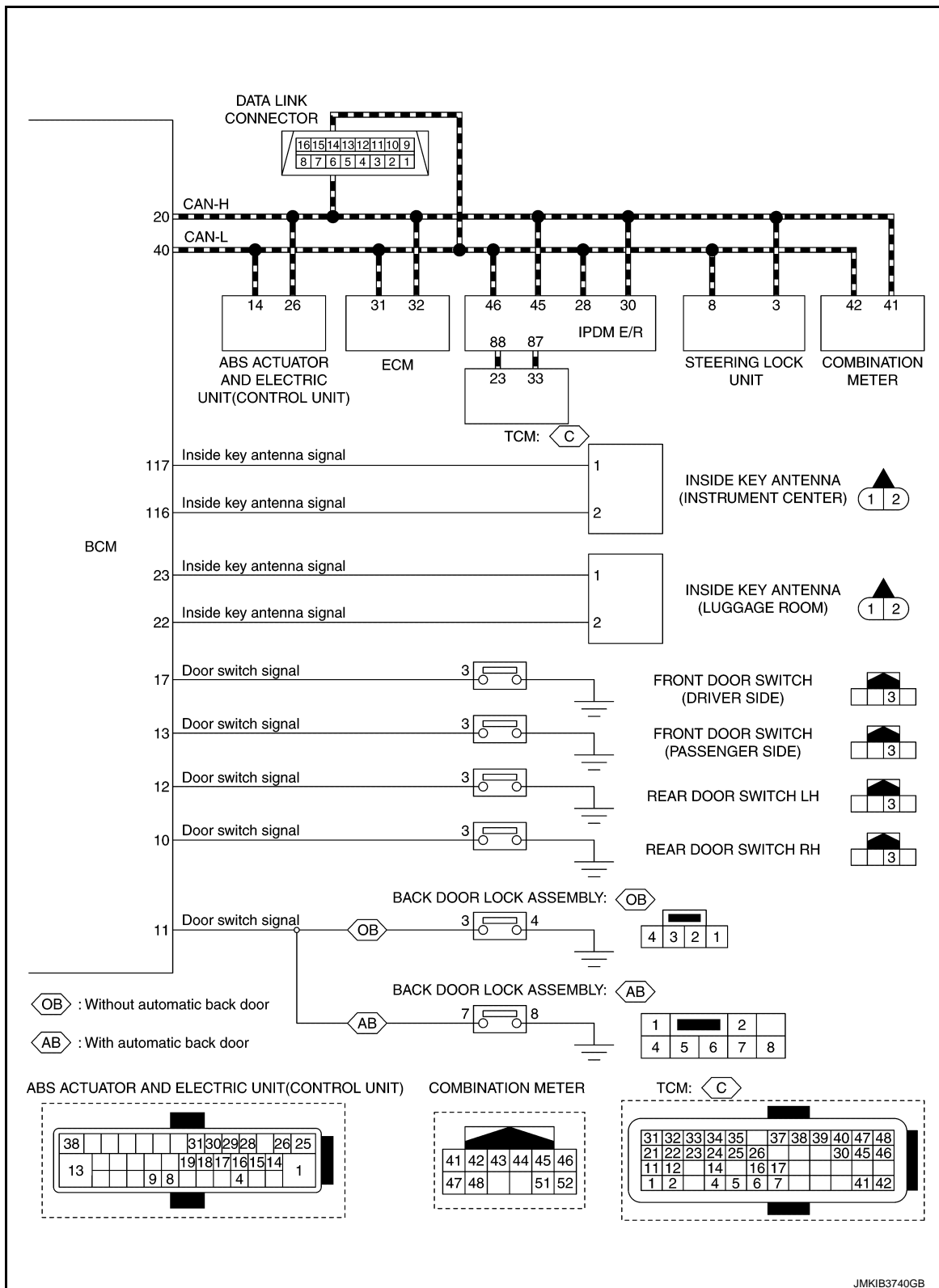
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[WITH INTELLIGENT KEY SYSTEM]

RHD models



JMKIB3739GB



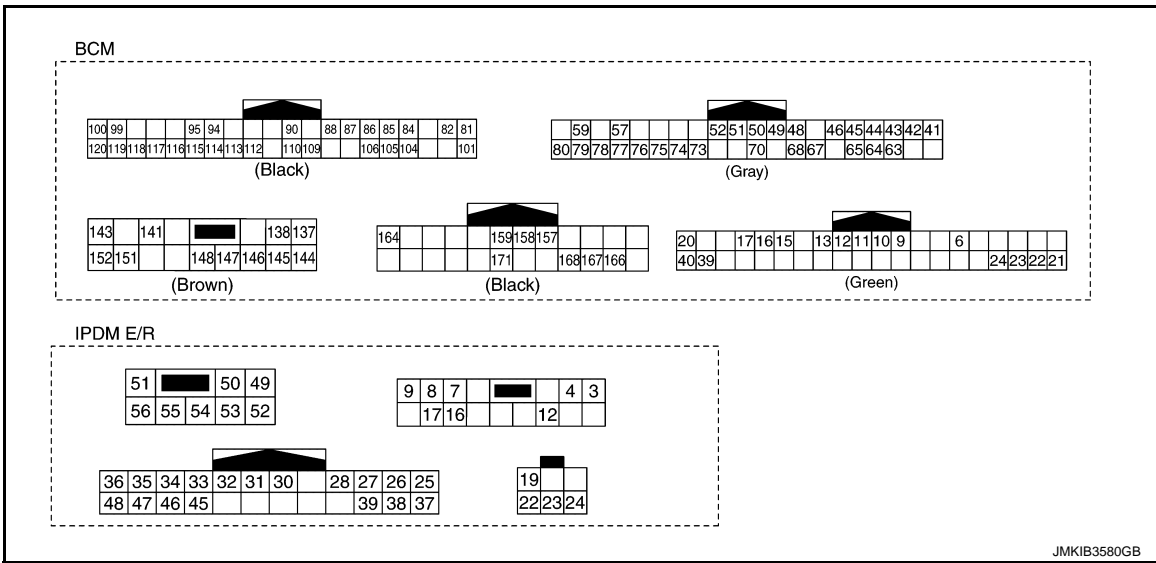
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## SYSTEM

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**[WITH INTELLIGENT KEY SYSTEM]**

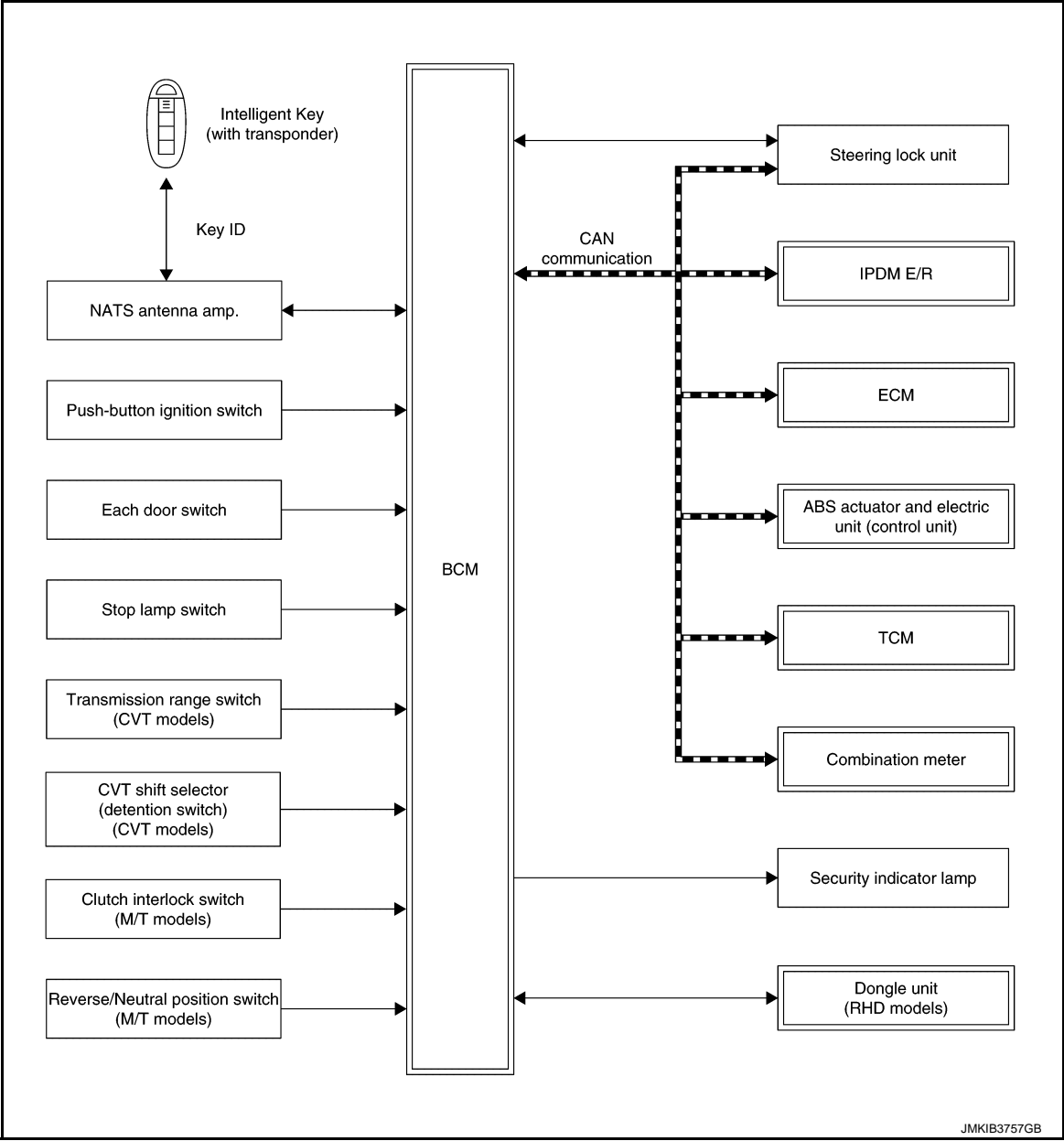


## NISSAN ANTI-THEFT SYSTEM

NISSAN ANTI-THEFT SYSTEM : System Description

INFOID:0000000010922118

SYSTEM DIAGRAM



BCM INPUT/OUTPUT SIGNAL CHART

Input Signal Item

# SYSTEM

## < SYSTEM DESCRIPTION >

## [WITH INTELLIGENT KEY SYSTEM]

Transmit unit	Signal name	
ECM	CAN communication	<ul style="list-style-type: none"> <li>Engine status signal</li> <li>Starter control relay request signal</li> </ul>
IPDM E/R		<ul style="list-style-type: none"> <li>Push-button ignition switch status signal</li> <li>Ignition ON signal</li> <li>Starter relay/Starter control relay status signal</li> <li>Starter control relay status signal</li> <li>Neutral position signal</li> </ul>
Combination meter		Vehicle speed signal (Meter)
ABS actuator and electric unit (control unit)		Vehicle speed signal (ABS)
Steering lock unit		<ul style="list-style-type: none"> <li>Steering lock unit lock status signal</li> <li>Steering lock unit unlock status signal</li> <li>Lock/unlock position signal</li> <li>Steering lock undefined position signal</li> <li>Steering lock wrong code signal</li> </ul>
TCM (CVT models)		Shift position signal
NATS antenna amp.	Key ID signal	
Push-button ignition switch	Push-button ignition switch operation signal	
Each door switch	Door open/close condition signal	
Stop lamp switch	Brake pedal operation signal	
CVT shift selector (detention switch) (CVT models)	P position signal	
Transmission range switch (CVT models)	P/N position signal	
Reverse/neutral position switch (M/T models)	Neutral position signal	
Clutch interlock switch (M/T models)	Clutch interlock switch signal	

### Output Signal Item

Reception unit	Signal name	
IPDM E/R	CAN communication	Ignition ON signal
Combination meter	Security indicator lamp signal	
Steering lock unit	<ul style="list-style-type: none"> <li>Steering lock unit unlock request signal</li> <li>Steering lock unit lock request signal</li> <li>Steering lock code signal</li> <li>Ignition ON signal</li> </ul>	

### SYSTEM DESCRIPTION

- The Nissan Anti-Theft System (NATS) prevents the engine from being started by 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 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 while brake pedal is depressed. If the verification result is OK, the engine start operation can be performed by the push-button ignition switch operation.
- Locate the security indicator lamp and always blinks it when the ignition switch is in any position except ON to warn that the vehicle is equipped with Nissan Anti-Theft System (NATS).
- Up to 4 Intelligent Keys can be registered (including the standard ignition key) upon request from the owner.
- When replacing ECM, BCM or Intelligent Key, the specified procedure (Initialization and registration) using CONSULT is required.

### PRECAUTIONS FOR KEY REGISTRATION

The ID registration is a procedure that erases the current NATS ID once, and then registers a new ID. Therefore before starting the registration operation, collect all registered Intelligent Keys from the customer.

### SECURITY INDICATOR LAMP

- Security indicator lamp warns that the vehicle is equipped with NATS.

- Security indicator lamp always blinks when the ignition switch is in 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 brake pedal is depressed while selector lever is in the P position (CVT models), or clutch pedal is depressed (M/T models), BCM activates NATS antenna amp. that is located behind push-button ignition switch.
2. When Intelligent Key (transponder built-in) backside is contacted to push-button ignition switch, BCM starts NATS ID verification between BCM and Intelligent Key (transponder built-in) via NATS antenna amp.
3. When NATS ID verification result is OK, buzzer in combination meter sounds.
4. When push-button ignition switch is pressed, BCM transmits steering lock unit unlock request signal to steering lock unit.
  - Lock/unlock position signal
  - Steering lock unit lock status signal
  - Steering lock undefined position signal
  - Steering lock wrong code signal
5. When BCM receives a steering lock unit unlock status signal from the steering lock unit, it stops the steering lock unit unlock request signal.
6. When the ignition switch is turned to ON, BCM performs ID verification with the ECM. When the result is OK, engine start is permitted.
7. BCM detects that the selector lever position and brake pedal operation condition.
8. When ECM detects that the start engine conditions\* are satisfied, it transmits a starter control relay request signal to BCM.
9. When BCM receives a starter control relay request signal from ECM, the starter control relay is turned ON.
10. When starter control relay is turned ON, IPDM E/R turns ON the starter relay and drives the starter motor.
11. When BCM receives an engine status signal from ECM, it turns the starter relay and starter control relay OFF and stops cranking.

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

### IGNITION SWITCH POSITION CHANGE TABLE BY PUSH-BUTTON IGNITION SWITCH OPERATION

The ignition switch position can be changed by the following operations.

### NOTE:

- When an Intelligent Key is within the detection area of inside key antenna or 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,
  - CVT models
    - Brake pedal operation condition
    - Selector lever position
    - Vehicle speed
  - M/T models
    - Clutch pedal operation condition
    - Vehicle speed
    - Brake pedal operation condition
    - Shift lever position

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

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
  
L  
M  
N  
O  
P

SEC

# SYSTEM

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Power supply position	Condition						Push-button ignition switch operation frequency
	CVT models		M/T models				
	Selector lever	Brake pedal operation condition	Normal condition		Special condition		
			Shift lever	Clutch pedal operation condition	Shift lever	Brake pedal operation condition	
LOCK → ON	—	Not depressed	—	Not depressed	—	Not depressed	1
LOCK → ON → OFF	—	Not depressed	—	Not depressed	—	Not depressed	2
LOCK → START ON → START	P or N position	Depressed	—	Depressed	Neutral	Depressed	1
Engine is running → LOCK	—	—	—	—	—	—	1

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

Power supply position	Condition						Push-button ignition switch operation frequency
	CVT models		M/T models				
	Selector lever	Brake pedal operation condition	Normal condition		Special condition		
			Shift lever	Clutch pedal operation condition	Shift lever	Brake pedal operation condition	
Engine is running → OFF	—	—	—	—	—	—	Emergency stop operation
Engine stall return operation while driving	N position	Not depressed	—	Depressed	Neutral	—	1

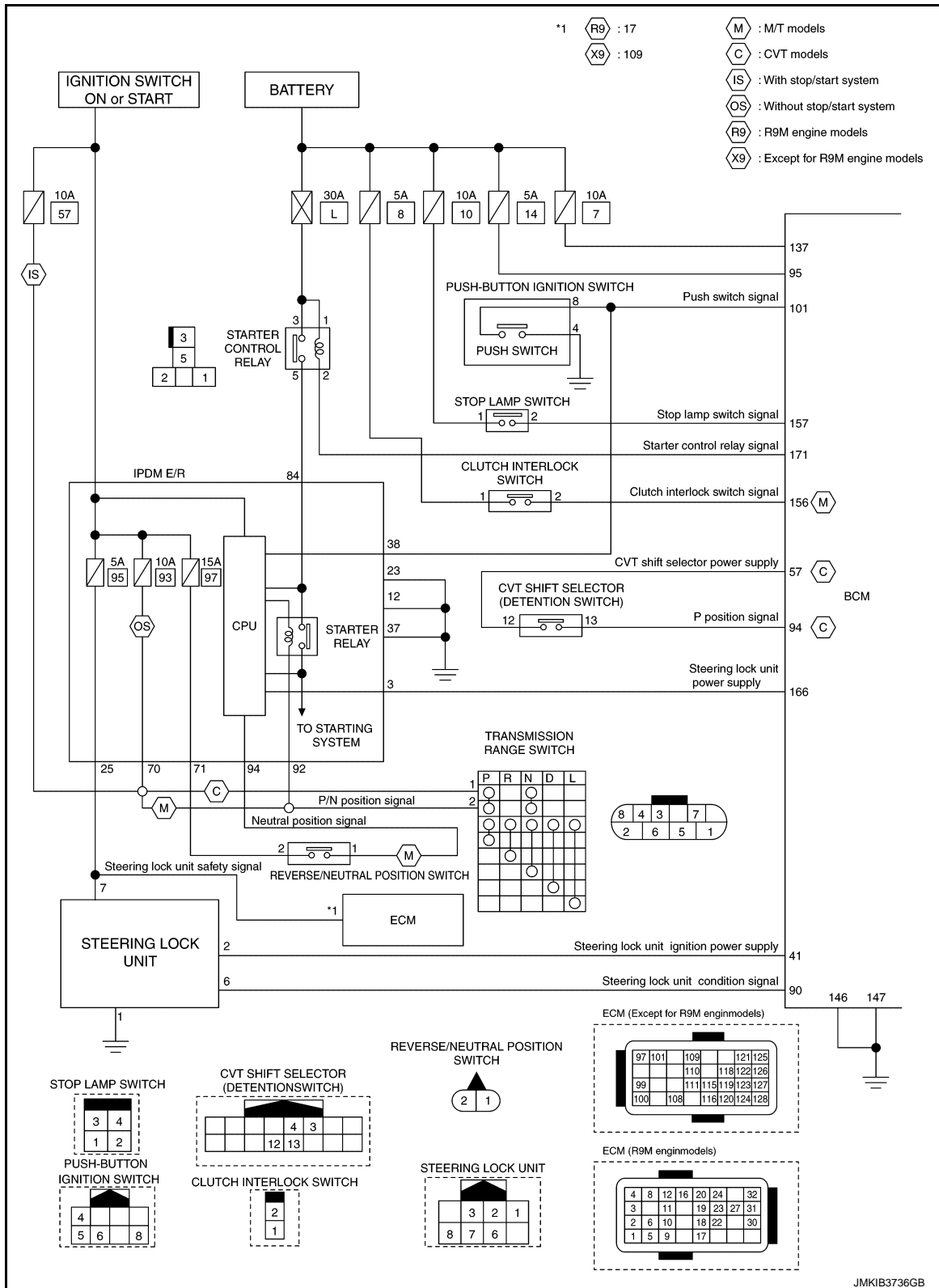
Emergency stop operation

- 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 ANTI-THEFT SYSTEM : Circuit Diagram

INFOID:000000010922119

LHD models

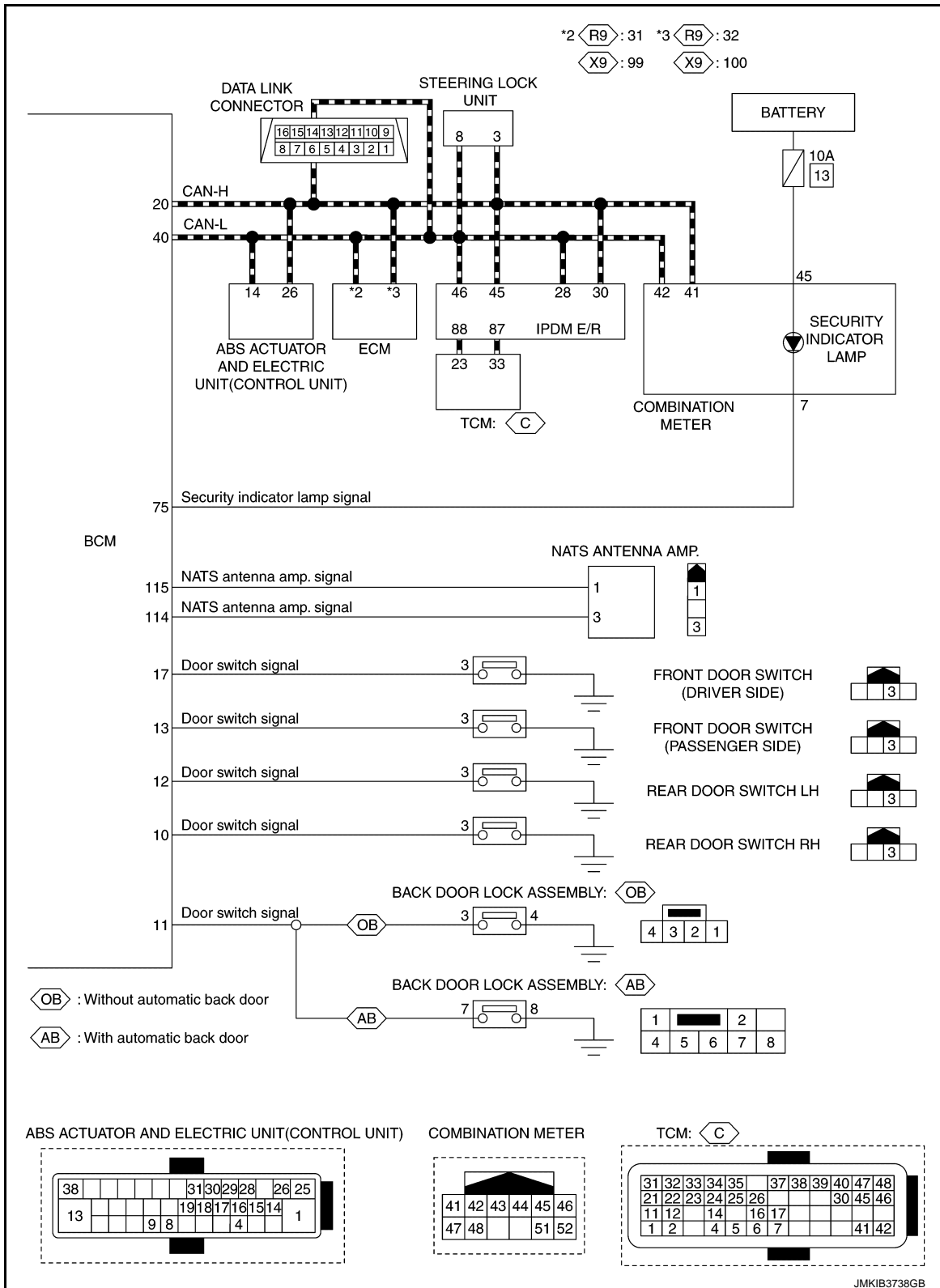


JMKIB3736GB

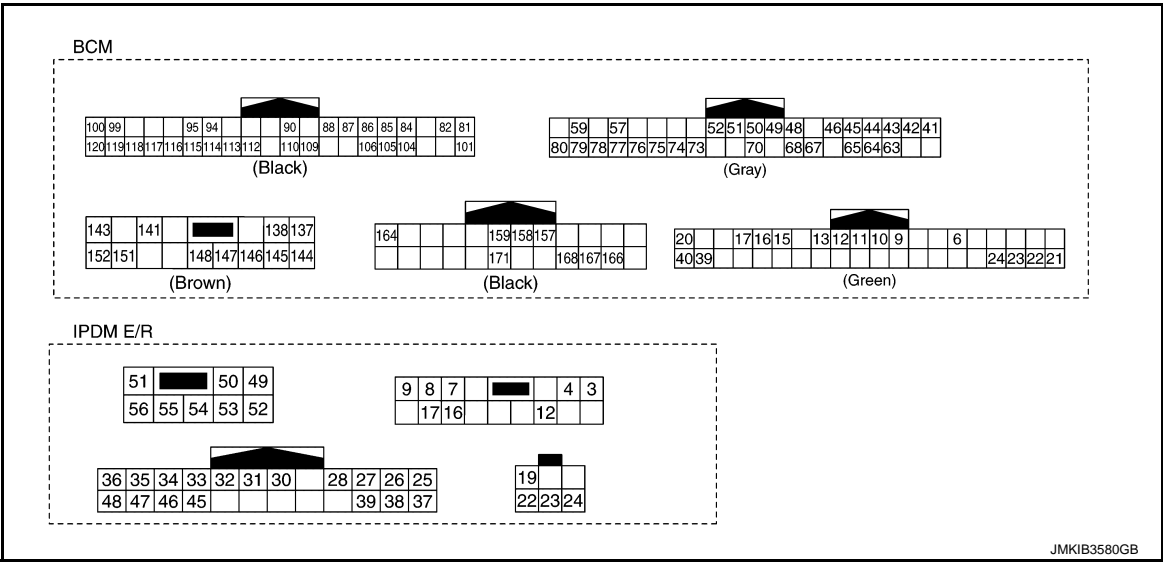
# SYSTEM

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]



JMKIB3738GB



A

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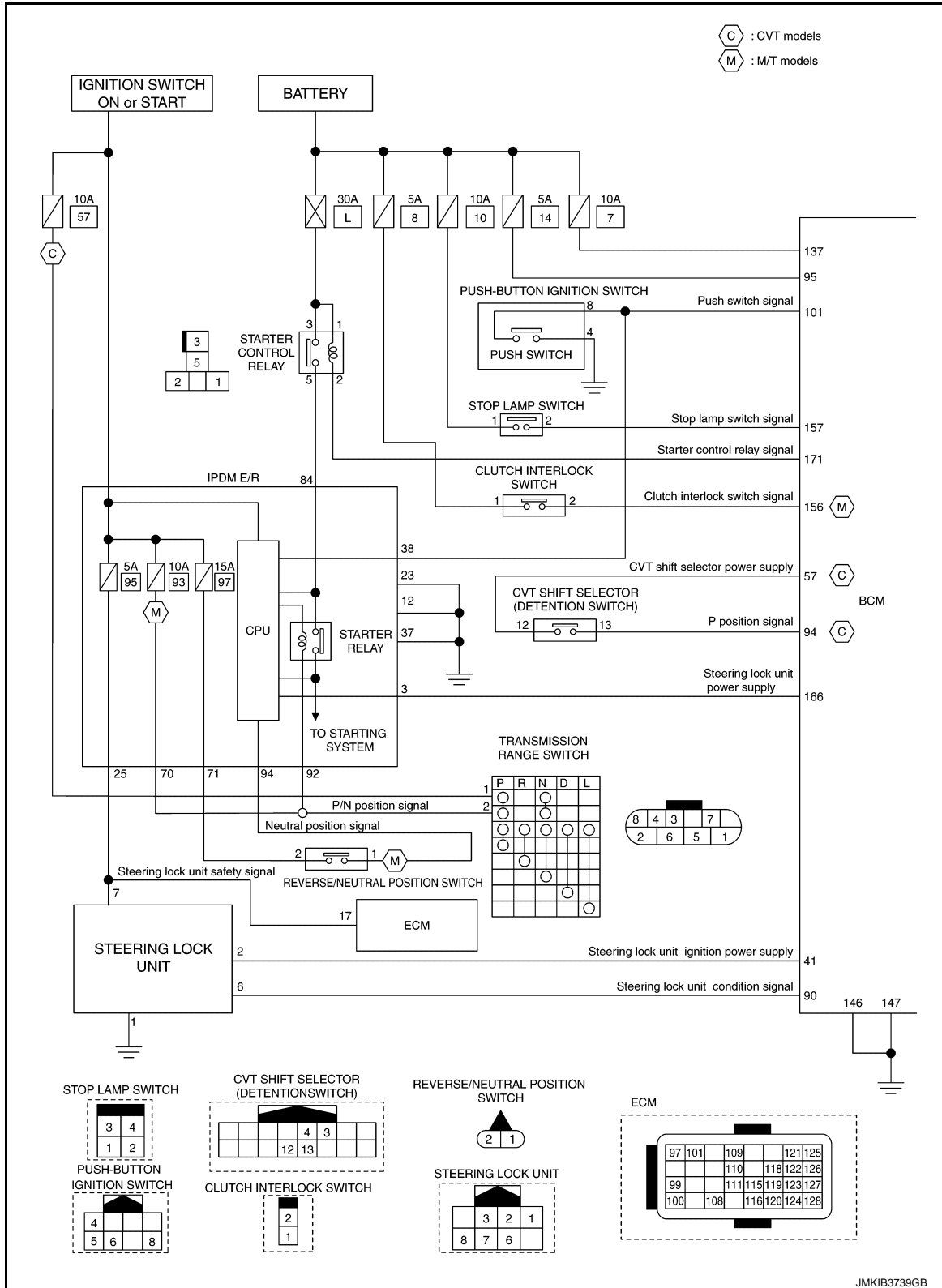
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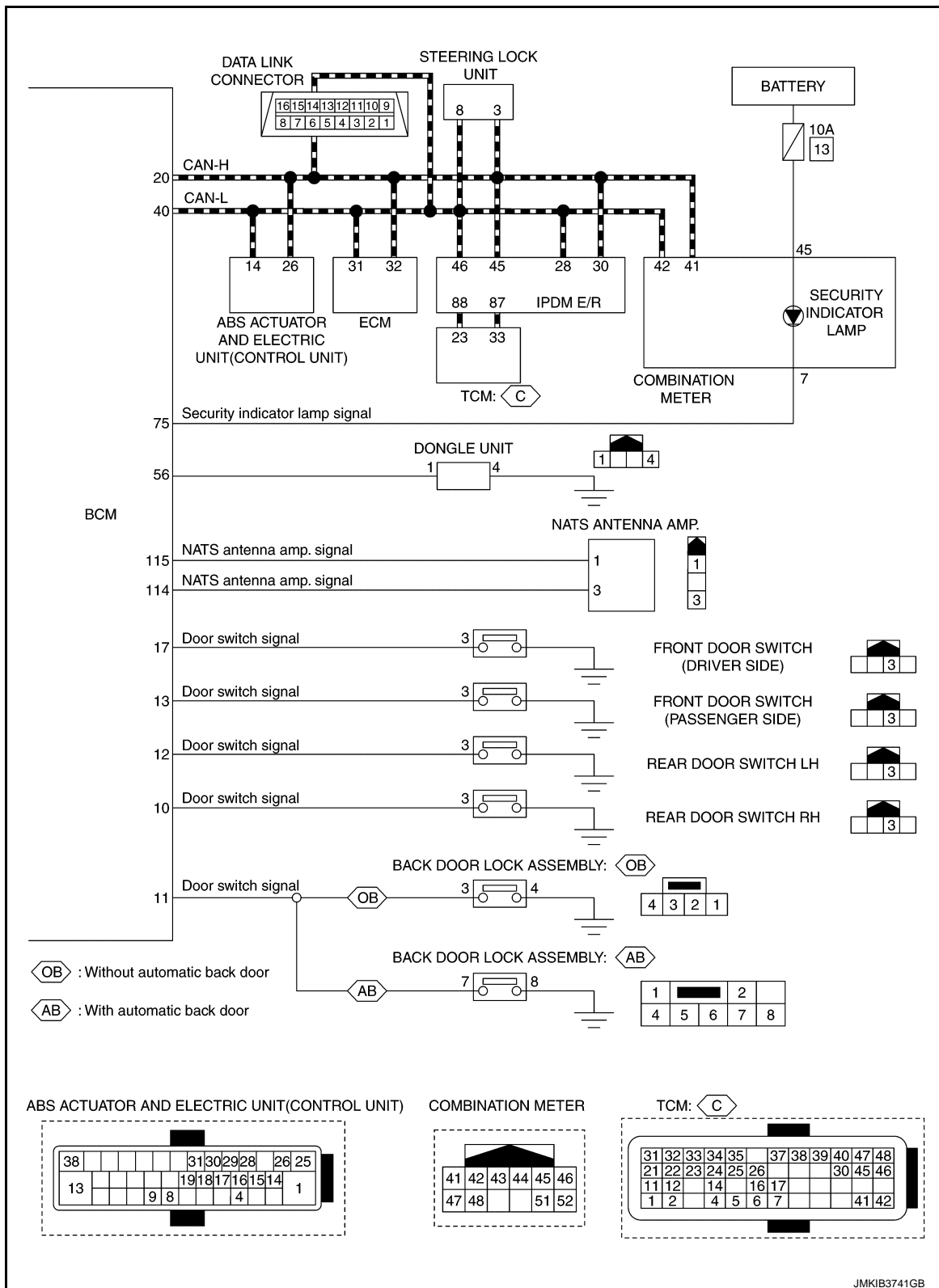
## SYSTEM

## < SYSTEM DESCRIPTION >

**[WITH INTELLIGENT KEY SYSTEM]**

## RHD models

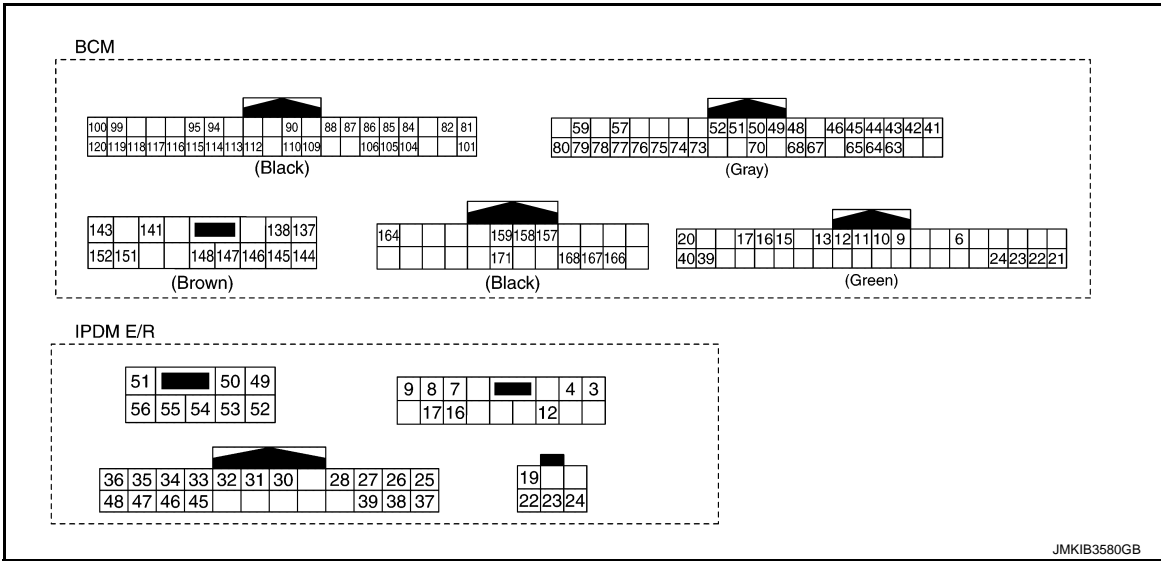




## SYSTEM

## < SYSTEM DESCRIPTION >

**[WITH INTELLIGENT KEY SYSTEM]**

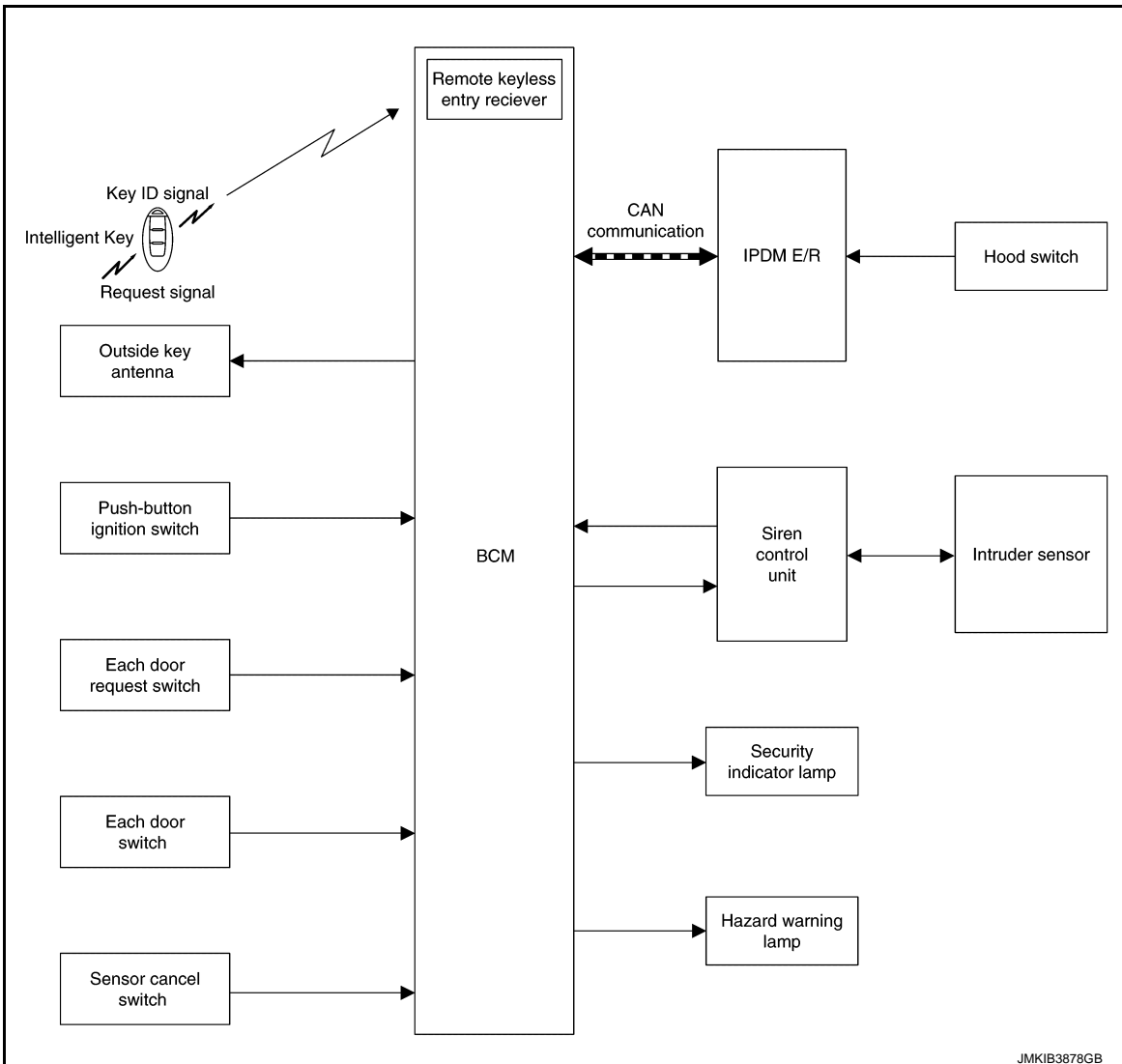


# VEHICLE SECURITY SYSTEM

## VEHICLE SECURITY SYSTEM : System Description

INFOID:0000000010923234

## SYSTEM DIAGRAM



# SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

## < SYSTEM DESCRIPTION >

### BCM INPUT/OUTPUT SIGNAL CHART

#### Input Signal Item

Transmit unit	Signal name	
IPDM E/R	CAN communication	Hood switch signal
Push-button ignition switch	Push switch signal	
Each door switch	Door switch signal	
Each door request switch	Door request switch signal	
Siren control unit	Hazard warning signal	
Sensor cancel switch	Sensor cancel switch signal	

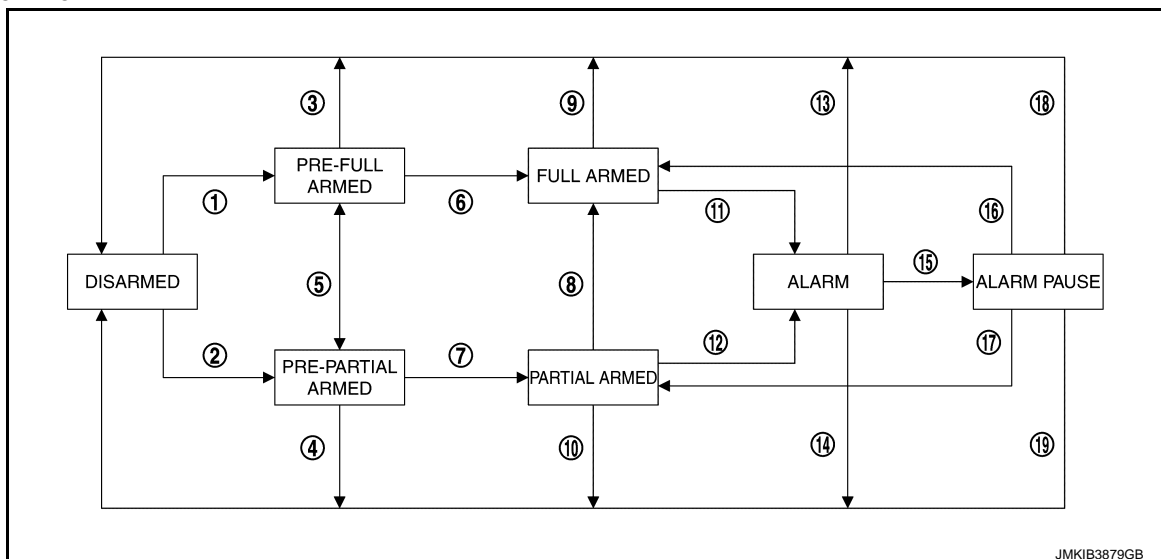
#### Output Signal Item

Reception unit	Signal name
Combination meter (security indicator lamp)	Security indicator lamp signal
Siren control unit	Alarm link signal
Hazard warning lamp	Hazard warning lamp signal
Outside key antenna	Outside key antenna signal

## SYSTEM DESCRIPTION

- The system reduces the possibility of a theft or mischief by sounding siren and blinking hazard warning lamp continuously. The system activates siren and hazard warning lamp when detecting that the door or hood is opened, or there is an illegal attempt to enter into the passenger room, while the system is in the ARMED phase.
  - Security indicator lamp on combination meter always blinks when ignition switch is any position other than ON to warn that the vehicle is equipped with a VEHICLE SECURITY SYSTEM.
  - Anti-theft function is improved by the adoption of intruder sensor that detects an attempt to enter into the passenger room.
  - Activation or deactivation of intruder sensor can be selected by sensor cancel switch.
  - Siren control unit equips a built-in battery. Replace siren control unit once every 10 years because the warranty for built-in battery expires after 10 years.
  - Each time the system switches to the PRE-ARMED phase from the DISARMED phase, the self-diagnosis is performed by the siren control unit and each sensor. If any malfunction is detected, the siren sounds\* 5 times to inform the driver that a malfunction is detected and the vehicle security system does not function properly. Malfunctioning part can be checked by "SIREN" in "ACTIVE TEST" mode of "THEFT ALM" of "BCM" using CONSULT. Refer to [SEC-64, "Diagnosis Description"](#).
- \*: Siren sounds for 0.2 seconds and sound interval is 0.4 seconds.

#### Operation Flow



# SYSTEM

## < SYSTEM DESCRIPTION >

## [WITH INTELLIGENT KEY SYSTEM]

No.	System state	Switching condition		
①	DISARMED to PRE-FULL ARMED	When all conditions of A and one condition of B is satisfied.	A	B
			<ul style="list-style-type: none"><li>Ignition switch: OFF</li><li>All doors: Closed</li><li>Hood: Closed</li></ul>	All doors are locked by: <ul style="list-style-type: none"><li>LOCK button of Intelligent Key</li><li>Door request switch</li></ul>
②	DISARMED to PRE-PARTIAL ARMED	When all conditions of A and one condition of B is satisfied.	A	B
			<ul style="list-style-type: none"><li>Ignition switch: OFF</li><li>Hood or any door: Open</li></ul>	All doors are locked by: <ul style="list-style-type: none"><li>LOCK button of Intelligent Key</li><li>Door request switch</li></ul>
③	PRE-FULL ARMED to DIS-ARMED	When one of the following condition is satisfied.	<ul style="list-style-type: none"><li>Ignition switch: ON</li><li>UNLOCK button of Intelligent Key: ON</li><li>Door request switch: ON</li></ul>	
④	PRE-PARTIAL ARMED to DIS-ARMED	When one of the following condition is satisfied.	<ul style="list-style-type: none"><li>Ignition switch: ON</li><li>UNLOCK button of Intelligent Key: ON</li><li>Door request switch: ON</li></ul>	
⑤	PRE-PARTIAL ARMED to PRE-FULL ARMED	When all of the following conditions are satisfied.	<ul style="list-style-type: none"><li>All doors: Closed</li><li>Hood: Closed</li></ul>	
	PRE-FULL ARMED to PRE-PARTIAL ARMED	When one of the following condition is satisfied.	<ul style="list-style-type: none"><li>Any door: Opened</li><li>Hood: Opened</li></ul>	
⑥	PRE-FULL ARMED to FULL ARMED	When all of the following conditions are satisfied for 20 seconds.	<ul style="list-style-type: none"><li>Ignition switch: OFF</li><li>All doors: Closed</li><li>Hood: Closed</li></ul>	
⑦	PRE-PARTIAL ARMED to PARTIAL ARMED	When all of the following conditions are satisfied for 20 seconds.	<ul style="list-style-type: none"><li>Ignition switch: OFF</li><li>Hood or any door: Open</li></ul>	
⑧	PARTIAL to FULL ARMED	When all of the following conditions are satisfied for 20 seconds.	<ul style="list-style-type: none"><li>Ignition switch: OFF</li><li>All doors: Closed</li><li>Hood: Closed</li></ul>	
⑨	FULL ARMED to DISARMED	When one of the following condition is satisfied.	<ul style="list-style-type: none"><li>Ignition switch: ON</li><li>UNLOCK button of Intelligent Key: ON</li><li>Door request switch: ON</li></ul>	
⑩	PARTIAL ARMED to DISARM			
⑪	FULL ARMED to ALARM	When one of the following condition is detected.	<ul style="list-style-type: none"><li>Any door or hood is opened</li><li>Battery connection is disconnected</li><li>Movement to enter into passenger room</li><li>Communication between BCM and siren control unit is interrupted</li><li>Communication between siren control unit and intruder sensor is interrupted</li></ul>	
⑫	PARTIAL ARMED to ALARM	When one of the following condition is detected.	<ul style="list-style-type: none"><li>Any door or hood is opened</li><li>Battery connection is disconnected</li><li>Communication between BCM and siren control unit is interrupted</li><li>Communication between siren control unit and intruder sensor is interrupted</li></ul>	
⑬	ALARM to DISARMED	When one of the following condition is satisfied.	<ul style="list-style-type: none"><li>Ignition switch: ON</li><li>UNLOCK button of Intelligent Key: ON</li><li>Door request switch: ON</li></ul>	
⑭				
⑮	ALARM to ALARM PAUSE	27.5 seconds are passed.		
⑯	ARM PAUSE to FULL ARMED	5 seconds are passed after deactivating ALARM.		
⑰	ARM PAUSE to PARTIAL ARMED			

# SYSTEM

## < SYSTEM DESCRIPTION >

## [WITH INTELLIGENT KEY SYSTEM]

No.	System state	Switching condition	
(18)	ALARM PAUSE to DISARMED	When one of the following condition is satisfied.	• Ignition switch: ON
(19)			• UNLOCK button of Intelligent Key: ON • Door request switch: ON

### NOTE:

To lock/unlock all doors by operating remote controller button of Intelligent Key or door request switch, Intelligent Key must be within the detection area of outside key antenna. For details, refer to [DLK-42, "DOOR LOCK FUNCTION : System Description"](#) (Type1) or [DLK-352, "DOOR LOCK FUNCTION : System Description"](#) (Type2).

### Disarmed Phase

VEHICLE SECURITY SYSTEM switches to the DISARMED phase while any doors or hood is open because it is assumed that the owner is in or nearby the vehicle.

### Pre-armed Phase

- VEHICLE SECURITY SYSTEM switches to the PRE-ARMED phase and blinks security indicator lamp quickly for approximately 20 seconds when all doors are locked by Intelligent Key or door request switch, while all doors and hood are closed.
- VEHICLE SECURITY SYSTEM that is in the PRE-ARMED phase switches to the DISARMED phase when all doors are unlocked by Intelligent Key or door request switch or ignition switch is switched to the ON position.
- VEHICLE SECURITY SYSTEM does not activate siren when door or hood is open while VEHICLE SECURITY SYSTEM is in the PRE-ARMED phase. When the door or hood is closed again, VEHICLE SECURITY SYSTEM stays in the PRE-ARMED phase.

### Armed Phase

VEHICLE SECURITY SYSTEM switches to the ARMED phase from the PRE-ARMED phase after approximately 20 seconds, and blinks security indicator lamp slowly.

### Alarm Phase

- VEHICLE SECURITY SYSTEM activates siren for approximately 27.5 seconds when any of the following conditions is fulfilled while VEHICLE SECURITY SYSTEM is in the ARMED phase.
  - When any door or hood is open
  - When intruder sensor detects an attempt to enter into passenger compartment
  - When battery connection is disconnected
  - Communication between BCM and siren control unit is interrupted
  - Communication between siren control unit and intruder sensor is interrupted
- VEHICLE SECURITY SYSTEM deactivates siren when door is unlocked by Intelligent Key or door request switch, or the ignition switch is switched to the ON position while siren is activated.
- VEHICLE SECURITY SYSTEM switches to the ARMED phase automatically when approximately 5 seconds pass after deactivating siren.

## SENSOR CANCEL FUNCTION

Perform the following procedure to deactivate intruder sensor.

### 1. CHECK SENSOR CANCEL FUNCTION

1. Turn ignition switch OFF.
2. Press sensor cancel switch, and before 5 minutes pass, close all doors and hood, and lock all doors using the Intelligent Key or door request switch.
3. Check that VEHICLE SECURITY SYSTEM is switched to the PRE-ARMED phase and that the siren sounds one beep.

### NOTE:

Intruder sensor is not cancelled and return to normal operation when any of the following conditions is fulfilled while the cancellation procedure is being performed.

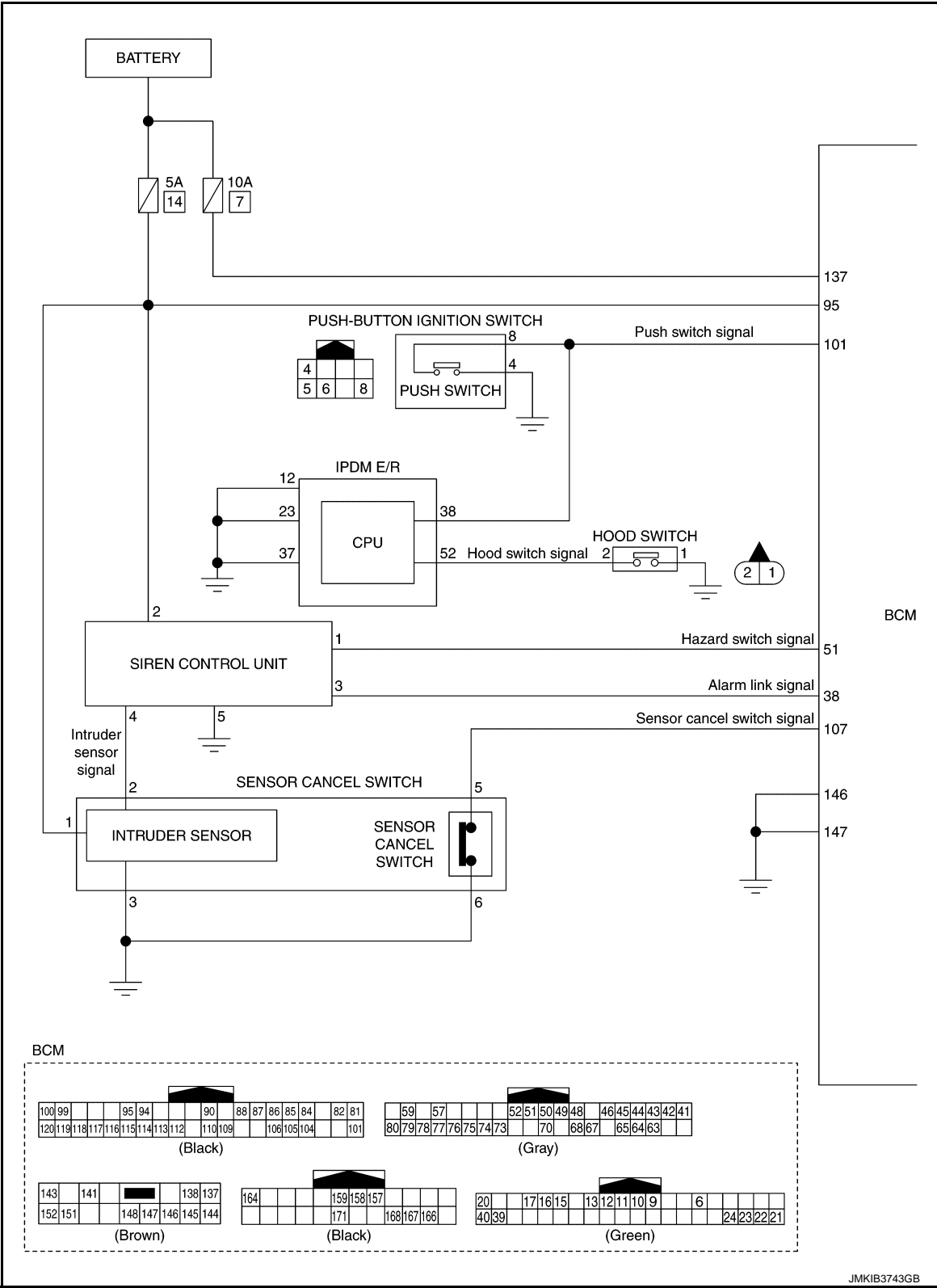
- When ignition switch turns ON.
- When 5 minutes or more pass after pressing sensor cancel switch.
- When VEHICLE SECURITY SYSTEM switches to the DISARMED phase.

### Does security indicator lamp blink quickly?

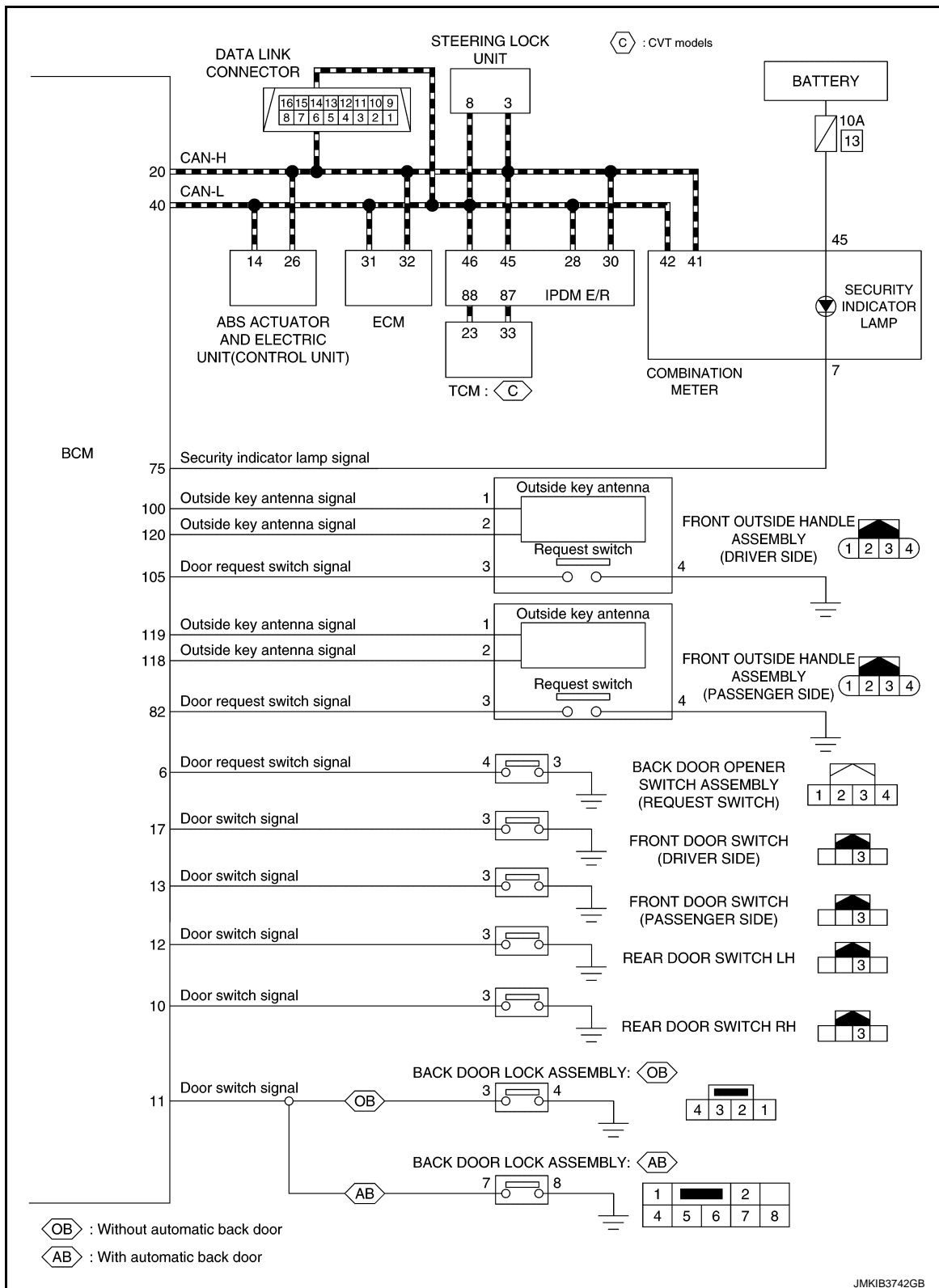
- YES >> INSPECTION END  
NO >> Check again.

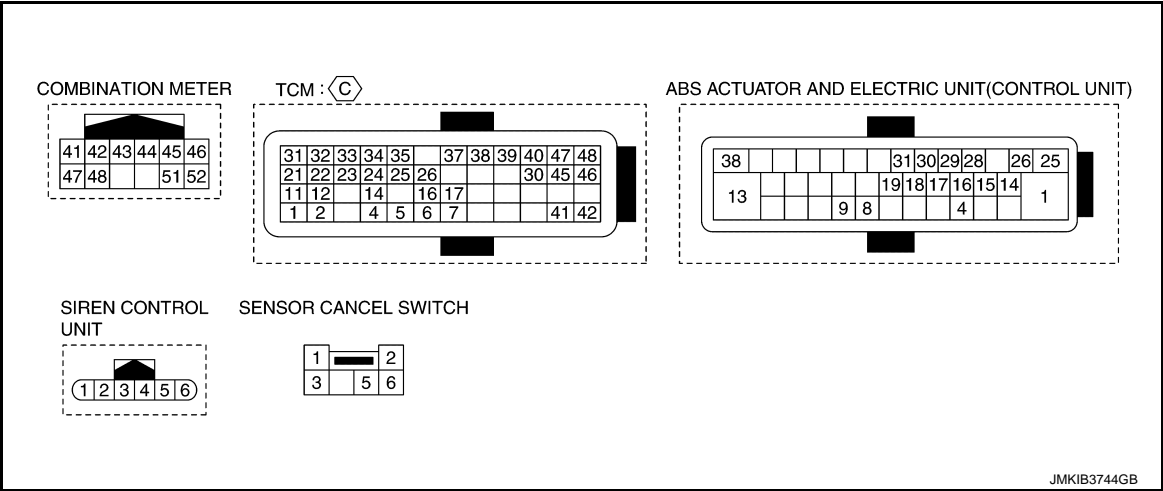
VEHICLE SECURITY SYSTEM : Circuit Diagram

INFOID:000000010947196



JMKIB3743GB





WARNING/INDICATOR/CHIME LIST

WARNING/INDICATOR/CHIME LIST : Warning Lamp/Indicator Lamp

INFOID:0000000010922121

Item	Design	Reference
Security indicator lamp		For layout, refer to <a href="#">MWI-10, "METER SYSTEM : Design"</a> .
		For function, refer to <a href="#">MWI-55, "WARNING LAMPS/INDICATOR LAMPS : Security Indicator Lamp (Turn ON)"</a> or <a href="#">MWI-56, "WARNING LAMPS/INDICATOR LAMPS : Security Indicator Lamp (Blinks)"</a> .

# DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

## DIAGNOSIS SYSTEM (BCM)

### COMMON ITEM

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

INFOID:0000000010950891

### APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
Work Support	Changes the setting for each system function.
Self Diagnostic Result	Displays the diagnosis results judged by BCM.
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from BCM.
Data Monitor	The BCM input/output signals are displayed.
Active Test	The signals used to activate each device are forcibly supplied from BCM.
Ecu Identification	The BCM part number is displayed.
Configuration	<ul style="list-style-type: none"> <li>Read and save the vehicle specification.</li> <li>Write the vehicle specification when replacing BCM.</li> </ul>

### SYSTEM APPLICATION

BCM can perform the following functions for each system.

#### NOTE:

It can perform the diagnosis modes except the following for all sub system selection items.

×: Applicable item

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

#### NOTE:

\*: This item is displayed, but not used.

### FREEZE FRAME DATA (FFD)

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

## DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

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

## INTELLIGENT KEY

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

INFOID:0000000010950892

## WORK SUPPORT

Monitor item	Description
INSIDE ANT DIAGNOSIS	This function allows inside key antenna self-diagnosis
LOCK/UNLOCK BY I-KEY	Door lock/unlock function by door request switch mode can be changed to operation in this mode <ul style="list-style-type: none"><li>• On: Operate</li><li>• Off: Non-operation</li></ul>
ENGINE START BY I-KEY	Engine start function mode can be changed to operation with this mode <ul style="list-style-type: none"><li>• On: Operate</li><li>• Off: Non-operation</li></ul>
TRUNK/GLASS HATCH OPEN	<b>NOTE:</b> This item is displayed, but cannot be monitored
AUTO LOCK SET	Auto door lock operation time can be changed in this mode <ul style="list-style-type: none"><li>• MODE 1: OFF</li><li>• MODE 2: 30 sec</li><li>• MODE 3: 1 minute</li><li>• MODE 4: 2 minutes</li><li>• MODE 5: 3 minutes</li><li>• MODE 6: 4 minutes</li><li>• MODE 7: 5 minutes</li></ul>
SHORT CRANKING OUTPUT	<b>NOTE:</b> This item is displayed, but cannot be monitored
IGN/ACC BATTERY SAVER	Ignition battery saver system mode can be changed to operation with this mode <ul style="list-style-type: none"><li>• On: Operate</li><li>• Off: Non-operation</li></ul>
ANSWER BACK	<b>NOTE:</b> This item is displayed, but cannot be used
ANSWER BACK I-KEY LOCK UNLOCK	<b>NOTE:</b> This item is displayed, but cannot be monitored
ANSWER BACK KEYLESS LOCK UNLOCK	<b>NOTE:</b> This item is displayed, but cannot be monitored

## SELF-DIAG RESULT

Refer to [BCS-78, "DTC Index"](#).

## DATA MONITOR

### NOTE:

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

# DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

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

SEC

# DIAGNOSIS SYSTEM (BCM)

## < SYSTEM DESCRIPTION >

## [WITH INTELLIGENT KEY SYSTEM]

Monitor Item	Condition
AUT CRANK TMR	Indicates the time that AUTO CRANKING MODE operates
CRANKING TME	Indicates the cranking operation time
SHORT CRANK	<b>NOTE:</b> This item is displayed, but not used
RKE OPE COUN1	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing
RKE OPE COUN2	<b>NOTE:</b> This item is displayed, but cannot be monitored
S/L IGN OFF POSITION	Indicates [On/Off] condition of Ignition OFF signal
S/L SENSOR CIRCUIT 1	Indicates [Gnd/On] condition of steering lock unit sensor circuit
S/L SENSOR CIRCUIT 2	Indicates [On/Off] condition of steering lock unit sensor circuit
S/L POWER OUTPUT	Indicates [On/Off] condition of steering lock unit power supply
S/L POWER CHECK	Indicates [On/Off] condition of steering lock unit power supply
ANTICIPATED POWER	Indicates [On/Off] condition of anticipated power supply
S/L LOCK REQ	Indicates [On/Off] condition of steering lock unit lock request signal
S/L - BCM (CAN)	Indicates [On/Off] condition of CAN communication
S/L POWER ERROR	Indicates [On/Off] condition of steering lock unit power supply error
VEH SPEED ERROR (S/L)	Indicates [On/Off] condition of vehicle speed signal
VEH SPEED NORMAL (S/L)	Indicates [On/Off] condition of vehicle speed signal
ENGINE RUNNING (S/L)	Indicates [On/Off] condition of engine running
S/L ID DISCORD	Indicates [Correct/Incorrect] condition of ID verification
S/L ANTI-SCAN MODE	Indicates [On/Off] condition of antiscan mode
S/L LOCK NOT PERMIT	Indicates [Inhibition/No inhbt] condition of inhibit steering lock
S/L UNLOCK (CAN)	Indicates [Finished/Unfinished] condition of steering lock unit unlock
S/L ID STATUS (CAN)	Indicates [Coded/Blank] condition of registration ID
S/L RESET STATUS (CAN)	Indicates [Exit/No exit] condition of steering lock unit reset signal
S/L LO-LEVEL MALFUNC (CAN)	Indicates [Malf/No malf] condition of lo-level malfunction
S/L LOCK POSITION (CAN)	Indicates [Armed/Malf/Unlocked/Undefined] condition of lock/unlock position signal
S/L ACT MALFUNCTION (CAN)	Indicates [Malf/No malf] condition of steering lock unit malfunction
S/L HI-LEVEL MALFUNC (CAN)	Indicates [Malf/No malf] condition of hi-level malfunction
S/L OPERATION PRHBT (SPD)	Indicates [On/Off] condition of vehicle speed signal
S/L OPERATION PRHBT (PWR)	Indicates [Allowed/Forbid] condition of safety line inhibition
S/L SENSOR POWER (CAN)	Indicates [On/Off] condition of sensor test power supply
S/L SEN TEST PERMIT (CAN)	Indicates [Forbid/Authorize] condition of sensor test
S/L STAT NOT DETECT (CAN)	Indicates [Ok/Unfind] condition of steering lock undefined position signal
S/L LOCKING FINISHED (CAN)	Indicates [Unfinshd/Finished] condition of steering lock unit lock status signal
STOP/START SW	Indicates [On/Off] condition of stop/start off switch
RKE-LOCK	Indicates [On/Off] condition of LOCK signal from Intelligent Key
RKE-UNLOCK	Indicates [On/Off] condition of UNLOCK signal from Intelligent Key
RKE-TR/BD	<b>NOTE:</b> This item is displayed, but cannot be monitored
RKE-PANIC	<b>NOTE:</b> This item is displayed, but cannot be monitored
RKE-MODE CHG	Indicates [On/Off] condition of MODE CHANGE signal from Intelligent Key
RKE PBD	Indicates [On/Off] condition of back door open request signal from Intelligent Key

# DIAGNOSIS SYSTEM (BCM)

## < SYSTEM DESCRIPTION >

## [WITH INTELLIGENT KEY SYSTEM]

Monitor Item	Condition
KEY SW	<b>NOTE:</b> This item is displayed, but cannot be monitored
IGN SW	<b>NOTE:</b> This item is displayed, but cannot be monitored
START SW	<b>NOTE:</b> This item is displayed, but cannot be monitored

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

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

## ACTIVE TEST

Test item	Description
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation <ul style="list-style-type: none"> <li>On: Operate</li> <li>Off: Non-operation</li> </ul>
INSIDE BUZZER	This test is able to check warning chime in combination meter operation <ul style="list-style-type: none"> <li>Buzzer 1: Combination meter buzzer sounds (pipipi...) when CONSULT screen is touched</li> <li>Buzzer 2: Combination meter buzzer sounds (pipi-pipi...) when CONSULT screen is touched</li> <li>Buzzer 3: Combination meter buzzer sounds (pipipipi-pipipipi...) when CONSULT screen is touched</li> <li>Off: Non-operation</li> </ul>
INDICATOR	This test is able to check warning lamp operation <ul style="list-style-type: none"> <li>KEY ON: [Intelligent Key system malfunction] displays when CONSULT screen is touched</li> <li>KEY IND: "KEY" Warning lamp blinks when CONSULT screen is touched</li> <li>Off: Non-operation</li> </ul>
FLASHER	This test is able to check security hazard lamp operation The hazard lamps are activated after "LH/RH/Off" on CONSULT screen is touched
HORN	<b>NOTE:</b> This item is displayed, but cannot be used
IGN CONT2	This test is able to operate the blower relay in fuse block (J/B) <ul style="list-style-type: none"> <li>On: Operates</li> <li>Off: Non-operation</li> </ul>
ENGINE SW ILLUMI	This test is able to check push-ignition switch illumination operation Push-ignition switch illumination illuminates when "ON" on CONSULT screen is touched
ENGINE START REQUEST	This test is able to check BCM sends starter request signal to IPDM E/R via CAN communication <ul style="list-style-type: none"> <li>MODE 1: IGN ON, START request OFF</li> <li>MODE 2: IGN OFF, START request ON</li> <li>MODE 3: IGN ON, START request ON</li> <li>Off: Non-operation</li> </ul>
IGNITION RELAY	<b>NOTE:</b> This item is displayed, but cannot be used
STARTER CUT RELAY	This test is able to operate the starter control relay <ul style="list-style-type: none"> <li>On: Operates</li> <li>Off: Non-operation</li> </ul>
ENGINE START	<b>NOTE:</b> This item is displayed, but cannot be used
TRUNK/BACK DOOR	<b>NOTE:</b> This item is displayed, but cannot be used
RETRACTABLE MIRROR	<b>NOTE:</b> This item is displayed, but cannot be used
AUTO ACC 2	This test is able to check BCM sends power supply to audio unit or NAVI control unit <ul style="list-style-type: none"> <li>On: Operate</li> <li>Off: Non-operation</li> </ul>

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# DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Test item	Description
AUTOMATIC BACK DOOR	<b>NOTE:</b> This item is displayed, but cannot be used
AUTO ACC 1	This test is able to check BCM sends power supply to ignition relay <ul style="list-style-type: none"> <li>On: Operate</li> <li>Off: Non-operation</li> </ul>
TRUNK/LUGGAGE LAMP TEST	This test is able to check trunk/luggage room lamp operation <ul style="list-style-type: none"> <li>On: Operates</li> <li>Off: Non-operation</li> </ul>

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

INFOID:000000010950893

### WORK SUPPORT

Monitor item	Description
INSIDE ANT DIAGNOSIS	This function allows inside key antenna self-diagnosis
LOCK/UNLOCK BY I-KEY	Door lock/unlock function by door request switch mode can be changed to operation in this mode <ul style="list-style-type: none"> <li>On: Operate</li> <li>Off: Non-operation</li> </ul>
ENGINE START BY I-KEY	Engine start function mode can be changed to operation with this mode <ul style="list-style-type: none"> <li>On: Operate</li> <li>Off: Non-operation</li> </ul>
TRUNK/GLASS HATCH OPEN	<b>NOTE:</b> This item is displayed, but cannot be monitored
AUTO LOCK SET	Auto door lock operation time can be changed in this mode <ul style="list-style-type: none"> <li>MODE 1: OFF</li> <li>MODE 2: 30 sec</li> <li>MODE 3: 1 minute</li> <li>MODE 4: 2 minutes</li> <li>MODE 5: 3 minutes</li> <li>MODE 6: 4 minutes</li> <li>MODE 7: 5 minutes</li> </ul>
SHORT CRANKING OUTPUT	<b>NOTE:</b> This item is displayed, but cannot be monitored
IGN/ACC BATTERY SAVER	Ignition battery saver system mode can be changed to operation with this mode <ul style="list-style-type: none"> <li>On: Operate</li> <li>Off: Non-operation</li> </ul>
ANSWER BACK	<b>NOTE:</b> This item is displayed, but cannot be used
ANSWER BACK I-KEY LOCK UNLOCK	<b>NOTE:</b> This item is displayed, but cannot be used
ANSWER BACK KEYLESS LOCK UNLOCK	<b>NOTE:</b> This item is displayed, but cannot be used

### SELF-DIAG RESULT

Refer to [BCS-78. "DTC Index"](#).

### DATA MONITOR

#### NOTE:

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

Monitor Item	Condition
REQ SW -DR	Indicates [On/Off] condition of door request switch (driver side)
REQ SW -AS	Indicates [On/Off] condition of door request switch (passenger side)

# DIAGNOSIS SYSTEM (BCM)

## < SYSTEM DESCRIPTION >

## [WITH INTELLIGENT KEY SYSTEM]

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

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# DIAGNOSIS SYSTEM (BCM)

## < SYSTEM DESCRIPTION >

## [WITH INTELLIGENT KEY SYSTEM]

Monitor Item	Condition
SHORT CRANK	<b>NOTE:</b> This item is displayed, but not used
RKE OPE COUN1	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing
RKE OPE COUN2	<b>NOTE:</b> This item is displayed, but cannot be monitored
S/L IGN OFF POSITION	Indicates [On/Off] condition of Ignition OFF signal
S/L SENSOR CIRCUIT 1	Indicates [Gnd/On] condition of steering lock unit sensor circuit
S/L SENSOR CIRCUIT 2	Indicates [On/Off] condition of steering lock unit sensor circuit
S/L POWER OUTPUT	Indicates [On/Off] condition of steering lock unit power supply
S/L POWER CHECK	Indicates [On/Off] condition of steering lock unit power supply
ANTICIPATED POWER	Indicates [On/Off] condition of anticipated power supply
S/L LOCK REQ	Indicates [On/Off] condition of steering lock unit lock request signal
S/L - BCM (CAN)	Indicates [On/Off] condition of CAN communication
S/L POWER ERROR	Indicates [On/Off] condition of steering lock unit power supply error
VEH SPEED ERROR (S/L)	Indicates [On/Off] condition of vehicle speed signal
VEH SPEED NORMAL (S/L)	Indicates [On/Off] condition of vehicle speed signal
ENGINE RUNNING (S/L)	Indicates [On/Off] condition of engine running
S/L ID DISCORD	Indicates [Correct/Incorrect] condition of ID verification
S/L ANTI-SCAN MODE	Indicates [On/Off] condition of antiscan mode
S/L LOCK NOT PERMIT	Indicates [Inhibition/No inhbt] condition of inhibit steering lock
S/L UNLOCK (CAN)	Indicates [Finished/Unfinished] condition of steering lock unit unlock
S/L ID STATUS (CAN)	Indicates [Coded/Blank] condition of registration ID
S/L RESET STATUS (CAN)	Indicates [Exit/No exit] condition of steering lock unit reset signal
S/L LO-LEVEL MALFUNC (CAN)	Indicates [Malf/No malf] condition of lo-level malfunction
S/L LOCK POSITION (CAN)	Indicates [Armed/Malf/Unlocked/Undefined] condition of lock/unlock position signal
S/L ACT MALFUNCTION (CAN)	Indicates [Malf/No malf] condition of steering lock unit malfunction
S/L HI-LEVEL MALFUNC (CAN)	Indicates [Malf/No malf] condition of hi-level malfunction
S/L OPERATION PRHBT (SPD)	Indicates [On/Off] condition of vehicle speed signal
S/L OPERATION PRHBT (PWR)	Indicates [Allowed/Forbid] condition of safety line inhibition
S/L SENSOR POWER (CAN)	Indicates [On/Off] condition of sensor test power supply
S/L SEN TEST PERMIT (CAN)	Indicates [Forbid/Authorize] condition of sensor test
S/L STAT NOT DETECT (CAN)	Indicates [Ok/Unfind] condition of steering lock undefined position signal
S/L LOCKING FINISHED (CAN)	Indicates [Unfinshd/Finished] condition of steering lock unit lock status signal
STOP/START SW	Indicates [On/Off] condition of stop/start off switch
RKE-LOCK	Indicates [On/Off] condition of LOCK signal from Intelligent Key
RKE-UNLOCK	Indicates [On/Off] condition of UNLOCK signal from Intelligent Key
RKE-TR/BD	<b>NOTE:</b> This item is displayed, but cannot be monitored
RKE-PANIC	<b>NOTE:</b> This item is displayed, but cannot be monitored
RKE-MODE CHG	Indicates [On/Off] condition of MODE CHANGE signal from Intelligent Key
RKE PBD	Indicates [On/Off] condition of back door open request signal from Intelligent Key
KEY SW	<b>NOTE:</b> This item is displayed, but cannot be monitored

# DIAGNOSIS SYSTEM (BCM)

## < SYSTEM DESCRIPTION >

## [WITH INTELLIGENT KEY SYSTEM]

Monitor Item	Condition
IGN SW	<b>NOTE:</b> This item is displayed, but cannot be monitored
START SW	<b>NOTE:</b> This item is displayed, but cannot be monitored

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

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

## ACTIVE TEST

Test item	Description
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation <ul style="list-style-type: none"> <li>On: Operate</li> <li>Off: Non-operation</li> </ul>
INSIDE BUZZER	This test is able to check warning chime in combination meter operation <ul style="list-style-type: none"> <li>Buzzer 1: Combination meter buzzer sounds (pipipi...) when CONSULT screen is touched</li> <li>Buzzer 2: Combination meter buzzer sounds (pipi-pipi-...) when CONSULT screen is touched</li> <li>Buzzer 3: Combination meter buzzer sounds (pipipipi-pipipipi-...) when CONSULT screen is touched</li> <li>Off: Non-operation</li> </ul>
INDICATOR	This test is able to check warning lamp operation <ul style="list-style-type: none"> <li>KEY ON: [Intelligent Key system malfunction] displays when CONSULT screen is touched</li> <li>KEY IND: "KEY" Warning lamp blinks when CONSULT screen is touched</li> <li>Off: Non-operation</li> </ul>
FLASHER	This test is able to check security hazard lamp operation The hazard lamps are activated after "LH/RH/Off" on CONSULT screen is touched
HORN	<b>NOTE:</b> This item is displayed, but cannot be used
IGN CONT2	This test is able to operate the blower relay in fuse block (J/B) <ul style="list-style-type: none"> <li>On: Operates</li> <li>Off: Non-operation</li> </ul>
ENGINE SW ILLUMI	This test is able to check push-ignition switch illumination operation Push-ignition switch illumination illuminates when "ON" on CONSULT screen is touched
ENGINE START REQUEST	This test is able to check BCM sends starter request signal to IPDM E/R via CAN communication <ul style="list-style-type: none"> <li>MODE 1: IGN ON, START request OFF</li> <li>MODE 2: IGN OFF, START request ON</li> <li>MODE 3: IGN ON, START request ON</li> <li>Off: Non-operation</li> </ul>
IGNITION RELAY	<b>NOTE:</b> This item is displayed, but cannot be used
STARTER CUT RELAY	This test is able to operate the starter control relay <ul style="list-style-type: none"> <li>On: Operates</li> <li>Off: Non-operation</li> </ul>
ENGINE START	<b>NOTE:</b> This item is displayed, but cannot be used
TRUNK/BACK DOOR	<b>NOTE:</b> This item is displayed, but cannot be used
RETRACTABLE MIRROR	<b>NOTE:</b> This item is displayed, but cannot be used
AUTO ACC 2	This test is able to check BCM sends power supply to audio unit or NAVI control unit <ul style="list-style-type: none"> <li>On: Operate</li> <li>Off: Non-operation</li> </ul>
AUTOMATIC BACK DOOR	<b>NOTE:</b> This item is displayed, but cannot be used

# DIAGNOSIS SYSTEM (BCM)

## < SYSTEM DESCRIPTION >

## [WITH INTELLIGENT KEY SYSTEM]

Test item	Description
AUTO ACC 1	This test is able to check BCM sends power supply to ignition relay <ul style="list-style-type: none"> <li>On: Operate</li> <li>Off: Non-operation</li> </ul>
TRUNK/LUGGAGE LAMP TEST	This test is able to check trunk/luggage room lamp operation <ul style="list-style-type: none"> <li>On: Operates</li> <li>Off: Non-operation</li> </ul>

## MULTI REMOTE ENT

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

INFOID:000000010950894

## WORK SUPPORT

Test item	Description
AUTO LOCK SET	Auto door lock time can be changed in this mode <ul style="list-style-type: none"> <li>MODE 1: Non-operation</li> <li>MODE 2: 30 sec.</li> <li>MODE 3: 1 minute</li> <li>MODE 4: 2 minute</li> <li>MODE 5: 3 minute</li> <li>MODE 6: 4 minute</li> <li>MODE 7: 5 minute</li> </ul>
ANSWER BACK	<b>NOTE:</b> This item is displayed, but cannot be used
ANSWER BACK KEYLESS LOCK UNLOCK	<b>NOTE:</b> This item is displayed, but cannot be used
WELCOME LIGHT OP SET	<b>NOTE:</b> This item is displayed, but cannot be used

## DATA MONITOR

### NOTE:

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

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

# DIAGNOSIS SYSTEM (BCM)

## < SYSTEM DESCRIPTION >

## [WITH INTELLIGENT KEY SYSTEM]

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

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

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

## ACTIVE TEST

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

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

INFOID:0000000011009321

## WORK SUPPORT

# DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Test item	Description
AUTO LOCK SET	Auto door lock time can be changed in this mode <ul style="list-style-type: none"> <li>• MODE 1: Non-operation</li> <li>• MODE 2: 30 sec.</li> <li>• MODE 3: 1 minute</li> <li>• MODE 4: 2 minute</li> <li>• MODE 5: 3 minute</li> <li>• MODE 6: 4 minute</li> <li>• MODE 7: 5 minute</li> </ul>
ANSWER BACK	<b>NOTE:</b> This item is displayed, but cannot be used
ANSWER BACK KEYLESS LOCK UNLOCK	<b>NOTE:</b> This item is displayed, but cannot be used
WELCOME LIGHT OP SET	<b>NOTE:</b> This item is displayed, but cannot be used

## DATA MONITOR

### NOTE:

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

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

# DIAGNOSIS SYSTEM (BCM)

## < SYSTEM DESCRIPTION >

## [WITH INTELLIGENT KEY SYSTEM]

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

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

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

## ACTIVE TEST

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

## THEFT ALM

SEC

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

INFOID:0000000010926637

## DATA MONITOR

### NOTE:

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

Monitored Item	Description
REQ SW -DR	Indicates [ON/OFF] condition of door request switch (driver side).
REQ SW -AS	Indicates [ON/OFF] condition of door request switch (passenger side).
REQ SW -BD/TR	Indicates [ON/OFF] condition of back door opener request switch.
PUSH SW	Indicates [ON/OFF] condition of push-button ignition switch
DOOR SW-DR	Indicates [ON/OFF] condition of front door switch (driver side).
DOOR SW-AS	Indicates [ON/OFF] condition of front door switch (passenger side).
DOOR SW-RR	Indicates [ON/OFF] condition of rear door switch RH.
DOOR SW-RL	Indicates [ON/OFF] condition of rear door switch LH.
DOOR SW-BK	Indicates [ON/OFF] condition of back door switch.
CDL LOCK SW	Indicates [ON/OFF] condition of lock signal from door lock/unlock switch.

## DIAGNOSIS SYSTEM (BCM)

### < SYSTEM DESCRIPTION >

### [WITH INTELLIGENT KEY SYSTEM]

Monitored Item	Description
CDL UNLOCK SW	Indicates [ON/OFF] condition of unlock signal from door lock/unlock switch.
KEY CYL LK-SW	<b>NOTE:</b> This item is indicated, but not monitored.
KEY CYL UN-SW	<b>NOTE:</b> This item is indicated, but not monitored.
KEY CYL SW-TR	<b>NOTE:</b> This item is indicated, but not monitored.
SEN CANCEL SW	Indicates [ON/OFF] condition of sensor cancel switch.
RKE-LOCK	Indicates [ON/OFF] condition of LOCK signal from Intelligent Key.
RKE-UNLOCK	Indicates [ON/OFF] condition of UNLOCK signal from Intelligent Key.
RKE-TR/BD	<b>NOTE:</b> This item is indicated, but not monitored.
KEY SW	<b>NOTE:</b> This item is indicated, but not monitored.

### WORK SUPPORT

Service Item	Description
SECURITY ALARM SET	This mode is able to confirm and change vehicle security alarm ON-OFF setting.
SIREN SET	Select the siren function ON or OFF, and siren type. <ul style="list-style-type: none"><li>• MODE 1: Without siren</li><li>• MODE 2: With siren</li><li>• MODE 3: With external complete protection (with siren)</li><li>• MODE 4: Without any external protection (with siren)</li><li>• MODE 5: Without external tilt protection (with siren)</li></ul>

### ACTIVE TEST

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

## IMMU

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

INFOID:0000000010926638

### DATA MONITOR

#### **NOTE:**

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

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

### WORK SUPPORT

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

### ACTIVE TEST

## DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

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

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## DIAGNOSIS SYSTEM (IPDM E/R)

## CONSULT Function (IPDM E/R)

INFOID:0000000011009323

## APPLICATION ITEM

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

Diagnosis mode	Description
Self Diagnostic Result	Displays the diagnosis results judged by IPDM E/R.
Data Monitor	Displays the real-time input/output data from IPDM E/R input/output data.
Work Support	Changes the setting for each system function.
Active Test	IPDM E/R can provide a drive signal to electronic components to check their operations.
Ecu Identification	Allows confirmation of IPDM E/R part number.
Configuration	<ul style="list-style-type: none"> <li>Read and save the vehicle specification.</li> <li>White the vehicle specification when replacing IPDM E/R.</li> </ul>
CAN Diag Support Monitor	The results of transmit/receive diagnosis of CAN communication can be read.

## SELF DIAGNOSTIC RESULT

Refer to [PCS-38, "DTC Index"](#).

## Freeze Frame Data (FFD)

The IPDM E/R records the vehicle condition at the time a particular DTC is detected, and displays on CONSULT.

## DATA MONITOR

**NOTE:**

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

Monitor Item [Unit]	Description
REVERSE SIGNAL [Open/Close]	Displays the status of reverse position signal judged by IPDM E/R.
IGN RELAY [Open/Close]	Displays the status of the ignition relay judged by IPDM E/R.
PUSH SW [Open/Close]	Displays the status of the push-button ignition switch judged by IPDM E/R.
NEUTRAL SW [Open/Close]	Displays the status of the neutral position signal (M/T) judged by IPDM E/R.
INTERLOCK/PNP SW [Open/Close]	Displays the status of the transmission range switch (CVT) judged by IPDM E/R.
OIL PRESSURE SW [Open/Close]	Displays the status of the oil pressure switch judged by IPDM E/R.
LED H/L RH STATUS [Open/Close]	Displays the LED headlamp (right) ON/OFF status judged by IPDM E/R. <b>NOTE:</b> This item is monitored only on the vehicle with LED headlamp.
LED H/L LH STATUS [Open/Close]	Displays the LED headlamp (left) ON/OFF status judged by IPDM E/R. <b>NOTE:</b> This item is monitored only on the vehicle with LED headlamp.
HOOD SW [Open/Close]	Displays the status of the hood switch judged by IPDM E/R.
COMPRESSOR [Off/On]	Displays the compressor drive status judged by IPDM E/R.
H/L WASHER PUMP [Off/On]	Displays the status of the headlamp washer relay judged by IPDM E/R.

# DIAGNOSIS SYSTEM (IPDM E/R)

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Monitor Item [Unit]	Description
HORN RELAY [Off/On]	Displays the status of the horn relay judged by IPDM E/R.
COOLING FAN [Off/On]	Displays the cooling fan relay-4 drive status judged by IPDM E/R.
FRONT WIPER HI/LO RELAY [Off/On]	Displays the front wiper HI/LO relay drive status judged by IPDM E/R.
FRONT WIPER RELAY [Off/On]	Displays the front wiper relay drive status judged by IPDM E/R.
IGN RELAY OFF STATUS [Off/On]	Displays the status of the ignition relay OFF circuit judged by IPDM E/R.
IGN RELAY ON STATUS [Off/On]	Displays the status of the ignition relay ON circuit judged by IPDM E/R.
STEERING LOCK PWR SPLY [Off/On]	Displays the power supply status from IPDM E/R to the steering lock unit. <b>NOTE:</b> This item is monitored only on the vehicle with Intelligent Key system
HEIGHT SENSOR PWR SPLY [Off/On]	Displays the power supply status from IPDM E/R to the height sensor.
COOLING FAN RELAY 1 [Off/On]	Displays the status of the cooling fan relay-1 judged by IPDM E/R.
STARTER RELAY [Off/On]	Displays the status of the starter relay judged by IPDM E/R.
COMP ECV DUTY [%]	Displays the compressor control signal (PWM) status of IPDM E/R.
COOLING FAN RELAY 2 [%]	Displays the status of the cooling fan relay-5 judged by IPDM E/R.
FR FOG LAMP LH [%]	Displays the front fog lamp (left) output (PWM) status of IPDM E/R.
FR FOG LAMP RH [%]	Displays the front fog lamp (right) output (PWM) status of IPDM E/R.
LEVELIZER OUTPUT [%]	Displays the aiming motor drive signal (PWM) status of IPDM E/R.
PARKING LAMP [%]	Displays the parking lamp output (PWM) status of IPDM E/R.
TAIL LAMP LH [%]	Displays the tail lamp (left) output (PWM) status of IPDM E/R.
TAIL LAMP RH [%]	Displays the tail lamp (right) output (PWM) status of IPDM E/R.
DAYTIME RUNNING LIGHT LH [%]	Displays the daytime running light (left) output status of IPDM E/R.
DAYTIME RUNNING LIGHT RH [%]	Displays the daytime running light (right) output status of IPDM E/R.
HEADLAMP (HI) LH [%]	Displays the headlamp (HI) (left) output (PWM) status of IPDM E/R.
HEADLAMP (HI) RH [%]	Displays the headlamp (HI) (right) output (PWM) status of IPDM E/R.
HEADLAMP (LO) LH [%]	Displays the headlamp (LO) (left) output (PWM) status of IPDM E/R.
HEADLAMP (LO) RH [%]	Displays the headlamp (LO) (right) output (PWM) status of IPDM E/R.
A/C RELAY STUCK [OK/NG]	Displays the ON stuck status of the A/C relay judged by IPDM E/R.

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# DIAGNOSIS SYSTEM (IPDM E/R)

## < SYSTEM DESCRIPTION >

## [WITH INTELLIGENT KEY SYSTEM]

Monitor Item [Unit]	Description
A/C RELAY [Off/On]	Displays the status of the A/C relay judged by IPDM E/R.
COMP ECV STATUS [OK/NG]	Displays the compressor malfunction diagnosis status judged by IPDM E/R.
VEHICLE SECURITY HORN [Off/On]	<b>NOTE:</b> The item is indicated, but not monitored.
BATTERY CURRENT SENSOR [OK/NG]	Displays the battery current sensor malfunction diagnosis status judged by IPDM E/R.
FRONT FOG LAMP [Off/On]	Displays the fog lamp illumination control status of IPDM E/R.
COMP ECV CURRENT [A]	Displays the electric current output to compressor judged by IPDM E/R.
BATTERY VOLTAGE [V]	Displays the status of the battery voltage judged by IPDM E/R.
COOLING FAN DUTY [%]	Displays the cooling fan output signal status of IPDM E/R.
HOOD SW (CAN) [Open/Close/NG]	Displays the status of the hood switch judged by IPDM E/R.
FRONT WIPER [STOP/HIGH/LOW/NG]	Displays the front wiper motor drive control status of IPDM E/R.
FR WIPER STOP POSITION [ACTIVE P/STOP P]	Displays the status of the front wiper position status judged by IPDM E/R.
HEADLAMP (HI) [Off/On]	Displays the headlamp (HI) illumination control status of IPDM E/R.
HEADLAMP (LO) [Off/On]	Displays the headlamp (LO) illumination control status of IPDM E/R.
IGNITION RELAY STATUS [Off/On]	Displays the ignition relay output status of IPDM E/R.
IGN RELAY MONITOR [Off/On]	Displays the status of the ignition relay judged by IPDM E/R.
IGNITION POWER SUPPLY [Off/On]	Displays the status of the ignition power supply judged by IPDM E/R.
INTERLOCK/PNP SW (CAN) [Off/On]	Displays the status of the transmission range switch signal that IPDM transmits via CAN communication.
NEUTRAL SWITCH (CAN) [Off/On/NG]	Displays the status of the neutral position switch (M/T) signal that IPDM transmits via CAN communication.
PUSH-BUTTON IGN SW (CAN) [Off/On]	Displays the status of the ignition switch signal that IPDM transmits via CAN communication.
TAIL LAMP [Off/On]	Displays the tail lamp illumination control status of IPDM E/R.
REVERSE SIGNAL (CAN) [Off/On/NG]	Displays the status of the reverse switch (M/T) signal that IPDM transmits via CAN communication.
ST&ST CONT RELAY STATUS [Off/Off, ON/ST R On]	Displays the status of the start control relay and start motor relay status judged by IPDM E/R.
STARTER MOTOR STATUS [Off/On/L-TIME]	Displays the status of the starter motor judged by IPDM E/R.
STARTER RELAY (CAN) [LOW/HIGH/NG]	Displays the status of the IPDM E/R transmits the starter control relay status signal via CAN communication.
IPDM NOT SLEEP [NO RDY/READY]	Displays the status of the IPDM E/R transmits the not sleep signal via CAN communication.

# DIAGNOSIS SYSTEM (IPDM E/R)

## < SYSTEM DESCRIPTION >

## [WITH INTELLIGENT KEY SYSTEM]

Monitor Item [Unit]	Description
AFTER COOLING TIME [No request/0.5min/1.0min/1.5min/ 2.0min/2.5min/3.0min/3.5min/4min/5min/ 6min/8min/10min/12min/14min/16min]	<b>NOTE:</b> The item is indicated, but not monitored.
AFTER COOLING SPEED [0%/25%/40%/55%/70%/78%/85%/ 100%]	<b>NOTE:</b> The item is indicated, but not monitored.
COOLING FAN TYPE [RENAULT/NISSAN]	<b>NOTE:</b> The item is indicated, but not monitored.
COMPRESSOR REQ 1 [Off/On]	Displays the status of the A/C compressor request signal received from ECM via CAN communication.
VHCL SECURITY HORN REQ [Off/On]	<b>NOTE:</b> The item is indicated, but not monitored.
DTRL REQ [Off/On]	Displays the status of the daytime running light request signal received from BCM via CAN communication.
SLEEP/WAKE UP [SLEEP/WAKEUP]	<b>NOTE:</b> The item is indicated, but not monitored.
CLUTCH INTERLOCK SW [Off/On/NG]	<b>NOTE:</b> The item is indicated, but not monitored.
CRANKING ENABLE-TCM [OK/NG]	Displays the status of the cranking enable signal received from TCM via CAN communication.
CRANKING ENABLE-ECM [OK/NG/STOP/No request]	Displays the status of the cranking enable signal received from ECM via CAN communication.
CAN DIAGNOSIS [OK/NG]	Displays the status of the CAN diagnosis signal received from BCM via CAN communication.
FRONT FOG LAMP REQ [Off/On]	Displays the status of the front fog light request signal received from BCM via CAN communication.
H/L WASHER REQ [Off/On]	Displays the status of the headlamp washer request signal received from BCM via CAN communication.
PASSING REQ [Off/On]	<b>NOTE:</b> The item is indicated, but not monitored.
HIGH BEAM REQ [Off/On]	Displays the status of the high beam request signal received from BCM via CAN communication.
HORN CHIRP [Off/On]	Displays the status of the horn reminder signal received from BCM via CAN communication.
COOLING FAN REQ [%]	Displays the status of the cooling fan speed request signal received from ECM via CAN communication.
ENGINE STATUS [STOP/IDLING/RUN]	Displays the status of the engine status signal received from ECM via CAN communication.
TURN SIGNAL REQ [Off/LH/RH]	Displays the status of the turn indicator signal received from BCM via CAN communication.
FR WIPER REQ [RETURN/STOP/NG/LOW/HIGH]	Displays the status of the front wiper request signal received from BCM via CAN communication.
SHIFT POSITION [OFF/P/R/N/D/S/L/B/1/2/3/4/5/6/7]	Displays the status of the shift position signal received from TCM via CAN communication.
LOW BEAM REQ [Off/On]	Displays the status of the low beam request signal received from BCM via CAN communication.
POSITION LIGHT REQ [Off/On]	Displays the status of the position light request signal received from BCM via CAN communication.
COMPRESSOR REQ 2 [Off/On]	Displays the status of the A/C ON signal received from A/C auto amp. via CAN communication.
IGNITION SW [Off/On/START/No request]	Displays the status of the ignition switch ON signal and starter control relay request signal received from BCM via CAN communication.

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# DIAGNOSIS SYSTEM (IPDM E/R)

## < SYSTEM DESCRIPTION >

## [WITH INTELLIGENT KEY SYSTEM]

Monitor Item [Unit]	Description
VEHICLE SPEED (METER) [km/h]	Displays the status of the A/C ON signal received from A/C auto amp. via CAN communication.
BAT DISCHARGE COUNT [—]	Monitor the cumulative discharge value of the battery. <b>NOTE:</b> When 65,000 or more is counted, replace the battery.
P LAMP CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the parking lamp circuit. <b>NOTE:</b> When the number of parking lamp circuit retries count is 20, this item counts 1.
NMB P LAMP CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the parking lamp circuit. <b>NOTE:</b> When the number of short circuits in the parking lamp circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB P LAMP CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the parking lamp circuit.
DTRL LH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the daytime running light (left) circuit. <b>NOTE:</b> When the number of daytime running light (left) circuit retries count is 20, this item counts 1.
NMB DTRL LH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the daytime running light (left) circuit. <b>NOTE:</b> When the number of short circuits in the daytime running light (left) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB DTRL LH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the daytime running light (left) circuit.
DTRL RH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the daytime running light (right) circuit. <b>NOTE:</b> When the number of daytime running light (right) circuit retries count is 20, this item counts 1.
NMB DTRL RH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the daytime running light (right) circuit. <b>NOTE:</b> When the number of short circuits in the daytime running light (right) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB DTRL RH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the daytime running light (right) circuit.
F FOG LH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the front fog lamp (left) circuit. <b>NOTE:</b> When the number of front fog lamp (left) circuit retries count is 20, this item counts 1.
NMB F FOG LH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the front fog lamp (left) circuit. <b>NOTE:</b> When the number of short circuits in the front fog lamp (left) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB F FOG LH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the front fog lamp (left) circuit.
F FOG RH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the front fog lamp (right) circuit. <b>NOTE:</b> When the number of front fog lamp (right) circuit retries count is 20, this item counts 1.

# DIAGNOSIS SYSTEM (IPDM E/R)

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Monitor Item [Unit]	Description
NMB F FOG RH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the front fog lamp (right) circuit. <b>NOTE:</b> When the number of short circuits in the front fog lamp (right) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB F FOG RH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the front fog lamp (right) circuit.
HL (HI) LH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the headlamp (HI) (left) circuit. <b>NOTE:</b> When the number of headlamp (HI) (left) circuit retries count is 20, this item counts 1.
NMB HL (HI) LH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the headlamp (HI) (left) circuit. <b>NOTE:</b> When the number of short circuits in the headlamp (HI) (left) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB HL (HI) LH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the headlamp (HI) (left) circuit.
HL (HI) RH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the headlamp (HI) (right) circuit. <b>NOTE:</b> When the number of headlamp (HI) (right) circuit retries count is 20, this item counts 1.
NMB HL (HI) RH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the headlamp (HI) (right) circuit. <b>NOTE:</b> When the number of short circuits in the headlamp (HI) (right) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB HL (HI) RH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the headlamp (HI) (right) circuit.
S/L CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the steering lock circuit. <b>NOTE:</b> When the number of steering lock circuit retries count is 20, this item counts 1.
NMB S/L CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the steering lock circuit. <b>NOTE:</b> When the number of short circuits in the steering lock circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB S/L CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the steering lock circuit.
HL (LO) LH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the headlamp (LO) (left) circuit. <b>NOTE:</b> When the number of headlamp (LO) (left) circuit retries count is 20, this item counts 1.
NMB HL (LO) LH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the headlamp (LO) (left) circuit. <b>NOTE:</b> When the number of short circuits in the headlamp (LO) (left) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB HL (LO) LH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the headlamp (LO) (left) circuit.
HL (LO) RH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the headlamp (LO) (right) circuit. <b>NOTE:</b> When the number of headlamp (LO) (right) circuit retries count is 20, this item counts 1.

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# DIAGNOSIS SYSTEM (IPDM E/R)

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Monitor Item [Unit]	Description
NMB HL (LO) RH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the headlamp (LO) (right) circuit. <b>NOTE:</b> When the number of short circuits in the headlamp (LO) (right) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB HL (LO) RH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the headlamp (LO) (right) circuit.
T LAMP LH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the tail lamp (left) circuit. <b>NOTE:</b> When the number of tail lamp (left) circuit retries count is 20, this item counts 1.
NMB T LAMP LH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the tail lamp (left) circuit. <b>NOTE:</b> When the number of short circuits in the tail lamp (left) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB T LAMP LH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the tail lamp (left) circuit.
T LAMP RH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the tail lamp (right) circuit. <b>NOTE:</b> When the number of tail lamp (right) circuit retries count is 20, this item counts 1.
NMB T LAMP RH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the tail lamp (right) circuit. <b>NOTE:</b> When the number of short circuits in the tail lamp (right) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB T LAMP RH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the tail lamp (right) circuit.
BATTERY STATUS [OK/NG]	Monitor the battery status from the battery output.

## ACTIVE TEST

Test item	Operation	Description
HORN	Off	OFF
	On	Operates horn relay for 20 ms.
HEADLAMP WASHER	Off	OFF
	On	Operates headlamp washer relay for 10 ms.
FRONT WIPER	Off	OFF
	Low	Operates the front wiper relay.
	High	Operates the front wiper relay and front wiper HI/LO relay.
COMPRESSOR	Off	OFF
	On	Operates the A/C relay.
COOLING FAN (MONO)	Off	OFF
	Lo	Run the cooling fan at low speed.
	Hi	Run the cooling fan at high speed.
HEADLAMP (HI)	Off	OFF
	On	Operates the headlamp (HI)
HEADLAMP (LO)	Off	OFF
	On	Operates the headlamp (LO).

# DIAGNOSIS SYSTEM (IPDM E/R)

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Test item	Operation	Description
FRONT FOG LAMP	Off	OFF
	On	Operates the front fog lamp.
DAYTIME RUNNING LIGHT	Off	OFF
	On	Operates the parking lamp (daytime running light operation).
PARKING LAMP	Off	OFF
	On	Operates the parking lamp.
TAIL LAMP	Off	OFF
	On	Operates the tail lamp.
OPTIC AXIS ACTIVE TEST	Default	Return the optical axis to the default position. <b>NOTE:</b> While the headlamp is OFF, it does not return to the default position.
	Lower	Adjust the optical axis to the lowermost point.

## WORK SUPPORT

Work item	Description
SENSOR INITIALIZE	Adjusts the height sensor signal output value in the unloaded vehicle condition.
CML B/DCHRG CRNT CLEAR	In this mode, cumulative battery discharge current is cleared.

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SEC

# DIAGNOSIS SYSTEM (SIREN CONTROL UNIT)

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

## DIAGNOSIS SYSTEM (SIREN CONTROL UNIT)

### Diagnosis Description

INFOID:000000010923235

### DIAGNOSIS FUNCTION

Siren control unit has a self-diagnosis function which displays the diagnosis results for the following items.

- Circuit diagnosis: Displays if malfunction exists or not in the circuits between siren control unit and BCM or siren control unit and intruder sensor.
  - Circuits are normal: Hazard warning lamp blinks 3 times.
  - Circuit is malfunctioning: Hazard warning lamp does not blink.
- Alarm history: Displays alarm activation history for the maximum 3 items.
  - Siren sounds for 0.4 seconds and sound interval is 0.4 seconds.
  - When multiple symptoms exist, the interval between each alarm history is 2 seconds.

Number of siren sounds	Cause of alarm activation
0	History is not found
1	Battery is disconnected and connected
2	Movement to enter into passenger room is detected
3	Communication between BCM and siren control unit is interrupted
4	Door or hood is opened
5	Difference of ID recognition between siren control unit and BCM
6	Communication between siren control unit and intruder sensor is interrupted

- Component diagnosis: Displays malfunctioning component (siren control unit or intruder sensor).
  - Siren sounds for 1 second and sound interval is 0.4 seconds.
  - When multiple symptoms exist, the interval between each diagnosis result is 2 seconds.

Number of siren sounds	Malfunctioning component
0	Malfunctioning component is not found
1	Siren control unit
2	Intruder sensor

### SELF-DIAGNOSIS PROCEDURE

1. Connect CONSULT.
2. Turn ignition switch ON.
3. Select "ACTIVE TEST" mode of "THEFT ALM" of "BCM" using CONSULT.
4. Select "SIREN" and touch "ON" to start self-diagnosis.
5. Self-diagnosis result is displayed after 2 seconds.

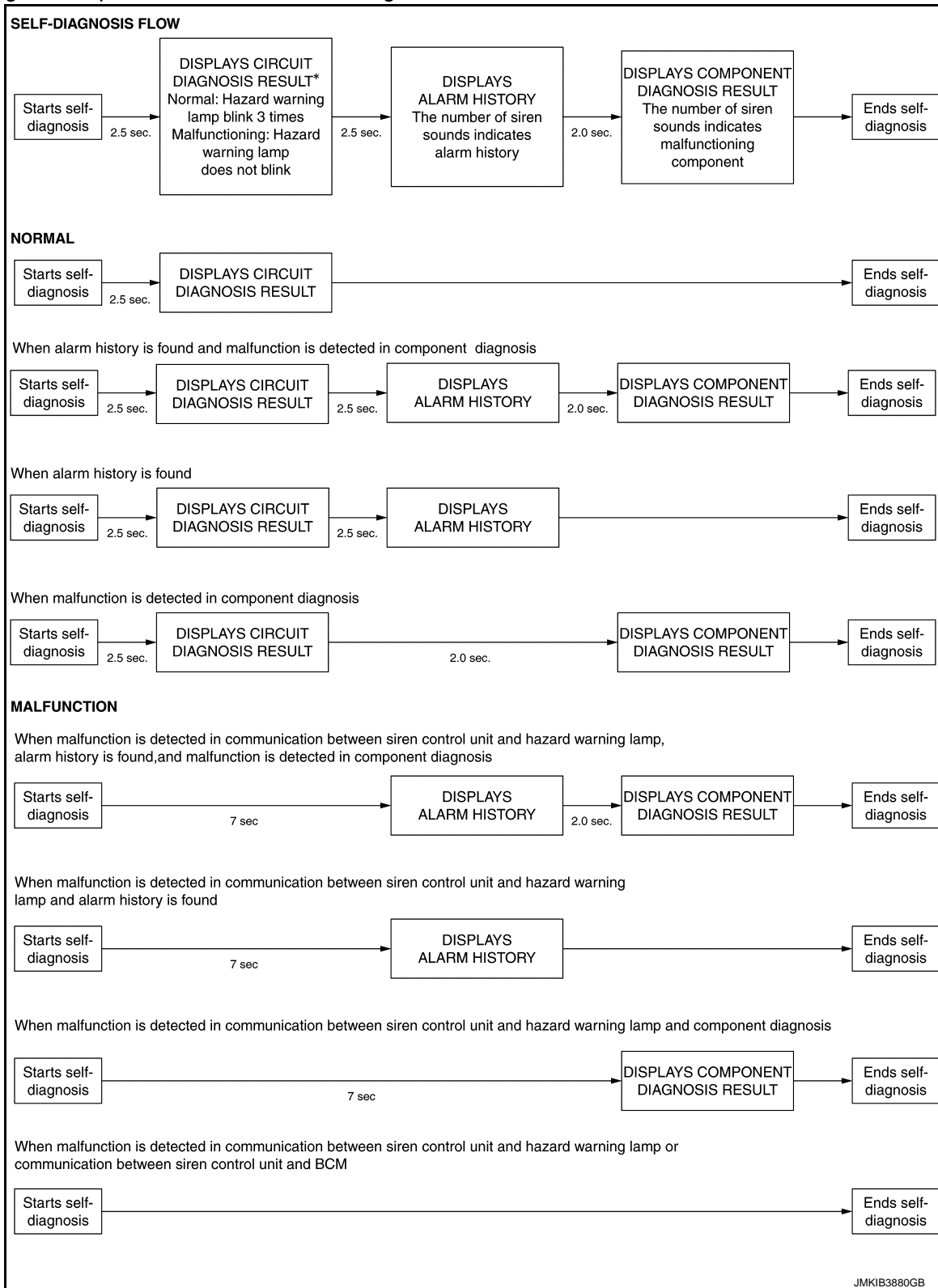
### SELF-DIAGNOSIS RESULT DISPLAY

# DIAGNOSIS SYSTEM (SIREN CONTROL UNIT)

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Self-diagnosis is performed as shown in the figure.



\*: Communication between siren control unit and hazard warning lamp

## DIAGNOSIS PROCEDURE

### Precaution for Diagnosis Procedure

- Self-diagnosis result is erased from siren control unit when setting alarm system after performing the self-diagnosis.
- When performing self-diagnosis, it is advised to record the self-diagnosis result display on a memo pad.
- When replacing siren control unit, never set alarm system after performing the self-diagnosis.

# DIAGNOSIS SYSTEM (SIREN CONTROL UNIT)

[WITH INTELLIGENT KEY SYSTEM]

## < SYSTEM DESCRIPTION >

- The display pattern of the self-diagnosis is complicated. Therefore, repeat self-diagnosis multiple times to check the display pattern correctly.
- Malfunctioning part and alarm activation history can be checked effectively by comparing self-diagnosis result display and the record on the memo pad.
- It is advised to obtain and record information for the following items which are necessary when investigation is needed.
  - Self-diagnosis result (Circuit diagnosis, Alarm history, Component diagnosis)
  - Conditions of alarm activation (Place, Time, Weather)
  - Articles in passenger room (Accessories, Cellular phones, Beverage containers, and others)
  - Opening and closing status of door windows
  - Record and timing of battery discharge and battery replacement
  - Serial number of siren control unit (on siren control unit label)
  - Serial number of intruder sensor, if this sensor is cause of malfunction or alarm activation

## 1.INSPECTION START

Perform SELF-DIAGNOSIS PROCEDURE described above to start self-diagnosis.

>> GO TO 2.

## 2.CHECK CIRCUIT DIAGNOSIS RESULT

Check circuit diagnosis result display.

The diagnosis result is displayed by hazard warning lamp blink as per the following.

Number of hazard warning lamp blinks	Description
3 times	Normal
0 times	<ul style="list-style-type: none"><li>• Circuit malfunctioning between siren control unit and BCM (communication line)</li><li>• Circuit malfunctioning between siren control unit and BCM (hazard switch line)</li></ul>

Does hazard warning lamp blink?

YES >> GO TO 8.

NO >> GO TO 3.

## 3.CHECK VEHICLE SECURITY SYSTEM OPERATION 1

1. Turn ignition switch OFF.
2. Close hood and all doors.
3. Lock all doors using the Intelligent Key or door request switch.
4. Check that security indicator lamp blink quickly for 20 seconds. (PRE-ARMED phase)

Does security indicator lamp blink quickly?

YES >> GO TO 5.

NO >> GO TO 4.

## 4.CHECK MALFUNCTIONING CIRCUIT 1

Check power supply and ground circuit for siren control unit. Refer to [SEC-187, "SIREN CONTROL UNIT : Diagnosis Procedure"](#).

>> INSPECTION END

## 5.CHECK VEHICLE SECURITY SYSTEM OPERATION 2

1. Check that security indicator lamp blinks slowly. (ARMED phase)
2. Hold up and move a hand over intruder sensor.

Does siren sound?

YES >> GO TO 6.

NO >> GO TO 7.

## 6.CHECK MALFUNCTIONING CIRCUIT 2

Check the following circuit.

- Circuit between siren control unit and BCM (hazard switch signal circuit). Refer to [SEC-199, "Component Function Check"](#).

# DIAGNOSIS SYSTEM (SIREN CONTROL UNIT)

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

>> INSPECTION END

## 7. CHECK MALFUNCTIONING CIRCUIT 3

Check the following circuit.

- Circuit between siren control unit and BCM (communication signal circuit). Refer to [SEC-198, "Component Function Check"](#).

>> INSPECTION END

## 8. ALARM HISTORY DISPLAY

Check alarm history display.

The cause of alarm activation is indicated by the number of siren sounds.

Number of siren sounds	Cause of alarm activation
0	History is not found
1	Battery is disconnected and connected
2	Movement to enter into passenger room is detected
3	Communication between BCM and siren control unit is interrupted
4	Door or hood is opened
5	Operate ignition switch with an unregistered key
6	Communication between siren control unit and intruder sensor is interrupted

Does siren sound?

YES (A history is found)>>Check the cause of the alarm activation.

NO (History is not found)>>GO TO 9.

## 9. SYSTEM DIAGNOSIS RESULT DISPLAY

Check component diagnosis result display.

The malfunctioning part is indicated by the number of siren sounds.

Number of siren sounds	Malfunctioning component
0	Malfunctioning component is not found
1	Siren control unit
2	Intruder sensor

Does siren sound?

YES >> Replace malfunctioning component.

NO >> GO TO 10.

## 10. OPERATION CHECK

1. Close hood and all doors.
2. Lock all doors using the Intelligent Key or door request switch.
3. Check that security indicator lamp blinks quickly for 20 seconds.

### NOTE:

If hood is not fully closed, security indicator lamp blinks slowly after all doors are locked. Fully close hood and then lock all doors again.

4. Check that security indicator lamp blinks slowly and siren does not sound. Refer to [SEC-34, "VEHICLE SECURITY SYSTEM : System Description"](#).

>> INSPECTION END

# SIREN CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

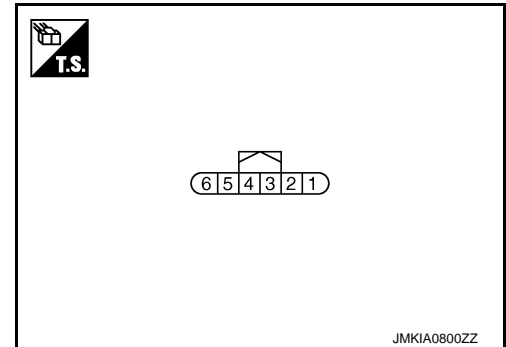
## ECU DIAGNOSIS INFORMATION

### SIREN CONTROL UNIT

Reference Value

INFOID:000000010926581

#### TERMINAL LAYOUT



#### PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition		Value
+	-	Signal name	Input/ Output			
1 (BR)	Ground	Hazard switch	Input	Hazard switch: ON		0 – 1 V
				Hazard switch: OFF	Except Alarm phase	9 – 16 V
					Alarm phase	0 – 1 V
2 (P)	Ground	Battery power supply	Input	Ignition switch: OFF		9 – 16 V
3 (V)	Ground	Communication line (BCM)	Input/ Output	Armed phase		 NNKIA0175ZZ
				Disarmed phase		9 – 16 V
4 (Y)	Ground	Communication line (Sensor)	Input/ Output	Armed phase		 NNKIA0175ZZ
				Disarmed phase		9 – 16 V
5 (B)	Ground	Ground	—	Power supply position: ON		0 – 1 V

# ECM, IPDM E/R, BCM

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

## ECM, IPDM E/R, BCM

### List of ECU Reference

INFOID:0000000010922128

ECU		Reference
ECM	Reference Value	MR20DD: <a href="#">EC-89, "Reference Value"</a> QR25DE: <a href="#">EC-501, "Reference Value"</a> R9M: <a href="#">EC-889, "Reference Value"</a>
	Fail-safe	MR20DD: <a href="#">EC-103, "Fail-safe"</a> QR25DE: <a href="#">EC-513, "Fail Safe"</a> R9M: <a href="#">EC-901, "Fail-safe"</a>
	DTC Inspection Priority Chart	MR20DD: <a href="#">EC-107, "DTC Inspection Priority Chart"</a> QR25DE: <a href="#">EC-515, "DTC Inspection Priority Chart"</a> R9M: <a href="#">EC-907, "DTC Inspection Priority Chart"</a>
	DTC Index	MR20DD: <a href="#">EC-109, "DTC Index"</a> QR25DE: <a href="#">EC-517, "DTC Index"</a> R9M: <a href="#">EC-908, "DTC Index"</a>
BCM	Reference Value	<a href="#">BCS-53, "Reference Value"</a>
	Fail-safe	<a href="#">BCS-76, "Fail-safe"</a>
	DTC Inspection Priority Chart	<a href="#">BCS-77, "DTC Inspection Priority Chart"</a>
	DTC Index	<a href="#">BCS-78, "DTC Index"</a>
IPDM E/R	Reference Value	<a href="#">PCS-22, "Reference Value"</a>
	Fail-safe	<a href="#">PCS-34, "Fail-safe"</a>
	DTC Inspection Priority Chart	<a href="#">PCS-37, "DTC Inspection Priority Chart"</a>
	DTC Index	<a href="#">PCS-38, "DTC Index"</a>

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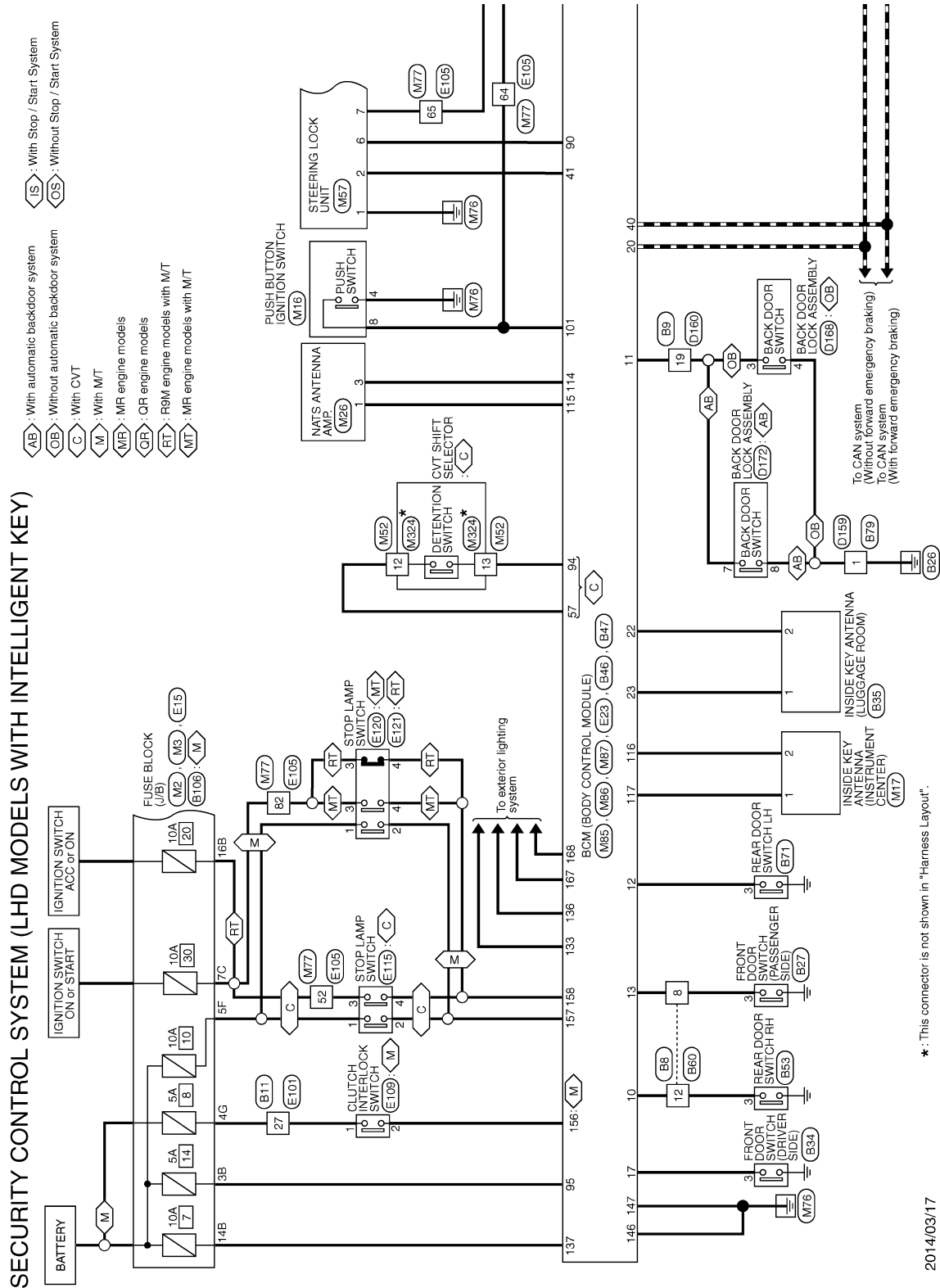
SEC

**[WITH INTELLIGENT KEY SYSTEM]**

## WIRING DIAGRAM

## Wiring Diagram

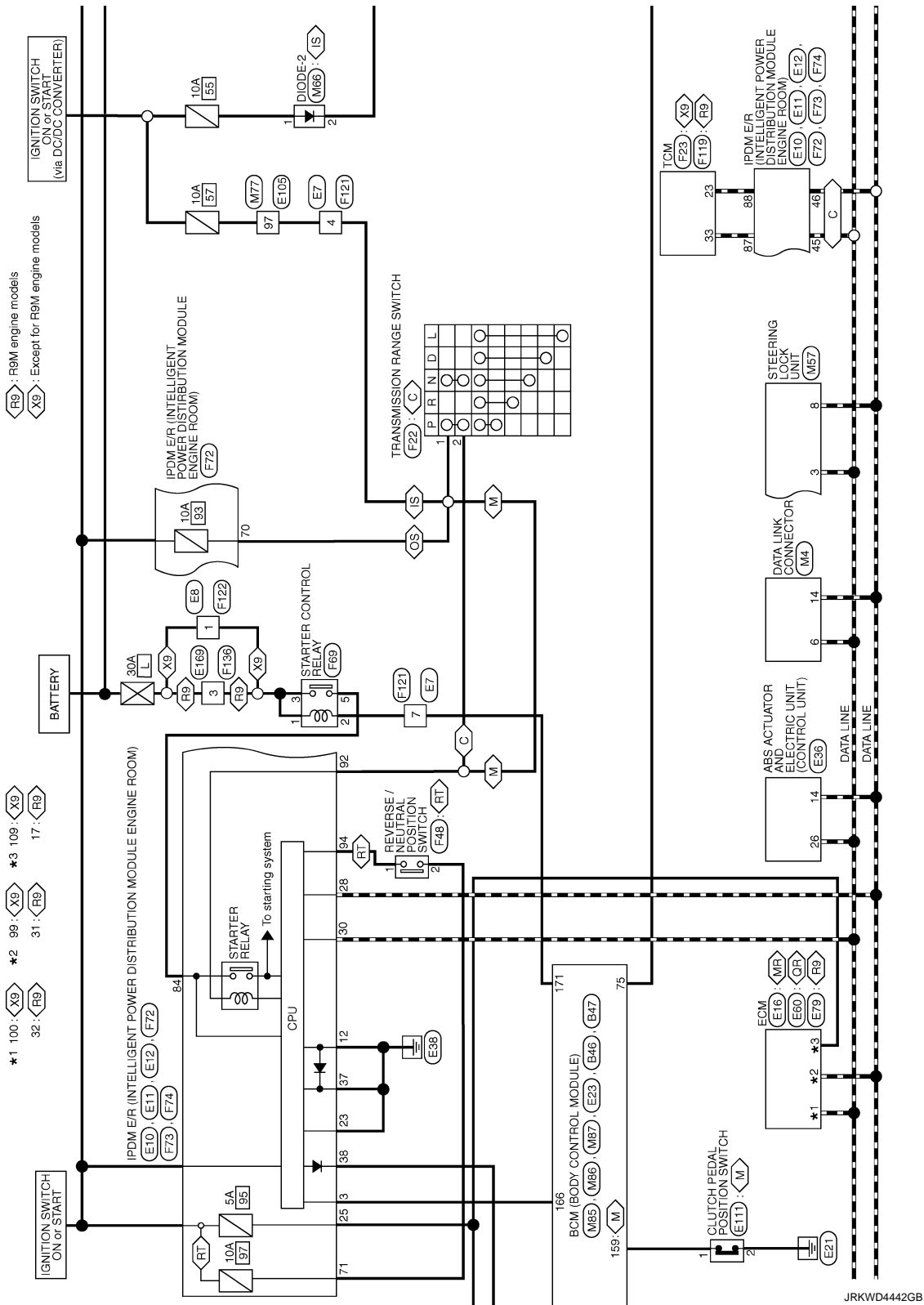
## LHD models



# SECURITY CONTROL SYSTEM

< WIRING DIAGRAM >

[WITH INTELLIGENT KEY SYSTEM]



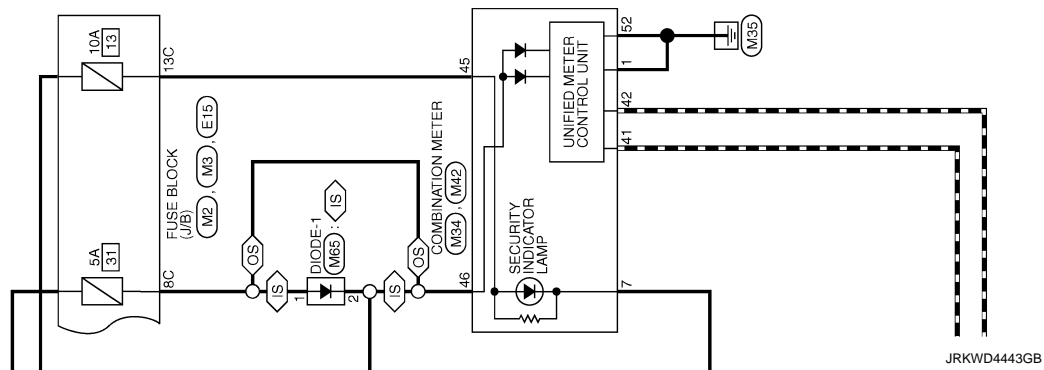
JRKWD4442GB

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SECURITY CONTROL SYSTEM

< WIRING DIAGRAM >

[WITH INTELLIGENT KEY SYSTEM]



JRKWD4443GB

# SECURITY CONTROL SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

< WIRING DIAGRAM >

## SECURITY CONTROL SYSTEM (LHD MODELS WITH INTELLIGENT KEY)

Connector No.	B8
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



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

Terminal No.	Color Of Wire	Signal Name [Specification]
1	V	-
2	G	-
3	P	-
4	L	-
5	L	-
6	SB	-
7	R	-
8	LAV	-
9	W	-
10	P	-
11	R	-
12	P	-
13	P	-
14	P	-
15	P	-
16	P	-

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH8MDGY-CS16-TM4



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Connector No.	B9
Connector Name	WIRE TO WIRE
Connector Type	TH22MW-NH



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
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Terminal No.	Color Of Wire	Signal Name [Specification]
4	W	-
5	R	-
6	B	-
7	W	-
8	SHIELD	-

25	G	-
26	B	-
27	P	-
28	R	-
29	LG	-
30	P	-
31	BR	-
32	GR	-
33	Y	-
34	Y	-
35	LG	-
36	LG	-

Connector No.	B27
Connector Name	FRONT DOOR SWITCH (PASSENGER SIDE)
Connector Type	TH24FW-NH



1	2	3
---	---	---

Terminal No.	Color Of Wire	Signal Name [Specification]
3	GR	- [For LHD models]
3	SB	- [For RHD models]

Connector No.	B34
Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)
Connector Type	TH24FW-NH



1	2	3
---	---	---

Terminal No.	Color Of Wire	Signal Name [Specification]
3	SB	-

Connector No.	B35
Connector Name	INSIDE KEY ANTENNA (LUGGAGE ROOM)
Connector Type	RK02FGY



1	2
---	---

Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	Y	-

Connector No.	B46
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS16FGY-CS



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	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
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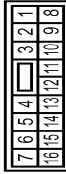
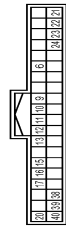
# SECURITY CONTROL SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

< WIRING DIAGRAM >

## SECURITY CONTROL SYSTEM (LHD MODELS WITH INTELLIGENT KEY)

Connector No.	B47
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH04FG-NH



Connector No.	B60
Connector Name	WIRE TO WIRE
Connector Type	INS16FW-CS



Connector No.	B79
Connector Name	WIRE TO WIRE
Connector Type	MO2MMW-LC



Terminal No.	Color Of Wire	Signal Name [Specification]
6	R	BACK DOOR OPENER REQUEST SW
9	G	HANDS FREE SENSOR
10	W	REAR RH DOOR SW
11	LG	BACK DOOR SW
12	R	REAR LH DOOR SW
13	SB	PASSENGER DOOR SW
15	LAG	REAR WIPER AUTO STOP
16	Y	BACK DOOR OPENER SW
17	SB	DRIVER DOOR SW
20	L	CANH
21	BR	BUMPER ANTENNA(-)
22	Y	REAR ANTENNA(-)
23	L	REAR ANTENNA(+)
24	G	BUMPER ANTENNA(+)
38	V	SIREN
39	LA/W	HIGH-MOUNTED STOP LAMP
40	P	CANH

Terminal No.	Color Of Wire	Signal Name [Specification]
1	LA/LG	-
2	LA/GR	-
3	P	-
6	L	-
7	GR	-
8	GR	- [For LHD models]
8	SB	- [For RHD models]
9	LAV	-
10	LAV	-
11	LAV	-
12	W	-
13	LAV	-
14	R	-
15	P	-
16	P	-

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

Connector No.	B106
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS06FW-CS



Connector No.	D160
Connector Name	WIRE TO WIRE
Connector Type	TH02FW-NH



Connector No.	B53
Connector Name	REAR DOOR SWITCH RH
Connector Type	TH04FW-NH



Connector No.	B71
Connector Name	REAR DOOR SWITCH LH
Connector Type	TH04FW-NH



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

Terminal No.	Color Of Wire	Signal Name [Specification]
4	W	-
5	W	-
6	W	-
7	W	-
8	W	-
13	W	-
14	W	-
15	W	-
16	W	-
17	W	-
18	W	-
19	W	-
20	W	-
21	W	-
22	W	-
23	W	-
24	W	-
29	W	-
30	W	-

Terminal No.	Color Of Wire	Signal Name [Specification]
3	W	-

Terminal No.	Color Of Wire	Signal Name [Specification]
3	R	-

# SECURITY CONTROL SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

< WIRING DIAGRAM >

## SECURITY CONTROL SYSTEM (LHD MODELS WITH INTELLIGENT KEY)

31	W	-
32	W	-

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



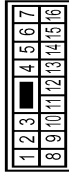
Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	GR	-
3	W	-
4	GR	-

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



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

Connector No.	E7
Connector Name	WIRE TO WIRE
Connector Type	NS16MBR-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	- [With MR20 or QR25 engine]
2	SB	- [With R3M engine]
3	GR	- [With MR20 or QR25 engine]
4	R	- [With R3M engine]
5	B	- [With MR20 engine]
6	LG	- [With QR25 engine]
7	G	-
8	V	- [With MR20 engine or R3M engine]
9	BG	- [With QR25 engine]
10	BR	- [With MR20 engine]
11	Y	-
12	L	- [With R3M engine]
13	BR	- [With QR25 engine]
14	R	- [With R3M engine]
15	L	-
16	SB	-

Connector No.	E8
Connector Name	WIRE TO WIRE
Connector Type	MO2MM-LC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-

Connector No.	E10
Connector Name	WIRE TO WIRE
Connector Type	NS16FY-CS



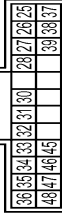
Terminal No.	Color Of Wire	Signal Name [Specification]
3	P	-
4	Y	-
7	L	-
8	BG	-
9	L	-
12	B	-
16	G	-
17	W	-

Connector No.	E11
Connector Name	WIRE TO WIRE
Connector Type	MO2MM-LC



Terminal No.	Color Of Wire	Signal Name [Specification]
19	V	-
20	R	-
21	LG	-
22	Y	-
23	B	-
24	W	-

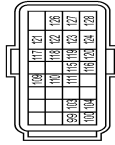
Connector No.	E12
Connector Name	WIRE TO WIRE
Connector Type	TH24FGY-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
25	LG	-
26	W	-
27	SB	-
28	P	-
30	L	-
31	G	-
32	B	-
33	BG	-
34	LG	-
35	V	-
36	Y	-
37	B	-
38	GR	-
39	BR	-

**[WITH INTELLIGENT KEY SYSTEM]**

## SECURITY CONTROL SYSTEM (LHD MODELS WITH INTELLIGENT KEY)



97	101	105		121	125
		110		118	122
		111	115	119	123
99				116	120
100		108		124	128

172	V	PTC RELAY-1 CONTROL
173	BG	PTC RELAY-2 CONTROL

Terminal	Cable Color	Signal Name (Specification)
1	White	MOTOR POWER SUPPLY
2	Y	FR RH WHEEL SENSOR SIGNAL
3	SB	FR LH WHEEL SENSOR SIGNAL
4	S	BRAKE VACUUM SENSOR POWER SUPPLY
5	Y	FR RH WHEEL SENSOR SIGNAL
6	P	FR LH WHEEL SENSOR SIGNAL
7	Y	IGNITION SWITCH SIGNAL
8	P	IGNITION SWITCH SIGNAL
9	Y	BRAKE VACUUM SENSOR SIGNAL
10	LG	GROUND (MOTOR)
11	P	GROUND (MOTOR)
12	P	GROUND (MOTOR)
13	P	GROUND (MOTOR)
14	PR	VOC OFF SWITCH SIGNAL
15	PR	FR RH WHEEL SENSOR POWER SUPPLY
16	R	FR LH WHEEL SENSOR POWER SUPPLY
17	Y	RR RH WHEEL SENSOR SIGNAL
18	G	RR LH WHEEL SENSOR SIGNAL
19	W	FR LH WHEEL SENSOR POWER SUPPLY
20	W	BRAKE VACUUM SENSOR GROUND
21	SHIELD	VALVE POWER SUPPLY
22	Y	VALVE POWER SUPPLY
23	BL	CANH
24	BL	CANH
25	BL	CANH
26	L	CANH
27	GR	IGNITION POWER SUPPLY
28	GR	IGNITION POWER SUPPLY
29	LG	FR RH WHEEL SENSOR SIGNAL
30	LG	FR LH WHEEL SENSOR SIGNAL
31	BR	RR LH WHEEL SENSOR POWER SUPPLY
32	BR	RR RH WHEEL SENSOR POWER SUPPLY
33	R	GROUND (VALVE)
34	R	GROUND (VALVE)

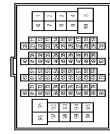
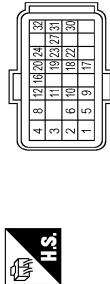
# SECURITY CONTROL SYSTEM

< WIRING DIAGRAM >

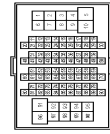
[WITH INTELLIGENT KEY SYSTEM]

## SECURITY CONTROL SYSTEM (LHD MODELS WITH INTELLIGENT KEY)

Connector No.	E101
Connector Name	WIRE TO WIRE
Connector Type	TH80FDGY-CS16-TM4



Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	ECM GROUND
2	W	ACCELERATOR PEDAL POSITION SENSOR 1
3	Y	SENSOR GROUND / ACCELERATOR PEDAL POSITION SENSOR 1
4	B	ECM GROUND
5	L	POWER SUPPLY FOR ECM
6	G	SENSOR POWER SUPPLY / ACCELERATOR PEDAL POSITION SENSOR 1
8	B	ECM GROUND
9	L	FUEL HEATER AND WATER IN FUEL LEVEL SENSOR
10	L	SENSOR POWER SUPPLY / ACCELERATOR PEDAL POSITION SENSOR 2
11	V	ACCELERATOR PEDAL POSITION SENSOR 2
12	P	SENSOR GROUND / ACCELERATOR PEDAL POSITION SENSOR 2
16	BG	STOP LAMP SWITCH [With M/T]
17	R	IGNITION SWITCH
18	G	ASCD STEERING SWITCH
19	BR	SENSOR GROUND / ASCD STEERING SWITCH
20	BR	FUEL PUMP CONTROL MODULE (COMMAND)
22	G	FUEL PUMP CONTROL MODULE (DIAGNOSIS)
23	V	SPEED LIMITER MAIN SWITCH
24	R	CLUTCH PEDAL POSITION SWITCH
27	V	CLUTCH INTERLOCK SWITCH
30	BR	ASCD MAIN SWITCH
31	P	CAN-L
32	L	CAN-H

Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	W	-
5	G	-
11	BR	-
12	W	-
13	P	-
14	SB	-
15	V	-
16	P	-
17	P	-
18	G	-
19	P	-
20	G	-
21	BR	-
22	LG	-
23	Y	-
24	SB	-
25	G	-
26	B	-
27	P	-
28	R	-
29	LG	-
30	P	-
92	BR	-
93	GR	-
94	R	-
95	L	-
97	LG	-

Terminal No.	Color Of Wire	Signal Name [Specification]
2	W	-
5	V	- [Without ISS]
8	W	- [With ISS]
9	L	-
10	W	-
21	B	-
22	SHIELD	-
31	Y	-
32	W	-
33	SB	-
34	LG	-
35	BG	-
36	LG	-
37	V	-
38	G	-
39	BR	-
40	L	-
41	P	-
47	GR	-
48	SB	-
51	P	-
52	L	-
53	W	-
54	Y	-
55	BR	-
56	P	-
57	B	-
58	L	-
59	W	-
60	G	-
61	BR	-
62	V	-
63	BR	-
64	GR	-

65	LG	-
66	BG	-
67	L	-
68	R	-
71	V	-
72	L	-
73	R	-
76	L	-
77	V	-
78	LG	-
79	SHIELD	-
80	GR	-
82	Y	-
83	SB	-
84	L	-
85	G	-
86	V	-
87	B	-
88	B	-
91	R	-
92	BR	-
93	W	-
96	GR	-
97	R	-
98	V	-
99	Y	-

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



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

JRKWD4448GB

# SECURITY CONTROL SYSTEM

< WIRING DIAGRAM >

[WITH INTELLIGENT KEY SYSTEM]

## SECURITY CONTROL SYSTEM (LHD MODELS WITH INTELLIGENT KEY)

Connector No.	E111
Connector Name	CLUTCH PEDAL POSITION SWITCH
Connector Type	M02FER-LC



2	1
---	---



3	4
1	2

Connector No.	E120
Connector Name	STOP LAMP SWITCH
Connector Type	M04FW-LC



1	2	3
4	5	6

Connector No.	E169
Connector Name	WIRE TO WIRE
Connector Type	M06MW-LC



13	34	37	38	47	48
23	24	26	31	45	46
11	12	16	17	41	42
2	4	5	6	7	

Terminal No.	Wire	Signal Name [Specification]
1	B	-
2	B	-

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



3	4
1	2

Terminal No.	Wire	Signal Name [Specification]
1	V	-
2	LG	-
3	Y	-
4	W	-

Connector No.	E121
Connector Name	STOP LAMP SWITCH
Connector Type	M04FW-LC



3	4
1	2

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

Terminal No.	Wire	Signal Name [Specification]
1	V	-
2	LG	-
3	Y	-
4	W	-

Terminal No.	Wire	Signal Name [Specification]
1	W	-
2	BG	-
3	L	-
4	W	-
5	G	-
6	W	-

Connector No.	F22
Connector Name	TRANSMISSION RANGE SWITCH
Connector Type	YD06FB-HS4



8	4	3	7
2	6	5	1

Terminal No.	Wire	Signal Name [Specification]
1	BG	-
2	GR	-
3	W	-
4	V	-
5	G	-
6	BR	-
7	Y	-
8	GR	-

Terminal No.	Wire	Signal Name [Specification]
2	GR	-
4	Y	D RANGE SWITCH
5	BR	N RANGE SWITCH
6	G	R RANGE SWITCH
7	V	P RANGE SWITCH
11	LG	SENSOR GROUND
12	BR	CVT FLUID TEMPERATURE SENSOR
16	SB	SECONDARY PRESSURE SENSOR
17	R	PRIMARY PRESSURE SENSOR
23	P	CANL
24	LG	INPUT SPEED SENSOR
26	BG	SENSOR POWER SUPPLY
30	GR	LINE PRESSURE SOLENOID VALVE
33	L	CANH
34	W	OUTPUT SPEED SENSOR
35	GR	PRIMARY SPEED SENSOR
37	Y	SELECT SOLENOID VALVE
38	G	TORQUE CONVERTER CLUTCH SOLENOID VALVE
39	W	SECONDARY PRESSURE SOLENOID VALVE
40	V	PRIMARY PRESSURE SOLENOID VALVE
41	B	GROUND
42	B	GROUND
45	V	BATTERY POWER SUPPLY
46	V	BATTERY POWER SUPPLY
47	BG	IGNITION POWER SUPPLY
48	BG	IGNITION POWER SUPPLY

JRKWD4449GB

**[WITH INTELLIGENT KEY SYSTEM]**

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
SE  
L  
M  
N  
O  
P

# SECURITY CONTROL SYSTEM

< WIRING DIAGRAM >

[WITH INTELLIGENT KEY SYSTEM]

## SECURITY CONTROL SYSTEM (LHD MODELS WITH INTELLIGENT KEY)

13	Y	-	[With MR20 or QR25 engine]
15	L	-	
16	LG	-	

Connector No.	F122
Connector Name	WIRE TO WIRE
Connector Type	M02FW-LC



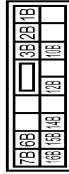
Terminal No.	1	L
Color Of Wire		
Signal Name [Specification]		

Connector No.	F136
Connector Name	WIRE TO WIRE
Connector Type	M06FW-LC



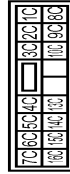
Terminal No.	1	L
Color Of Wire		
Signal Name [Specification]		
2	BG	-
3	L	-
4	W	-
5	BG	-
6	W	-

Connector No.	M2
Connector Name	FUSE BLOCK (UB)
Connector Type	INST6BRC-SS



Terminal No.	10B	GR	-	[With MR20 engine or RSM engine]
Color Of Wire				
Signal Name [Specification]				
11B	LA/R	-	[With QR25 engine]	
12B	BR	-		
13B	W	-		
14B	W	-		
15B	W	-		
16B	GR	-		
17B	G	-		
18B	R	-		
19B	V	-		
20B	LAL	-		
21B	LAV	-		

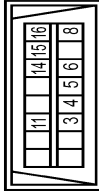
Connector No.	M3
Connector Name	FUSE BLOCK (UB)
Connector Type	INST6FW-CS



Terminal No.	10C	LG	-
Color Of Wire			
Signal Name [Specification]			
11C	LA/G	-	
12C	R	-	
13C	L	-	
14C	LA/W	-	
15C	R	-	
16C	G	-	
17C	Y	-	
18C	LG	-	

5C	GR	-
6C	LA/R	-
7C	Y	-
8C	BR	-
9C	LA/BR	-
10C	L	-

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	3	LG	-
Color Of Wire			
Signal Name [Specification]			
4	B	-	
5	B	-	
6	L	-	
7	Y	-	
8	SB	-	
9	P	-	
10	BR	-	
11	W	-	

Connector No.	M16
Connector Name	PUSH-BUTTON IGNITION SWITCH
Connector Type	TH08FW-AH



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

8	Y	-
---	---	---

Connector No.	M17
Connector Name	INSIDE KEY ANTENNA (INSTRUMENT CENTER)
Connector Type	RK02FGY



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

Connector No.	M26
Connector Name	NATS ANTENNA AMP.
Connector Type	NH03FW



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

# SECURITY CONTROL SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

< WIRING DIAGRAM >

## SECURITY CONTROL SYSTEM (LHD MODELS WITH INTELLIGENT KEY)

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

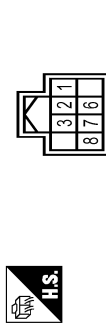


Connector No.	M42
Connector Name	COMBINATION METER
Connector Type	TH12FW-NH



12	L
13	G

Connector No.	M57
Connector Name	STEERING LOCK UNIT
Connector Type	TH08FB-NH



Connector No.	M66
Connector Name	DIODE-2
Connector Type	ET02-2W



Terminal No.	Color	Wire	Signal Name [Specification]
1	B		GROUND
7	BG		SECURITY SIGNAL
9	GR		ECO MODE SWITCH SIGNAL
15	L		AMBIENT SENSOR SIGNAL
17	BG		METER CONTROL SWITCH GROUND
18	SB		TRIP RESET SWITCH SIGNAL
20	Y		AMBIENT SENSOR GROUND
21	L		STEERING SWITCH SIGNAL A
22	Y		STEERING SWITCH SIGNAL B
23	GR		STEERING SWITCH SIGNAL
25	V		BRAKE FLUID LEVEL SWITCH SIGNAL
28	Y		SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)
30	LG		MANUAL MODE SIGNAL
31	SB		NON-MANUAL MODE SIGNAL
32	BG		MANUAL MODE SHIFT UP SIGNAL
33	BR		MANUAL MODE SHIFT DOWN SIGNAL
36	GR		ILLUMINATION CONTROL SWITCH SIGNAL (+)
37	V		ILLUMINATION CONTROL SWITCH SIGNAL (-)
38	G		VEHICLE SPEED SIGNAL (6-PULSE)
39	W		VEHICLE SPEED SIGNAL (2-PULSE)

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

Terminal No.	Color	Wire	Signal Name [Specification]
1	GR		STEERING LOCK UNIT GND
2	V		STEERING LOCK UNIT PWR
3	L		STEERING LOCK UNIT CANH
6	Y		STEERING LOCK UNIT SENSORLINE
7	GR		STEERING LOCK UNIT SAFETYLINE
8	P		STEERING LOCK UNIT CAN L



Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4

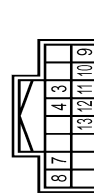


Connector No.	M65
Connector Name	DIODE-1
Connector Type	ET02-2W



Terminal No.	Color	Wire	Signal Name [Specification]
2	LA/R		-
5	V		- [Without ISS]
5	W		- [With ISS]
8	G		-
9	Y		-
10	R		-
20	W		-
21	B		-
22	SHIELD		-
31	V		-
32	GR		-
33	G		-
34	LG		-
35	BG		-
36	LG		-
37	V		-
38	G		-
39	BR		-

Terminal No.	Color	Wire	Signal Name [Specification]
1	BR		-
2	V		-



Connector No.	M62
Connector Name	CVT SHIFT SELECTOR
Connector Type	TH16FW-NH

Terminal No.	Color	Wire	Signal Name [Specification]
3	R		-
4	B		-
7	LG		-
8	BR		-
9	BG		-
10	B		-
11	SB		-

JRKWD4452GB

**[WITH INTELLIGENT KEY SYSTEM]**

## SECURITY CONTROL SYSTEM (LHD MODELS WITH INTELLIGENT KEY)

Terminal No.	Color Of Wire	Signal Name [Specification]
81	L	KEY SWITCH
82	L/R	KEY SW (ST) [Without Intelligent key]
82	W	PASS DOOR REQ SW [With Intelligent key]
84	BR	COMBI SW OUTPUT 2
85	SB	COMBI SW OUTPUT 1
86	P	COMBI SW OUTPUT 3
87	P	COMBI SW OUTPUT 4

Terminal No.	Wire	Color Of	Signal Name [Specification]
41	V	White	STEERING LOCK UNIT POWER SUPPLY
42	LAY	Light Green	TURN SIG LH (SIDE)
43	LAG	Light Green	TURN SIG RH (SIDE)
44	P	Pink	INTERIOR ROOM LAMP RELAY CONT
45	R	Pink	CAN/L
46	L	Light Green	CAN/H
47	G	Light Green	LIGHT & RAIN SENSOR
48	L	Light Green	CAN/L
49	R	Pink	CAN/H
50	BG	Brown Green	DOOR LOCK SW

Terminal No.	Color Of Wire	Signal Name [Specification]
3	W	-
4	P	-
7	BR	-
8	G	- [LHD models]
8	GR	- [RHD models]
9	G	- [RHD models]
9	GR	- [LHD models]
10	Y	-
11	LW	-
12	O	-

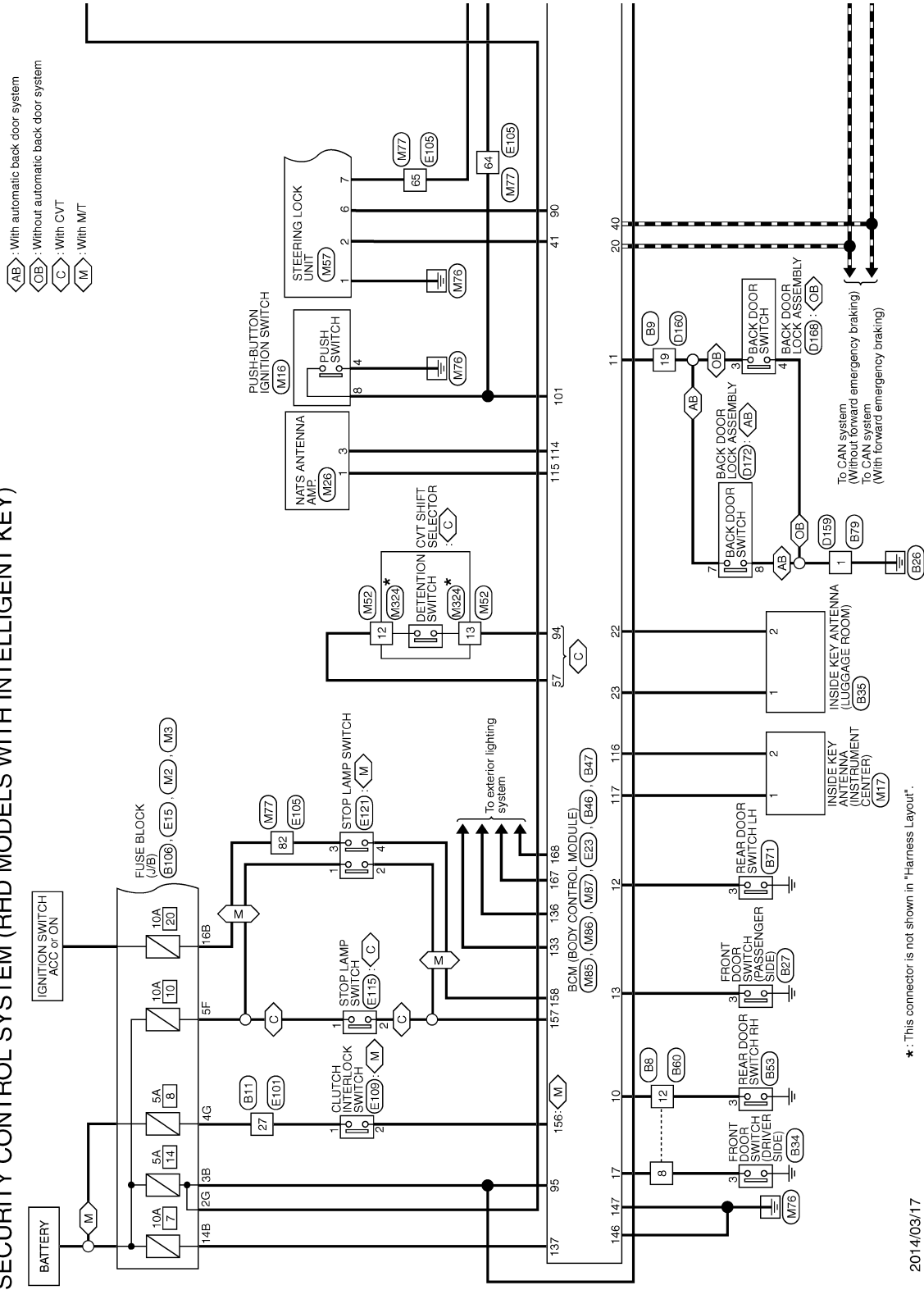
# SECURITY CONTROL SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

< WIRING DIAGRAM >

RHD models

## SECURITY CONTROL SYSTEM (RHD MODELS WITH INTELLIGENT KEY)



2014/03/17

JRWKD4454GB

\*: This connector is not shown in "Harness Layout".

**[WITH INTELLIGENT KEY SYSTEM]**

The diagram illustrates the electrical system for the IPDM E/R (Intelligent Power Distribution Module Engine Room). Key components and their connections include:

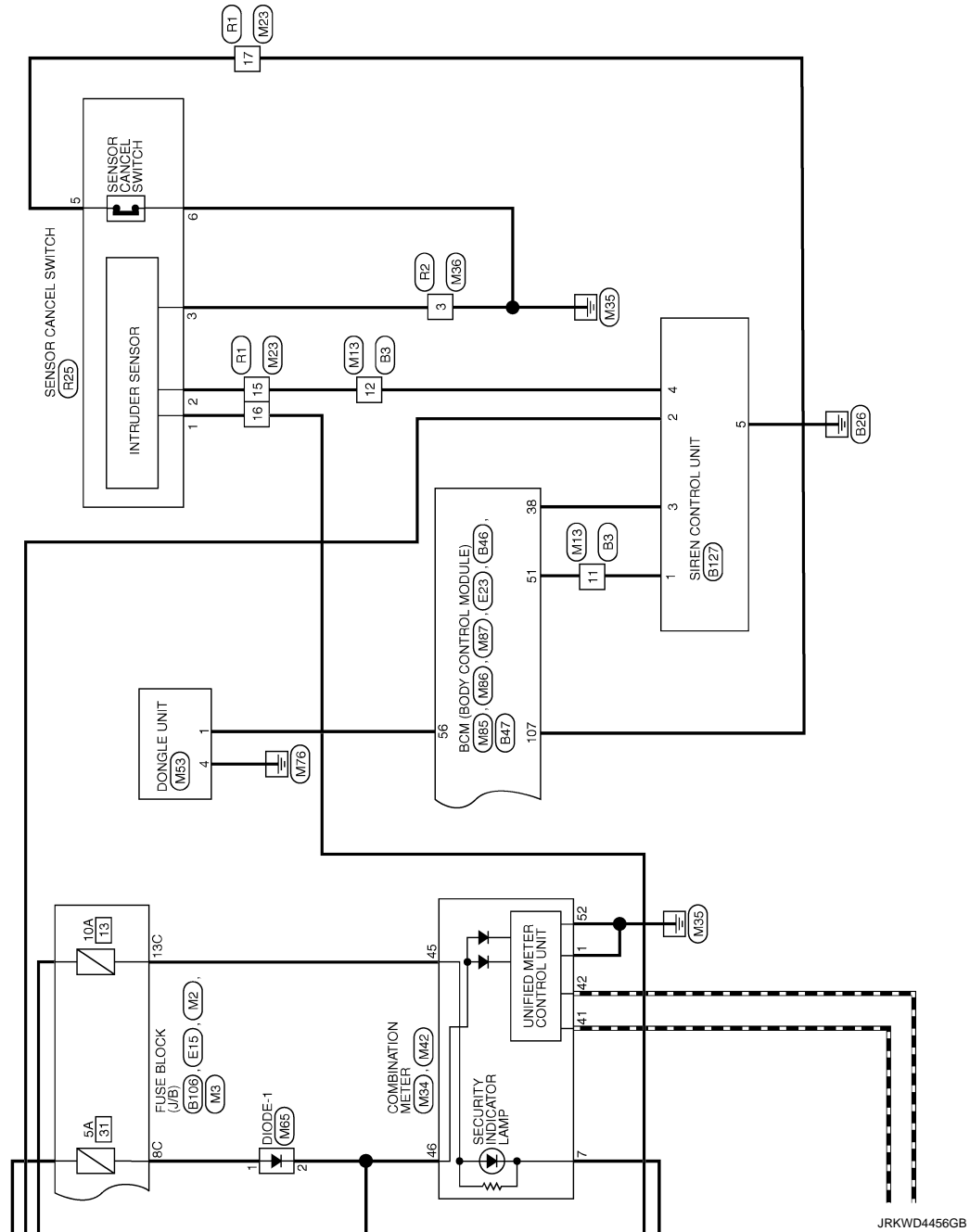
- BATTERY:** Connected to the IPDM E/R (E10, E11, E12, E148, F72, F73, F74) and the IGNITION SWITCH ON or START (via DC/DC CONVERTER).
- IGNITION SWITCH ON or START (via DC/DC CONVERTER):** Connected to the IPDM E/R (E10, E11, E12, E148, F72, F73, F74) and the STARTER RELAY (F69).
- STARTER RELAY (F69):** Controls the starter motor (M) and is connected to the IPDM E/R (E10, E11, E12, E148, F72, F73, F74) and the STARTER RELAY (F69).
- CPU:** Connected to the IPDM E/R (E10, E11, E12, E148, F72, F73, F74) and the STARTER RELAY (F69).
- BCM (BODY CONTROL MODULE):** Connected to the IPDM E/R (E10, E11, E12, E148, F72, F73, F74) and the STARTER RELAY (F69).
- ECM (ENGINE CONTROL MODULE):** Connected to the IPDM E/R (E10, E11, E12, E148, F72, F73, F74) and the STARTER RELAY (F69).
- ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT):** Connected to the IPDM E/R (E10, E11, E12, E148, F72, F73, F74) and the STARTER RELAY (F69).
- STEERING LOCK UNIT:** Connected to the IPDM E/R (E10, E11, E12, E148, F72, F73, F74) and the STARTER RELAY (F69).
- DATA LINK CONNECTOR (M4):** Connected to the IPDM E/R (E10, E11, E12, E148, F72, F73, F74) and the STARTER RELAY (F69).
- TCM (TRANSMISSION CONTROL MODULE):** Connected to the IPDM E/R (E10, E11, E12, E148, F72, F73, F74) and the STARTER RELAY (F69).
- CLUTCH PEDAL POSITION SWITCH (E11):** Connected to the IPDM E/R (E10, E11, E12, E148, F72, F73, F74) and the STARTER RELAY (F69).
- HOOD SWITCH (E164):** Connected to the IPDM E/R (E10, E11, E12, E148, F72, F73, F74) and the STARTER RELAY (F69).
- DIODE-2 (M66):** Connected to the IPDM E/R (E10, E11, E12, E148, F72, F73, F74) and the STARTER RELAY (F69).

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# SECURITY CONTROL SYSTEM

< WIRING DIAGRAM >

[WITH INTELLIGENT KEY SYSTEM]



JRKWD4456GB

# SECURITY CONTROL SYSTEM

< WIRING DIAGRAM >

[WITH INTELLIGENT KEY SYSTEM]

## SECURITY CONTROL SYSTEM (RHD MODELS WITH INTELLIGENT KEY)

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH



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



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

# SECURITY CONTROL SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

< WIRING DIAGRAM >

## SECURITY CONTROL SYSTEM (RHD MODELS WITH INTELLIGENT KEY)

Connector No.	B35
Connector Name	INSIDE KEY ANTENNA (LUGGAGE ROOM)
Connector Type	IK02FGY



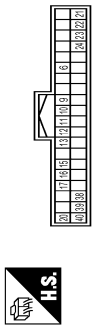
Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	Y	-

Connector No.	B46
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS16FGY-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
121	LAV	BACK DOOR OPENER CONT
122	Y	REAR FOG LAMP OUTPUT
123	LAV	REAR WIPER OUTPUT
124	W	REAR DOOR UNLOCK OUTPUT
125	L	REAR DOOR LOCK OUTPUT
127	R	LUGGAGE ROOM LAMP CONT
129	LAV	STOP LAMP LH OUT
131	R	REAR DOOR SUPERLOCK OUTPUT
133	GR	TURN SIG LH (REAR)
134	LAV	STOP LAMP RH OUT
136	P	TURN SIG RH (REAR)

Connector No.	B47
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH



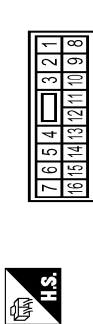
Terminal No.	Color Of Wire	Signal Name [Specification]
6	R	BACK DOOR OPENER REQUEST SW
9	G	HANDS FREE SENSOR
10	W	REAR RH DOOR SW
11	LG	BACK DOOR SW
12	R	REAR LH DOOR SW
13	SB	PASSENGER DOOR SW
15	LAV	REAR WIPER AUTO STOP
16	Y	BACK DOOR OPENER SW
17	SB	DRIVER DOOR SW
20	L	CANH
21	BR	BUMPER ANTENNA(-)
22	Y	REAR ANTENNA(-)
23	L	REAR ANTENNA(+)
24	G	BUMPER ANTENNA(+)
38	V	SIREN
39	LAV	HIGH-MOUNTED STOP LAMP
40	P	CANH

Connector No.	B53
Connector Name	REAR DOOR SWITCH RH
Connector Type	TH40FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
3	W	-

Connector No.	B60
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LALG	-
2	LAVR	-
3	P	-
6	L	-
7	L	-
8	GR	- [For LHD models]
8	SB	- [For RHD models]
9	LAV	-
10	LAVR	-
11	LAVR	-
12	W	-
13	LAV	-
14	R	-
15	P	-
16	P	-

Connector No.	B71
Connector Name	REAR DOOR SWITCH LH
Connector Type	TH40FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
3	R	-

Connector No.	B79
Connector Name	WIRE TO WIRE
Connector Type	MO2MMV-LC



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

Connector No.	B106
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS06FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1G	LAVR	-
2G	P	-
3G	G	-
4G	P	-
5G	G	-

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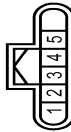
# SECURITY CONTROL SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

< WIRING DIAGRAM >

## SECURITY CONTROL SYSTEM (RHD MODELS WITH INTELLIGENT KEY)

Connector No.	B127
Connector Name	SIREN CONTROL UNIT
Connector Type	RH6FB



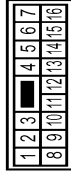
Connector No.	D160
Connector Name	WIRE TO WIRE
Connector Type	TH2FM-AH



Connector No.	D168
Connector Name	BACK DOOR LOCK ASSEMBLY
Connector Type	NS04FM-CS



Connector No.	E7
Connector Name	WIRE TO WIRE
Connector Type	NS16BRC-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	BLINKER LINE
2	P	+B
3	V	COM. LINE
4	Y	SERIAL LINE
5	B	GND

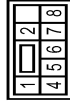
Connector No.	D159
Connector Name	WIRE TO WIRE
Connector Type	M02FW-LC



Terminal No.	Color Of Wire	Signal Name [Specification]
4	W	-
5	W	-
6	W	-
7	W	-
8	W	-
13	W	-
14	W	-
15	W	-
16	W	-
17	W	-
18	W	-
19	W	-
20	W	-
21	W	-
22	W	-
23	W	-
24	W	-
29	W	-
30	W	-
31	W	-
32	W	-

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

Connector No.	D172
Connector Name	BACK DOOR LOCK ASSEMBLY
Connector Type	NS06FM-CS



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

Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	- [With MR20 or QR25 engine]
1	SB	- [With R3M engine]
2	BR	- [With MR20 or QR25 engine]
2	GR	- [With R3M engine]
3	G	-
4	R	-
5	B	- [With MR20 engine]
5	L	- [With R3M engine]
5	LG	- [With QR25 engine]
6	BG	-
7	G	-
8	V	- [With MR20 engine or R3M engine]
8	W	- [With QR25 engine]
9	BG	- [With R3M engine]
9	BR	- [With MR20 engine]
10	BR	-
11	Y	-
12	L	- [With R3M Engine]
12	LG	- [With QR25 engine]
13	BR	- [With MR20 or QR25 engine]
13	R	- [With R3M engine]
15	L	-
16	SB	-

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

# SECURITY CONTROL SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

< WIRING DIAGRAM >

## SECURITY CONTROL SYSTEM (RHD MODELS WITH INTELLIGENT KEY)

Connector No.	E10
Connector Name	(FROM INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM))
Connector Type	NS16FGY-CS



17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
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Connector No.	E12
Connector Name	(FROM INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM))
Connector Type	TH24FGY-NH



38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
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Terminal No.	Color	Wire	Signal Name [Specification]
10F	L	W	-
1F	W	-	-
5F	V	-	-
6F	Y	-	-

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



164	163	162	161	160	159	158	157	156	155	154	153	152	151	150	149	148	147	146	145	144	143	142	141	140	139	138	137	136	135	134	133	132	131	130	129	128	127	126	125	124	123	122	121	120	119	118	117	116	115	114	113	112	111	110	109	108	107	106	105	104	103	102	101	100	99	98	97	96	95	94	93	92	91	90	89	88	87	86	85	84	83	82	81	80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
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Terminal No.	Color	Wire	Signal Name [Specification]
25	LG	W	-
26	W	-	-
27	SB	-	-
28	P	-	-
30	L	-	-
31	G	-	-
32	B	-	-
33	BG	-	-
34	LG	-	-
35	V	-	-
36	Y	-	-
37	B	-	-
38	GR	-	-
39	BR	-	-
45	L	-	-
46	P	-	-
47	W	-	-
48	R	-	-

Connector No.	E15
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS10FW-CS



15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
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Terminal No.	Color	Wire	Signal Name [Specification]
19	V	-	-
20	R	-	-
21	LG	-	-
22	Y	-	-
23	B	-	-
24	W	-	-

Connector No.	E11
Connector Name	(FROM INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM))
Connector Type	TH24FB-NH



19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
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Terminal No.	Color	Wire	Signal Name [Specification]
1	Y	-	MOTOR POWER SUPPLY
4	SB	-	FR RH WHEEL SENSOR SIGNAL
5	V	-	BRAKE VACUUM SENSOR POWER SUPPLY
8	P	-	FR LH WHEEL SENSOR SIGNAL
9	Y	-	TH24FB-NH
12	LG	-	TH24FB-NH
13	B	-	GROUND (MOTOR)
14	P	-	CANL
15	BR	-	VDC OFF SWITCH SIGNAL
16	R	-	FR RH WHEEL SENSOR POWER SUPPLY
17	Y	-	RR RH WHEEL SENSOR POWER SUPPLY
18	G	-	FR LH WHEEL SENSOR SIGNAL
19	W	-	FR LH WHEEL SENSOR POWER SUPPLY
24	SHIELD	-	BRAKE VACUUM SENSOR GROUND
25	BR	-	VALVE POWER SUPPLY
26	L	-	CANH
28	GR	-	IGNITION POWER SUPPLY
29	LG	-	RR RH WHEEL SENSOR SIGNAL
31	BR	-	RR LH WHEEL SENSOR POWER SUPPLY
38	B	-	GROUND (VALVE)

Connector No.	E36
Connector Name	ABS ACTIVATOR AND ELECTRIC UNIT (CONTROL UNIT)
Connector Type	BE234FB-BHY-2-BJZ-RH



38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
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JRKWD4460GB

# SECURITY CONTROL SYSTEM

< WIRING DIAGRAM >

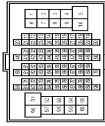
[WITH INTELLIGENT KEY SYSTEM]

## SECURITY CONTROL SYSTEM (RHD MODELS WITH INTELLIGENT KEY)

Connector No.	E50
Connector Name	WIRE TO WIRE
Connector Type	M02MM-GY-LC



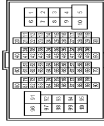
23	V	SPEED LIMITER MAIN SWITCH
24	R	CLUTCH PEDAL POSITION SWITCH
27	V	CLUTCH INTERLOCK SWITCH
30	BR	ASCD MAIN SWITCH
31	P	CAN-L
32	L	CAN-H



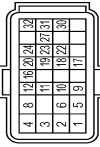
Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

Connector No.	E101
Connector Name	WIRE TO WIRE
Connector Type	TH80FDGY-CS16-TM4

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



Connector No.	E79
Connector Name	ECM
Connector Type	R124FB-RZS-R-RH



Terminal No.	Wire	Signal Name [Specification]
1	B	ECM GROUND
2	W	ACCELERATOR PEDAL POSITION SENSOR 1
3	Y	SENSOR GROUND/ACCELERATOR PEDAL POSITION SENSOR 1
4	B	ECM GROUND
5	L	POWER SUPPLY FOR ECM
6	G	SENSOR POWER SUPPLY/ACCELERATOR PEDAL POSITION SENSOR 1
8	B	ECM GROUND
9	L	FUEL HEATER AND WATER IN FUEL LEVEL SENSOR
10	L	SENSOR POWER SUPPLY/ACCELERATOR PEDAL POSITION SENSOR 2
11	V	ACCELERATOR PEDAL POSITION SENSOR 2
12	P	SENSOR GROUND/ACCELERATOR PEDAL POSITION SENSOR 2
16	BG	STOP LAMP SWITCH [WITH MUT]
17	R	STOP LAMP SWITCH [WITH MUT]
18	LG	IGNITION SWITCH [WITH CVT]
19	G	ASCD STEERING SWITCH
19	BR	SENSOR GROUND/ASCD STEERING SWITCH
20	BR	FUEL PUMP CONTROL MODULE (COMMAND)
22	G	FUEL PUMP CONTROL MODULE (DIAGNOSIS)

Terminal No.	Wire	Signal Name [Specification]
1	G	-
2	W	-
5	G	-
11	BR	-
12	W	-
13	P	-
14	SB	-
15	V	-
16	P	-
17	P	-
18	G	-
19	P	-
20	G	-
21	BR	-
22	LG	-
23	Y	-
24	SB	-
25	G	-
26	B	-
27	P	-
28	R	-
29	LG	-
30	P	-
32	BR	-
33	GR	-
34	R	-
35	L	-
36	LG	-
37	V	-
38	G	-
39	BR	-
40	L	-
41	P	-
47	GR	-
48	SB	-
51	P	-
52	L	-
53	W	-
54	Y	-
55	BR	-
56	P	-
57	B	-
58	L	-
59	W	-
60	G	-
61	BR	-
62	V	-
63	BR	-
64	GR	-

Terminal No.	Wire	Signal Name [Specification]
2	W	-
5	V	- [Without ISS]
5	W	- [With ISS]
8	L	-
8	LG	-
10	W	-
20	W	-
21	B	-
22	SHIELD	-
31	Y	-
32	W	-
33	SB	-
34	LG	-
35	BG	-
36	LG	-
37	V	-
38	G	-
39	BR	-
40	L	-
41	P	-
47	GR	-
48	SB	-
51	P	-
52	L	-
53	W	-
54	Y	-
55	BR	-
56	P	-
57	B	-
58	L	-
59	W	-
60	G	-
61	BR	-
62	V	-
63	BR	-
64	GR	-



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

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











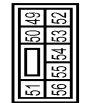



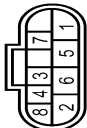

JRKWD4461GB

# SECURITY CONTROL SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

< WIRING DIAGRAM >

## SECURITY CONTROL SYSTEM (RHD MODELS WITH INTELLIGENT KEY)

<table><tr><td>Connector No.</td><td>E111</td></tr><tr><td>Connector Name</td><td>CLUTCH PEDAL POSITION SWITCH</td></tr><tr><td>Connector Type</td><td>M02FER-LC</td></tr></table> <div></div>	Connector No.	E111	Connector Name	CLUTCH PEDAL POSITION SWITCH	Connector Type	M02FER-LC	<table><tr><td>Connector No.</td><td>E121</td></tr><tr><td>Connector Name</td><td>STOP LAMP SWITCH</td></tr><tr><td>Connector Type</td><td>M04FW-LC</td></tr></table> <div></div>	Connector No.	E121	Connector Name	STOP LAMP SWITCH	Connector Type	M04FW-LC	<table><tr><td>Connector No.</td><td>E150</td></tr><tr><td>Connector Name</td><td>WIPE TO WIRE</td></tr><tr><td>Connector Type</td><td>M02FYV-GY-LC</td></tr></table> <div></div>	Connector No.	E150	Connector Name	WIPE TO WIRE	Connector Type	M02FYV-GY-LC	<table><tr><td>Connector No.</td><td>E169</td></tr><tr><td>Connector Name</td><td>WIPE TO WIRE</td></tr><tr><td>Connector Type</td><td>M06MW-LC</td></tr></table> <div></div>	Connector No.	E169	Connector Name	WIPE TO WIRE	Connector Type	M06MW-LC																																																																								
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<table><tr><td>Connector No.</td><td>E115</td></tr><tr><td>Connector Name</td><td>STOP LAMP SWITCH</td></tr><tr><td>Connector Type</td><td>M04FW-LC</td></tr></table> <div></div>	Connector No.	E115	Connector Name	STOP LAMP SWITCH	Connector Type	M04FW-LC	<table><tr><td>Connector No.</td><td>E148</td></tr><tr><td>Connector Name</td><td>POWER INTELLIGENT POWER DISTRIBUTION MODULE (PUSH-KEYLESS)</td></tr><tr><td>Connector Type</td><td>NS08FER-GS</td></tr></table> <div></div>	Connector No.	E148	Connector Name	POWER INTELLIGENT POWER DISTRIBUTION MODULE (PUSH-KEYLESS)	Connector Type	NS08FER-GS	<table><tr><td>Connector No.</td><td>E164</td></tr><tr><td>Connector Name</td><td>HOOD SWITCH</td></tr><tr><td>Connector Type</td><td>RK02MGY</td></tr></table> <div></div>	Connector No.	E164	Connector Name	HOOD SWITCH	Connector Type	RK02MGY	<table><tr><td>Connector No.</td><td>F22</td></tr><tr><td>Connector Name</td><td>TRANSMISSION RANGE SWITCH</td></tr><tr><td>Connector Type</td><td>YD06RFB-HS4</td></tr></table> <div></div>	Connector No.	F22	Connector Name	TRANSMISSION RANGE SWITCH	Connector Type	YD06RFB-HS4																																																																								
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Terminal No.	1	2	3	4																																																																																															
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Color	BG	GR	W	V	G	BR	Y	GR																																																																																											
Wire	-	-	-	-	-	-	-	-																																																																																											
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Color	BG	GR	W	V	G	BR	Y	GR																																																																																											
Wire	-	-	-	-	-	-	-	-																																																																																											

JRKWD4462GB

**[WITH INTELLIGENT KEY SYSTEM]**

## SECURITY CONTROL SYSTEM (RHD MODELS WITH INTELLIGENT KEY)

Terminal	Cover Of Wire	Signal Name (Specification)
1	A	- [Wired MP20 or QP25 engine]
2	B	- [Wired SS]
3	BR	- [Wired SS]
4	GR	- [Wired MP20 engine]
5	V	- [Wired MP20 engine]
6	G	- [Wired SS]
7	BG	- [Wired MP20 engine]
8	B	- [Wired SS]
9	LG	- [Wired QP25 engine]
10	V	- [Wired MP20 engine]
11	G	- [Wired SS]
12	R	- [Wired QP25 engine]
13	P	- [Wired SS]
14	B	- [Wired MP20 engine]
15	BR	- [Wired SS]
16	GR	- [Wired MP20 engine]
17	V	- [Wired MP20 engine]
18	G	- [Wired SS]
19	BG	- [Wired MP20 engine]
20	B	- [Wired SS]
21	LG	- [Wired QP25 engine]
22	V	- [Wired MP20 engine]
23	G	- [Wired SS]
24	BG	- [Wired MP20 engine]
25	B	- [Wired SS]
26	LG	- [Wired QP25 engine]
27	V	- [Wired MP20 engine]
28	G	- [Wired SS]
29	BG	- [Wired MP20 engine]
30	B	- [Wired SS]
31	LG	- [Wired QP25 engine]
32	V	- [Wired MP20 engine]
33	G	- [Wired SS]
34	BG	- [Wired MP20 engine]
35	B	- [Wired SS]
36	LG	- [Wired QP25 engine]
37	V	- [Wired MP20 engine]
38	G	- [Wired SS]
39	BG	- [Wired MP20 engine]
40	B	- [Wired SS]
41	LG	- [Wired QP25 engine]
42	V	- [Wired MP20 engine]
43	G	- [Wired SS]
44	BG	- [Wired MP20 engine]
45	B	- [Wired SS]
46	LG	- [Wired QP25 engine]
47	V	- [Wired MP20 engine]
48	G	- [Wired SS]
49	BG	- [Wired MP20 engine]
50	B	- [Wired SS]
51	LG	- [Wired QP25 engine]
52	V	- [Wired MP20 engine]
53	G	- [Wired SS]
54	BG	- [Wired MP20 engine]
55	B	- [Wired SS]
56	LG	- [Wired QP25 engine]
57	V	- [Wired MP20 engine]
58	G	- [Wired SS]
59	BG	- [Wired MP20 engine]
60	B	- [Wired SS]
61	LG	- [Wired QP25 engine]
62	V	- [Wired MP20 engine]
63	G	- [Wired SS]
64	BG	- [Wired MP20 engine]
65	B	- [Wired SS]
66	LG	- [Wired QP25 engine]
67	V	- [Wired MP20 engine]
68	G	- [Wired SS]
69	BG	- [Wired MP20 engine]
70	B	- [Wired SS]
71	LG	- [Wired QP25 engine]
72	V	- [Wired MP20 engine]
73	G	- [Wired SS]
74	BG	- [Wired MP20 engine]
75	B	- [Wired SS]
76	LG	- [Wired QP25 engine]
77	V	- [Wired MP20 engine]
78	G	- [Wired SS]
79	BG	- [Wired MP20 engine]
80	B	- [Wired SS]
81	LG	- [Wired QP25 engine]
82	V	- [Wired MP20 engine]
83	G	- [Wired SS]
84	BG	- [Wired MP20 engine]
85	B	- [Wired SS]
86	LG	- [Wired QP25 engine]
87	V	- [Wired MP20 engine]
88	G	- [Wired SS]
89	BG	- [Wired MP20 engine]
90	B	- [Wired SS]
91	LG	- [Wired QP25 engine]
92	V	- [Wired MP20 engine]
93	G	- [Wired SS]
94	BG	- [Wired MP20 engine]
95	B	- [Wired SS]
96	LG	- [Wired QP25 engine]
97	V	- [Wired MP20 engine]
98	G	- [Wired SS]
99	BG	- [Wired MP20 engine]
100	B	- [Wired SS]
101	LG	- [Wired QP25 engine]
102	V	- [Wired MP20 engine]
103	G	- [Wired SS]
104	BG	- [Wired MP20 engine]
105	B	- [Wired SS]
106	LG	- [Wired QP25 engine]
107	V	- [Wired MP20 engine]
108	G	- [Wired SS]
109	BG	- [Wired MP20 engine]
110	B	- [Wired SS]
111	LG	- [Wired QP25 engine]
112	V	- [Wired MP20 engine]
113	G	- [Wired SS]
114	BG	- [Wired MP20 engine]
115	B	- [Wired SS]
116	LG	- [Wired QP25 engine]
117	V	- [Wired MP20 engine]
118	G	- [Wired SS]
119	BG	- [Wired MP20 engine]
120	B	- [Wired SS]
121	LG	- [Wired QP25 engine]
122	V	- [Wired MP20 engine]
123	G	- [Wired SS]
124	BG	- [Wired MP20 engine]
125	B	- [Wired SS]
126	LG	- [Wired QP25 engine]
127	V	- [Wired MP20 engine]
128	G	- [Wired SS]
129	BG	- [Wired MP20 engine]
130	B	- [Wired SS]
131	LG	- [Wired QP25 engine]
132	V	- [Wired MP20 engine]
133	G	- [Wired SS]
134	BG	- [Wired MP20 engine]
135	B	- [Wired SS]
136	LG	- [Wired QP25 engine]
137	V	- [Wired MP2

# SECURITY CONTROL SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

< WIRING DIAGRAM >

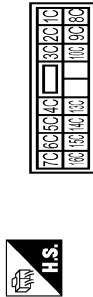
## SECURITY CONTROL SYSTEM (RHD MODELS WITH INTELLIGENT KEY)

13	Y	-	-
15	L	-	-
16	LG	-	-

Connector No.	F136
Connector Name	WIRE TO WIRE
Connector Type	M06FW-LC

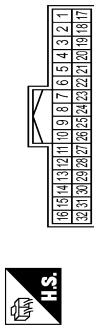


Connector No.	M3
Connector Name	FUSE BLOCK (UB)
Connector Type	NS16FW-CS



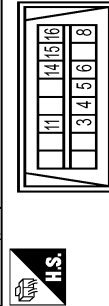
Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	-
4	B	-
5	B	-
6	L	-
8	Y	-
11	SB	-
14	P	-
15	BR	-
16	W	-

Connector No.	M13
Connector Name	WIRE TO WIRE
Connector Type	TH22FW-MH

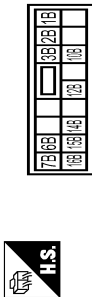


Terminal No.	Color Of Wire	Signal Name [Specification]
10C	LG	-
13C	LAG	-
14C	R	-
15C	L	-
16C	LAW	-
1C	R	-
2C	G	-
3C	Y	-
4C	LG	-
5C	GR	-
6C	LAIR	-
7C	Y	-
8C	BR	- [With ISS]
8C	LAIR	- [Without ISS]
9C	L	-

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Connector No.	M2
Connector Name	FUSE BLOCK (UB)
Connector Type	NS16FBR-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
10B	GR	-
10B	LAGR	- [With MR20 engine or RSM engine]
12B	BR	-
14B	W	-
15B	W	-
16B	GR	-
1B	G	-
2B	R	-
3B	V	-

25	L	-
26	BR	-
29	SHIELD	-
30	W	-
31	B	-
32	R	-

Connector No.	M16
Connector Name	PUSH-BUTTON IGNITION SWITCH
Connector Type	TH08FW-MH



Terminal No.	Color Of Wire	Signal Name [Specification]
4	B	-
5	W	-
6	B	-
8	Y	-

Connector No.	M17
Connector Name	INSIDE KEY ANTENNA (INSTRUMENT CENTER)
Connector Type	RK02FGY



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

JRKWD4464GB

# SECURITY CONTROL SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

< WIRING DIAGRAM >

## SECURITY CONTROL SYSTEM (RHD MODELS WITH INTELLIGENT KEY)

Connector No.	M23
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
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Connector No.	M36
Connector Name	WIRE TO WIRE
Connector Type	NS08FW-CS



3	<div></div>	2	1
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			4

Connector No.	M52
Connector Name	CVT SHIFT SELECTOR
Connector Type	TH18FW-NH



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# SECURITY CONTROL SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

< WIRING DIAGRAM >

## SECURITY CONTROL SYSTEM (RHD MODELS WITH INTELLIGENT KEY)

Connector No.	M57
Connector Name	STEERING LOCK UNIT
Connector Type	TH80FB-NH



Terminal No.	Color	Wire	Signal Name [Specification]
1	GR		STEERING LOCK UNIT GND
2	V		STEERING LOCK UNIT PWR
3	Y		STEERING LOCK UNIT CANH
4	Y		STEERING LOCK UNIT SENSORLINE
7	GR		STEERING LOCK UNIT SAFETYLINE
8	P		STEERING LOCK UNIT CAN L

Connector No.	M55
Connector Name	DIODE-1
Connector Type	ET02-2W



Terminal No.	Color	Wire	Signal Name [Specification]
1	BR		
2	V		

Connector No.	M66
Connector Name	DIODE-2
Connector Type	ET02-2W



Terminal No.	Color	Wire	Signal Name [Specification]
1	BR		
2	V		

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color	Wire	Signal Name [Specification]
2	LA/R		
5	V		- [Without ISS]
8	G		- [Without ISS]
9	Y		
10	R		
20	W		
21	B		
22	SHIELD		
31	V		
32	GR		
33	G		
34	LG		
35	BG		
36	LG		
37	V		
38	G		
39	BR		

40	L		
41	P		
47	Y		
48	BG		
51	GR		
52	SB		
53	R		
54	LA/L		
55	BR		
56	P		
57	B		
58	L		
59	W		
60	LA/R		
61	P		
62	V		
63	LA/R		
64	V		
65	GR		
66	BG		
67	L		
68	R		
71	V		
72	L		
73	Y		
76	L		
77	V		
78	LG		
79	SHIELD		
80	L		- [With ISS]
82	GR		- [Without ISS]
83	LG		
84	SB		
85	G		
86	G		
87	B		
88	B		
91	L		
92	W		
93	W		
96	LG		
97	BR		
98	V		
99	R		

Connector No.	M85
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS16FBR-CS



Terminal No.	Color	Wire	Signal Name [Specification]
137	W		BAT POWER SUPPLY (E/ISE)
138	SB		INT ROOM LAMP CONT
139	V		PASSENGER DOOR UNLOCK OUTPUT
141	V		- FRONT DOOR LOCK OUTPUT
143	LA/V		POWER SUPPLY (FR DOOR LK ACT)
144	BG		POWER SUPPLY (TURN SIGNAL)
145	GR		POWER SUPPLY (STOP LAMP)
146	B		GROUND
147	B		GROUND
148	G		DRIVER DOOR UNLOCK OUTPUT
149	W		FRONT DOOR SUPERLOCK OUTPUT
151	R		POWER SUPPLY (REAR DOOR LK ACT)
152	LG		POWER SUPPLY (REAR WIPER)

Connector No.	M86
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Color	Wire	Signal Name [Specification]
81	L		KEY SWITCH
82	LA/R		KEY SW (ST) [Without Intelligent key]
82	W		PASS DOOR RELO SW [With Intelligent key]
84	BR		COMBI SW OUTPUT 2
85	SB		COMBI SW OUTPUT 1
86	P		COMBI SW OUTPUT 3
87	BG		COMBI SW OUTPUT 4

# SECURITY CONTROL SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

< WIRING DIAGRAM >

## SECURITY CONTROL SYSTEM (RHD MODELS WITH INTELLIGENT KEY)

Connector No.	Connector Name	Connector Type
M87	BCM (BODY CONTROL MODULE)	TH40FGY-NH
M87	BCM (BODY CONTROL MODULE)	TH40FGY-NH

Terminal No.	Color Of Wire	Signal Name [Specification]
41	V	STEERING LOCK UNIT POWER SUPPLY
42	LAG	TURN SIG LH (SIDE)
43	LAY	TURN SIG RH (SIDE)
44	P	INTERIOR ROOM LAMP RELAY CONT.
45	R	CANH
46	L	CANL
47	G	LIGHT & RAIN SENSOR
48	I	CANH
49	F	CANL
50	BG	DOOR LOCK SW
51	Y	HAZARD SW

Connector No.	Connector Name	Connector Type
M324	CVT SHIFT SELECTOR	TH68MW-NH
M324	CVT SHIFT SELECTOR	TH68MW-NH

Terminal No.	Color Of Wire	Signal Name [Specification]
3	W	-
4	P	-
7	BR	-
8	G	- (LHD models)
8	GR	- (RHD models)
9	G	- (RHD models)
9	GR	- (LHD models)
10	Y	-
11	LW	-
12	O	-
13	LG	-

Connector No.	Connector Name	Connector Type
R1	WIRE TO WIRE	TH24MW-NH
R1	WIRE TO WIRE	TH24MW-NH

Terminal No.	Color Of Wire	Signal Name [Specification]
1	V	-
2	Y	-
3	B	-
5	Y	-
6	B	-

Terminal No.	Color Of Wire	Signal Name [Specification]
3	-	-
7	-	-
8	-	-
9	-	-
13	-	-
15	-	-
16	-	-
17	-	-
18	-	-
19	-	-
20	-	-
21	-	-

Connector No.	Connector Name	Connector Type
R2	WIRE TO WIRE	NS08MW-CS
R2	WIRE TO WIRE	NS08MW-CS

Terminal No.	Color Of Wire	Signal Name [Specification]
1	V	-
2	Y	-
3	B	-
5	Y	-
6	B	-

Terminal No.	Color Of Wire	Signal Name [Specification]
2	-	-
3	-	-
4	B	-

Connector No.	Connector Name	Connector Type
R25	SENSOR CANCEL SWITCH	TK08FW-TV
R25	SENSOR CANCEL SWITCH	TK08FW-TV

Terminal No.	Color Of Wire	Signal Name [Specification]
1	V	-
2	Y	-
3	B	-
5	Y	-
6	B	-

Terminal No.	Color Of Wire	Signal Name [Specification]
1	V	-
2	Y	-
3	B	-
5	Y	-
6	B	-

# DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[WITH INTELLIGENT KEY SYSTEM]

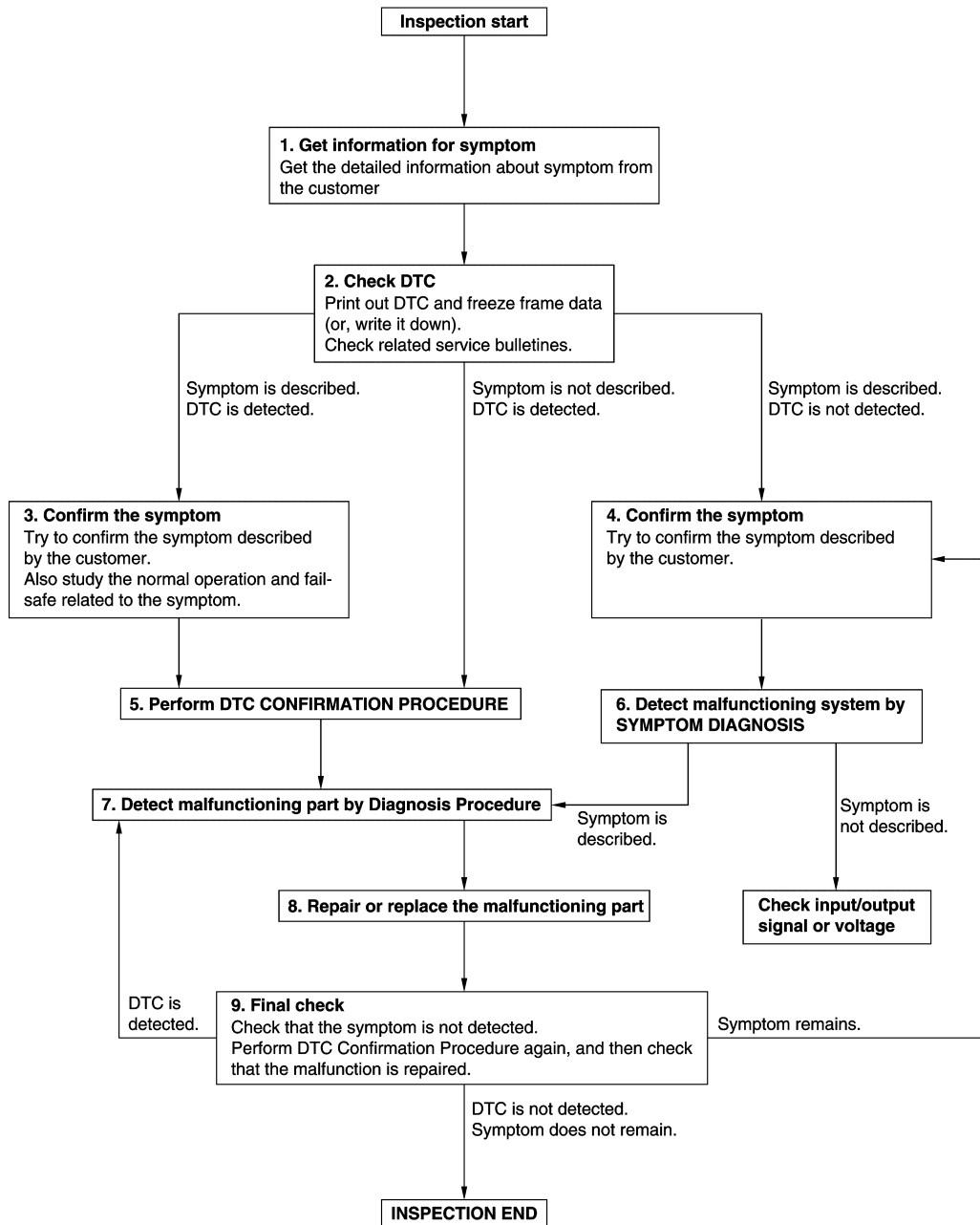
## BASIC INSPECTION

### DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:0000000010922130

OVERALL SEQUENCE



DETAILED FLOW

# DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[WITH INTELLIGENT KEY SYSTEM]

## 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-77. "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 on 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-44. "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 >

[WITH INTELLIGENT KEY SYSTEM]

Inspect according to Diagnosis Procedure of the system.

Is malfunctioning part detected?

YES >> GO TO 8.

NO >> Check according to [GI-44. "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 again 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.

A

B

C

D

E

F

G

H

I

J

SEC

L

M

N

O

P

## ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

< BASIC INSPECTION >

[WITH INTELLIGENT KEY SYSTEM]

### ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

#### ECM

##### ECM : Description

INFOID:0000000010922131

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 a virgin ECM that has never been energized on-board.

(In this step, initialization procedure using CONSULT is not necessary)

##### NOTE:

- When the replaced ECM is not a brand new, the specified procedure (Initialization of BCM and registration of Intelligent Keys) using CONSULT is necessary.
- 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:0000000010922132

#### 1.PERFORM ECM RECOMMUNICATING FUNCTION

1. Install ECM.
2. Contact backside of the registered Intelligent Key\* to push-button ignition switch while brake pedal is depressed, then turn ignition switch 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 OFF.
5. Check that the engine starts.

>> GO TO 2.

#### 2.PERFORM ADDITIONAL SERVICE WHEN REPLACING ECM

Perform the following procedure.

- MR20DD: [EC-141, "Work Procedure"](#)
- QR25DE: [EC-550, "Work Procedure"](#)
- R9M: [EC-944, "Work Procedure"](#)

>> END

#### BCM

##### BCM : Description

INFOID:0000000010922133

##### BEFORE REPLACEMENT

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

##### NOTE:

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

##### AFTER REPLACEMENT

##### CAUTION:

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

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

##### NOTE:

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

##### BCM : Work Procedure

INFOID:0000000010922134

#### 1.SAVING VEHICLE SPECIFICATION

## ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

< BASIC INSPECTION >

[WITH INTELLIGENT KEY SYSTEM]

### CONSULT Configuration

Perform "READ CONFIGURATION" to save or print current vehicle specification. Refer to [BCS-106, "Description"](#).

#### NOTE:

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

>> GO TO 2.

## 2. REPLACE BCM

Replace BCM. Refer to [BCS-121, "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-106, "Work Procedure"](#).

>> GO TO 4.

## 4. INITIALIZE BCM (NATS)

Perform BCM initialization. (NATS)

>> WORK END

## STEERING LOCK UNIT

### STEERING LOCK UNIT : Description

INFOID:0000000010922135

Performing the following procedure can automatically activate recommunication of steering lock unit and BCM, but only when the steering lock unit is replaced with a new one\*.

\*: New one means a virgin steering lock unit that has never been energized on-board.

(In this step, initialization procedure using CONSULT is not necessary)

#### NOTE:

- When the replaced steering lock unit is not a brand new, the specified procedure (Initialization of BCM and registration of Intelligent Keys) using CONSULT is necessary.
- 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.

### STEERING LOCK UNIT : Work Procedure

INFOID:0000000010922136

## 1. PERFORM STEERING LOCK UNIT RECOMMUNICATING FUNCTION

1. Install steering lock unit.
2. Contact backside of registered Intelligent Key\* to push-button ignition switch while brake pedal is depressed, then turn ignition switch ON.  
\*: To perform this step, use the key that is used before performing steering lock unit replacement.
3. Maintain ignition switch in the ON position for at least 5 seconds.
4. Turn ignition switch OFF.
5. Check that the ignition switch is turned ON.

>> INSPECTION END

**DTC/CIRCUIT DIAGNOSIS****P161D IMMOBILIZER****DTC Description**

INFOID:0000000010922137

**DTC DETECTION LOGIC**

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
P161D	IMMOBILIZER (Immobilizer)	When BCM detects an immobilizer malfunction and engine start is prohibited.

**POSSIBLE CAUSE**

BCM

**FAIL-SAFE**

Inhibit engine cranking

**DTC CONFIRMATION PROCEDURE****1.PERFORM DTC CONFIRMATION PROCEDURE**

1. Turn ignition switch ON.
2. Select "Self Diagnostic Result" mode of "ENGINE" using CONSULT.

**Is DTC detected?**

- YES >> Refer to [SEC-102, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

**Diagnosis Procedure**

INFOID:0000000010922138

**1.CHECK DTC OF "BCM"**

Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

**Is DTC detected?**

- YES >> Perform the trouble diagnosis related to the detected DTC. Refer to [BCS-78, "DTC Index"](#).
- NO >> GO TO 2.

**2.REPLACE BCM**Replace BCM. Refer to [BCS-121, "Removal and Installation"](#).

&gt;&gt; INSPECTION END

# P161E IMMOBILIZER

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## P161E IMMOBILIZER

### DTC Description

INFOID:0000000010922139

### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
P161E	IMMOBILIZER (Immobilizer)	When CONSULT is not used during ECM replacement.

### POSSIBLE CAUSE

- BCM
- ECM

### FAIL-SAFE

Inhibit engine cranking

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Select "Self Diagnostic Result" mode of "ENGINE" using CONSULT.

#### Is DTC detected?

- YES >> Refer to [SEC-103, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

### Diagnosis Procedure

INFOID:0000000010922140

#### 1.ECM REGISTRATION

Using CONSULT, register ECM.

#### Is the DTC detected?

- YES >> GO TO 2.
- NO >> INSPECTION END

#### 2.REPLACE BCM

Replace BCM. Refer to [BCS-121, "Removal and Installation"](#).

#### Is the DTC detected?

- YES >> GO TO 3.
- NO >> INSPECTION END

#### 3.REPLACE ECM

Replace ECM.

Refer to the following procedure.

- MR20DD: [EC-430, "Removal and Installation"](#).
- QR25DE: [EC-806, "Removal and Installation"](#).
- R9M: [EC-1226, "Removal and Installation"](#).

>> INSPECTION END

# P161F IMMOBILIZER

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## P161F IMMOBILIZER

### DTC Description

INFOID:0000000010922141

### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
P161F	IMMOBILIZER (Immobilizer)	When BCM detects an immobilizer malfunction and engine start is prohibited.

### POSSIBLE CAUSE

ECM

### FAIL-SAFE

Inhibit engine cranking

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Select "Self Diagnostic Result" mode of "ENGINE" using CONSULT.

#### Is DTC detected?

- YES >> Refer to [SEC-104, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

### Diagnosis Procedure

INFOID:0000000010922142

#### 1.REPLACE ECM

Replace ECM.  
Refer to the following procedure.

- MR20DD: [EC-430, "Removal and Installation"](#).
- QR25DE: [EC-806, "Removal and Installation"](#).
- R9M: [EC-1226, "Removal and Installation"](#).

>> INSPECTION END

**P1616 ECM****DTC Description**

INFOID:0000000010926623

**DTC DETECTION LOGIC**

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
P1616	NATS MALFUNCTION (Nissan Anti-Theft System malfunction)	ECM ROM is malfunctioning

**POSSIBLE CAUSE**

ECM

**FAIL-SAFE**

—

**DTC CONFIRMATION PROCEDURE****1.PERFORM DTC CONFIRMATION PROCEDURE**

1. Turn ignition switch ON and wait 2 seconds or more.
2. Check DTC in “Self Diagnostic Result” mode of “ENGINE” using CONSULT.

**Is DTC detected?**

- YES >> Refer to [SEC-105, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

**Diagnosis Procedure**

INFOID:0000000010926624

**1.INSPECTION START**

1. Turn ignition switch ON.
2. Select “Self Diagnostic Result” mode of “ENGINE” using CONSULT.
3. Touch “ERASE”.
4. Perform DTC CONFIRMATION PROCEDURE for DTC P1616. Refer to [SEC-105, "DTC Description"](#).

**Is DTC P1616 displayed again?**

- YES >> GO TO 2.
- NO >> INSPECTION END

**2.REPLACE ECM**

Replace ECM.

Refer to the following procedure.

- MR20DD: [EC-430, "Removal and Installation"](#).
- QR25DE: [EC-806, "Removal and Installation"](#).
- R9M: [EC-1226, "Removal and Installation"](#).

&gt;&gt; INSPECTION END

# B121D STEERING LOCK POWER SUPPLY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## B121D STEERING LOCK POWER SUPPLY CIRCUIT

### DTC Description

INFOID:0000000010922229

### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)		DTC detecting condition
B121D	S/L LOCK PWR SPLY CIRC (Steering lock power supply cir- cuit)	[CIRC SHORT TO GROUND]	<ul style="list-style-type: none"><li>When the steering lock unit detects a short circuit in the steering lock unit power circuit</li><li>When the steering lock unit detects over current in the steering lock unit power circuit.</li></ul>

### POSSIBLE CAUSE

- Harness or connectors  
(Steering lock unit power supply circuit is open or shorted)
- IPDM E/R
- BCM
- Steering lock unit

### FAIL-SAFE

Shut off the power supply until the vehicle switches to sleep status.

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

- Make the conditions that BCM enters in the low power consumption mode (BCM sleep condition).  
Refer to [BCS-18, "POWER CONSUMPTION CONTROL SYSTEM : System Description"](#).
- Turn ignition switch ON.
- Select "Self Diagnostic Result" mode of "IPDM E/R" using CONSULT.

#### Is DTC detected?

- YES >> Refer to [SEC-106, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

### Diagnosis Procedure

INFOID:0000000010922230

#### 1.CHECK IPDM E/R POWER SUPPLY

- Turn ignition switch to OFF, and then wait for 3 minutes with driver door open.  
**NOTE:**
  - Even after ignition switch is OFF, power is supplied to accessories for a certain amount of time by the AUTO ACC function.
  - When vehicle is operated while on standby, power may be supplied to accessories.
- Disconnect the battery negative terminal.
- Disconnect BCM connector.
- Connect the minus terminal of the battery and set the BCM to wake up status.
- Check voltage between BCM harness connector and ground.

BCM		(-)	Condition		Voltage
Connector	Terminal				
E23	166	Ground	Ignition switch	OFF	9 - 16 V

#### Is the inspection result normal?

- YES >> GO TO 3.
- NO >> GO TO 2.

#### 2.CHECK IPDM E/R POWER SUPPLY CIRCUIT

- Disconnect the battery negative terminal.
- Disconnect IPDM E/R connector.

# B121D STEERING LOCK POWER SUPPLY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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

IPDM E/R		BCM		Continuity
Connector	Terminal	Connector	Terminal	
E10	3	E23	166	Existed

4. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
E23	166		Not existed

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-60. "Removal and Installation"](#).

NO >> Repair or replace harness.

## 3.CHECK STEERING LOCK UNIT INPUT SIGNAL

- Connect BCM connector.
- Disconnect steering lock unit connector.
- Check voltage between steering lock unit harness connector and ground.

Steering lock unit		(-)	Condition		Voltage
Connector	Terminal				
M57	2	Ground	Steering lock unit	Active	9 - 16 V
				Not active	0 - 0.5 V

Is the inspection result normal?

YES >> Replace steering lock unit.

NO >> GO TO 4.

## 4.CHECK STEERING LOCK UNIT INPUT SIGNAL CIRCUIT

- Disconnect BCM connector.
- Check continuity between BCM harness connector and steering lock unit harness connector.

Steering lock unit		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M57	2	M87	41	Existed

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M87	41		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-121. "Removal and Installation"](#).

NO >> Repair or replace harness.

## B20DF STARTER RELAY OFF CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### B20DF STARTER RELAY OFF CIRCUIT

#### DTC Description

INFOID:0000000010922231

#### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)		DTC detecting condition
	STARTER RELAY OFF CIRC (Starter relay off circuit)	[CIRC SHORT TO GROUND OR OPEN]	
B20DF			When IPDM E/R performs starter relay ON output but starter relay is OFF.

#### POSSIBLE CAUSE

- Harness or connectors  
(Starter relay circuit is open or shorted)
- IPDM E/R
- Starter motor

#### FAIL-SAFE

—

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Press push-button ignition switch under the following conditions, and wait 2 seconds or more.
  - Selector lever: In the P position
  - Brake pedal: Depressed
2. Select “Self Diagnostic Result” mode of “IPDM E/R” using CONSULT.

##### Is DTC detected?

- YES >> Refer to [SEC-108, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

#### Diagnosis Procedure

INFOID:0000000010922232

##### 1.CHECK “S” TERMINAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect starter motor connector.
3. Shift selector lever to “P” or “N” position.
4. Check voltage between starter motor harness connector and ground.

MR20DD engine models

(+)		(-)	Condition	Voltage
Starter motor				
Connector	Terminal			
F47	2	Ground	When the ignition switch is in START position	12 V or more

QR25DE engine models

(+)		(-)	Condition	Voltage
Starter motor				
Connector	Terminal			
F10	2	Ground	When the ignition switch is in START position	12 V or more

## B20DF STARTER RELAY OFF CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

R9M engine models

Row engine models		(-)	Condition	Voltage
(+)				
Starter motor				
Connector	Terminal			
F130	2	Ground	When the ignition switch is in START position	12 V or more

Is the inspection result normal?

YES >> GO TO 2.

NO >> GO TO 3.

### 2.REPLACE STARTER MOTOR

Replace starter motor. Refer to the following procedure.

- MR20DD: [STR-27, "MR20DD : Removal and Installation"](#).
- QR25DE: [STR-34, "QR25DE : Removal and Installation"](#).
- R9M: [STR-39, "R9M : Removal and Installation"](#).

>> INSPECTION END

### 3.CHECK STARTER MOTER INPUT SIGNAL CIRCUIT

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

MR20DD engine models

Starter motor		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
F47	2	F73	81	Existed

QR25DE engine models

Starter motor		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
F10	2	F73	81	Existed

R9M engine models

Starter motor		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
F130	2	F73	81	Existed

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
F73	81		Not existed

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-60, "Removal and Installation"](#).

>> INSPECTION END

# B2190 CHAIN OF BCM - IMM ANT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## B2190 CHAIN OF BCM - IMM ANT

### DTC Description

INFOID:0000000010922143

### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B2190-00	CHAIN OF BCM-IMM ANT (Chain of body control module - immobilizer antenna)	When BCM cannot detect the Intelligent Key ID in 0.6 seconds.

### POSSIBLE CAUSE

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

### FAIL-SAFE

Inhibit engine cranking

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Make the conditions that BCM enters in the low power consumption mode (BCM sleep condition). Refer to [BCS-18, "POWER CONSUMPTION CONTROL SYSTEM : System Description"](#).
2. Turn ignition switch ON.
3. Check to DTC in "Self Diagnostic Result" mode of "BCM" CONSULT.

#### Is DTC detected?

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

### Diagnosis Procedure

INFOID:0000000010922144

#### 1.INTELLIGENT KEY REGISTRATION

Using CONSULT, register all Intelligent Keys again.

>> GO TO 2.

#### 2.CHECK SELF DIAGNOSTIC RESULT

1. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.
2. Erase DTC.
3. Perform DTC CONFIRMATION PROCEDURE for B2190-00. Refer to [SEC-110, "DTC Description"](#).

#### Is DTC detected?

- YES >> GO TO 3.  
NO >> INSPECTION END

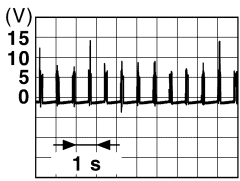
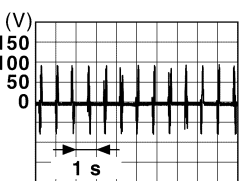
#### 3.CHECK NATS ANTENNA COMMUNICATION SIGNAL

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

# B2190 CHAIN OF BCM - IMM ANT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

(+)		(-)	Condition	Voltage
NATS antenna amp.				
Connector	Terminal			
M26	1	Ground	Other than above	
			When a registered Intelligent Key back-side is contacted to push-button ignition switch	0 V
	3		Other than above	
			When a registered Intelligent Key back-side is contacted to push-button ignition switch	0 V

Is the inspection result normal?

- YES >> Replace NATS antenna amp. Refer to [SEC-208, "Removal and Installation"](#).  
 NO >> GO TO 4.

## 4.CHECK NATS ANTENNA COMMUNICATION SIGNAL CIRCUIT

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

NATS antenna amp.		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M26	1	M86	115	Existed
	3		114	

- Check continuity between NATS antenna amp. connector and ground.

NATS antenna amp.		Ground	Continuity
Connector	Terminal		
M26	1		Not existed
	3		

Is the inspection result normal?

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

## 5.REPLACE BCM

Replace BCM. Refer to [BCS-121, "Removal and Installation"](#).

## **B2190 CHAIN OF BCM - IMM ANT**

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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>> INSPECTION END

# B2191 ID DISCORD, BCM - IMM ANT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## B2191 ID DISCORD, BCM - IMM ANT

### DTC Description

INFOID:0000000010922145

### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B2191-00	ID DISCORD, BCM-IMMANT (Identification discord, body control module - immobilizer antenna)	When BCM continuously cannot detect inconsistency of Intelligent Key ID in 0.6 seconds or more.

### POSSIBLE CAUSE

Intelligent Key

### FAIL-SAFE

Inhibit engine cranking

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

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

#### Is DTC detected?

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

### Diagnosis Procedure

INFOID:0000000010922146

#### 1.INTELLIGENT KEY REGISTRATION

Using CONSULT, register all Intelligent Keys again.

#### Can engine be started with the registered Intelligent Key?

- YES >> INSPECTION END  
NO >> GO TO 2.

#### 2.REPLACE INTELLIGENT KEY

1. Prepare Intelligent Key that matches the vehicle.
2. Registration of all Intelligent Key using CONSULT.

#### Can engine be started with the registered Intelligent Key?

- YES >> INSPECTION END  
NO >> GO TO 3.

#### 3.CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

>> INSPECTION END

## B2192 ID DISCORD, BCM-ECM

## DTC Description

INFOID:0000000010922147

## DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B2192-00	ID DISCORD BCM-ECM (Identification discord body control module - engine control module)	The ID verification results between BCM and ECM are NG.

## POSSIBLE CAUSE

- BCM
- ECM

## FAIL-SAFE

Inhibit engine cranking

## DTC CONFIRMATION PROCEDURE

## 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

Is DTC detected?

- YES >> Refer to [SEC-114, "Diagnosis Procedure"](#).  
 NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).  
 NO-2 >> Confirmation after repair: INSPECTION END

## Diagnosis Procedure

INFOID:0000000010922148

## 1.PERFORM INITIALIZATION

Perform initialization of BCM and registration of all Intelligent Keys using CONSULT.

Can the system be initialized and can the engine be started with registered Intelligent Key?

- YES >> INSPECTION END  
 NO >> GO TO 2.

## 2.CHECK SELF DIAGNOSTIC RESULT

1. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.
2. Erase DTC.
3. Perform DTC CONFIRMATION PROCEDURE for DTC B2192-00. Refer to [SEC-114, "DTC Description"](#).

Is DTC detected?

- YES >> GO TO 3.  
 NO >> INSPECTION END

## 3.REPLACE BCM

Replace BCM. Refer to [BCS-121, "Removal and Installation"](#).Can the system be initialized and can the engine be started with registered Intelligent Key?

- YES >> INSPECTION END  
 NO >> GO TO 4.

## 4.REPLACE ECM

Replace ECM.

Refer to the following procedure.

- MR20DD: [EC-430, "Removal and Installation"](#)
- QR25DE: [EC-806, "Removal and Installation"](#)
- R9M: [EC-1226, "Removal and Installation"](#)

## B2192 ID DISCORD, BCM-ECM

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

>> INSPECTION END

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## B2193 CHAIN OF BCM-ECM

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### B2193 CHAIN OF BCM-ECM

#### DTC Description

INFOID:0000000010922149

#### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B2193-00	CHAIN OF BCM-ECM (Chain of body control module - engine control module)	Inactive communication between BCM and ECM

#### 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 B2193-00 is displayed with DTC U1000-00 or U1010-00, first perform the trouble diagnosis for DTC U1000-00 or U1010-00.

##### Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. U1000-00: Refer to [BCS-110, "DTC Description"](#). U1010-00: Refer to [BCS-111, "DTC Description"](#).
- NO >> GO TO 2.

##### 2.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

##### Is DTC detected?

- YES >> Refer to [SEC-116, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

#### Diagnosis Procedure

INFOID:0000000010922150

##### 1.CHECK DTC PRIORITY

If DTC B2193-00 is displayed with DTC U1000-00 or U1010-00, first perform the trouble diagnosis for DTC U1000-00 or U1010-00.

##### Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. U1000-00: Refer to [BCS-110, "DTC Description"](#). U1010-00: Refer to [BCS-111, "DTC Description"](#).
- NO >> GO TO 2.

##### 2.REPLACE BCM

Replace BCM. Refer to [BCS-121, "Removal and Installation"](#).

Can the system be initialized and can the engine be started with registered Intelligent Key?

- YES >> INSPECTION END
- NO >> GO TO 3.

##### 3.REPLACE ECM

Replace ECM.

Refer to the following procedure.

- MR20DD: [EC-430, "Removal and Installation"](#).

## B2193 CHAIN OF BCM-ECM

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

- QR25DE: [EC-806, "Removal and Installation"](#).
- R9M: [EC-1226, "Removal and Installation"](#).

>> INSPECTION END

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## B2195 ANTI-SCANNING

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### B2195 ANTI-SCANNING

#### DTC Description

INFOID:0000000010922151

#### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B2195-00	ANTI-SCANNING (Anti-scanning)	ID verification between BCM and ECM that is out of the specified specification is detected.

#### POSSIBLE CAUSE

ID verification request out of the specified specification

#### FAIL-SAFE

Inhibit engine cranking

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

##### Is DTC detected?

- YES >> Refer to [SEC-118, "Diagnosis Procedure"](#).  
NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).  
NO-2 >> Confirmation after repair: INSPECTION END

#### Diagnosis Procedure

INFOID:0000000010922152

##### 1.CHECK SELF DIAGNOSTIC RESULT 1

1. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.
2. Erase DTC.
3. Perform DTC CONFIRMATION PROCEDURE for DTC B2195-00. Refer to [SEC-118, "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

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" using CONSULT.
3. Erase DTC.
4. Perform DTC CONFIRMATION PROCEDURE for DTC B2195-00. Refer to [SEC-118, "DTC Description"](#).

##### Is DTC detected?

- YES >> GO TO 4.  
NO >> INSPECTION END

##### 4.REPLACE BCM

Replace BCM. Refer to [BCS-121, "Removal and Installation"](#).

>> INSPECTION END

## B2196 DONGLE UNIT

## DTC Description

INFOID:0000000010926566

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

## DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B2196-00	DONGLE NG (Dongle unit not good)	The ID verification results between BCM and dongle unit is invalid.

## POSSIBLE CAUSE

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

## FAIL-SAFE

Inhibit engine cranking

## DTC CONFIRMATION PROCEDURE

## 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Turn ignition switch OFF.
3. Turn ignition switch ON.
4. Check DTC in "Self-diagnosis result" mode of "BCM" using CONSULT.

Is the DTC detected?

- YES >> Refer to [SEC-119, "Diagnosis Procedure"](#).  
 NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).  
 NO-2 >> Confirmation after repair: INSPECTION END

## Diagnosis Procedure

INFOID:0000000010926567

## 1.PERFORM INITIALIZATION

1. Perform initialization of BCM and registration of all mechanical keys using CONSULT.  
For initialization and registration procedures, refer to CONSULT Immobilizer mode and follow the on-screen instructions.
2. Start the engine.

Dose the engine start?

- YES >> INSPECTION END  
 NO >> GO TO 2.

## 2.CHECK DONGLE UNIT CIRCUIT

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

BCM		Dongle unit		Continuity
Connector	Terminal	Connector	Terminal	
M87	56	M53	1	Existed

4. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M87	56		Not existed

## B2196 DONGLE UNIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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		
M53	1		Existed

Is the inspection result normal?

YES >> Replace dongle unit.

NO >> Repair or replace harness.

## B2198 NATS ANTENNA AMP.

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### B2198 NATS ANTENNA AMP.

#### DTC Description

INFOID:0000000010922153

#### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B2198-00	NATS ANTENNA AMP. (Nissan Anti-Theft System antenna amplifier)	Inactive communication between NATS antenna amp. and BCM

#### POSSIBLE CAUSE

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

#### FAIL-SAFE

Inhibit engine cranking

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Make the conditions that BCM enters in the low power consumption mode (BCM sleep condition).  
Refer to [BCS-18, "POWER CONSUMPTION CONTROL SYSTEM : System Description"](#).
2. Turn ignition switch ON.
3. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

##### Is DTC detected?

- YES >> Refer to [SEC-121, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

#### Diagnosis Procedure

INFOID:0000000010922154

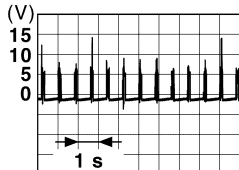
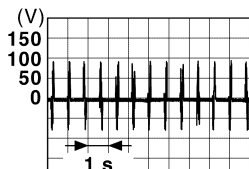
##### 1.CHECK NATS ANTENNA AMP. COMMUNICATION SIGNAL

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

## B2198 NATS ANTENNA AMP.

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

(+)NATS antenna amp.		(-)	Condition		Voltage (V)
Connector	Terminal				
M26	1	Ground	Intelligent Key battery is removed and brake pedal is depressed	Other than above	 JMMIA1651GB
				When a registered Intelligent Key backside is contacted to push-button ignition switch	0V
	3			Other than above	 JMMIA1650GB
				When a registered Intelligent Key backside is contacted to push-button ignition switch	0V

Is the inspection result normal?

YES >> Replace NATS antenna amp. Refer to [SEC-208, "Removal and Installation"](#).

NO >> GO TO 2.

### 2. CHECK NATS ANTENNA AMP. COMMUNICATION SIGNAL CIRCUIT

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

NATS antenna amp.		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M26	1	M86	115	Existed
	3		114	

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

NATS antenna amp.		Ground	Continuity
Connector	Terminal		
M26	1		Not existed
	3		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

### 3. REPLACE BCM

Replace BCM. Refer to [BCS-121, "Removal and Installation"](#).

>> INSPECTION END

# B2556 PUSH-BUTTON IGNITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## B2556 PUSH-BUTTON IGNITION SWITCH

### DTC Description

INFOID:0000000010922155

### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B2556-00	PUSH-BTN IGN SW (Push-button ignition switch)	BCM detects the push-button ignition switch stuck at ON for 100 seconds or more.

### 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

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. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

#### Is DTC detected?

- YES >> Refer to [SEC-123, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

### Diagnosis Procedure

INFOID:0000000010922156

#### 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
Push-button ignition switch			
Connector	Terminal		
M16	8	Ground	9 - 16 V

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

Push-button ignition switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M16	8	M86	101	Existed

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

## B2556 PUSH-BUTTON IGNITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Push-button ignition switch		Ground	Continuity
Connector	Terminal		
M16	8		Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

### 3.REPLACE BCM

Replace BCM. Refer to [BCS-121, "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		
M16	4		Existed

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

### 5.CHECK PUSH-BUTTON IGNITION SWITCH

Refer to [SEC-124, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace push-button ignition switch. Refer to [PCS-116, "Removal and Installation"](#).

### 6.CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

>> INSPECTION END

## Component Inspection

INFOID:0000000010922157

### 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
Terminal				
8	4	Push-button ignition switch	Pressed	Existed
			Not pressed	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace push-button ignition switch. Refer to [PCS-116, "Removal and Installation"](#).

## B2557 VEHICLE SPEED

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### B2557 VEHICLE SPEED

#### DTC Description

INFOID:0000000010922158

#### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B2557-00	VEHICLE SPEED (Vehicle speed)	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>

#### 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 B2557-00 is displayed with DTC U1000-00 or U1010-00, first perform the trouble diagnosis for DTC U1000-00 or U1010-00.

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. U1000-00: Refer to [BCS-110, "DTC Description"](#) U1010-00: Refer to [BCS-111, "DTC Description"](#).

NO >> GO TO 2

##### 2.PERFORM DTC CONFIRMATION PROCEDURE

- Start engine and wait 10 seconds or more.
- Drive the vehicle at a vehicle speed of 10 km/h (6.2 MPH) or more for 10 seconds or more.
- Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

Is DTC detected?

YES >> Refer to [SEC-125, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

#### Diagnosis Procedure

INFOID:0000000010922159

##### 1.CHECK DTC PRIORITY

If DTC B2557-00 is displayed with DTC U1000-00 or U1010-00, first perform the trouble diagnosis for DTC U1000-00 or U1010-00.

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. U1000-00: Refer to [BCS-110, "DTC Description"](#) U1010-00: Refer to [BCS-111, "DTC Description"](#).

NO >> GO TO 2

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

Select "Self Diagnostic Result" mode of "ABS" using CONSULT.

Is DTC detected?

YES >> Perform the trouble diagnosis related to the detected DTC. Refer to [BRC-84, "DTC Index"](#).

NO >> GO TO 3.

## B2557 VEHICLE SPEED

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

---

### 3.CHECK DTC OF "COMBINATION METER"

---

Select "Self Diagnostic Result" mode of "METER/M&A" using CONSULT.

Is DTC detected?

- YES >> Perform the trouble diagnosis related to the detected DTC. Refer to [MWI-105, "DTC Index"](#).
- NO >> GO TO 4.

---

### 4.CHECK INTERMITTENT INCIDENT

---

Refer to [GI-44, "Intermittent Incident"](#).

>> INSPECTION END

## B2602 SHIFT POSITION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### B2602 SHIFT POSITION

#### DTC Description

INFOID:0000000010922160

#### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B2602-00	SHIFT POSITION (Shift position)	BCM detects the following status for 10 seconds. <ul style="list-style-type: none"><li>• Selector lever is in the P 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>

#### POSSIBLE CAUSE

- Harness or connectors  
(CAN communication line is open or shorted.)
- Harness or connectors  
[CVT shift selector (detention switch) circuit is open or shorted.]
- CVT shift selector (detention switch)
- Combination meter
- ABS actuator and electric unit (control unit)

#### FAIL-SAFE

Inhibit steering lock

#### DTC CONFIRMATION PROCEDURE

##### 1.CHECK DTC PRIORITY

If DTC B2602-00 is displayed with DTC U1000-00 or U1010-00, first perform the trouble diagnosis for DTC U1000-00 or U1010-00.

##### Is applicable DTC detected?

YES >> Perform diagnosis of applicable. U1000-00: Refer to [BCS-110, "DTC Description"](#) U1010-00: Refer to [BCS-111, "DTC Description"](#).

NO >> GO TO 2

##### 2.PERFORM DTC CONFIRMATION PROCEDURE

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" using CONSULT.

##### Is DTC detected?

YES >> Refer to [SEC-127, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

#### Diagnosis Procedure

INFOID:0000000010922161

##### 1.CHECK DTC PRIORITY

If DTC B2602-00 is displayed with DTC U1000-00 or U1010-00, first perform the trouble diagnosis for DTC U1000-00 or U1010-00.

##### Is applicable DTC detected?

YES >> Perform diagnosis of applicable. U1000-00: Refer to [BCS-110, "DTC Description"](#) U1010-00: Refer to [BCS-111, "DTC Description"](#).

NO >> GO TO 2

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

Select "Self Diagnostic Result" mode of "ABS" using CONSULT.

##### Is DTC detected?

YES >> Perform the trouble diagnosis related to the detected DTC. Refer to [BRC-84, "DTC Index"](#).

NO >> GO TO 3.

## B2602 SHIFT POSITION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### 3.CHECK DTC OF COMBINATION METER

Select "Self Diagnostic Result" mode of "METER/M&A" using CONSULT.

Is DTC detected?

- YES >> Perform the trouble diagnosis related to the detected DTC. Refer to [MWI-105. "DTC Index"](#).  
NO >> GO TO 4.

### 4.CHECK CVT SHIFT SELECTOR POWER SUPPLY

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

(+) CVT shift selector (detention switch)		(-)	Voltage
Connector	Terminal		
M52	12	Ground	9 - 16 V

Is the inspection result normal?

- YES >> GO TO 7.  
NO >> GO TO 5.

### 5.CHECK CVT SHIFT SELECTOR POWER SUPPLY CIRCUIT

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

CVT shift selector (detention switch)		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M52	12	M87	57	Existed

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

CVT shift selector (detention switch)		Ground	Continuity
Connector	Terminal		
M52	12		Not existed

Is the inspection result normal?

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

### 6.REPLACE BCM

Replace BCM. Refer to [BCS-121. "Removal and Installation"](#).

>> INSPECTION END

### 7.CHECK CVT SHIFT SELECTOR CIRCUIT

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

CVT shift selector (detention switch)		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M52	13	M86	94	Existed

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

## B2602 SHIFT POSITION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

CVT shift selector (detention switch)		Ground	Continuity
Connector	Terminal		
M52	13		Not existed

Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair or replace harness.

### 8.CHECK CVT SHIFT SELECTOR (DETENTION SWITCH)

Refer to [SEC-129, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 9.

NO >> Replace CVT shift selector. Refer to [TM-403, "Removal and Installation"](#) (RE0F10D) or [TM-667, "Removal and Installation"](#) (RE0F10G).

### 9.CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

>> INSPECTION END

## Component Inspection

INFOID:0000000010922162

### 1.CHECK CVT SHIFT SELECTOR (DETENTION SWITCH)

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

CVT shift selector (detention switch)		Condition		Continuity
Terminal				
12	13	Selector lever: P position	Selector button: Released	Not existed
			Selector button: Pressed	Existed
		Selector lever: Except P position		

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace CVT shift selector. Refer to [TM-403, "Removal and Installation"](#) (RE0F10D) or [TM-667, "Removal and Installation"](#) (RE0F10G).

## B2604 SHIFT POSITION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### B2604 SHIFT POSITION

#### DTC Description

INFOID:0000000010922163

#### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B2604-00	PNP/CLUTCH SW (Park neutral position/ clutch switch)	The following states are detected for 5 seconds while ignition switch is ON. <ul style="list-style-type: none"><li>Interlock/PNP signal (CAN) is not sent from IPDM E/R but shift position signal input (CAN) from TCM is P or N</li><li>Interlock/PNP signal (CAN) is sent from IPDM E/R but shift position signal input (CAN) from TCM is other than P and N</li></ul>

#### POSSIBLE CAUSE

- Harness or connectors  
(CAN communication line is open or shorted.)
- Harness or connectors  
(Transmission range switch circuit is open or shorted.)
- Transmission range switch
- IPDM E/R
- TCM

#### FAIL-SAFE

Inhibit steering lock

#### DTC CONFIRMATION PROCEDURE

##### 1.CHECK DTC PRIORITY

If DTC B2604-00 is displayed with DTC U1000-00 or U1010-00, first perform the trouble diagnosis for DTC U1000-00 or U1010-00.

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. U1000-00: Refer to [BCS-110, "DTC Description"](#) U1010-00: Refer to [BCS-111, "DTC Description"](#).

NO >> GO TO 2

##### 2.PERFORM DTC CONFIRMATION PROCEDURE

1. Shift the selector lever to the P position.
2. Turn ignition switch ON and wait 5 seconds or more.
3. Shift the selector lever to the N position and wait 5 seconds or more.
4. Shift the selector lever to any position other than P and N, and wait 5 seconds or more.
5. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

Is DTC detected?

YES >> Refer to [SEC-130, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

#### Diagnosis Procedure

INFOID:0000000010922164

##### 1.CHECK DTC PRIORITY

If DTC B2604-00 is displayed with DTC U1000-00 or U1010-00, first perform the trouble diagnosis for DTC U1000-00 or U1010-00.

Is applicable DTC detected?

YES >> Perform diagnosis of applicable. U1000-00: Refer to [BCS-110, "DTC Description"](#) U1010-00: Refer to [BCS-111, "DTC Description"](#).

NO >> GO TO 2.

##### 2.CHECK DTC OF TCM

Select "Self Diagnostic Result" mode of "TCM" using CONSULT.

## B2604 SHIFT POSITION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### Is DTC detected?

YES >> Perform the trouble diagnosis related to the detected DTC. Refer to [TM-288, "DTC Index"](#) (RE0F10D) or [TM-529, "DTC Index"](#) (RE0F10G).

NO >> GO TO 3.

### 3.CHECK FUSE

1. Turn ignition switch OFF.
2. Check that the following fuse is not blown.

With engine start/stop system

Signal name	Fuse No.
Ignition power supply	57 (10A)

Without engine start/stop system

Signal name	Fuse No.
Ignition power supply	93 (10A)

### Is the fuse fusing?

Yes >> GO TO 4.

NO >> Replace the blown fuse after repairing the cause of blown.

### 4.CHECK TRANSMISSION RANGE SWITCH POWER SUPPLY

1. Disconnect transmission range switch connector.
2. Turn ignition switch ON.
3. Check voltage between transmission range switch harness connector and ground.

(+)		(-)	Voltage
Transmission range switch			
Connector	Terminal		
F22	1	Ground	Battery voltage

### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

### 5.CHECK IPDM E/R INPUT SIGNAL

1. Turn ignition switch OFF.
2. Connect transmission range switch connector.
3. Turn ignition switch ON.
4. Check voltage between BCM harness connector and ground.

(+)		(-)	Condition		Voltage
IPDM E/R					
Connector	Terminal				
F74	92	Ground	Selector lever	P or N position	9 - 16
				Other than above	0 - 1

### Is the inspection result normal?

YES >> GO TO 8.

NO >> GO TO 6.

### 6.CHECK TRANSMISSION RANGE SWITCH CIRCUIT

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

Transmission range switch		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
F22	2	F74	92	Existed

## B2604 SHIFT POSITION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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

Transmission range switch		Ground	Continuity
Connector	Terminal		
F22	2		Not existed

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace harness.

### 7. CHECK TRANSMISSION RANGE SWITCH

Refer to [SEC-132. "Component Inspection"](#).

Is the inspection the result normal?

YES >> INSPECTION END

NO >> Replace transmission. Refer to [TM-450. "Removal and Installation"](#) (RE0F10D) or [TM-704. "Removal and Installation"](#) (RE0F10G).

### 8. REPLACE IPDM E/R

Refer to [PCS-60. "Removal and Installation"](#).

>> INSPECTION END

## Component Inspection

INFOID:0000000010922165

### 1. CHECK TRANSMISSION RANGE SWITCH

1. Disconnect transmission range switch.
2. Check continuity between transmission range switch terminals.

Transmission range switch		Condition		Continuity
Terminal				
1	2	Select lever	P or N position	Existed
			Other than above	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace Transmission assembly. Refer to [TM-450. "Removal and Installation"](#) (RE0F10D) or [TM-704. "Removal and Installation"](#) (RE0F10G).

# B2608 STARTER RELAY

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## B2608 STARTER RELAY

### DTC Description

INFOID:0000000010922166

### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B2608-00	STARTER RELAY (Starter relay)	BCM outputs starter relay OFF signal but BCM receives starter relay ON signal from IPDM E/R (CAN).

### POSSIBLE CAUSE

- IPDM E/R
- BCM

### FAIL-SAFE

Inhibit engine cranking

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Press push-button ignition switch under the following conditions to start engine.
  - Selector lever: In the P position
  - Brake pedal: Depressed
2. Wait 1 second after engine started.
3. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

#### Is DTC detected?

- YES >> Refer to [SEC-133, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

### Diagnosis Procedure

INFOID:0000000010922167

#### 1.CHECK DTC OF IPDM E/R

Select "Self Diagnostic Result" mode of "IPDM E/R" using CONSULT.

#### Is DTC detected?

- YES >> Perform the trouble diagnosis related to the detected DTC. Refer to [PCS-38, "DTC Index"](#).
- NO >> GO TO 2.

#### 2.CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

#### Is the inspection result normal?

- YES >> INSPECTION END
- NO >> Replace BCM. Refer to [BCS-121, "Removal and Installation"](#).

A  
B  
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O  
P

## B260F ENGINE STATUS

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### B260F ENGINE STATUS

#### DTC Description

INFOID:0000000010922168

#### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B260F-00	ENG STATE SIG LOST (Engine state signal lost)	BCM has not yet received the engine status signal from ECM when ignition switch is in the ON position.

#### POSSIBLE CAUSE

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

#### FAIL-SAFE

Inhibit engine cranking

#### DTC CONFIRMATION PROCEDURE

##### 1.CHECK DTC PRIORITY

If DTC B260F-00 is displayed with DTC U1000-00 or U1010-00, first perform the trouble diagnosis for DTC U1000-00 or U1010-00.

##### Is applicable DTC detected?

YES >> Perform diagnosis of applicable. U1000-00: Refer to [BCS-110, "DTC Description"](#) U1010-00: Refer to [BCS-111, "DTC Description"](#).

NO >> GO TO 2.

##### 2.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON and wait 2 seconds or more.
2. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

##### Is DTC detected?

YES >> Refer to [SEC-134, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

#### Diagnosis Procedure

INFOID:0000000010922169

##### 1.CHECK DTC PRIORITY

If DTC B260F-00 is displayed with DTC U1000-00 or U1010-00, first perform the trouble diagnosis for DTC U1000-00 or U1010-00.

##### Is applicable DTC detected?

YES >> Perform diagnosis of applicable. U1000-00: Refer to [BCS-110, "DTC Description"](#), U1010-00: Refer to [BCS-111, "DTC Description"](#).

NO >> GO TO 2.

##### 2.INSPECTION START

1. Turn ignition switch ON.
2. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.
3. Touch "ERASE".
4. Perform DTC CONFIRMATION PROCEDURE for DTC B260F-00. Refer to [SEC-134, "DTC Description"](#).

##### Is DTC detected?

YES >> GO TO 3.

NO >> INSPECTION END

##### 3.REPLACE ECM

Replace ECM.

**B260F ENGINE STATUS**

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Refer to the following procedure.

- MR20DD: [EC-430, "Removal and Installation"](#).
- QR25DE: [EC-806, "Removal and Installation"](#).
- R9M: [EC-1226, "Removal and Installation"](#).

>> INSPECTION END

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
L  
M  
N  
O  
P

SEC

## B261F ASCD CLUTCH SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### B261F ASCD CLUTCH SWITCH

#### DTC Description

INFOID:0000000010922170

#### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detection condition
B261F-00	ASCD CNCL/CLTCH SW (ASCD cancel/clutch switch)	BCM detects the following status for 10 seconds 3 times <ul style="list-style-type: none"><li>Clutch pedal position switch input: 0 V</li><li>Vehicle speed: 40 km/h (24.8 MPH) or more</li></ul>

#### POSSIBLE CAUSE

- Harness or connectors  
(CAN communication line is open or shorted.)
- Harness or connectors  
(Clutch pedal position switch circuit is open or shorted)
- Clutch pedal position switch
- Combination meter
- BCM

#### FAIL-SAFE

—

#### DTC CONFIRMATION PROCEDURE

##### 1.CHECK DTC PRIORITY

If DTC B261F-00 is displayed with DTC U1000-00 or U1010-00, first perform the trouble diagnosis for DTC U1000-00 or U1010-00.

##### Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. U1000-00: Refer to [BCS-110, "DTC Description"](#). U1010-00: Refer to [BCS-111, "DTC Description"](#).  
NO >> GO TO 2.

##### 2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Drive vehicle at a speed of 40 km/h (24.8 MPH) or more for 10 seconds.
3. Decrease the vehicle speed to below 40 km/h (24.8 MPH).
4. Repeat steps 2 and 3 twice (total of 3 times).
5. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

##### Is DTC detected?

- YES >> Refer to [SEC-136, "Diagnosis Procedure"](#).  
NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).  
NO-2 >> Confirmation after repair: INSPECTION END

#### Diagnosis Procedure

INFOID:0000000010922171

##### 1.CHECK DTC PRIORITY

If DTC B261F-00 is displayed with DTC U1000-00 or U1010-00, first perform the trouble diagnosis for DTC U1000-00 or U1010-00.

##### Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. U1000-00: Refer to [BCS-110, "DTC Description"](#). U1010-00: Refer to [BCS-111, "DTC Description"](#).  
NO >> GO TO 2.

##### 2.CHECK DTC OF COMBINATION METER

Select "Self Diagnostic Result" mode of "METER/M&A" using CONSULT.

Refer to [MWI-105, "DTC Index"](#).

##### Is the inspection result normal?

## B261F ASCD CLUTCH SWITCH

### < DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

- YES >> GO TO 3.  
NO >> Repair or replace the malfunctioning parts.

### 3.CHECK CLUTCH PEDAL POSITION SWITCH SIGNAL

1. Connect clutch pedal position switch connector.
2. Check voltage between BCM harness connector and ground.

(+)		(-)	Condition		Voltage
BCM					
Connector	Terminal				
E23	159	Ground	Clutch pedal position switch	OFF (Clutch pedal is depressed)	9 – 16 V
				ON (Clutch pedal is not depressed)	0 – 0.5 V

Is the inspection result normal?

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

### 4.REPLACE BCM

Replace BCM. Refer to [BCS-121. "Removal and Installation"](#).

>> INSPECTION END

### 5.CHECK CLUTCH PEDAL POSITION SWITCH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector and clutch pedal position switch connector.
3. Check continuity between clutch pedal position switch harness connector and BCM harness connector.

Clutch pedal position switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
E111	1	E23	159	Existed

4. Check continuity between clutch pedal position switch harness connector and ground.

Clutch pedal position switch		Ground	Continuity
Connector	Terminal		
E111	1		Not existed

Is the inspection result normal?

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

### 6.CHECK CLUTCH PEDAL POSITION SWITCH GROUND CIRCUIT

1. Check continuity between clutch pedal position switch harness connector and ground.

Clutch pedal position switch		Ground	Continuity
Connector	Terminal		
E111	2		Existed

Is the inspection result normal?

- YES >> GO TO 7.  
NO >> Repair or replace harness.

### 7.CHECK CLUTCH PEDAL POSITION SWITCH

Refer to [SEC-138. "Component Inspection"](#).

Is the inspection result normal?

- YES >> GO TO 8.

## B261F ASCD CLUTCH SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

NO >> Replace clutch pedal position switch. Refer to [CL-14, "LHD : Removal and Installation"](#) (LHD models) or [CL-18, "RHD : Removal and Installation"](#) (RHD models).

### 8.CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

>> INSPECTION END

### Component Inspection

INFOID:0000000010922172

### 1.CHECK CLUTCH PEDAL POSITION SWITCH

1. Turn ignition switch OFF.
2. Disconnect clutch pedal position switch connector.
3. Check continuity between clutch pedal position switch terminals.

Clutch pedal position switch		Condition		Continuity
Terminal				
1	2	Clutch pedal	Not depressed	Existed
			Depressed	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace clutch pedal position switch. Refer to [CL-14, "LHD : Removal and Installation"](#) (LHD models) or [CL-18, "RHD : Removal and Installation"](#) (RHD models).

# B2620 REVERSE/NEUTRAL POSITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## B2620 REVERSE/NEUTRAL POSITION SWITCH

### DTC Description

INFOID:0000000010922173

### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detection condition
B2620-00	NEUTRAL SW (Neutral switch)	BCM detects the following status for 10 seconds 3 times <ul style="list-style-type: none"><li>Neutral position switch signal (ON) from IPDM E/R (CAN)</li><li>Vehicle speed: 40 km/h (24.8 MPH) or more</li></ul>

### POSSIBLE CAUSE

- Harness or connector  
(CAN communication line is open or shorted.)
- Harness or connector  
(Neutral position switch circuit is open or shorted)
- Neutral position switch
- IPDM E/R
- Combination meter

### FAIL-SAFE

Inhibit steering lock

### DTC CONFIRMATION PROCEDURE

#### 1.CHECK DTC PRIORITY

If DTC B2620-00 is displayed with DTC U1000-00 or U1010-00, first perform the trouble diagnosis for DTC U1000-00 or U1010-00.

##### Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. U1000-00: Refer to [BCS-110, "DTC Description"](#) U1010-00: Refer to [BCS-111, "DTC Description"](#).
- NO >> GO TO 2.

#### 2.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine.
2. Drive vehicle at a speed of 40 km/h (24.8 MPH) or more for 10 seconds.
3. Decrease the vehicle speed to below 40 km/h (24.8 MPH).
4. Repeat steps 2 and 3 twice (total of 3 times).
5. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

##### Is DTC detected?

- YES >> Refer to [SEC-139, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

### Diagnosis Procedure

INFOID:0000000010922174

#### 1.CHECK DTC PRIORITY

If DTC B2620-00 is displayed with DTC U1000-00 or U1010-00, first perform the trouble diagnosis for DTC U1000-00 or U1010-00.

##### Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. U1000-00: Refer to [BCS-110, "DTC Description"](#) U1010-00: Refer to [BCS-111, "DTC Description"](#).
- NO >> GO TO 2.

#### 2.CHECK DTC OF COMBINATION METER

Select "Self Diagnostic Result" mode of "METER/M&A" using CONSULT.

Refer to [MWI-105, "DTC Index"](#).

Is the inspection result normal?

## B2620 REVERSE/NEUTRAL POSITION SWITCH

### < DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

- YES >> GO TO 3.  
NO >> Repair or replace the malfunctioning parts.

### 3.CHECK IPDM E/R INPUT SIGNAL

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

(+)		(-)	Condition		Voltage
IPDM E/R					
Connector	Terminal				
F74	94	Ground	Select lever	Neutral position	9 - 16 V
				Except neutral position	0 - 1 V

Is the inspection result normal?

- YES >> Replace IPDM E/R. Refer to [PCS-60. "Removal and Installation"](#).  
NO >> GO TO 4.

### 4.CHECK IPDM E/R INPUT SIGNAL CIRCUIT

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

IPDM E/R		Neutral position switch		Continuity
Connector	Terminal	Connector	Terminal	
F74	94	F48	1	Existed

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

IPDM E/R		Ground	voltage
Connector	Terminal		
F74	94		
			0 V

Is the inspection result normal?

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

### 5.CHECK NEUTRAL POSITION SWITCH

Refer to [SEC-140. "Component Inspection"](#).

Is the inspection result normal?

- YES >> GO TO 6.  
NO >> Replace neutral position switch. Refer to [CL-14. "LHD : Removal and Installation"](#) (LHD models) or [CL-18. "RHD : Removal and Installation"](#) (RHD models).

### 6.CHECK INTERMITTENT INCIDENT

Refer to [GI-44. "Intermittent Incident"](#).

>> INSPECTION END

## Component Inspection

INFOID:0000000010922175

### 1.CHECK NEUTRAL POSITION SWITCH

1. Turn ignition switch OFF.
2. Disconnect neutral position switch connector.
3. Check continuity between neutral position switch terminals.

## B2620 REVERSE/NEUTRAL POSITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Neutral position switch		Condition		Continuity
Terminal				
1	2	Shift lever	Neutral position	Existed
			Except neutral position	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace neutral position switch. Refer to [CL-14, "LHD : Removal and Installation"](#) (LHD models) or [CL-18, "RHD : Removal and Installation"](#) (RHD models).

SEC

# B26FC KEY REGISTRATION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## B26FC KEY REGISTRATION

### DTC Description

INFOID:0000000010922176

### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B26FC-00	KEY REGISTRATION (Key registration)	Intelligent Key that does not match the vehicle is registered.

### POSSIBLE CAUSE

- Improper registration operation
- Intelligent Key
- BCM

### FAIL-SAFE

—

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Perform initialization of BCM and registration of all Intelligent Keys using CONSULT.
2. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

#### Is DTC detected?

- YES >> Refer to [SEC-142, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

### Diagnosis Procedure

INFOID:0000000010922177

#### 1.REPLACE INTELLIGENT KEY

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" using CONSULT.

#### Is DTC detected?

- YES >> GO TO 2.
- NO >> INSPECTION END

#### 2.REPLACE BCM

Replace BCM. Refer to [BCS-121, "Removal and Installation"](#).

>> INSPECTION END

# B26E8 CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## B26E8 CLUTCH INTERLOCK SWITCH

### DTC Description

INFOID:0000000010922178

### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detection condition
B26E8-00	CLUTCH SW (Clutch switch)	BCM detects that clutch pedal position switch is also ON for 2sec while clutch interlock switch is ON.

### POSSIBLE CAUSE

- Harness or connector  
(Clutch pedal position switch circuit is open or shorted)
- Harness or connector  
(Clutch interlock switch circuit is open or shorted)
- Clutch interlock switch
- Clutch pedal position switch
- BCM

### FAIL-SAFE

—

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE 1

1. Turn ignition switch ON.
2. Wait 2 seconds or more under the following conditions.
  - Shift lever: In the neutral position.
  - Clutch pedal: Depressed
3. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

#### Is DTC detected?

- YES >> Refer to [SEC-143, "Diagnosis Procedure"](#).  
NO >> GO TO 2.

#### 2.PERFORM DTC CONFIRMATION PROCEDURE 2

1. Release clutch pedal and wait 2 seconds or more.
2. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

#### Is DTC detected?

- YES >> Refer to [SEC-143, "Diagnosis Procedure"](#).  
NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).  
NO-2 >> Confirmation after repair: INSPECTION END

### Diagnosis Procedure

INFOID:0000000010922179

#### 1.CHECK FUSE

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

Signal name	Fuse No.
Battery power supply	8 (5 A)

#### Is the inspection result normal?

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

#### 2.CHECK CLUTCH INTERLOCK SWITCH POWER SUPPLY

1. Disconnect clutch interlock switch connector.
2. Check voltage between clutch interlock switch harness connector and ground.

## B26E8 CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

(+)		(-)	Voltage
Clutch interlock switch			
Connector	Terminal		
E109	1	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

### 3.CHECK CLUTCH INTERLOCK SWITCH SIGNAL

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

(+)		(-)	Condition		Voltage
BCM					
Connector	Terminal				
E23	156	Ground	Clutch pedal	Depressed	9 - 16 V
				Not depressed	0 - 0.5 V

Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 4.

### 4.CHECK CLUTCH INTERLOCK SWITCH SIGNAL CIRCUIT

1. Disconnect clutch interlock switch connector.
2. Disconnect BCM connector.
3. Check continuity between clutch interlock switch harness connector and BCM harness connector.

Clutch interlock switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
E109	2	E23	156	Existed

4. Check continuity between clutch interlock switch harness connector and ground.

Clutch interlock switch		Ground	Continuity
Connector	Terminal		
E109	2		Not existed

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

### 5.CHECK CLUTCH INTERLOCK SWITCH

Refer to [SEC-145, "Component Inspection \(Clutch interlock switch\)"](#).

Is the inspection result normal?

YES >> GO TO 7.

NO >> Replace clutch interlock switch. Refer to [CL-14, "LHD : Removal and Installation"](#) (LHD models) or [CL-18, "RHD : Removal and Installation"](#) (RHD models).

### 6.CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

>> INSPECTION END

### 7.REPLACE BCM

Replace BCM. Refer to [BCS-121, "Removal and Installation"](#).

# B26E8 CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

>> INSPECTION END

## Component Inspection (Clutch interlock switch)

INFOID:0000000010922180

### 1.CHECK CLUTCH INTERLOCK SWITCH

1. Turn ignition switch OFF.
2. Disconnect clutch interlock switch connector.
3. Check continuity between clutch interlock switch terminals.

Clutch interlock switch		Condition		Continuity
Terminal				
1	2	Clutch pedal	Depressed	Existed
			Not depressed	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace clutch interlock switch. Refer to [CL-14, "LHD : Removal and Installation"](#) (LHD models) or [CL-18, "RHD : Removal and Installation"](#) (RHD models).

SEC

## B27D1 START CUT RELAY OFF

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### B27D1 START CUT RELAY OFF

#### DTC Description

INFOID:0000000010922181

#### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B27D1-00	START CUT RELAY OFF (Starter cut relay OFF)	When the starter relay/starter control relay status signal transmitted from IPDM E/R via CAN communication is (OFF/OFF) after 0.5 seconds elapse, even though BCM is operating the starter control relay ON output.

#### POSSIBLE CAUSE

- Starter control relay
- Harness or connectors  
(Starter control relay circuit is shorted)
- IPDM E/R

#### FAIL-SAFE

—

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Press push-button ignition switch under the following conditions and wait 1 second or more.
  - Selector lever: In the P position.
  - Brake pedal: Depressed.
2. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

##### Is DTC detected?

- YES >> Refer to [SEC-146, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

#### Diagnosis Procedure

INFOID:0000000010922182

##### 1.CHECK STARTER CONTROL RELAY INPUT SIGNAL

Check voltage between BCM harness connector and ground.

(+)		(-)	Condition	Voltage
BCM				
Connector	Terminal			
E23	171	Ground	Engine cranking	0 - 0.1 V
			Other than engine cranking	9 - 16 V

##### Is the inspection result normal?

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

##### 2.CHECK FUSE

Check that the following fuse is not blown

Signal name	Fuse
Battery power supply	L (30A)

##### Is the fuse fusing?

- YES >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.
- NO >> GO TO 3.

## B27D1 START CUT RELAY OFF

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### 3.CHECK STARTER CONTROL RELAY INPUT SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector and starter control relay connector.
3. Check continuity between BCM harness connector and starter control relay harness connector.

BCM		Starter control relay		Continuity
Connector	Terminal	Connector	Terminal	
E23	171	F69	2	Existed

4. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
E23	171		Not Existed

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

### 4.CHECK STARTER CONTROL RELAY OUTPUT SIGNAL

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

(+)		(-)	Condition	Voltage
IPDM E/R				
Connector	Terminal			
F73	84	Ground	Other than engine cranking	0 - 1 V
			Engine cranking	6 - 16 V

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-60. "Removal and Installation"](#).

NO >> GO TO 5.

### 5.CHECK STARTER CONTROL RELAY OUTPUT SIGNAL CIRCUIT

1. Check continuity between IPDM E/R harness connector and starter control relay harness connector.

IPDM E/R		Starter control relay		Continuity
Connector	Terminal	Connector	Terminal	
F73	84	F69	5	Existed

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
F73	84		Not existed

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

### 6.CHECK STARTER CONTROL RELAY

Check starter control relay. Refer to [SEC-148. "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 8.

NO >> GO TO 7.

### 7.REPLACE BCM

## B27D1 START CUT RELAY OFF

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Replace BCM. Refer to [BCS-121, "Removal and Installation"](#).

>> INSPECTION END

### 8.CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

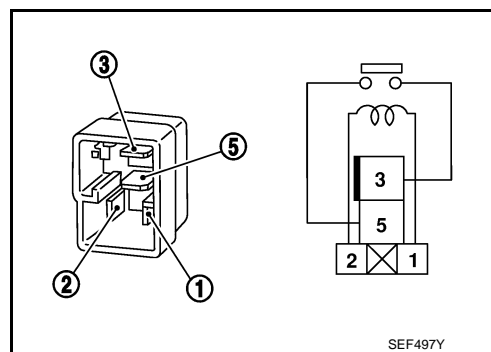
>> INSPECTION END

## Component Inspection

INFOID:000000010922183

### 1.CHECK STARTER CONTROL RELAY

1. Disconnect starter control relay.
2. Check continuity between starter relay terminals.



starter control relay		Condition	Continuity
Terminal			
③	⑤	12 V direct current supply between terminals ① and ②	Existed
		No current supply	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace starter control relay.

# B27D2 START CUT RELAY ON

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## B27D2 START CUT RELAY ON

### DTC Description

INFOID:0000000010922184

### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B27D2-00	START CUT RELAY ON (Starter cut relay ON)	When BCM starter control relay is in OFF status, and when the starter relay/starter control relay status signal is (ON/ON)

### POSSIBLE CAUSE

- Harness or connectors  
(Starter control relay circuit is shorted)
- Starter control relay
- BCM
- IPDM E/R

### FAIL-SAFE

—

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Press push-button ignition switch under the following conditions and wait 1 second or more.
  - Selector lever: In the P position.
  - Brake pedal: Depressed.
2. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

#### Is DTC detected?

- YES >> Refer to [SEC-149, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

### Diagnosis Procedure

INFOID:0000000010922185

#### 1.CHECK STARTER CONTROL RELAY INPUT SIGNAL

1. Check voltage between BCM harness connector and ground.

(+)		(-)	Condition	Voltage
BCM				
Connector	Terminal			
E23	171	Ground	Engine cranking	0 - 0.1 V
			Other than engine cranking	9 - 16 V

#### Is the inspection result normal?

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

#### 2.CHECK FUSE

Check that the following fuse is not blown

Signal name	Fuse
Battery power supply	L (30A)

#### Is the fuse fusing?

- YES >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.
- NO >> GO TO 3.

## B27D2 START CUT RELAY ON

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### 3.CHECK STARTER CONTROL RELAY INPUT SIGNAL CIRCUIT

1. Disconnect BCM connector and starter control relay connector.
2. Check continuity between BCM harness connector and starter control relay harness connector.

BCM		Starter control relay		Continuity
Connector	Terminal	Connector	Terminal	
E23	171	F69	2	Existed

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
E23	171		Not Existed

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

### 4.CHECK STARTER CONTROL RELAY OUTPUT SIGNAL

1. Check voltage between IPDM E/R harness connector and ground.

(+) IPDM E/R		(-)	Condition	Voltage
Connector	Terminal			
F73	84	Ground	Other than engine cranking	0 - 1 V
			Engine cranking	6 - 16 V

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-60, "Removal and Installation"](#).

NO >> GO TO 5.

### 5.CHECK STARTER CONTROL RELAY OUTPUT SIGNAL CIRCUIT

1. Check continuity between IPDM E/R harness connector and starter control relay harness connector.

IPDM E/R		Starter control relay		Continuity
Connector	Terminal	Connector	Terminal	
F73	84	F69	5	Existed

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
F73	84		Not existed

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

### 6.CHECK STARTER CONTROL RELAY

Check starter control relay. Refer to [SEC-148, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 7.

NO >> Replace starter control relay.

### 7.REPLACE BCM

Replace BCM. [BCS-121, "Removal and Installation"](#).

## B27D2 START CUT RELAY ON

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 8.

### 8.CHECK INTERMITTENT INCIDENT

Refer to [GI-44. "Intermittent Incident"](#).

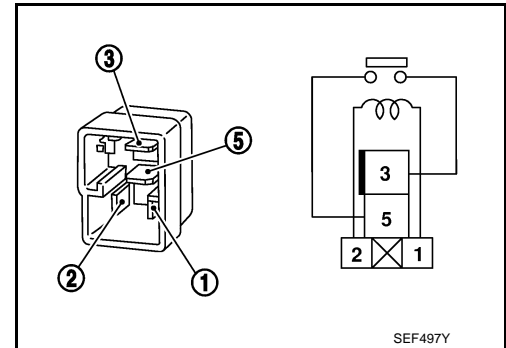
>> INSPECTION END

## Component Inspection

INFOID:0000000010922186

### 1.CHECK STARTER CONTROL RELAY

1. Disconnect starter control relay.
2. Check continuity between starter relay terminals.



starter control relay		Condition	Continuity
Terminal			
③	⑤	12 V direct current supply between terminals ① and ②	Existed
		No current supply	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace starter control relay.

## B27D3 S/L THERMAL PROTECTION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### B27D3 S/L THERMAL PROTECTION

#### DTC Description

INFOID:000000010922187

#### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B27D3-00	S/L THERMAL PROTECTION (Steering lock thermal protection)	When thermal protection of the steering lock unit operates.

#### POSSIBLE CAUSE

Steering lock unit

#### FAIL-SAFE

—

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Press push-button ignition switch under the following conditions and wait 1 second or more.
  - Selector lever: In the P position.
  - Brake pedal: Not depressed.
2. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

##### Is DTC detected?

- YES >> Refer to [SEC-152, "Diagnosis Procedure"](#).  
NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).  
NO-2 >> Confirmation after repair: INSPECTION END

#### Diagnosis Procedure

INFOID:000000010922188

##### 1.CHECK SELF DIAGNOSTIC RESULT

1. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.
2. Turn ignition switch OFF and wait 1minute or more.
3. Turn ignition switch ON.
4. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

##### Is the DTC detected?

- YES >> GO TO 2.  
NO >> GO TO 3.

##### 2.REPLACE STEERING LOCK UNIT

1. Replace steering lock unit.
2. Perform the service procedure for steering lock unit replacement. Refer to [SEC-101, "STEERING LOCK UNIT : Work Procedure"](#).

>> INSPECTION END

##### 3.CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

>> INSPECTION END

## B27D4 BCM - S/L SENSOR CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### B27D4 BCM - S/L SENSOR CIRCUIT

#### DTC Description

INFOID:0000000010922189

The sensor circuit is a circuit with which BCM supplies power to the steering lock unit during operation of the steering lock unit.

#### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B27D4-00	BCM - S/L SENSOR CIRCUIT (Body control module - steering lock unit sensor circuit)	BCM detects a sensor circuit short (short to ground)

#### POSSIBLE CAUSE

- Steering lock unit
- BCM
- Harness or connector  
(Sensor circuit is open or shorted.)

#### FAIL-SAFE

Inhibit steering unlock

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE-1

1. Press push-button ignition switch under the following conditions.
  - Selector lever: In the P position.
  - Brake pedal: Not depressed.

##### Is DTC detected?

- YES >> Refer to [SEC-153, "Diagnosis Procedure"](#).  
NO >> GO TO 2.

##### 2.PERFORM DTC CONFIRMATION PROCEDURE-2

1. Turn ignition switch to OFF, and then wait for 3 minutes with driver door open.

##### **NOTICE:**

- Even after ignition switch is OFF, power is supplied to accessories for a certain amount of time by the AUTO ACC function.
- When vehicle is operated while on standby, power may be supplied to accessories.

2. Under the following conditions, press the engine switch and unlock the steering wheel.

- Selector lever: In the P position.
- Brake pedal: Not depressed.

3. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

##### Is DTC detected?

- YES >> Refer to [SEC-153, "Diagnosis Procedure"](#).  
NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).  
NO-2 >> Confirmation after repair: INSPECTION END

#### Diagnosis Procedure

INFOID:0000000010922190

##### 1.CHECK SELF DIAGNOSTIC RESULT

1. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.
2. Erase DTC.
3. Perform DTC CONFIRMATION PROCEDURE for DTCB27D4. Refer to [SEC-153, "DTC Description"](#).

##### Is DTC detected?

- YES >> GO TO 2.  
NO >> GO TO 6.

##### 2.CHECK STEERING LOCK UNIT SENSOR CIRCUIT OUTPUT SIGNAL

## B27D4 BCM - S/L SENSOR CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Check voltage between steering lock unit harness connector and ground.

(+)		(-)	Condition		Voltage
Steering lock unit					
Connector	Terminal				
M57	6	Ground	Steering lock unit	Active	9 - 16 V
				Not active	0 - 0.5 V

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 3.

### 3.CHECK STEERING LOCK UNIT SENSOR CIRCUIT OUTPUT SIGNAL CIRCUIT

1. Disconnect BCM connector and steering lock unit connector.
2. Check continuity between BCM harness connector and steering lock unit harness connector.

BCM		Steering lock unit		Continuity
Connector	Terminal	Connector	Terminal	
M86	90	M57	6	Existed

3. Check continuity between steering lock unit harness connector and ground.

Steering lock unit		Ground	Continuity
Connector	Terminal		
M57	6		Not existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

### 4.REPLACE BCM

Replace BCM. Refer to [BCS-121, "Removal and Installation"](#).

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 5.

### 5.REPLACE STEERING LOCK UNIT

1. Replace steering lock unit.
2. Perform the service procedure for steering lock unit replacement. Refer to [SEC-101, "STEERING LOCK UNIT : Work Procedure"](#).

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 6.

### 6.CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

>> INSPECTION END

## B27D5 S/L SENSOR TEST OUTPUT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### B27D5 S/L SENSOR TEST OUTPUT

#### DTC Description

INFOID:0000000010922191

When steering lock unit operation is complete, BCM determines that the steering lock unit is operating correctly by grounding the power supply.

#### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B27D5-00	S/L SENSOR TEST OUTPUT (Steering lock unit sensor test output)	When BCM detects a sensor circuit short (short to battery)

#### POSSIBLE CAUSE

- Steering lock unit
- BCM
- Harness or connectors  
(Sensor circuit is open or shorted)

#### FAIL-SAFE

Inhibit steering unlock

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE1

1. Press push-button ignition switch under the following conditions.
  - Selector lever: P position
  - Brake pedal: Not depressed
2. Select "Self Diagnosis Result" mode of "BCM" using CONSULT.

##### Is DTC detected?

- YES >> Refer to [SEC-155, "Diagnosis Procedure"](#).  
NO >> GO TO 2.

##### 2.PERFORM DTC CONFIRMATION PROCEDURE2

1. Turn ignition switch to OFF, and then wait for 3minutes with driver door open.

##### NOTE:

- Even after ignition switch is OFF, power is supplied to accessories for a certain amount of time by the AUTO ACC function.
- When vehicle is operated while on standby, power may be supplied to accessories.

2. Under the following conditions, press the engine switch and unlock the steering wheel.
  - Selector lever: P position
  - Brake pedal: Not depressed
3. Select "Self Diagnosis Result" mode of "BCM" using CONSULT.

##### Is DTC detected?

- YES >> Refer to [SEC-155, "Diagnosis Procedure"](#).  
NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).  
NO-2 >> Confirmation after repair: INSPECTION END

#### Diagnosis Procedure

INFOID:0000000010922192

##### 1.CHECK STEERING LOCK UNIT SENSOR CIRCUIT OUTPUT SIGNAL

Check voltage between steering lock unit harness connector and ground.

(+)		(-)	Condition		Voltage
Steering lock unit					
Connector	Terminal				
M57	6	Ground	Steering lock unit	Active	9 - 16 V
				Not active	0 - 0.5 V

## B27D5 S/L SENSOR TEST OUTPUT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 2.

### 2.CHECK STEERING LOCK UNIT SENSOR CIRCUIT OUTPUT SIGNAL CIRCUIT(SHORT TO GROUND)

1. Disconnect BCM connector and steering lock unit connector.
2. Check continuity between BCM harness connector and steering lock unit harness connector.

BCM		Steering lock unit		Continuity
Connector	Terminal	Connector	Terminal	
M86	90	M57	6	Existed

3. Check continuity between steering lock unit harness connector and ground.

Steering lock unit		Ground	Continuity
Connector	Terminal		
M57	6		Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

### 3.CHECK STEERING LOCK UNIT SENSOR CIRCUIT OUTPUT SIGNAL CIRCUIT(SHORT TO POWER)

Check voltage between steering lock unit harness connector and ground.

Steering lock unit		Ground	Voltage
Connector	Terminal		
M57	6		0 V

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

### 4.REPLACE BCM

Replace BCM. Refer to [BCS-121, "Removal and Installation"](#).

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 5.

### 5.CHECK STEERING LOCK UNIT GROUND CIRCUIT

Check continuity between steering lock unit harness connector and ground.

(+) Steering lock unit		(-) Ground	Continuity
Connector	Terminal		
M57	1		Existed

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

### 6.REPLACE STEERING LOCK UNIT

1. Replace steering lock unit.
2. Perform the service procedure for steering lock unit replacement. Refer to [SEC-101, "STEERING LOCK UNIT : Work Procedure"](#).

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 7.

## B27D5 S/L SENSOR TEST OUTPUT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### **7**.CHECK INTERMITTENT INCIDENT

Refer to [GI-44. "Intermittent Incident"](#).

>> INSPECTION END

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## B27D6 S/L CAN COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### B27D6 S/L CAN COMM CIRCUIT

#### DTC Description

INFOID:0000000010922193

#### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B27D6-00	S/L CAN COMM CIRCUIT (Steering lock unit controller area network communication circuit)	When BCM cannot detect a CAN signal from the steering lock unit.

#### POSSIBLE CAUSE

- Harness or connectors  
(The CAN communication line is open or shorted.)
- Steering lock unit
- BCM

#### FAIL-SAFE

Inhibit steering lock

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION

1. Turn ignition switch ON.
2. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

##### Is DTC detected?

- YES >> Refer to [SEC-158. "Diagnosis Procedure"](#).  
NO-1 >> To check malfunction symptom before repair: Refer to [GI-44. "Intermittent Incident"](#).  
NO-2 >> Confirmation after repair: INSPECTION END

#### Diagnosis Procedure

INFOID:0000000010922194

##### 1.CHECK STEERING LOCK UNIT POWER SUPPLY

Check voltage between steering lock unit harness connector and ground.

(+) Steering lock unit		(-)	Condition	Voltage
Connector	Terminal			
M57	2	Ground	steering lock unit	Active 9 - 16 V
				Not active 0 - 0.5 V

##### Is the inspection result normal?

- YES >> GO TO 3.  
NO >> GO TO 2.

##### 2.CHECK STEERING LOCK UNIT POWER SUPPLY CIRCUIT

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

BCM		Steering lock unit		Continuity
Connector	Terminal	Connector	Terminal	
M87	41	M57	2	Existed

4. Check continuity between steering lock unit harness connector and ground.

## B27D6 S/L CAN COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Steering lock unit		Ground	Continuity
Connector	Terminal		
M57	2		Not existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

### 3.REPLACE STEERING LOCK UNIT

1. Replace steering lock unit.

2. Perform the service procedure for steering lock unit replacement. Refer to [SEC-101, "STEERING LOCK UNIT : Work Procedure"](#).

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 4.

### 4.REPLACE BCM

Replace BCM. Refer to [BCS-121, "Removal and Installation"](#).

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 5.

### 5.CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

>> INSPECTION END

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## B27D7 S/L PWR RELAY

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### B27D7 S/L PWR RELAY

#### DTC Description

INFOID:0000000010922195

#### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B27D7-00	S/L PWR RELAY (Steering lock unit power relay)	When even if the BCM performs ON output of the internal transistor, the transistor does not on.

#### POSSIBLE CAUSE

- Harness or connectors  
(Steering lock unit ignition power supply circuit is open or shorted)
- BCM

#### FAIL-SAFE

Inhibit steering lock

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Press push-button ignition switch under the following conditions.
  - Selector lever: In the P position.
  - Brake pedal: Not depressed.
2. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

##### Is DTC detected?

- YES >> Refer to [SEC-160, "Diagnosis Procedure"](#).  
NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).  
NO-2 >> Confirmation after repair: INSPECTION END

#### Diagnosis Procedure

INFOID:0000000010922196

##### 1.CHECK STEERING LOCK UNIT POWER SUPPLY

Check voltage between steering lock unit harness connector and ground.

(+)		(-)	Condition		Voltage
Steering lock unit					
Connector	Terminal				
M57	2	Ground	steering lock unit	Active	9 - 16 V
				Not active	0 - 0.5 V

##### Is the inspection result normal?

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

##### 2.CHECK STEERING LOCK UNIT POWER SUPPLY CIRCUIT

1. Disconnect BCM connector and steering lock unit connector.
2. Check continuity between steering lock unit harness connector and BCM harness connector.

BCM		Steering lock unit		Continuity
Connector	Terminal	Connector	Terminal	
M87	41	M57	2	Existed

3. Check voltage between steering lock unit harness connector and ground.

## B27D7 S/L PWR RELAY

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Steering lock unit		Ground	Continuity
Connector	Terminal		
M57	2		Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

### 3.REPLACE BCM

Replace BCM. [BCS-121, "Removal and Installation"](#).

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 4.

### 4.CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

>> INSPECTION END

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## B27D8 S/L VEHICLE SPEED MALFUNCTION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### B27D8 S/L VEHICLE SPEED MALFUNCTION

#### DTC Description

INFOID:0000000010922197

#### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B27D8-00	S/L VEHICLE SPEED MLFUNCTION (Steering lock unit vehicle speed malfunction)	When vehicle speed is detected during steering lock unit lock operation or unlock operation.

#### POSSIBLE CAUSE

- ABS actuator and electric unit (control unit)
- Steering lock unit

#### FAIL-SAFE

Inhibit steering lock

#### DTC CONFIRMATION PROCEDURE

##### 1.CHECK DTC PRIORITY

If DTC B27D8-00 is displayed with DTC U1000-00 or U1010-00, first perform the trouble diagnosis for DTC U1000-00 or U1010-00.

##### Is applicable DTC detected?

YES >> Perform diagnosis of applicable. U1000-00: Refer to [BCS-110, "DTC Description"](#). U1010-00: Refer to [BCS-111, "DTC Description"](#).

NO >> GO TO 2.

##### 2.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Select "Self Diagnosis Result" mode of "BCM" using CONSULT.

##### Is DTC detected?

YES >> Refer to [SEC-162, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

#### Diagnosis Procedure

INFOID:0000000010922198

##### 1.CHECK DTC PRIORITY

If DTC B261F-00 is displayed with DTC U1000-00 or U1010-00, first perform the trouble diagnosis for DTC U1000-00 or U1010-00.

##### Is applicable DTC detected?

YES >> Perform diagnosis of applicable. U1000-00: Refer to [BCS-110, "DTC Description"](#). U1010-00: Refer to [BCS-111, "DTC Description"](#).

NO >> GO TO 2.

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

Select "Self Diagnostic Result" mode of "ABS" using CONSULT.

##### Is DTC detected?

YES >> GO TO 3.

NO >> Perform the trouble diagnosis related to the detected DTC. Refer to [BRC-84, "DTC Index"](#).

##### 3.CHECK SELF DIAGNOSTIC RESULT

1. Turn ignition switch ON.
2. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

##### Is DTC B27D8 detected again?

YES >> GO TO 4.

## B27D8 S/L VEHICLE SPEED MALFUNCTION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

NO >> GO TO 6.

### 4. REPLACE ABS ACUTUATOR AND ELECTRIC UNIT(CONTROL UNIT)

Replace ABS actuator and electric unit (control unit). Refer to [BRC-217, "LHD : Removal and Installation"](#) (LHD models) or [BRC-220, "RHD : Removal and Installation"](#) (RHD models).

Is DTC B27D8 detected again?

YES >> GO TO 5.

NO >> INSPECTION END

### 5. REPLACE STEERING LOCK UNIT

1. Replace steering lock unit.
2. Perform the service procedure for steering lock unit replacement. Refer to [SEC-101, "STEERING LOCK UNIT : Work Procedure"](#).

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 6.

### 6. CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

>> INSPECTION END

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## B27D9 S/L IGN MALFUNCTION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### B27D9 S/L IGN MALFUNCTION

#### DTC Description

INFOID:000000010922199

#### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B27D9-00	S/L IGN MALFUNCTION (Steering lock unit ignition malfunction)	When the steering lock unit receives a steering lock unit lock request signal from BCM, at ignition switch ON.

#### POSSIBLE CAUSE

- IPDM E/R
- BCM

#### FAIL-SAFE

Inhibit steering lock/unlock

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Select "Self Diagnosis Result" mode of "BCM" using CONSULT.

##### Is DTC detected?

- YES >> Refer to [SEC-164, "Diagnosis Procedure"](#).  
NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).  
NO-2 >> Confirmation after repair: INSPECTION END

#### Diagnosis Procedure

INFOID:000000010922200

##### 1.CHECK DTC OF IPDM E/R

Select "Self Diagnostic Result" mode of "IPDM E/R" using CONSULT. Refer to [PCS-38, "DTC Index"](#).

##### Is the inspection result normal?

- YES >> GO TO 2.  
NO >> Perform the trouble diagnosis for the detected DTC.

##### 2.CHECK SELF DIAGNOSTIC RESULT

Select "Self Diagnostic Result" mode of "BCM" using CONSULT. Refer to [BCS-78, "DTC Index"](#)

##### Is the inspection result normal?

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

##### 3.REPLACE BCM

Replace BCM. Refer to [BCS-121, "Removal and Installation"](#).

>> INSPECTION END

##### 4.CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

>> INSPECTION END

# B27DA IPDM CAN COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## B27DA IPDM CAN COMM CIRCUIT

### DTC Description

INFOID:0000000010922201

### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B27DA-00	IPDM CAN COMM CIRCUIT (Intelligent power distribution module controller area network communication circuit)	When steering lock unit cannot detect CAN communication with IPDM E/R.

### POSSIBLE CAUSE

- Harness or connectors  
(The CAN communication line is open or shorted.)
- IPDM E/R
- Steering lock unit

### FAIL-SAFE

Inhibit steering lock

### DTC CONFIRMATION PROCEDURE

#### 1.CHECK DTC PRIORITY

If DTC B27DA-00 is displayed with DTC U1000-00 or U1010-00, first perform the trouble diagnosis for DTC U1000-00 or U1010-00.

##### Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. U1000-00: Refer to [BCS-110, "DTC Description"](#) U1010-00: Refer to [BCS-111, "DTC Description"](#).  
NO >> GO TO 2.

#### 2.PERFORM DTC CONFIRMATION PROCEDURE

1. Press push-button ignition switch under the following condition.
  - Selector lever: In the P position.
  - Brake pedal: Not depressed.
2. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

##### Is DTC detected?

- YES >> Refer to [SEC-165, "Diagnosis Procedure"](#).  
NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).  
NO-2 >> Confirmation after repair: INSPECTION END

### Diagnosis Procedure

INFOID:0000000010922202

#### 1.CHECK DTC PRIORITY

If DTC B27DA-00 is displayed with DTC U1000-00 or U1010-00, first perform the trouble diagnosis for DTC U1000-00 or U1010-00.

##### Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. U1000-00: Refer to [BCS-110, "DTC Description"](#) DTC U1010-00: [BCS-111, "DTC Description"](#)  
NO >> GO TO 2.

#### 2.CHECK DTC OF IPDM E/R

Select "Self Diagnostic Result" mode of "IPDM E/R" using CONSULT. Refer to [PCS-38, "DTC Index"](#).

##### Is the inspection result normal?

- YES >> GO TO 6.  
NO >> GO TO 3.

#### 3.REPLACE IPDM E/R

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## B27DA IPDM CAN COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Replace IPDM E/R. Refer to [PCS-60. "Removal and Installation"](#).

Is the inspection result normal?

YES >> INSPECTION END  
NO >> GO TO 4.

### 4.CHECK SELF DIAGNOSTIC RESULT

Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

Is the inspection result normal?

YES >> GO TO 6.  
NO >> GO TO 5

### 5.REPLACE STEERING LOCK UNIT

1. Replace steering lock unit.
2. Perform the service procedure for steering lock unit replacement. Refer to [SEC-101. "STEERING LOCK UNIT : Work Procedure"](#).

>> INSPECTION END

### 6.CHECK INTERMITTENT INCIDENT

Refer to [GI-44. "Intermittent Incident"](#).

>> INSPECTION END

# B27DB S/L IGN OFF

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## B27DB S/L IGN OFF

### DTC Description

INFOID:0000000010922203

### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B27DB-00	S/L IGN OFF (Steering lock unit ignition off)	When steering lock unit detects a steering lock unit power circuit disconnection.

### POSSIBLE CAUSE

Harness or connectors  
(Steering lock unit power supply circuit is open or shorted)

### FAIL-SAFE

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON.
- Select "Self Diagnosis Result" mode of "BCM" using CONSULT.

#### Is DTC detected?

- YES >> Refer to [SEC-167, "Diagnosis Procedure"](#).  
NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).  
NO-2 >> Confirmation after repair: INSPECTION END

### Diagnosis Procedure

INFOID:0000000010922204

#### 1.CHECK STEERING LOCK UNIT POWER SUPPLY

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

(+)		(-)	Voltage
BCM			
Connector	Terminal		
E23	166	Ground	9 - 16 V

#### Is the inspection result normal?

- YES >> GO TO 3.  
NO >> GO TO 2.

#### 2.CHECK STEERING LOCK UNIT POWER SUPPLY CIRCUIT

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

IPDM E/R		BCM		Continuity
Connector	Terminal	Connector	Terminal	
E10	3	E23	166	Existed

- Check continuity between BCM harness connector and ground

BCM		Ground	Continuity
Connector	Terminal		
E23	166		Not existed

#### Is the inspection result normal?

## B27DB S/L IGN OFF

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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

### 3.CHECK INTERMITTENT INCIDENT

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Refer to [GI-44, "Intermittent Incident"](#)

>> INSPECTION END

# B27DC S/L POWER SUPPLY

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## B27DC S/L POWER SUPPLY

### DTC Description

INFOID:0000000010922205

### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B27DC-00	S/L POWER SUPPLY (Steering lock unit power supply)	When power is supplied to the steering lock unit even though BCM is not supplying power to the steering lock unit.

### POSSIBLE CAUSE

- Harness or connectors  
(Steering lock unit power supply circuit is short to battery)
- BCM

### FAIL-SAFE

Inhibit steering lock

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Select "Self Diagnosis Result" mode of "BCM" using CONSULT.

#### Is DTC detected?

- YES >> Refer to [SEC-169, "Diagnosis Procedure"](#).  
NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).  
NO-2 >> Confirmation after repair: INSPECTION END

### Diagnosis Procedure

INFOID:0000000010922206

#### 1.CHECK STEERING LOCK UNIT POWER SUPPLY

Check voltage between steering lock unit harness connector and ground.

(+)		(-)	Condition		Voltage
Steering lock unit					
Connector	Terminal				
M57	2	Ground	Steering lock unit	Active	9 - 16 V
				Not active	0 - 0.5 V

#### Is the inspection result normal?

- YES >> GO TO 5.  
NO >> GO TO 2.

#### 2.CHECK STEERING LOCK UNIT POWER SUPPLY CIRCUIT (SHORT TO GROUND)

1. Disconnect BCM connector and steering lock unit connector.
2. Check continuity between steering lock unit harness connector and BCM harness connector.

Steering lock unit		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M57	2	M87	41	Existed

3. Check voltage between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M87	41		Not existed

## B27DC S/L POWER SUPPLY

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

### 3.CHECK STEERING LOCK UNIT POWER SUPPLY CIRCUIT(SHORT TO BATTERY)

Check voltage between BCM harness connector and ground.

BCM		Ground	Voltage
Connector	Terminal		
M87	41		0 V

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

### 4.REPLACE BCM

Replace BCM. Refer to [BCS-121, "Removal and Installation"](#).

Is DTC detected?

YES >> INSPECTION END

NO >> GO TO 5.

### 5.CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

>> INSPECTION END

## B27DD BCM - S/L ID DISCORD

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### B27DD BCM - S/L ID DISCORD

#### DTC Description

INFOID:0000000010922207

#### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B27DD-00	BCM-S/L ID DISCORD (Body control module - steering lock unit identifica- tion discord)	When BCM detects that the ID verification result of the steering lock unit is NG.

#### POSSIBLE CAUSE

- Steering lock unit
- BCM

#### FAIL-SAFE

Inhibit steering lock

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

##### Is DTC detected?

- YES >> Refer to [SEC-171, "Diagnosis Procedure"](#).  
NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).  
NO-2 >> Confirmation after repair: INSPECTION END

#### Diagnosis Procedure

INFOID:0000000010922208

##### 1.INTELLIGENT KEY REGISTRATION

Using CONSULT, register all Intelligent Keys again.

>> GO TO 2.

##### 2.CHECK SELF DIAGNOSTIC RESULT

1. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.
2. Erase DTC.
3. Perform DTC CONFIRMATION PROCEDURE for DTC B27DD-00. Refer to [SEC-171, "DTC Description"](#).

##### Is the DTC detected?

- YES >> GO TO 3.  
NO >> INSPECTION END

##### 3.REPLACE STEERING LOCK UNIT

1. Replace steering lock unit.
2. Perform the service procedure for steering lock unit replacement. Refer to [SEC-101, "STEERING LOCK UNIT : Work Procedure"](#).

##### Is the inspection result normal?

- YES >> INSPECTION END  
NO >> GO TO 4.

##### 4.REPLACE BCM

1. Replace BCM. Refer to [BCS-121, "Removal and Installation"](#).
2. Perform DTC CONFIRMATION PROCEDURE for DTC B27DD-00. Refer to [SEC-171, "DTC Description"](#).

##### Is the DTC detected?

- YES >> GO TO 5.

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## B27DD BCM - S/L ID DISCORD

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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NO >> INSPECTION END

### 5.CHECK INTERMITTENT INCIDENT

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Refer to [GI-44, "Intermittent Incident"](#).

>> INSPECTION END

# B27DE S/L MECHANICAL MALFUNCTION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## B27DE S/L MECHANICAL MALFUNCTION

### DTC Description

INFOID:0000000010922209

### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B27DE-00	S/L MECHANICAL MALFUNCTION (Steering lock unit mechanical malfunction)	When steering lock unit detects a steering lock unit internal malfunction, and steering lock unit no longer operates normally.

### POSSIBLE CAUSE

Steering lock unit

### FAIL-SAFE

Inhibit steering lock

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

#### Is DTC detected?

- YES >> Refer to [SEC-173, "Diagnosis Procedure"](#).  
NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).  
NO-2 >> Confirmation after repair: INSPECTION END

### Diagnosis Procedure

INFOID:0000000010922210

#### 1.REPLACE STEERING LOCK UNIT

1. Replace steering lock unit.
2. Perform the service procedure for steering lock unit replacement. Refer to [SEC-101, "STEERING LOCK UNIT : Work Procedure"](#).

>> GO TO 2.

#### 2.CHECK SELF DIAGNOSTIC RESULT

1. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.
2. Erase DTC.
3. Perform DTC CONFIRMATION PROCEDURE for DTC B27DE-00. Refer to [SEC-173, "DTC Description"](#).

#### Is DTC detected?

- YES >> GO TO 3.  
NO >> INSPECTION END

#### 3.CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

>> INSPECTION END

## B27DF S/L HIGH LEVEL MALFUNCTION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### B27DF S/L HIGH LEVEL MALFUNCTION

#### DTC Description

INFOID:0000000010922211

#### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B27DF-00	S/L HIGH LEVEL MALFUNCTION (Steering lock unit high level malfunction)	When steering lock unit detects an internal malfunction and the steering lock unit no longer operates normally.

#### POSSIBLE CAUSE

Steering lock unit

#### FAIL-SAFE

Inhibit steering lock/unlock

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

##### Is DTC detected?

- YES >> Refer to [SEC-174, "Diagnosis Procedure"](#).  
NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).  
NO-2 >> Confirmation after repair: INSPECTION END

#### Diagnosis Procedure

INFOID:0000000010922212

##### 1.REPLACE STEERING LOCK UNIT

1. Replace steering lock unit.
2. Perform the service procedure for steering lock unit replacement. Refer to [SEC-101, "STEERING LOCK UNIT : Work Procedure"](#).

>> GO TO 2.

##### 2.CHECK SELF DIAGNOSTIC RESULT

1. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.
2. Erase DTC.
3. Perform DTC CONFIRMATION PROCEDURE for DTC B27DE-00. Refer to [SEC-173, "DTC Description"](#).

##### Is DTC detected?

- YES >> GO TO 3.  
NO >> INSPECTION END

##### 3.CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

>> INSPECTION END

# B27E0 S/L LOW LEVEL MALFUNCTION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## B27E0 S/L LOW LEVEL MALFUNCTION

### DTC Description

INFOID:0000000010922213

### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B27E0-00	S/L LOW LEVEL MAL- FUNCTION (Steering lock unit low level malfunction)	When the steering lock unit detects an internal memory malfunction

### POSSIBLE CAUSE

Steering lock unit

### FAIL-SAFE

Inhibit steering lock

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

#### Is DTC detected?

- YES >> Refer to [SEC-175, "Diagnosis Procedure"](#).  
NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).  
NO-2 >> Confirmation after repair: INSPECTION END

### Diagnosis Procedure

INFOID:0000000010922214

#### 1.REPLACE STEERING LOCK UNIT

1. Replace steering lock unit.
2. Perform the service procedure for steering lock unit replacement. Refer to [SEC-101, "STEERING LOCK UNIT : Work Procedure"](#).

>> GO TO 2.

#### 2.CHECK SELF DIAGNOSTIC RESULT

1. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.
2. Erase DTC.
3. Perform DTC CONFIRMATION PROCEDURE for DTC B27DE-00. Refer to [SEC-173, "DTC Description"](#).

#### Is DTC detected?

- YES >> GO TO 3.  
NO >> INSPECTION END

#### 3.CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

>> INSPECTION END

## B27E1 S/L SAFETY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### B27E1 S/L SAFETY CIRCUIT

#### DTC Description

INFOID:0000000010922215

The safety circuit is the circuit with an interlock function that prohibits lock operation of the steering lock unit at ignition switch ON.

#### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B27E1-00	S/L SAFETY CIRCUIT (Steering lock unit safety circuit)	When the steering lock unit detects a short circuit and disconnection in the safety circuit.

#### POSSIBLE CAUSE

Harness or connectors  
(Steering lock unit safety circuit is open or shorted)

#### FAIL-SAFE

Inhibit steering lock

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Performs lock operation of the steering lock unit.
2. Press push-button ignition switch under the following conditions.
  - Selector lever: In the P position.
  - Brake pedal: Not depressed.
3. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

##### Is DTC detected?

- YES >> Refer to [SEC-176, "Diagnosis Procedure"](#).  
NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).  
NO-2 >> Confirmation after repair: INSPECTION END

#### Diagnosis Procedure

INFOID:0000000010922216

##### 1.CHECK FUSE

1. Turn ignition switch OFF.
2. Check that following fuse in IPDM E/R is not blown.

Fuse No.	Signal name
95 (5A)	Ignition ON power supply

##### Is the inspection result normal?

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

##### 2.CHECK STEERING LOCK UNIT SAFETY CIRCUIT1

1. Turn ignition switch ON.
2. Check voltage between steering lock unit harness connector and ground.

(+)		(-)	Voltage
Steering lock unit			
Connector	Terminal		
M57	7	Ground	6 - 16 V

##### Is the inspection result normal?

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

## B27E1 S/L SAFETY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### 3. CHECK STEERING LOCK UNIT SAFETY CIRCUIT2

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector and steering lock unit connector.
3. Check continuity between steering lock unit harness connector and IPDM E/R harness connector.

IPDM E/R		Steering lock unit		Continuity
Connector	Terminal	Connector	Terminal	
E12	25	M57	7	Existed

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
E12	25		Not existed

Is the inspection result normal?

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

### 4. CHECK INTERMITTENT INCIDENT

Refer to [GI-44. "Intermittent Incident"](#).

>> INSPECTION END

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# B27E3 S/L KEY NOT REGISTRATION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## B27E3 S/L KEY NOT REGISTRATION

### DTC Description

INFOID:0000000010922217

### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B27E3-00	S/L KEY NOT REGISTRATION (Steering lock unit key not registration)	When the steering lock unit is registered in a KEY unregistered status.

### POSSIBLE CAUSE

- BCM
- Steering lock unit

### FAIL-SAFE

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### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

#### Is DTC detected?

- YES >> Refer to [SEC-178, "Diagnosis Procedure"](#).  
NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).  
NO-2 >> Confirmation after repair: INSPECTION END

### Diagnosis Procedure

INFOID:0000000010922218

#### 1.INTELLIGENT KEY REGISTRATION

Using CONSULT, register all Intelligent Keys again.

>> GO TO 2.

#### 2.CHECK SELF DIAGNOSTIC RESULT

1. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.
2. Erase DTC.
3. Perform DTC CONFIRMATION PROCEDURE for DTC B27E3-00. Refer to [SEC-178, "DTC Description"](#).

#### Is the DTC detected?

- YES >> GO TO 3.  
NO >> INSPECTION END

#### 3.REPLACE BCM

1. Replace BCM. Refer to [BCS-121, "Removal and Installation"](#).
2. Perform DTC CONFIRMATION PROCEDURE for DTC B27E3-00. Refer to [SEC-178, "DTC Description"](#).

#### Is the DTC detected?

- YES >> GO TO 4.  
NO >> INSPECTION END

#### 4.REPLACE STEERING LOCK UNIT

1. Replace steering lock unit.
2. Perform the service procedure for steering lock unit replacement. Refer to [SEC-101, "STEERING LOCK UNIT : Work Procedure"](#).

>> INSPECTION END

# B27E4 S/L REGISTRATION STATUS

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## B27E4 S/L REGISTRATION STATUS

### DTC Description

INFOID:0000000010922219

### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B27E4-00	S/L REGISTRATION STATUS (Steering lock unit registration status)	When BCM does not register the steering lock unit successfully.

### POSSIBLE CAUSE

- Steering lock unit
- BCM

### FAIL-SAFE

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### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

#### Is DTC detected?

- YES >> Refer to [SEC-179, "Diagnosis Procedure"](#).  
NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).  
NO-2 >> Confirmation after repair: INSPECTION END

### Diagnosis Procedure

INFOID:0000000010922220

#### 1.INTELLIGENT KEY REGISTRATION

Using CONSULT, register all Intelligent Keys again.

>> GO TO 2.

#### 2.CHECK SELF DIAGNOSTIC RESULT

1. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.
2. Erase DTC.
3. Perform DTC CONFIRMATION PROCEDURE for DTC B27E4-00. Refer to [SEC-179, "DTC Description"](#).

#### Is the DTC detected?

- YES >> GO TO 3.  
NO >> INSPECTION END

#### 3.REPLACE BCM

1. Replace BCM. Refer to [BCS-121, "Removal and Installation"](#).
2. Perform DTC CONFIRMATION PROCEDURE for DTC B27E4-00. Refer to [SEC-179, "DTC Description"](#).

#### Is the DTC detected?

- YES >> GO TO 4.  
NO >> INSPECTION END

#### 4.REPLACE STEERING LOCK UNIT

1. Replace steering lock unit.
2. Perform the service procedure for steering lock unit replacement. Refer to [SEC-101, "STEERING LOCK UNIT : Work Procedure"](#).

>> INSPECTION END

## B27E5 S/L IGN OFF POSITION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### B27E5 S/L IGN OFF POSITION

#### DTC Description

INFOID:0000000010922221

#### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B27E5-00	S/L IGN OFF POSITION (Steering lock unit ignition off position)	When BCM detects a short in the steering lock unit power circuit.

#### POSSIBLE CAUSE

- Harness or connectors  
(Steering lock unit power supply is shorted)
- IPDM E/R
- BCM

#### FAIL-SAFE

Inhibit steering lock

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

##### Is DTC detected?

- YES >> Refer to [SEC-180, "Diagnosis Procedure"](#).  
NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).  
NO-2 >> Confirmation after repair: INSPECTION END

#### Diagnosis Procedure

INFOID:0000000010922222

##### 1.CHECK STEERING LOCK UNIT POWER SUPPLY

Check voltage between BCM harness connector and ground.

(+)		(-)	Condition		Voltage
BCM					
Connector	Terminal				
E23	166	Ground	Ignition switch	OFF	9 - 16 V
				ON	0 - 0.5 V

##### Is the inspection result normal?

- YES >> GO TO 5.  
NO >> GO TO 2.

##### 2.CHECK STEERING LOCK UNIT POWER SUPPLY CIRCUIT

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

IPDM E/R		BCM		Continuity
Connector	Terminal	Connector	Terminal	
E10	3	E23	166	Existed

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
E23	166		Not existed

B27E5 S/L IGN OFF POSITION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Is the inspection result normal?

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

3.REPLACE IPDM E/R

Replace IPDM E/R. Refer to [PCS-60. "Removal and Installation"](#).

Is DTC detected?

- YES >> INSPECTION END
- NO >> GO TO 4.

4.REPLACE BCM

Replace BCM. Refer to [BCS-121. "Removal and Installation"](#).

Is DTC detected?

- YES >> INSPECTION END
- NO >> GO TO 5.

5.CHECK INTERMITTENT INCIDENT

Refer to [GI-44. "Intermittent Incident"](#).

>> INSPECTION END

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## B27E6 S/L ANTI-SCAN MODE

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### B27E6 S/L ANTI-SCAN MODE

#### DTC Description

INFOID:0000000010922223

#### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B27E6-00	S/L ANTISCAN MODE (Steering lock unit anti-scan mode)	When the BCM detects multiple inconsistencies in steering lock unit ID verification.

#### POSSIBLE CAUSE

- BCM
- Steering lock unit

#### FAIL-SAFE

Inhibit steering lock

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

##### Is DTC detected?

- YES >> Refer to [SEC-182, "Diagnosis Procedure"](#).  
NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).  
NO-2 >> Confirmation after repair: INSPECTION END

#### Diagnosis Procedure

INFOID:0000000010922224

##### 1.CHECK SELF DIAGNOSTIC RESULT

1. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.
2. Erase DTC.
3. Perform DTC CONFIRMATION PROCEDURE for DTC B27E6-00. Refer to [SEC-182, "DTC Description"](#).

##### Is the DTC detected?

- YES >> GO TO 2.  
NO >> INSPECTION END

##### 2.CHECK FUNCTION

Check that a steering lock unit compatible with the vehicle is installed.

##### Is a steering lock unit compatible with the vehicle is installed?

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

##### 3.STEERING LOCK UNIT REGISTRATION

Using CONSULT, register steering lock unit again.

##### Does steering lock operate?

- YES >> GO TO 1.  
NO >> GO TO 4.

##### 4.REPLACE STEERING LOCK UNIT

1. Replace steering lock unit.
2. Perform the service procedure for steering lock unit replacement. Refer to [SEC-101, "STEERING LOCK UNIT : Work Procedure"](#).

##### Is the inspection result normal?

- YES >> INSPECTION END  
NO >> GO TO 5.

## B27E6 S/L ANTI-SCAN MODE

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### 5.REPLACE BCM

Replace BCM. Refer to [BCS-121. "Removal and Installation"](#).

>> INSPECTION END

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## B27E7 S/L UNDETERMINED UNLOCK POS

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

### B27E7 S/L UNDETERMINED UNLOCK POS

#### DTC Description

INFOID:0000000010922225

#### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B27E7-00	S/L UNDETERMINED UN- LOCK POS (Steering lock unit undeter- mined unlock position)	When the steering lock unit does not perform unlock operation successfully.

#### POSSIBLE CAUSE

Steering lock unit

#### FAIL-SAFE

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#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Press push-button ignition switch under the following conditions.
  - Selector lever: In the P position
  - Brake pedal: Not depressed
2. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

##### Is DTC detected?

- YES >> Refer to [SEC-184, "Diagnosis Procedure"](#).  
NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).  
NO-2 >> Confirmation after repair: INSPECTION END

#### Diagnosis Procedure

INFOID:0000000010922226

##### 1.CHECK SELF DIAGNOSTIC RESULT

Perform DTC CONFIRMATION PROCEDURE for DTC B27E7-00. Refer to [SEC-184, "DTC Description"](#).

##### Is DTC detected?

- YES >> GO TO 2.  
NO >> INSPECTION END

##### 2.CHECK STEERING LOCK UNIT SENSOR CIRCUIT OUTPUT SIGNAL

Check voltage between steering lock unit harness connector and ground.

(+)		(-)	Condition		Voltage
Steering lock unit					
Connector	Terminal				
M57	6	Ground	Steering lock unit	Active	9 - 16 V
				Not active	0 - 0.5 V

##### Is the inspection result normal?

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

##### 3.CHECK STEERING LOCK UNIT SENSOR CIRCUIT OUTPUT SIGNAL CIRCUIT

1. Disconnect BCM connector and steering lock unit connector.
2. Check continuity between BCM harness connector and steering lock unit harness connector.

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[WITH INTELLIGENT KEY SYSTEM]

BCM		Steering lock unit		Continuity
Connector	Terminal	Connector	Terminal	
M86	90	M57	6	Existed

3. Check continuity between steering lock unit harness connector and ground.

Steering lock unit		Ground	Continuity
Connector	Terminal		
M57	6		Not existed

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

### 4.REPLACE STEERING LOCK UNIT

1. Replace steering lock unit.
2. Perform the service procedure for steering lock unit replacement. Refer to [SEC-101. "STEERING LOCK UNIT : Work Procedure"](#).

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 5.

### 5.REPLACE BCM

Replace BCM. Refer to [BCS-121. "Removal and Installation"](#).

Is DTC detected?

YES >> INSPECTION END

NO >> GO TO 6.

### 6.CHECK INTERMITTENT INCIDENT

Refer to [GI-44. "Intermittent Incident"](#).

>> INSPECTION END

SEC

# B27E8 S/L UNDETERMINED LOCK POS

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## B27E8 S/L UNDETERMINED LOCK POS

### DTC Description

INFOID:000000010922227

### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B27E8-00	S/L UNDETERMINED LOCK POS (Steering lock unit undetermined lock position)	When the steering lock unit does not perform lock operation successfully.

### POSSIBLE CAUSE

- BCM
- Steering lock unit

### FAIL-SAFE

Inhibit steering lock

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Performs lock operation of the steering unit.
2. Press push-button ignition switch under the following condition.
  - Selector lever: In the P position
  - Brake pedal: Not depressed
3. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.

#### Is DTC detected?

- YES >> Refer to [SEC-186, "Diagnosis Procedure"](#).  
NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).  
NO-2 >> Confirmation after repair: INSPECTION END

### Diagnosis Procedure

INFOID:000000010922228

#### 1.REPLACE STEERING LOCK UNIT

1. Replace steering lock unit.
2. Perform the service procedure for steering lock unit replacement. Refer to [SEC-101, "STEERING LOCK UNIT : Work Procedure"](#).

#### Is the inspection result normal?

- YES >> INSPECTION END  
NO >> GO TO 2.

#### 2.REPLACE BCM

Replace BCM. Refer to [BCS-121, "Removal and Installation"](#).

#### Is DTC detected?

- YES >> INSPECTION END  
NO >> GO TO 3.

#### 3.CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

>> INSPECTION END

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## POWER SUPPLY AND GROUND CIRCUIT

### SIREN CONTROL UNIT

#### SIREN CONTROL UNIT : Diagnosis Procedure

INFOID:0000000010994658

#### 1.CHECK FUSE

Check that the following fuse is not blown.

Signal name	Fuse
Battery power supply	14 (5 A)

Is the fuse fusing?

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

#### 2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect siren control unit connector.
3. Check voltage between siren control unit harness connector and the ground.

(+) Siren control unit		(-) Ground	Voltage (Approx.)
Connector	Terminal	Ground	Battery voltage
B127	2		

Is the inspection result normal?

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

#### 3.CHECK GROUND CIRCUIT

Check continuity between siren control unit harness connectors and the ground.

Siren control unit		Ground	Continuity
Connector	Terminal		Existed
B127	5		

Is the inspection result normal?

- YES >> INSPECTION END  
NO >> Repair or replace harness.

### STEERING LOCK UNIT

#### STEERING LOCK UNIT : Diagnosis Procedure

INFOID:000000001092233

#### 1.CHECK FUSE

Check that the following fuse is not blown.

Signal name	Fuse No.
Ignition ON signal	85 (5 A)

Is the fuse blown?

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

#### 2.CHECK STEERING LOCK UNIT POWER SUPPLY CIRCUIT1

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

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Steering lock unit		Ground	Condition		Voltage (V)
Connector	Terminal		Ignition switch	ON	
M57	7			OFF	0 - 1

Is the measurement value normal?

YES >> GO TO 4.

NO >> GO TO 3.

## 3.CHECK STEERING LOCK UNIT POWER SUPPLY CIRCUIT1

1. Disconnect IPDM E/R connector.
2. Check continuity between steering lock unit harness connector and IPDM E/R harness connector.

Steering lock unit		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
M57	7	E12	25	Existed

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
E12	25		Not existed

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-60. "Removal and Installation"](#).

NO >> Repair or replace harness.

## 4.CHECK STEERING LOCK UNIT POWER SUPPLY CIRCUIT2

Check voltage between harness steering lock unit connector and ground.

Steering lock unit		Ground	Condition		Voltage (V)
Connector	Terminal		Steering lock unit	Active	
M57	2			Not active	0 - 0.5

Is the measurement value normal?

YES >> GO TO 6.

NO >> GO TO 5.

## 5.CHECK STEERING LOCK UNIT POWER SUPPLY CIRCUIT2

1. Disconnect BCM connector.
2. Check continuity between steering lock unit harness connector and BCM harness connector.

Steering lock unit		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M57	2	M87	41	Existed

3. Check voltage between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M87	41		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-121. "Removal and Installation"](#).

NO >> Repair or replace harness.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

6.CHECK GROUND CIRCUIT

Check continuity between steering lock unit harness connector and ground.

Steering lock unit		Ground	Continuity
Connector	Terminal		
M57	1		Existed

Does continuity exist?

- YES >> INSPECTION END
- NO >> Repair or replace harness.

SEC

# SECURITY INDICATOR LAMP

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## SECURITY INDICATOR LAMP

### Component Function Check

INFOID:0000000010926570

#### 1.CHECK FUNCTION

1. Perform "THEFT IND" in "ACTIVE TEST" mode of "IMMU" of "BCM" using CONSULT.
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 >> Refer to [SEC-190, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:0000000010922234

#### 1.CHECK FUSE

1. Turn ignition 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. Turn ignition switch ON.
3. Check voltage between combination meter harness connector and ground.

(+)		(-)	Voltage (V)
Combination meter			
Connector	Terminal		
M42	45	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

#### 3.CHECK SECURITY INDICATOR LAMP SIGNAL

1. Turn ignition switch OFF.
2. Connect combination meter connector.
3. Disconnect BCM connector.
4. Turn ignition switch ON.
5. Check voltage between BCM harness connector and ground.

(+)		(-)	Voltage
BCM			
Connector	Terminal		
M87	75	Ground	9 - 16 V

Is the inspection result normal?

YES >> GO TO 4.

# SECURITY INDICATOR LAMP

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

NO >> GO TO 5.

## 4.REPLACE BCM

Replace BCM. Refer to [BCS-121, "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	
M34	7	M87	75	Existed

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

Combination meter		Ground	Continuity
Connector	Terminal		
M34	7		Not existed

Is the inspection result normal?

- YES >> Replace combination meter. Refer to [MWI-151, "Removal and Installation"](#).  
NO >> Repair or replace harness.

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SEC

# HOOD SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## HOOD SWITCH

### Component Function Check

INFOID:0000000010922235

#### 1.CHECK FUNCTION

1. Select "HOOD SW" in "Data Monitor" mode of "IPDM E/R" using CONSULT.
2. Check "HOOD SW" indication under the following condition.

Monitor item	Condition		Indication
HOOD SW	Hood	Open	ON
		Close	OFF

Is the indication normal?

YES >> Hood switch is OK.

NO >> Refer to [SEC-192, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:0000000010922236

#### 1.CHECK HOOD SWITCH SIGNAL CIRCUIT 1

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

(+)		(-)	Voltage
Hood switch			
Connector	Terminal		
E164	2	Ground	9 - 16 V

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

#### 2.CHECK HOOD SWITCH SIGNAL CIRCUIT 2

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

IPDM E/R		Hood switch		Continuity
Connector	Terminal	Connector	Terminal	
E148	52	E164	2	Existed

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
E148	52	Ground	Not existed

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-60, "Removal and Installation"](#).

NO >> Repair or replace harness.

#### 3.CHECK HOOD SWITCH GROUND CIRCUIT

Check continuity between hood switch harness connector and ground.

Hood switch		Ground	Continuity
Connector	Terminal		
E164	1	Ground	Existed

# HOOD SWITCH

[WITH INTELLIGENT KEY SYSTEM]

## < DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

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

### 4.CHECK HOOD SWITCH

Refer to [SEC-193, "Component Inspection"](#).

Is the inspection result normal?

- YES >> GO TO 5.  
NO >> Replace hood lock assembly. Refer to [DLK-297, "HOOD LOCK : Removal and Installation"](#).

### 5.CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

>> INSPECTION END

## Component Inspection

INFOID:0000000010922237

### 1.CHECK HOOD SWITCH

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

Hood switch		Condition		Continuity
Terminal				
1	2	Hood lock	Unlock condition	Not existed
			Lock condition	Existed

Is the inspection result normal?

- YES >> INSPECTION END  
NO >> Replace hood lock assembly. Refer to [DLK-297, "HOOD LOCK : Removal and Installation"](#).

SEC

# INTRUDER SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## INTRUDER SENSOR

### Component Function Check

INFOID:0000000010926571

#### 1.CHECK INTRUDER SENSOR FUNCTION

1. Turn ignition switch OFF.
2. Check that hood is closed completely.
3. Get in the vehicle and close all doors.
4. Lock doors using Intelligent Key.
5. Check security indicator lamp blinks to confirm that the vehicle security system is shifted into the ARMED phase. Refer to [SEC-34, "VEHICLE SECURITY SYSTEM : System Description"](#).
6. Hold up and move a hand over intruder sensor.
7. Check that siren sounds after a few seconds.

Does the siren sound?

YES >> Intruder sensor is OK.

NO >> Refer to [SEC-194, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:0000000010926572

#### 1.CHECK INTRUDER SENSOR POWER SUPPLY

1. Turn ignition switch OFF.
2. Disconnect intruder sensor connector.
3. Check voltage between sensor cancel switch harness connector and ground.

(+)		(-)	Voltage (Approx.)
Sensor cancel switch			
Connector	Terminal		
R25	1	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 2.

NO-1 >> Check 5 A fuse [No. 14, located in the fuse block].

NO-2 >> Check harness for open or short between fuse and sensor cancel switch.

#### 2.CHECK INTRUDER SENSOR SIGNAL CIRCUIT

1. Disconnect siren control unit connector.
2. Check continuity between siren control unit harness connector and intruder sensor harness connector.

Siren control unit		Sensor cancel switch		Continuity
Connector	Terminal	Connector	Terminal	
B127	4	R25	2	Existed

3. Check continuity between siren control unit harness connector and ground.

Siren control unit		Ground	Continuity
Connector	Terminal		
B127	4		Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

#### 3.CHECK INTRUDER SENSOR GROUND CIRCUIT

Check continuity between sensor cancel switch harness connector and ground.

INTRUDER SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Sensor cancel switch		Ground	Continuity
Connector	Terminal		
R25	3		Existed

Is the inspection result normal?

- YES >> Replace intruder sensor.
- NO >> Repair or replace harness.

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SEC

# SENSOR CANCEL SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

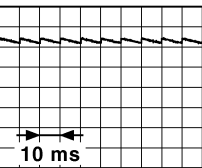
## SENSOR CANCEL SWITCH

### Diagnosis Procedure

INFOID:000000010926573

#### 1.CHECK SENSOR CANCEL SWITCH SIGNAL

1. Turn ignition switch OFF.
2. Disconnect sensor cancel switch connector.
3. Check signal between sensor cancel switch harness connector and ground with oscilloscope.

(+)		(-)	Voltage
Sensor cancel switch			
Connector	Terminal		
R25	5	Ground	<div><div><div>(V)</div><div>15</div><div>10</div><div>5</div><div>0</div></div><div></div><div>10 ms</div></div>

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Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

#### 2.CHECK SENSOR CANCEL SWITCH CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between BCM harness connector and sensor cancel switch harness connector.

BCM		Sensor cancel switch		Continuity
Connector	Terminal	Connector	Terminal	
M86	107	R25	5	Existed

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M86	107		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-121, "Removal and Installation"](#).

NO >> Repair or replace harness.

#### 3.CHECK GROUND CIRCUIT

Check continuity between sensor cancel switch harness connector and ground.

Sensor cancel switch		Ground	Continuity
Connector	Terminal		
R25	6		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

#### 4.CHECK SENSOR CANCEL SWITCH

Refer to [SEC-197, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 5.

## SENSOR CANCEL SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

NO >> Replace sensor cancel switch.

### 5.CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

>> INSPECTION END

### Component Inspection

INFOID:0000000010926574

### 1.CHECK SENSOR CANCEL SWITCH

1. Turn ignition switch OFF.
2. Disconnect sensor cancel switch connector.
3. Check continuity between sensor cancel switch terminals.

Sensor cancel switch		Condition		Continuity
Terminal				
5	6	Sensor cancel switch	Press	Existed
			Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace sensor cancel switch.

SEC

# SIREN CONTROL UNIT CIRCUIT (COMMUNICATION SIGNAL)

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## SIREN CONTROL UNIT CIRCUIT (COMMUNICATION SIGNAL)

### Component Function Check

INFOID:0000000010926575

#### 1.CHECK SIREN CONTROL UNIT FUNCTION

1. Turn ignition switch OFF.
2. Check that hood is closed completely.
3. Get in the vehicle and close all doors.
4. Lock doors using Intelligent Key.
5. Check security indicator lamp blinks to confirm that the vehicle security system is shifted into the ARMED phase. Refer to [SEC-34. "VEHICLE SECURITY SYSTEM : System Description"](#).

Is the inspection result normal?

- YES >> Siren control unit circuit (communication signal) is OK.  
NO >> Refer to [SEC-198. "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:0000000010926576

#### 1.CHECK SIREN CONTROL UNIT SIGNAL CIRCUIT

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

Siren control unit		BCM		Continuity
Connector	Terminal	Connector	Terminal	
B127	3	B47	38	Existed

5. Check continuity between siren control unit harness connector and ground.

Siren control unit		Ground	Continuity
Connector	Terminal		
B127	3		Not existed

Is the inspection result normal?

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

#### 2.CHECK INTERMITTENT INCIDENT

Refer to [GI-44. "Intermittent Incident"](#).

>> INSPECTION END

# SIREN CONTROL UNIT CIRCUIT (HAZARD SWITCH SIGNAL)

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## SIREN CONTROL UNIT CIRCUIT (HAZARD SWITCH SIGNAL)

### Component Function Check

INFOID:0000000010926577

#### 1.CHECK SIREN CONTROL UNIT FUNCTION

1. Turn ignition switch OFF.
2. Check that hood is closed completely.
3. Get in the vehicle and close all doors.
4. Lock doors using Intelligent Key.
5. Check security indicator lamp blinks to confirm that the vehicle security system is shifted into the ARMED phase. Refer to [SEC-34, "VEHICLE SECURITY SYSTEM : System Description"](#).
6. Hold up and move a hand over intruder sensor.
7. Check that hazard warning lamps blinks after a few seconds.

Does the siren sound?

YES >> Siren control unit circuit (hazard switch signal) is OK.

NO >> Refer to [SEC-199, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:0000000010926578

#### 1.CHECK SIREN CONTROL UNIT SIGNAL CIRCUIT

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

Siren control unit		BCM		Continuity
Connector	Terminal	Connector	Terminal	
B127	1	M87	51	Existed

5. Check continuity between siren control unit harness connector and ground.

Siren control unit		Ground	Continuity
Connector	Terminal		
B127	1		Not existed

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

#### 2.CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

>> INSPECTION END

## SYMPTOM DIAGNOSIS

### ENGINE DOES NOT START WHEN INTELLIGENT KEY IS INSIDE OF VEHICLE

#### Description

INFOID:0000000010922239

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)

- “ENGINE START BY I-KEY” setting in “WORK SUPPORT” mode of “INTELLIGENT KEY” of “BCM” is ON.
- One or more of Intelligent Keys with registered Intelligent Key ID is in the vehicle.

#### Diagnosis Procedure

INFOID:0000000010922240

#### 1.PERFORM WORK SUPPORT

Perform “INSIDE ANT DIAGNOSIS” in “Work Support” mode of “INTELLIGENT KEY” of “BCM” using CONSULT.

Refer to [SEC-42. "INTELLIGENT KEY : CONSULT Function \(BCM - INTELLIGENT KEY\) \(With Super Lock\)"](#) or [SEC-46. "INTELLIGENT KEY : CONSULT Function \(BCM - INTELLIGENT KEY\) \(Without Super Lock\)"](#).

>> GO TO 2.

#### 2.PERFORM SELF-DIAGNOSIS RESULT

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

Is DTC detected?

- YES >> Perform the trouble diagnosis for detected DTC. Refer to [BCS-78. "DTC Index"](#).  
NO >> GO TO 3.

#### 3.CHECK PUSH-BUTTON IGNITION SWITCH

Check push-button ignition switch.

Refer to [PCS-110. "Component Function Check"](#).

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 >> INSPECTION END  
NO >> Check intermittent incident. Refer to [GI-44. "Intermittent Incident"](#).

# STEERING DOES NOT LOCK

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## STEERING DOES NOT LOCK

### Description

INFOID:0000000010922241

Steering does not lock when door is open while ignition switch is OFF.

#### NOTE:

Before performing the diagnosis, perform "Work Flow". Refer to [SEC-97, "Work Flow"](#).

### Diagnosis Procedure

INFOID:0000000010922242

#### 1.CHECK DOOR SWITCH

Check door switch.

Refer to [DLK-186, "Component Function Check"](#).

Is the inspection normal?

YES >> GO TO 2.

NO >> Repair or replace malfunctioning parts.

#### 2.CHECK DETENTION SWITCH

Check CVT shift selector (detention switch). Refer to [SEC-129, "Component Inspection"](#).

Is the inspection normal?

YES >> GO TO 3.

NO >> Repair or replace malfunctioning parts.

#### 3.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection normal?

YES >> INSPECTION END

NO >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

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SEC

# SECURITY INDICATOR LAMP DOES NOT TURN ON OR BLINK

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## SECURITY INDICATOR LAMP DOES NOT TURN ON OR BLINK

### Description

INFOID:0000000010922243

Security indicator lamp does not blink when power supply position is other than the ON position.

#### NOTE:

- Before performing the diagnosis, perform "Work Flow". Refer to [SEC-97, "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 other than the ON position.

### Diagnosis Procedure

INFOID:0000000010922244

#### 1.CHECK SECURITY INDICATOR LAMP

Check security indicator lamp.

Refer to [SEC-190, "Diagnosis Procedure"](#).

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 >> INSPECTION END

NO >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

# VEHICLE SECURITY SYSTEM CANNOT BE SET

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## VEHICLE SECURITY SYSTEM CANNOT BE SET INTELLIGENT KEY

### INTELLIGENT KEY : Description

INFOID:0000000010922245

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)

Confirm that the setting of "SECURITY ALARM SET" is "ON" in "WORK SUPPORT" mode of "THEFT ALM" of "BCM" using CONSULT.

### INTELLIGENT KEY : Diagnosis Procedure

INFOID:0000000010922246

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

Lock/unlock door with Intelligent Key.

Refer to [DLK-47. "REMOTE KEYLESS ENTRY FUNCTION : System Description"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check Intelligent Key system (remote keyless entry function). Refer to [DLK-239. "Diagnosis Procedure"](#).

#### 2.CHECK HOOD SWITCH

Check hood switch.

Refer to [SEC-192. "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace hood lock assembly. Refer to [DLK-297. "HOOD LOCK : Removal and Installation"](#).

#### 3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> INSPECTION END

NO >> Check intermittent incident. Refer to [GI-44. "Intermittent Incident"](#).

## DOOR REQUEST SWITCH

### DOOR REQUEST SWITCH : Description

INFOID:0000000010922247

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)

Confirm that the setting of "SECURITY ALARM SET" is "ON" in "WORK SUPPORT" mode of "THEFT ALM" of "BCM" using CONSULT.

### DOOR REQUEST SWITCH : Diagnosis Procedure

INFOID:0000000010922248

#### 1.CHECK INTELLIGENT KEY SYSTEM (DOOR LOCK FUNCTION)

Lock/unlock door with door request switch.

Refer to [DLK-42. "DOOR LOCK FUNCTION : System Description"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check Intelligent Key system (door lock function). Refer to [DLK-237. "ALL DOOR REQUEST SWITCHES : Diagnosis Procedure"](#).

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## VEHICLE SECURITY SYSTEM CANNOT BE SET

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

---

### 2.CHECK HOOD SWITCH

---

Check hood switch.

Refer to [SEC-192, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace hood lock assembly. Refer to [DLK-297, "HOOD LOCK : Removal and Installation"](#).

### 3.CONFIRM THE OPERATION

---

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

NO >> GO TO 1.

# VEHICLE SECURITY ALARM DOES NOT ACTIVATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## VEHICLE SECURITY ALARM DOES NOT ACTIVATE

### Description

INFOID:0000000011009366

Alarm does not operate when alarm operating condition is satisfied.

### Diagnosis Procedure

INFOID:0000000011009367

#### 1.CHECK SENSOR CANCEL SWITCH

Check sensor cancel switch.

Refer to [SEC-196, "Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace sensor cancel switch.

#### 2.PERFORM SELF-DIAGNOSIS OF SIREN CONTROL UNIT

Perform self-diagnosis of siren control unit.

Refer to [SEC-64, "Diagnosis Description"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace malfunctioning parts.

#### 3.CHECK DOOR SWITCH

Check door switch.

Refer to [DLK-186, "Component Function Check"](#) (TYPE 1) or [DLK-495, "Component Function Check"](#) (TYPE 2).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace the malfunctioning door switch. Refer to [DLK-319, "Removal and Installation"](#) (TYPE 1) or [DLK-626, "Removal and Installation"](#) (TYPE 2).

#### 4.CHECK HOOD SWITCH

Check hood switch.

Refer to [SEC-192, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace hood lock assembly. Refer to [DLK-297, "HOOD LOCK : Removal and Installation"](#) (TYPE 1) or [DLK-605, "HOOD LOCK : Removal and Installation"](#) (TYPE 2).

#### 5.CHECK INTRUDER SENSOR

Check intruder sensor.

Refer to [SEC-194, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace intruder sensor.

#### 6.REPLACE SIREN CONTROL UNIT

1. Replace siren control unit.

2. Confirm the operation after replacement.

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 7.

#### 7.REPLACE BCM

Replace BCM. Refer to [BCS-121, "Removal and Installation"](#)

Is the inspection result normal?

YES >> INSPECTION END

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## VEHICLE SECURITY ALARM DOES NOT ACTIVATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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NO     >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

# INTRUDER SENSOR CANNOT BE DEACTIVATED

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

## INTRUDER SENSOR CANNOT BE DEACTIVATED

### Diagnosis Procedure

INFOID:0000000010926580

#### 1.CHECK SENSOR CANCEL SWITCH

Check sensor cancel switch.

Refer to [SEC-196, "Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace sensor cancel switch.

#### 2.REPLACE SIREN CONTROL UNIT

1. Replace siren control unit.

2. Confirm the operation after replacement.

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 3.

#### 3.REPLACE BCM

Replace BCM. Refer to [BCS-121, "Removal and Installation"](#)

Is the inspection result normal?

YES >> INSPECTION END

NO >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

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## REMOVAL AND INSTALLATION


### NATS ANTENNA AMP.

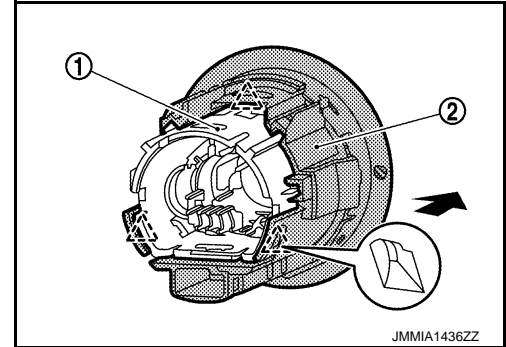
#### Removal and Installation

INFOID:0000000010922253

#### REMOVAL

1. Remove the push-button ignition switch. Refer to [PCS-116. "Removal and Installation"](#).
2. Disengage the NATS antenna amp. pawl, and then remove NATS antenna amp. ① from push-button ignition switch ②.

 : Pawl



#### INSTALLATION

Install in the reverse order of removal.

## PRECAUTION

### PRECAUTIONS

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

INFOID:000000011009437

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

#### **WARNING:**

Always observe the following items for preventing accidental activation.

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

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

#### **WARNING:**

Always observe the following items for preventing accidental activation.

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

#### Precautions for Removing Battery Terminal

INFOID:000000011009440

- With the adoption of Auto ACC function, ACC power is automatically supplied by operating the intelligent key or remote keyless entry or by opening/closing the driver side door. In addition, ACC power is supplied even after the ignition switch is turned to the OFF position, i.e. ACC power is supplied for a certain fixed time.

- When disconnecting the 12V battery terminal, turn off the ACC power before disconnecting the 12V battery terminal, observing "How to disconnect 12V battery terminal" described below.

#### **NOTE:**

Some ECUs operate for a certain fixed time even after ignition switch is turned OFF and ignition power supply is stopped. If the battery terminal is disconnected before ECU stops, accidental DTC detection or ECU data damage may occur.

- For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch.

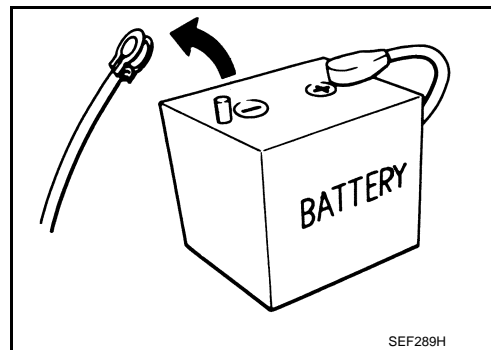
#### **NOTE:**

If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.

- After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC.

#### **NOTE:**

The removal of 12V battery may cause a DTC detection error.



#### HOW TO DISCONNECT 12V BATTERY TERMINAL

Disconnect 12V battery terminal according to Instruction 1 or Instruction 2 described below.

For vehicles parked by ignition switch OFF, refer to Instruction 2.

#### INSTRUCTION 1

1. Open the hood.

## PRECAUTIONS

< PRECAUTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

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

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

**CAUTION:**

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

5. Remove 12V battery terminal.

**CAUTION:**

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

### INSTRUCTION 2 (FOR VEHICLES PARKED BY IGNITION SWITCH OFF)

1. Unlock the door with intelligent key or remote keyless entry.

**NOTE:**

At this moment, ACC power is supplied.

2. Open the driver side door.
3. Open the hood.
4. Close the driver side door.
5. Wait at least 3 minutes.

**CAUTION:**

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

6. Remove 12V battery terminal.

**CAUTION:**

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

# COMPONENT PARTS

< SYSTEM DESCRIPTION >

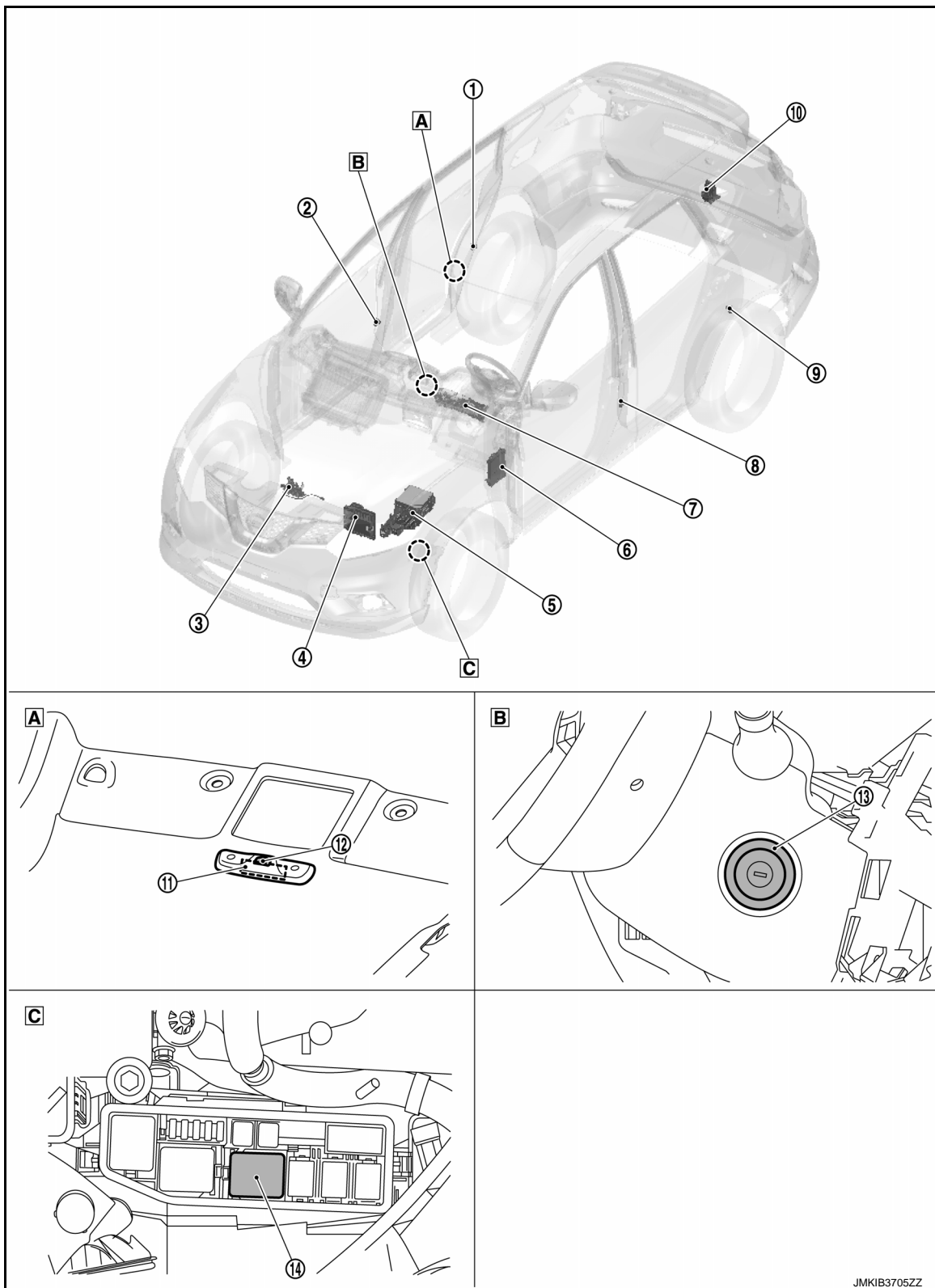
[WITHOUT INTELLIGENT KEY SYSTEM]

## SYSTEM DESCRIPTION

### COMPONENT PARTS

#### Component Parts Location

INFOID:0000000010922263



**A** View with head lining

**B** View with steering column

**C** View with F/L Fuse holder No.2

# COMPONENT PARTS

< SYSTEM DESCRIPTION >

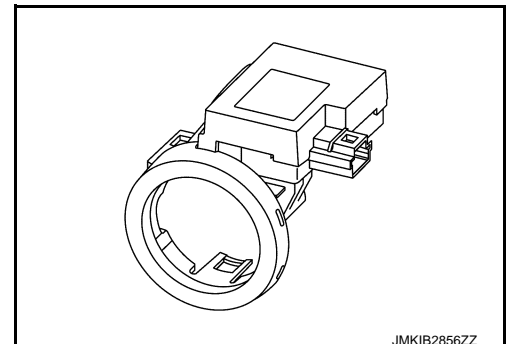
[WITHOUT INTELLIGENT KEY SYSTEM]

No.	Component	Function
①	Rear door switch RH	Door switch detects door open/close condition and then transmits ON/OFF signal to BCM.
②	Front door switch (passenger side)	Door switch detects door open/close condition and then transmits ON/OFF signal to BCM.
③	Hood switch	Refer to <a href="#">SEC-213, "Hood Switch"</a> .
④	ECM	ECM controls the engine. When ignition switch is turned ON, BCM starts communication with ECM and performs the ID verification between BCM and ECM. If the verification result is OK, the engine can start. If the verification result is NG, the engine cannot start. Refer to <a href="#">EC-28, "ENGINE CONTROL SYSTEM : Component Parts Location"</a> (MR20DD), <a href="#">EC-440, "Component Parts Location"</a> (QR25DE) or <a href="#">EC-812, "Component Parts Location"</a> (R9M) for detailed installation location.
⑤	IPDM E/R	Starter control relay and starter relay are integrated in IPDM E/R, and used for the engine starting function. Starter relay is controlled by BCM, and starter control relay is controlled by-IPDM E/R while communicating with BCM. IPDM E/R sends the starter control relay and starter relay status signal to BCM. Refer to <a href="#">PCS-5, "Component Parts Location"</a> for detailed installation location.
⑥	BCM	BCM controls Nissan Anti-Theft System (NATS). BCM performs ID verification between BCM and ECM when ignition switch is turned ON. If the ID verification result is OK, ECM can start engine. Refer to <a href="#">BCS-6, "BODY CONTROL SYSTEM : Component Parts Location"</a> for detailed installation location.
⑦	Combination meter	Security indicator lamp is located on combination meter. Security indicator lamp blinks when ignition switch is in any position other than ON to warn that Nissan Anti-Theft System (NATS) is on board.
⑧	Front door switch (driver side)	Door switch detects door open/close condition and then transmits ON/OFF signal to BCM.
⑨	Rear door switch LH	Door switch detects door open/close condition and then transmits ON/OFF signal to BCM.
⑩	Back door lock assembly	Back door switch is integrated into back door lock assembly. Back door switch detects back door open/close condition, and then transmits ON/OFF signal to BCM. Refer to <a href="#">DLK-643, "Component Parts Location"</a> (TYPE3) or <a href="#">DLK-794, "Component Parts Location"</a> (TYPE4) for detailed installation location.
⑪	Intruder sensor	Refer to <a href="#">SEC-213, "Intruder Sensor"</a> .
⑫	Sensor cancel switch	Refer to <a href="#">SEC-213, "Sensor Cancel Switch"</a> .
⑬	NATS antenna amp.	Refer to <a href="#">SEC-212, "NATS Antenna Amp."</a> .
⑭	Starter control relay	BCM controls the starter control relay according to a starter control relay request signal from ECM.

## NATS Antenna Amp.

INFOID:000000010922264

The ID verification is performed between BCM and ignition key via NATS antenna amp. when ignition switch is turned ON. If an unregistered ID of ignition key is used, the operation of the starting engine is prohibited.



## COMPONENT PARTS

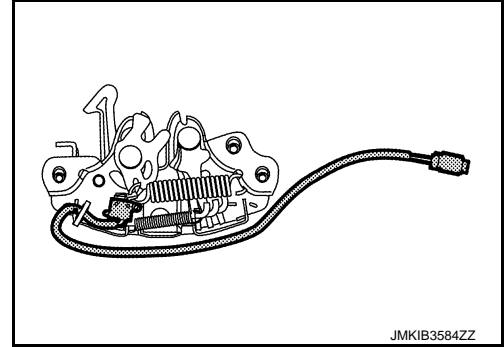
< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

### Hood Switch

INFOID:0000000011009614

Hood switch 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.



### Siren Control Unit

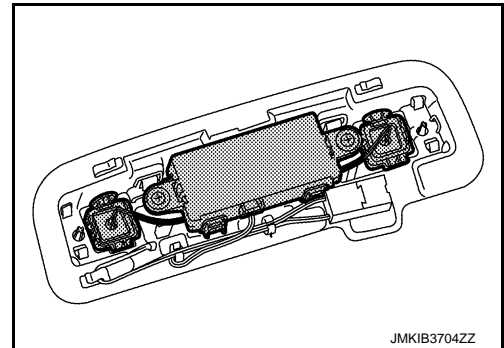
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Siren control unit monitors the vehicle condition and controls the vehicle security system.

### Intruder Sensor

INFOID:0000000011009616

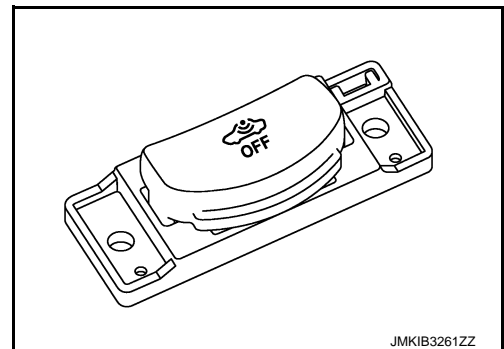
Intruder sensor detects a movement entering passenger compartment, then transmits the signal to siren control unit.



### Sensor Cancel Switch

INFOID:0000000011009617

BCM deactivates intruder sensor for the vehicle security system when BCM receives sensor cancel switch ON signal.



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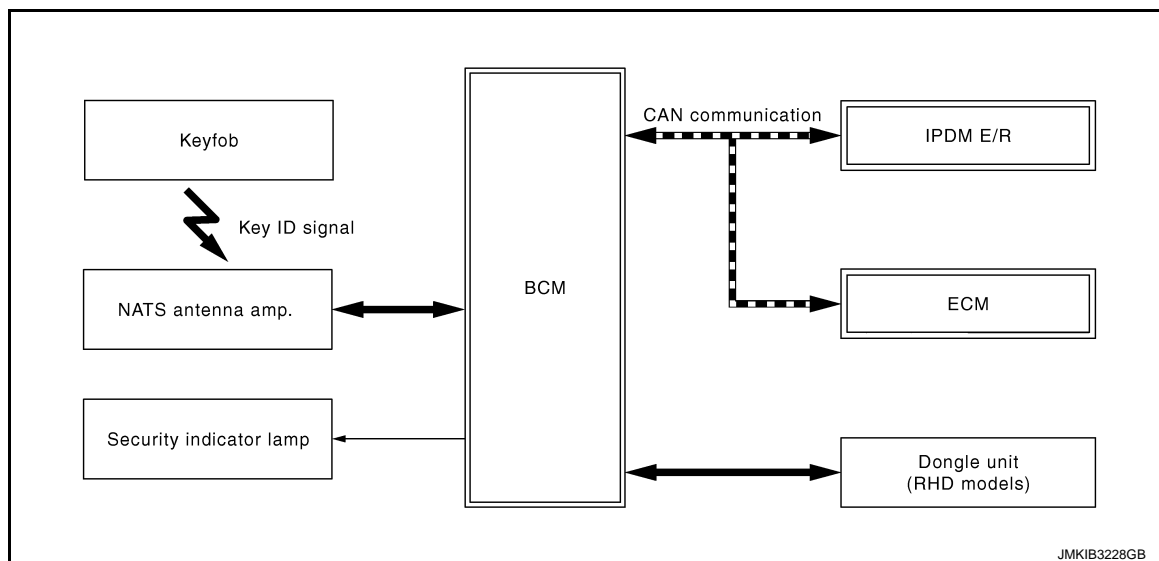
## SYSTEM

## NISSAN ANTI-THEFT SYSTEM

## NISSAN ANTI-THEFT SYSTEM : System Description

INFOID:0000000010922265

## SYSTEM DIAGRAM



## SYSTEM DESCRIPTION

Nissan Anti-Theft System (NATS) has the following immobilizer functions:

- NATS shows high anti-theft performance to prevent engine from starting by anyone other than the owner who has the registered ignition key.
- The ignition key has NATS ID and only ignition key which has the same ID as the ID registered in BCM and ECM can start engine. This makes high anti-theft performance to prevent the vehicle from being stolen using a copied ignition key.
- Security indicator lamp always blinks when ignition switch is in any position other than ON. Therefore, NATS warns outsiders that the vehicle is equipped with the anti-theft system.
- If the system detects a malfunction, security indicator lamp illuminates when ignition switch is turned ON.
- If the owner requires, ignition key ID can be registered for up to 5 keys.
- During trouble diagnosis, when additional ignition key is needed, or when the following components are replaced, the ID registration is required.
  - BCM
  - Ignition key
- Possible symptom of NATS malfunction is "Engine cannot start". The engine also cannot be started because of other than the NATS malfunction, so start the trouble diagnosis according to [SEC-259. "Work Flow"](#).
- If ECM other than Genuine NISSAN parts is installed, the engine cannot be started. For ECM replacement procedure, refer to [EC-430. "Removal and Installation"](#) (MR20DD), [EC-806. "Removal and Installation"](#) (QR25DE) or [EC-1226. "Removal and Installation"](#) (R9M).

## SECURITY INDICATOR LAMP

- Security indicator lamp is located on combination meter and warns that the vehicle is equipped with NATS.
- Security indicator lamp always blinks, when the ignition switch is in any position other than ON.
- Security indicator lamp turns OFF when the ignition switch is turned ON.

## OPERATION WHEN IGNITION KEY IS INSERTED INTO IGNITION KEY CYLINDER

1. When ignition switch is turned ON, BCM activates NATS antenna amp. to start NATS ID verification with the ignition key (transponder is integrated).
2. BCM receives the NATS ID signal from ignition key via NATS antenna amp. and verifies it with the registered ID.
3. When the NATS ID verification result is OK, BCM performs the ID verification between BCM and ECM.
4. When the verification result is OK, BCM transmits the verification OK signal to ECM, and then ECM can start the engine.

# SYSTEM

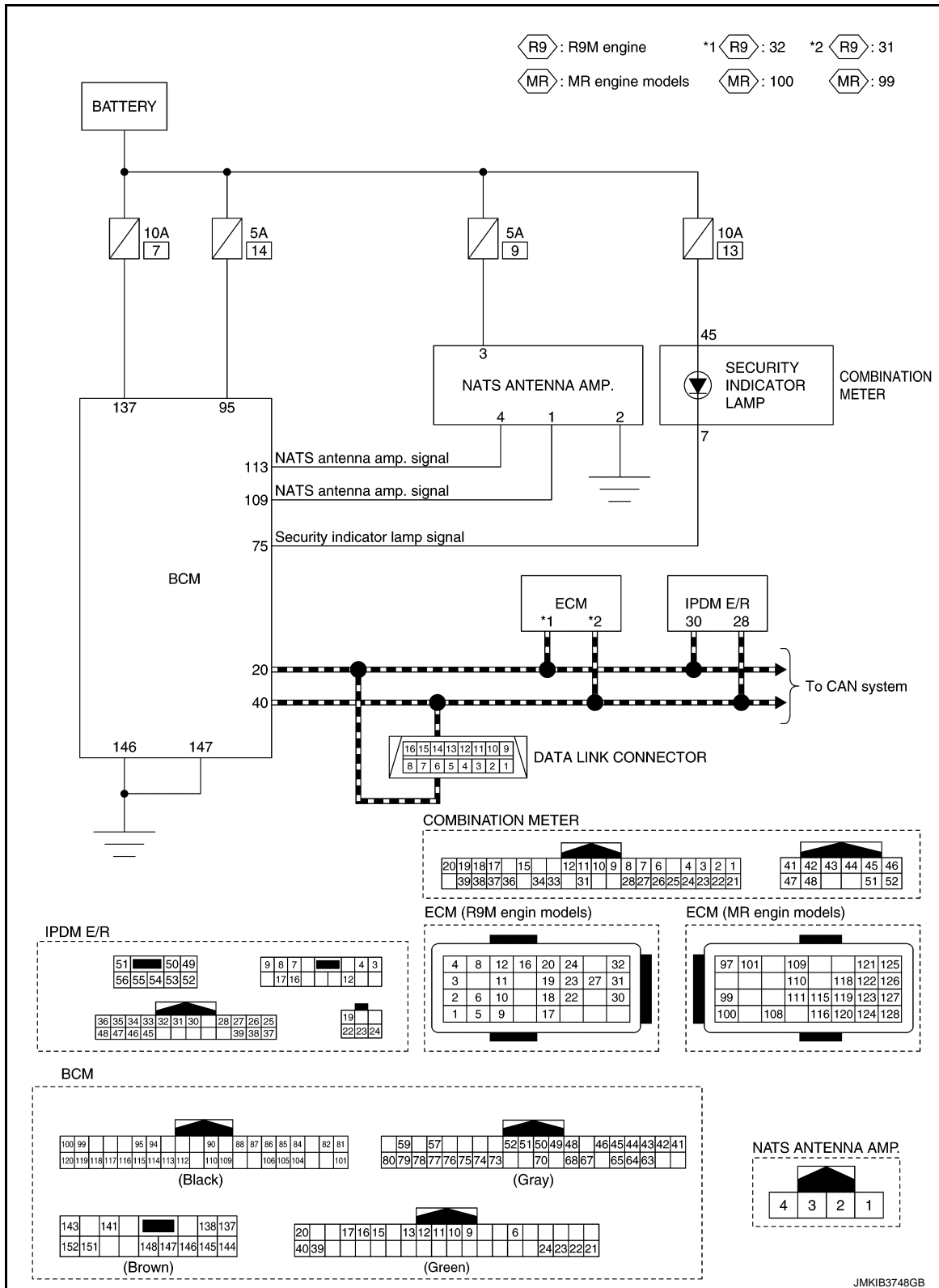
< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## NISSAN ANTI-THEFT SYSTEM : Circuit Diagram

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LHD models



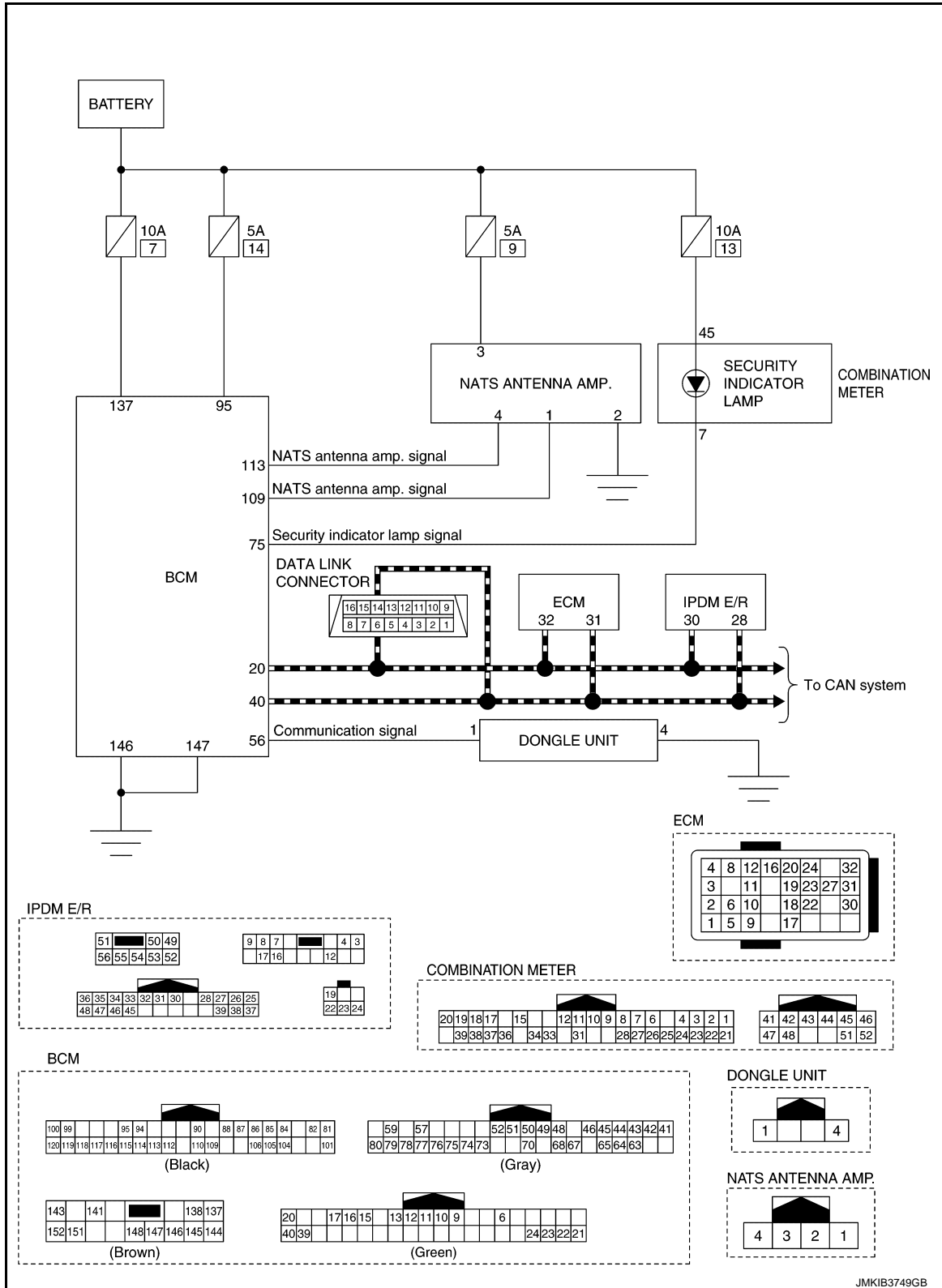
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# SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

RHD models



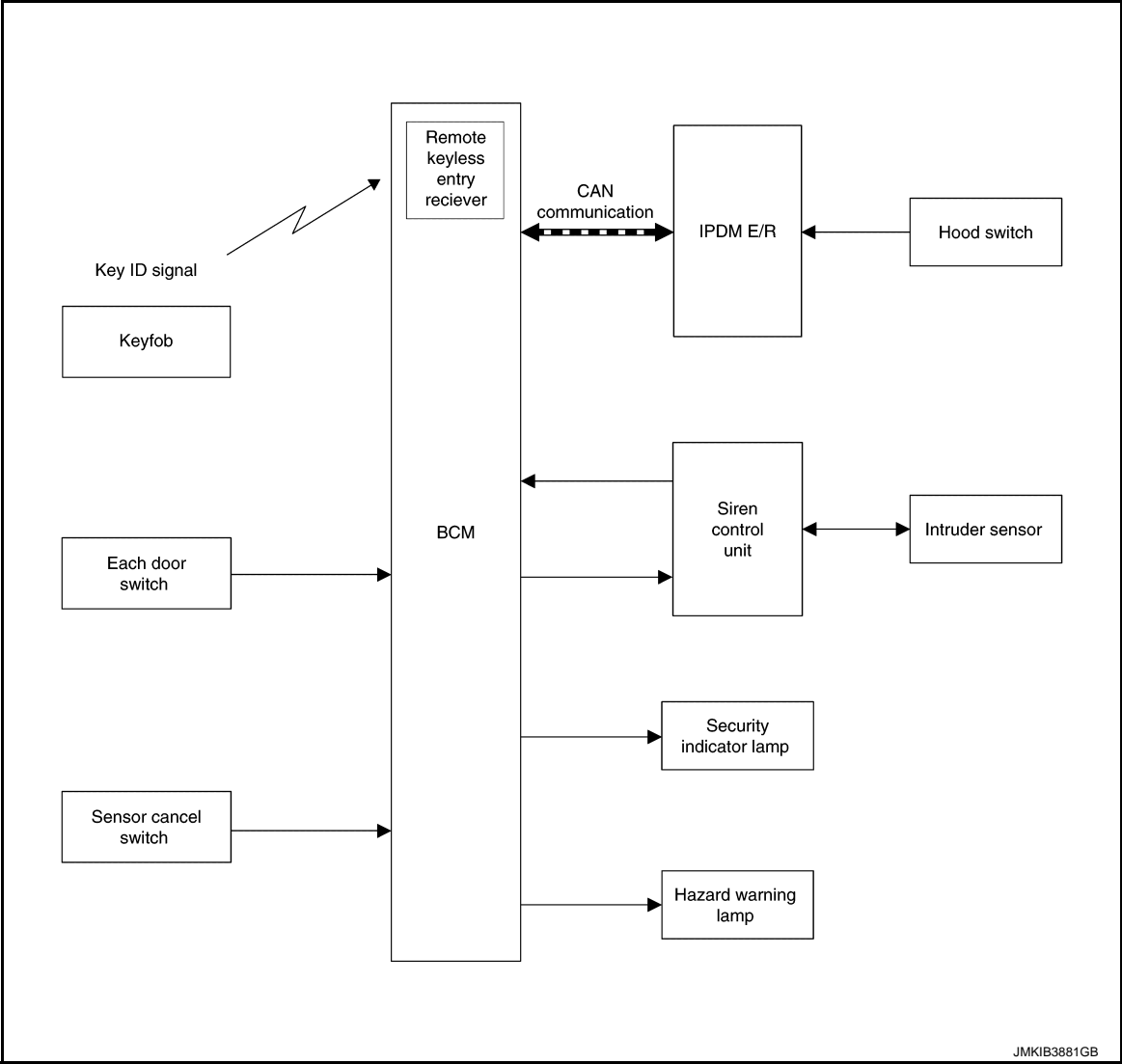
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VEHICLE SECURITY SYSTEM

VEHICLE SECURITY SYSTEM : System Description

INFOID:0000000010926585

SYSTEM DIAGRAM



BCM INPUT/OUTPUT SIGNAL CHART

Input Signal Item

Transmit unit	Signal name	
IPDM E/R	CAN communication	Hood switch signal
Each door switch	Door switch signal	
Siren control unit	Hazard warning signal	
Sensor cancel switch	Sensor cancel switch signal	

Output Signal Item

Reception unit	Signal name
Combination meter (security indicator lamp)	Security indicator lamp signal
Siren control unit	Alarm link signal
Hazard warning lamp	Hazard warning lamp signal

SYSTEM DESCRIPTION

# SYSTEM

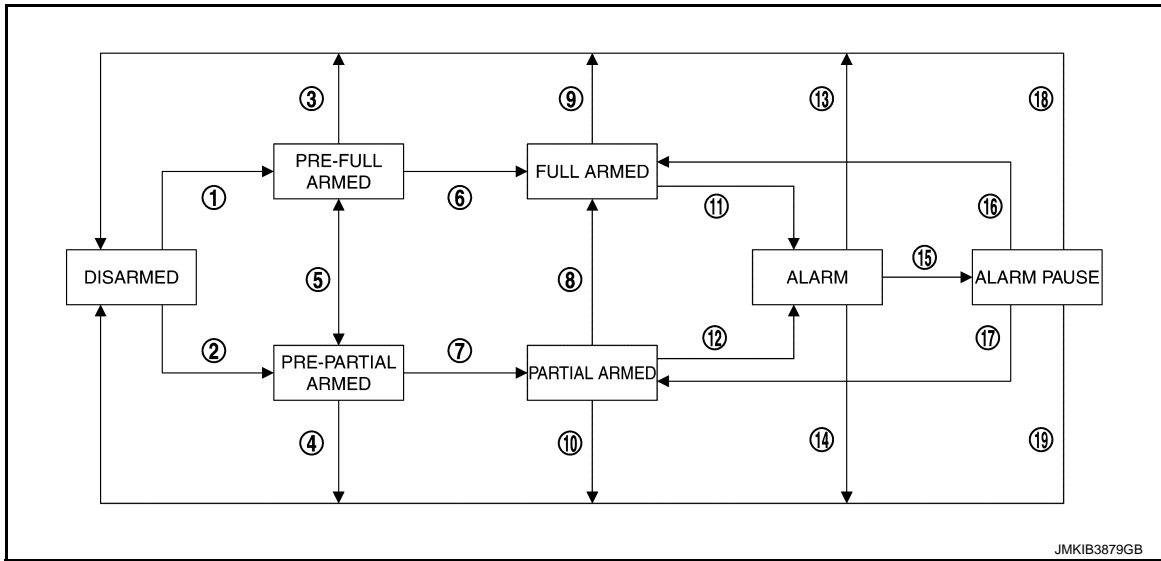
## < SYSTEM DESCRIPTION >

## [WITHOUT INTELLIGENT KEY SYSTEM]

- The system reduces the possibility of a theft or mischief by sounding siren and blinking hazard warning lamp continuously. The system activates siren and hazard warning lamp when detecting that the door or hood is opened, or there is an illegal attempt to enter into the passenger room, while the system is in the ARMED phase.
- Security indicator lamp on combination meter always blinks when ignition switch is any position other than ON to warn that the vehicle is equipped with a VEHICLE SECURITY SYSTEM.
- Anti-theft function is improved by the adoption of intruder sensor that detects an attempt to enter into the passenger room.
- Activation or deactivation of intruder sensor can be selected by sensor cancel switch.
- Siren control unit equips a built-in battery. Replace siren control unit once every 10 years because the warranty for built-in battery expires after 10 years.
- Each time the system switches to the ARMED phase from the PRE-ARMED phase, the self-diagnosis is performed by the siren control unit and each sensor. If any malfunction is detected, the siren sounds\* 5 times to inform the driver that a malfunction is detected and the vehicle security system does not function properly. Malfunctioning part can be checked by "SIREN" in "ACTIVE TEST" mode of "THEFT ALM" of "BCM" using CONSULT. Refer to [SEC-238. "Diagnosis Description"](#).

\*: Siren sounds for 0.2 seconds and sound interval is 0.4 seconds.

### Operation Flow



No.	System state	Switching condition	
①	DISARMED to PRE-FULL ARMED	When all conditions of A and one condition of B is satisfied.	A
			<ul style="list-style-type: none"> <li>Ignition switch: OFF</li> <li>All doors: Closed</li> <li>Hood: Closed</li> </ul>
②	DISARMED to PRE-PARTIAL ARMED	When all conditions of A and one condition of B is satisfied.	B
			<ul style="list-style-type: none"> <li>All doors are locked by: <ul style="list-style-type: none"> <li>LOCK button of Keyfob</li> </ul> </li> </ul>
③	PRE-FULL ARMED to DIS-ARMED	When one of the following condition is satisfied.	A
			<ul style="list-style-type: none"> <li>Ignition switch: ON</li> <li>UNLOCK button of Keyfob: ON</li> </ul>
④	PRE-PARTIAL ARMED to DIS-ARMED	When one of the following condition is satisfied.	B
			<ul style="list-style-type: none"> <li>All doors are locked by: <ul style="list-style-type: none"> <li>LOCK button of Keyfob</li> </ul> </li> </ul>
⑤	PRE-PARTIAL ARMED to PRE-FULL ARMED	When all of the following conditions are satisfied.	A
			<ul style="list-style-type: none"> <li>All doors: Closed</li> <li>Hood: Closed</li> </ul>
⑥	PRE-FULL ARMED to PRE-PARTIAL ARMED	When one of the following condition is satisfied.	B
			<ul style="list-style-type: none"> <li>Any door: Opened</li> <li>Hood: Opened</li> </ul>

# SYSTEM

## < SYSTEM DESCRIPTION >

## [WITHOUT INTELLIGENT KEY SYSTEM]

No.	System state	Switching condition	
⑥	PRE-FULL ARMED to FULL ARMED	When all of the following conditions are satisfied for 20 seconds.	<ul style="list-style-type: none"><li>• Ignition switch: OFF</li><li>• All doors: Closed</li><li>• Hood: Closed</li></ul>
⑦	PRE-PARTIAL ARMED to PARTIAL ARMED	When all of the following conditions are satisfied for 20 seconds.	<ul style="list-style-type: none"><li>• Ignition switch: OFF</li></ul>
⑧	PARTIAL to FULL ARMED	When all of the following conditions are satisfied for 20 seconds.	<ul style="list-style-type: none"><li>• Ignition switch: OFF</li><li>• All doors: Closed</li><li>• Hood: Closed</li></ul>
⑨	FULL ARMED to DISARMED	When one of the following condition is satisfied.	<ul style="list-style-type: none"><li>• Ignition switch: ON</li><li>• UNLOCK button of Keyfob: ON</li></ul>
⑩	PARTIAL ARMED to DISARM		
⑪	FULL ARMED to ALARM	When one of the following condition is detected.	<ul style="list-style-type: none"><li>• Any door or hood is opened</li><li>• Battery is connect and disconnect</li><li>• Movement to enter into passenger room</li><li>• Communication between BCM and siren control unit is interrupted</li><li>• Communication between siren control unit and intruder sensor is interrupted</li></ul>
⑫	PARTIAL ARMED to ALARM	When one of the following condition is detected.	<ul style="list-style-type: none"><li>• Any door or hood is opened</li><li>• Battery is connect and disconnect</li><li>• Communication between BCM and siren control unit is interrupted</li><li>• Communication between siren control unit and intruder sensor is interrupted</li></ul>
⑬	ALARM to DISARMED	When one of the following condition is satisfied.	<ul style="list-style-type: none"><li>• Ignition switch: ON</li><li>• UNLOCK button of Keyfob: ON</li></ul>
⑭			
⑮	ALARM to ALARM PAUSE	27.5 seconds are passed.	
⑯	ARM PAUSE to FULL ARMED	5 seconds are passed after deactivating ALARM.	
⑰	ARM PAUSE to PARTIAL ARMED		
⑱	ALARM PAUSE to DISARMED	When one of the following condition is satisfied.	<ul style="list-style-type: none"><li>• Ignition switch: ON</li><li>• UNLOCK button of Keyfob: ON</li></ul>
⑲			

### NOTE:

- To lock/unlock all doors by operating remote controller button of Keyfob for details, refer to [DLK-646. "System Description"](#).

### Disarmed Phase

VEHICLE SECURITY SYSTEM switches to the DISARMED phase while any doors or hood is open because it is assumed that the owner is in or nearby the vehicle.

### Pre-armed Phase

- VEHICLE SECURITY SYSTEM switches to the PRE-ARMED phase and blinks security indicator lamp quickly for approximately 20 seconds when all doors are locked by Keyfob, while all doors and hood are closed.
- VEHICLE SECURITY SYSTEM that is in the PRE-ARMED phase switches to the DISARMED phase when all doors are unlocked by Keyfob.
- VEHICLE SECURITY SYSTEM does not activate siren when door or hood is open while VEHICLE SECURITY SYSTEM is in the PRE-ARMED phase. When the door or hood is closed again, VEHICLE SECURITY SYSTEM stays in the PRE-ARMED phase.

### Armed Phase

VEHICLE SECURITY SYSTEM switches to the ARMED phase from the PRE-ARMED phase after approximately 20 seconds, and blinks security indicator lamp slowly.

### Alarm Phase

# SYSTEM

## < SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

- VEHICLE SECURITY SYSTEM activates siren for approximately 27.5 seconds when any of the following conditions is fulfilled while VEHICLE SECURITY SYSTEM is in the ARMED phase.
  - When any door or hood is open
  - When intruder sensor detects an attempt to enter into passenger compartment
  - When battery connection is disconnected
  - Communication between BCM and siren control unit is interrupted
  - Communication between siren control unit and intruder sensor is interrupted
- VEHICLE SECURITY SYSTEM deactivates siren when door is unlocked by Keyfob or ignition switch is turn ON position while siren is activated.
- VEHICLE SECURITY SYSTEM switches to the ARMED phase automatically when approximately 5 seconds pass after deactivating siren.

## SENSOR CANCEL FUNCTION

Perform the following procedure to deactivate intruder sensor.

### **1.** CHECK SENSOR CANCEL FUNCTION

1. Turn ignition switch OFF.
2. Press sensor cancel switch, and before 5 minutes pass, close all doors and hood, and lock all doors using the Keyfob.
3. Check that VEHICLE SECURITY SYSTEM is switched to the PRE-ARMED phase and that the siren sounds one beep.

#### **NOTE:**

Intruder sensor is not cancelled and return to normal operation when any of the following conditions is fulfilled while the cancellation procedure is being performed.

- When ignition switch turns ON.
- When 5 minutes or more pass after pressing sensor cancel switch.
- When VEHICLE SECURITY SYSTEM switches to the DISARMED phase.

Does security indicator lamp blink quickly?

YES >> INSPECTION END  
NO >> Check again.

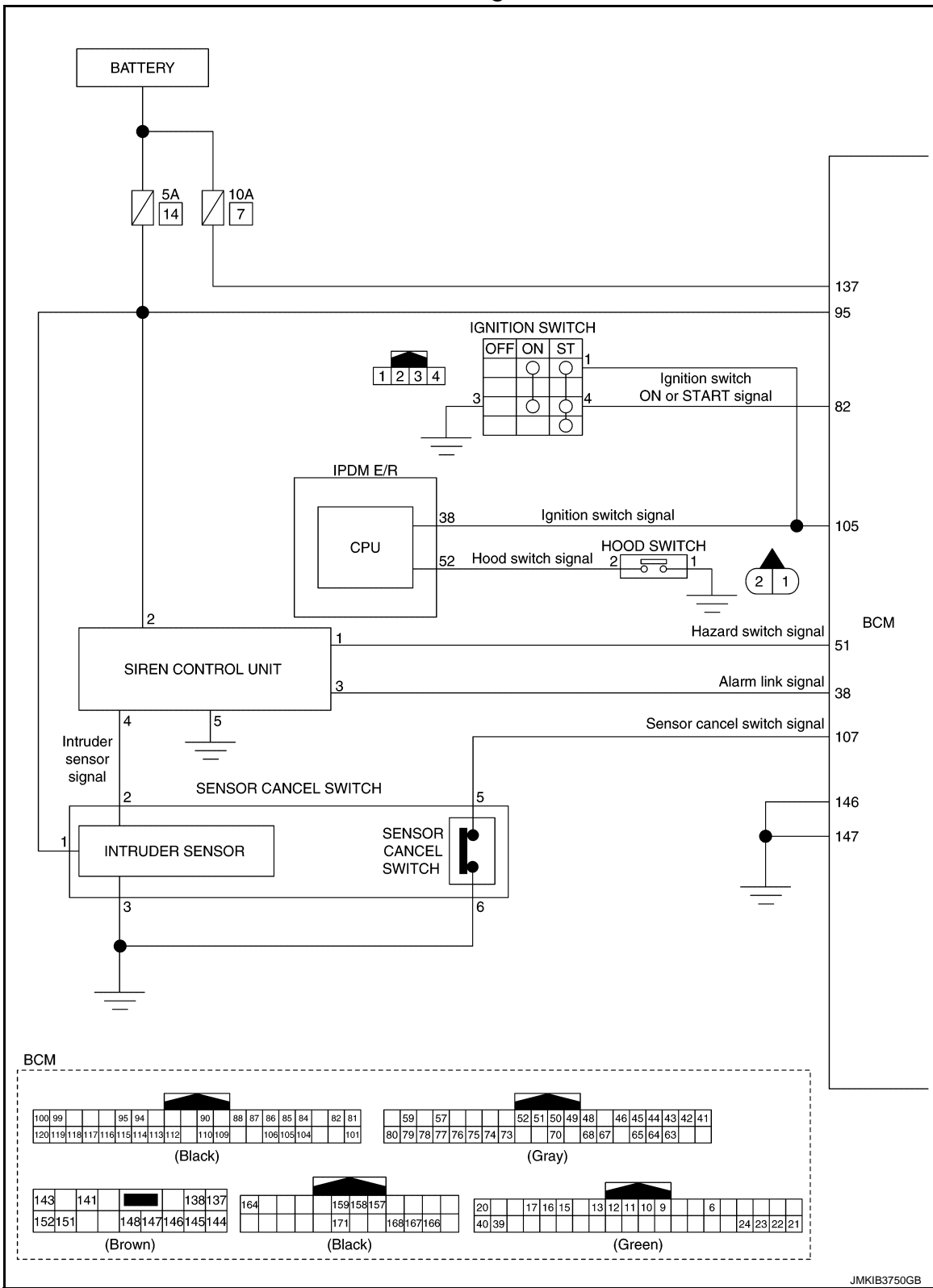
# SYSTEM

## < SYSTEM DESCRIPTION >

**[WITHOUT INTELLIGENT KEY SYSTEM]**

## VEHICLE SECURITY SYSTEM : Circuit Diagram

INFOID:0000000011008685



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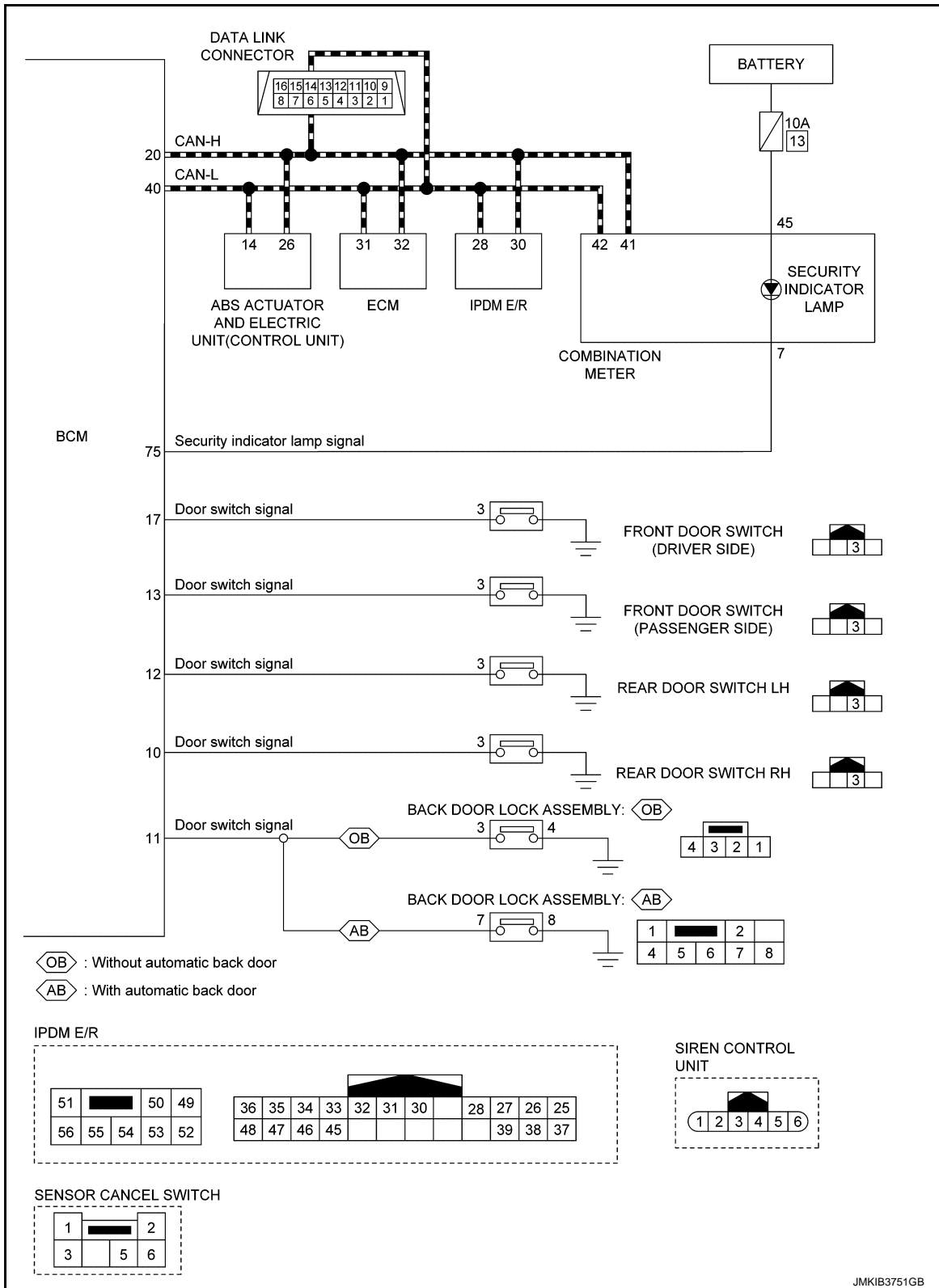
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# SYSTEM

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]




WARNING/INDICATOR/CHIME LIST

WARNING/INDICATOR/CHIME LIST : Warning Lamp/Indicator Lamp

INFOID:0000000010922267

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Item	Design	Reference
Security indicator lamp		For layout, refer to <a href="#">MWI-10, "METER SYSTEM : Design"</a> .
		For function, refer to <a href="#">MWI-55, "WARNING LAMPS/INDICATOR LAMPS : Security Indicator Lamp (Turn ON)"</a> or <a href="#">MWI-56, "WARNING LAMPS/INDICATOR LAMPS : Security Indicator Lamp (Blinks)"</a> .

# DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## DIAGNOSIS SYSTEM (BCM)

### COMMON ITEM

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

INFOID:0000000011009391

#### APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
Work Support	Changes the setting for each system function.
Self Diagnostic Result	Displays the diagnosis results judged by BCM.
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from BCM.
Data Monitor	The BCM input/output signals are displayed.
Active Test	The signals used to activate each device are forcibly supplied from BCM.
Ecu Identification	The BCM part number is displayed.
Configuration	<ul style="list-style-type: none"> <li>Read and save the vehicle specification.</li> <li>Write the vehicle specification when replacing BCM.</li> </ul>

#### SYSTEM APPLICATION

BCM can perform the following functions for each system.

#### NOTE:

It can perform the diagnosis modes except the following for all sub system selection items.

×: Applicable item

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

#### NOTE:

\*: This item is displayed, but not used.

#### FREEZE FRAME DATA (FFD)

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

# DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

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

## MULTI REMOTE ENT

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

INFOID:0000000011009389

## WORK SUPPORT

Test item	Description
AUTO LOCK SET	Auto door lock time can be changed in this mode <ul style="list-style-type: none"> <li>• MODE 1: Non-operation</li> <li>• MODE 2: 30 sec.</li> <li>• MODE 3: 1 minute</li> <li>• MODE 4: 2 minute</li> <li>• MODE 5: 3 minute</li> <li>• MODE 6: 4 minute</li> <li>• MODE 7: 5 minute</li> </ul>
ANSWER BACK	<b>NOTE:</b> This item is displayed, but cannot be used
ANSWER BACK KEYLESS LOCK UNLOCK	<b>NOTE:</b> This item is displayed, but cannot be used
WELCOME LIGHT OP SET	<b>NOTE:</b> This item is displayed, but cannot be used

## DATA MONITOR

### NOTE:

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

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

# DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Monitor Item	Condition
BRAKE SW 2	Indicates [On/Off] condition of stop lamp switch
START CLUTCH SW	Indicates [On/Off] condition of clutch pedal position switch
DOOR STAT-DR	Indicates [LOCK/READY/UNLK] condition of driver door status
DOOR STAT-AS	Indicates [LOCK/READY/UNLK] condition of passenger door status
DOOR STAT-RR	Indicates [LOCK/READY/UNLK] condition of rear door RH status
DOOR STAT-RL	Indicates [LOCK/READY/UNLK] condition of rear door LH status
BK DOOR STATE	<b>NOTE:</b> This item is displayed, but cannot be monitored
STOP/START SW	Indicates [On/Off] condition of stop/start off switch
RKE-LOCK	Indicates [On/Off] condition of LOCK signal from keyfob
RKE-UNLOCK	Indicates [On/Off] condition of UNLOCK signal from keyfob
RKE-TR/BD	<b>NOTE:</b> This item is displayed, but cannot be monitored
RKE-PANIC	<b>NOTE:</b> This item is displayed, but cannot be monitored
RKE-MODE CHG	Indicates [On/Off] condition of MODE CHANGE signal from keyfob
KEY SW	Indicates [On/Off] condition of key switch
IGN SW	Indicates [On/Off] condition of ignition switch in ON position
START SW	Indicates [On/Off] condition of ignition switch in START position

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

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

## ACTIVE TEST

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

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

INFOID:000000011009390

WORK SUPPORT

# DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Test item	Description
AUTO LOCK SET	Auto door lock time can be changed in this mode <ul style="list-style-type: none"> <li>• MODE 1: Non-operation</li> <li>• MODE 2: 30 sec.</li> <li>• MODE 3: 1 minute</li> <li>• MODE 4: 2 minute</li> <li>• MODE 5: 3 minute</li> <li>• MODE 6: 4 minute</li> <li>• MODE 7: 5 minute</li> </ul>
ANSWER BACK	<b>NOTE:</b> This item is displayed, but cannot be used
ANSWER BACK KEYLESS LOCK UNLOCK	<b>NOTE:</b> This item is displayed, but cannot be used
WELCOME LIGHT OP SET	<b>NOTE:</b> This item is displayed, but cannot be used

## DATA MONITOR

### NOTE:

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

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

# DIAGNOSIS SYSTEM (BCM)

## < SYSTEM DESCRIPTION >

## [WITHOUT INTELLIGENT KEY SYSTEM]

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

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

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

## ACTIVE TEST

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

## THEFT ALM

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

INFOID:0000000010926640

## DATA MONITOR

### NOTE:

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

Monitored Item	Description
DOOR SW-DR	Indicates [ON/OFF] condition of front door switch (driver side).
DOOR SW-AS	Indicates [ON/OFF] condition of front door switch (passenger side).
DOOR SW-RR	Indicates [ON/OFF] condition of rear door switch RH.
DOOR SW-RL	Indicates [ON/OFF] condition of rear door switch LH.
DOOR SW-BK	Indicates [ON/OFF] condition of back door switch.
CDL LOCK SW	Indicates [ON/OFF] condition of lock signal from door lock/unlock switch.
CDL UNLOCK SW	Indicates [ON/OFF] condition of unlock signal from door lock/unlock switch.
KEY CYL LK-SW	<b>NOTE:</b> This item is indicated, but not monitored.
KEY CYL UN-SW	<b>NOTE:</b> This item is indicated, but not monitored.

# DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

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

## WORK SUPPORT

Service Item	Description
SECURITY ALARM SET	This mode is able to confirm and change vehicle security alarm ON-OFF setting.
SIREN SET	Select the siren function ON or OFF, and siren type. <ul style="list-style-type: none"> <li>• MODE 1: Without siren</li> <li>• MODE 2: With siren</li> <li>• MODE 3: With external complete protection (with siren)</li> <li>• MODE 4: Without any external protection (with siren)</li> <li>• MODE 5: Without external tilt protection (with siren)</li> </ul>

## ACTIVE TEST

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

## IMMU

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

INFOID:0000000010926641

SEC

## WORK SUPPORT

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

## ACTIVE TEST

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

## DIAGNOSIS SYSTEM (IPDM E/R)

## CONSULT Function (IPDM E/R)

INFOID:0000000011009392

## APPLICATION ITEM

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

Diagnosis mode	Description
Self Diagnostic Result	Displays the diagnosis results judged by IPDM E/R.
Data Monitor	Displays the real-time input/output data from IPDM E/R input/output data.
Work Support	Changes the setting for each system function.
Active Test	IPDM E/R can provide a drive signal to electronic components to check their operations.
Ecu Identification	Allows confirmation of IPDM E/R part number.
Configuration	<ul style="list-style-type: none"> <li>Read and save the vehicle specification.</li> <li>White the vehicle specification when replacing IPDM E/R.</li> </ul>
CAN Diag Support Monitor	The results of transmit/receive diagnosis of CAN communication can be read.

## SELF DIAGNOSTIC RESULT

Refer to [PCS-38, "DTC Index"](#).

## Freeze Frame Data (FFD)

The IPDM E/R records the vehicle condition at the time a particular DTC is detected, and displays on CONSULT.

## DATA MONITOR

**NOTE:**

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

Monitor Item [Unit]	Description
REVERSE SIGNAL [Open/Close]	Displays the status of reverse position signal judged by IPDM E/R.
IGN RELAY [Open/Close]	Displays the status of the ignition relay judged by IPDM E/R.
PUSH SW [Open/Close]	Displays the status of the push-button ignition switch judged by IPDM E/R.
NEUTRAL SW [Open/Close]	Displays the status of the neutral position signal (M/T) judged by IPDM E/R.
INTERLOCK/PNP SW [Open/Close]	Displays the status of the transmission range switch (CVT) judged by IPDM E/R.
OIL PRESSURE SW [Open/Close]	Displays the status of the oil pressure switch judged by IPDM E/R.
LED H/L RH STATUS [Open/Close]	Displays the LED headlamp (right) ON/OFF status judged by IPDM E/R. <b>NOTE:</b> This item is monitored only on the vehicle with LED headlamp.
LED H/L LH STATUS [Open/Close]	Displays the LED headlamp (left) ON/OFF status judged by IPDM E/R. <b>NOTE:</b> This item is monitored only on the vehicle with LED headlamp.
HOOD SW [Open/Close]	Displays the status of the hood switch judged by IPDM E/R.
COMPRESSOR [Off/On]	Displays the compressor drive status judged by IPDM E/R.
H/L WASHER PUMP [Off/On]	Displays the status of the headlamp washer relay judged by IPDM E/R.

# DIAGNOSIS SYSTEM (IPDM E/R)

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Monitor Item [Unit]	Description
HORN RELAY [Off/On]	Displays the status of the horn relay judged by IPDM E/R.
COOLING FAN [Off/On]	Displays the cooling fan relay-4 drive status judged by IPDM E/R.
FRONT WIPER HI/LO RELAY [Off/On]	Displays the front wiper HI/LO relay drive status judged by IPDM E/R.
FRONT WIPER RELAY [Off/On]	Displays the front wiper relay drive status judged by IPDM E/R.
IGN RELAY OFF STATUS [Off/On]	Displays the status of the ignition relay OFF circuit judged by IPDM E/R.
IGN RELAY ON STATUS [Off/On]	Displays the status of the ignition relay ON circuit judged by IPDM E/R.
STEERING LOCK PWR SPLY [Off/On]	Displays the power supply status from IPDM E/R to the steering lock unit. <b>NOTE:</b> This item is monitored only on the vehicle with Intelligent Key system
HEIGHT SENSOR PWR SPLY [Off/On]	Displays the power supply status from IPDM E/R to the height sensor.
COOLING FAN RELAY 1 [Off/On]	Displays the status of the cooling fan relay-1 judged by IPDM E/R.
STARTER RELAY [Off/On]	Displays the status of the starter relay judged by IPDM E/R.
COMP ECV DUTY [%]	Displays the compressor control signal (PWM) status of IPDM E/R.
COOLING FAN RELAY 2 [%]	Displays the status of the cooling fan relay-5 judged by IPDM E/R.
FR FOG LAMP LH [%]	Displays the front fog lamp (left) output (PWM) status of IPDM E/R.
FR FOG LAMP RH [%]	Displays the front fog lamp (right) output (PWM) status of IPDM E/R.
LEVELIZER OUTPUT [%]	Displays the aiming motor drive signal (PWM) status of IPDM E/R.
PARKING LAMP [%]	Displays the parking lamp output (PWM) status of IPDM E/R.
TAIL LAMP LH [%]	Displays the tail lamp (left) output (PWM) status of IPDM E/R.
TAIL LAMP RH [%]	Displays the tail lamp (right) output (PWM) status of IPDM E/R.
DAYTIME RUNNING LIGHT LH [%]	Displays the daytime running light (left) output status of IPDM E/R.
DAYTIME RUNNING LIGHT RH [%]	Displays the daytime running light (right) output status of IPDM E/R.
HEADLAMP (HI) LH [%]	Displays the headlamp (HI) (left) output (PWM) status of IPDM E/R.
HEADLAMP (HI) RH [%]	Displays the headlamp (HI) (right) output (PWM) status of IPDM E/R.
HEADLAMP (LO) LH [%]	Displays the headlamp (LO) (left) output (PWM) status of IPDM E/R.
HEADLAMP (LO) RH [%]	Displays the headlamp (LO) (right) output (PWM) status of IPDM E/R.
A/C RELAY STUCK [OK/NG]	Displays the ON stuck status of the A/C relay judged by IPDM E/R.

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# DIAGNOSIS SYSTEM (IPDM E/R)

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Monitor Item [Unit]	Description
A/C RELAY [Off/On]	Displays the status of the A/C relay judged by IPDM E/R.
COMP ECV STATUS [OK/NG]	Displays the compressor malfunction diagnosis status judged by IPDM E/R.
VEHICLE SECURITY HORN [Off/On]	<b>NOTE:</b> The item is indicated, but not monitored.
BATTERY CURRENT SENSOR [OK/NG]	Displays the battery current sensor malfunction diagnosis status judged by IPDM E/R.
FRONT FOG LAMP [Off/On]	Displays the fog lamp illumination control status of IPDM E/R.
COMP ECV CURRENT [A]	Displays the electric current output to compressor judged by IPDM E/R.
BATTERY VOLTAGE [V]	Displays the status of the battery voltage judged by IPDM E/R.
COOLING FAN DUTY [%]	Displays the cooling fan output signal status of IPDM E/R.
HOOD SW (CAN) [Open/Close/NG]	Displays the status of the hood switch judged by IPDM E/R.
FRONT WIPER [STOP/HIGH/LOW/NG]	Displays the front wiper motor drive control status of IPDM E/R.
FR WIPER STOP POSITION [ACTIVE P/STOP P]	Displays the status of the front wiper position status judged by IPDM E/R.
HEADLAMP (HI) [Off/On]	Displays the headlamp (HI) illumination control status of IPDM E/R.
HEADLAMP (LO) [Off/On]	Displays the headlamp (LO) illumination control status of IPDM E/R.
IGNITION RELAY STATUS [Off/On]	Displays the ignition relay output status of IPDM E/R.
IGN RELAY MONITOR [Off/On]	Displays the status of the ignition relay judged by IPDM E/R.
IGNITION POWER SUPPLY [Off/On]	Displays the status of the ignition power supply judged by IPDM E/R.
INTERLOCK/PNP SW (CAN) [Off/On]	Displays the status of the transmission range switch signal that IPDM transmits via CAN communication.
NEUTRAL SWITCH (CAN) [Off/On/NG]	Displays the status of the neutral position switch (M/T) signal that IPDM transmits via CAN communication.
PUSH-BUTTON IGN SW (CAN) [Off/On]	Displays the status of the ignition switch signal that IPDM transmits via CAN communication.
TAIL LAMP [Off/On]	Displays the tail lamp illumination control status of IPDM E/R.
REVERSE SIGNAL (CAN) [Off/On/NG]	Displays the status of the reverse switch (M/T) signal that IPDM transmits via CAN communication.
ST&ST CONT RELAY STATUS [Off/Off, ON/ST R On]	Displays the status of the start control relay and start motor relay status judged by IPDM E/R.
STARTER MOTOR STATUS [Off/On/L-TIME]	Displays the status of the starter motor judged by IPDM E/R.
STARTER RELAY (CAN) [LOW/HIGH/NG]	Displays the status of the IPDM E/R transmits the starter control relay status signal via CAN communication.
IPDM NOT SLEEP [NO RDY/READY]	Displays the status of the IPDM E/R transmits the not sleep signal via CAN communication.

# DIAGNOSIS SYSTEM (IPDM E/R)

## < SYSTEM DESCRIPTION >

## [WITHOUT INTELLIGENT KEY SYSTEM]

Monitor Item [Unit]	Description
AFTER COOLING TIME [No request/0.5min/1.0min/1.5min/ 2.0min/2.5min/3.0min/3.5min/4min/5min/ 6min/8min/10min/12min/14min/16min]	<b>NOTE:</b> The item is indicated, but not monitored.
AFTER COOLING SPEED [0%/25%/40%/55%/70%/78%/85%/ 100%]	<b>NOTE:</b> The item is indicated, but not monitored.
COOLING FAN TYPE [RENAULT/NISSAN]	<b>NOTE:</b> The item is indicated, but not monitored.
COMPRESSOR REQ 1 [Off/On]	Displays the status of the A/C compressor request signal received from ECM via CAN communication.
VHCL SECURITY HORN REQ [Off/On]	<b>NOTE:</b> The item is indicated, but not monitored.
DTRL REQ [Off/On]	Displays the status of the daytime running light request signal received from BCM via CAN communication.
SLEEP/WAKE UP [SLEEP/WAKEUP]	<b>NOTE:</b> The item is indicated, but not monitored.
CLUTCH INTERLOCK SW [Off/On/NG]	<b>NOTE:</b> The item is indicated, but not monitored.
CRANKING ENABLE-TCM [OK/NG]	Displays the status of the cranking enable signal received from TCM via CAN communication.
CRANKING ENABLE-ECM [OK/NG/STOP/No request]	Displays the status of the cranking enable signal received from ECM via CAN communication.
CAN DIAGNOSIS [OK/NG]	Displays the status of the CAN diagnosis signal received from BCM via CAN communication.
FRONT FOG LAMP REQ [Off/On]	Displays the status of the front fog light request signal received from BCM via CAN communication.
H/L WASHER REQ [Off/On]	Displays the status of the headlamp washer request signal received from BCM via CAN communication.
PASSING REQ [Off/On]	<b>NOTE:</b> The item is indicated, but not monitored.
HIGH BEAM REQ [Off/On]	Displays the status of the high beam request signal received from BCM via CAN communication.
HORN CHIRP [Off/On]	Displays the status of the horn reminder signal received from BCM via CAN communication.
COOLING FAN REQ [%]	Displays the status of the cooling fan speed request signal received from ECM via CAN communication.
ENGINE STATUS [STOP/IDLING/RUN]	Displays the status of the engine status signal received from ECM via CAN communication.
TURN SIGNAL REQ [Off/LH/RH]	Displays the status of the turn indicator signal received from BCM via CAN communication.
FR WIPER REQ [RETURN/STOP/NG/LOW/HIGH]	Displays the status of the front wiper request signal received from BCM via CAN communication.
SHIFT POSITION [OFF/P/R/N/D/S/L/B/1/2/3/4/5/6/7]	Displays the status of the shift position signal received from TCM via CAN communication.
LOW BEAM REQ [Off/On]	Displays the status of the low beam request signal received from BCM via CAN communication.
POSITION LIGHT REQ [Off/On]	Displays the status of the position light request signal received from BCM via CAN communication.
COMPRESSOR REQ 2 [Off/On]	Displays the status of the A/C ON signal received from A/C auto amp. via CAN communication.
IGNITION SW [Off/On/START/No request]	Displays the status of the ignition switch ON signal and starter control relay request signal received from BCM via CAN communication.

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# DIAGNOSIS SYSTEM (IPDM E/R)

[WITHOUT INTELLIGENT KEY SYSTEM]

## < SYSTEM DESCRIPTION >

Monitor Item [Unit]	Description
VEHICLE SPEED (METER) [km/h]	Displays the status of the A/C ON signal received from A/C auto amp. via CAN communication.
BAT DISCHARGE COUNT [—]	Monitor the cumulative discharge value of the battery. <b>NOTE:</b> When 65,000 or more is counted, replace the battery.
P LAMP CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the parking lamp circuit. <b>NOTE:</b> When the number of parking lamp circuit retries count is 20, this item counts 1.
NMB P LAMP CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the parking lamp circuit. <b>NOTE:</b> When the number of short circuits in the parking lamp circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB P LAMP CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the parking lamp circuit.
DTRL LH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the daytime running light (left) circuit. <b>NOTE:</b> When the number of daytime running light (left) circuit retries count is 20, this item counts 1.
NMB DTRL LH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the daytime running light (left) circuit. <b>NOTE:</b> When the number of short circuits in the daytime running light (left) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB DTRL LH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the daytime running light (left) circuit.
DTRL RH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the daytime running light (right) circuit. <b>NOTE:</b> When the number of daytime running light (right) circuit retries count is 20, this item counts 1.
NMB DTRL RH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the daytime running light (right) circuit. <b>NOTE:</b> When the number of short circuits in the daytime running light (right) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB DTRL RH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the daytime running light (right) circuit.
F FOG LH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the front fog lamp (left) circuit. <b>NOTE:</b> When the number of front fog lamp (left) circuit retries count is 20, this item counts 1.
NMB F FOG LH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the front fog lamp (left) circuit. <b>NOTE:</b> When the number of short circuits in the front fog lamp (left) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB F FOG LH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the front fog lamp (left) circuit.
F FOG RH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the front fog lamp (right) circuit. <b>NOTE:</b> When the number of front fog lamp (right) circuit retries count is 20, this item counts 1.

# DIAGNOSIS SYSTEM (IPDM E/R)

[WITHOUT INTELLIGENT KEY SYSTEM]

## < SYSTEM DESCRIPTION >

Monitor Item [Unit]	Description
NMB F FOG RH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the front fog lamp (right) circuit. <b>NOTE:</b> When the number of short circuits in the front fog lamp (right) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB F FOG RH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the front fog lamp (right) circuit.
HL (HI) LH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the headlamp (HI) (left) circuit. <b>NOTE:</b> When the number of headlamp (HI) (left) circuit retries count is 20, this item counts 1.
NMB HL (HI) LH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the headlamp (HI) (left) circuit. <b>NOTE:</b> When the number of short circuits in the headlamp (HI) (left) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB HL (HI) LH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the headlamp (HI) (left) circuit.
HL (HI) RH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the headlamp (HI) (right) circuit. <b>NOTE:</b> When the number of headlamp (HI) (right) circuit retries count is 20, this item counts 1.
NMB HL (HI) RH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the headlamp (HI) (right) circuit. <b>NOTE:</b> When the number of short circuits in the headlamp (HI) (right) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB HL (HI) RH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the headlamp (HI) (right) circuit.
S/L CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the steering lock circuit. <b>NOTE:</b> When the number of steering lock circuit retries count is 20, this item counts 1.
NMB S/L CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the steering lock circuit. <b>NOTE:</b> When the number of short circuits in the steering lock circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB S/L CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the steering lock circuit.
HL (LO) LH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the headlamp (LO) (left) circuit. <b>NOTE:</b> When the number of headlamp (LO) (left) circuit retries count is 20, this item counts 1.
NMB HL (LO) LH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the headlamp (LO) (left) circuit. <b>NOTE:</b> When the number of short circuits in the headlamp (LO) (left) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB HL (LO) LH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the headlamp (LO) (left) circuit.
HL (LO) RH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the headlamp (LO) (right) circuit. <b>NOTE:</b> When the number of headlamp (LO) (right) circuit retries count is 20, this item counts 1.

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# DIAGNOSIS SYSTEM (IPDM E/R)

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Monitor Item [Unit]	Description
NMB HL (LO) RH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the headlamp (LO) (right) circuit. <b>NOTE:</b> When the number of short circuits in the headlamp (LO) (right) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB HL (LO) RH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the headlamp (LO) (right) circuit.
T LAMP LH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the tail lamp (left) circuit. <b>NOTE:</b> When the number of tail lamp (left) circuit retries count is 20, this item counts 1.
NMB T LAMP LH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the tail lamp (left) circuit. <b>NOTE:</b> When the number of short circuits in the tail lamp (left) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB T LAMP LH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the tail lamp (left) circuit.
T LAMP RH CIRC MALFUNCTN [0 – 1]	Monitor the number of times that the smart FET in IPDM E/R reaches the retry upper limit of the tail lamp (right) circuit. <b>NOTE:</b> When the number of tail lamp (right) circuit retries count is 20, this item counts 1.
NMB T LAMP RH CIRC RETRY [0 – 20]	Monitor the number of times that the smart FET in IPDM E/R permits the retry of the tail lamp (right) circuit. <b>NOTE:</b> When the number of short circuits in the tail lamp (right) circuit count is 5 and the ignition switch OFF to ON operation is detected, this item counts 1.
NMB T LAMP RH CIRC SHORT [0 – 5]	Monitor the number of times that the smart FET in IPDM E/R detects the over current of the tail lamp (right) circuit.
BATTERY STATUS [OK/NG]	Monitor the battery status from the battery output.

## ACTIVE TEST

Test item	Operation	Description
HORN	Off	OFF
	On	Operates horn relay for 20 ms.
HEADLAMP WASHER	Off	OFF
	On	Operates headlamp washer relay for 10 ms.
FRONT WIPER	Off	OFF
	Low	Operates the front wiper relay.
	High	Operates the front wiper relay and front wiper HI/LO relay.
COMPRESSOR	Off	OFF
	On	Operates the A/C relay.
COOLING FAN (MONO)	Off	OFF
	Lo	Run the cooling fan at low speed.
	Hi	Run the cooling fan at high speed.
HEADLAMP (HI)	Off	OFF
	On	Operates the headlamp (HI)
HEADLAMP (LO)	Off	OFF
	On	Operates the headlamp (LO).

# DIAGNOSIS SYSTEM (IPDM E/R)

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Test item	Operation	Description
FRONT FOG LAMP	Off	OFF
	On	Operates the front fog lamp.
DAYTIME RUNNING LIGHT	Off	OFF
	On	Operates the parking lamp (daytime running light operation).
PARKING LAMP	Off	OFF
	On	Operates the parking lamp.
TAIL LAMP	Off	OFF
	On	Operates the tail lamp.
OPTIC AXIS ACTIVE TEST	Default	Return the optical axis to the default position. <b>NOTE:</b> While the headlamp is OFF, it does not return to the default position.
	Lower	Adjust the optical axis to the lowermost point.

## WORK SUPPORT

Work item	Description
SENSOR INITIALIZE	Adjusts the height sensor signal output value in the unloaded vehicle condition.
CML B/DCHRG CRNT CLEAR	In this mode, cumulative battery discharge current is cleared.

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# DIAGNOSIS SYSTEM (SIREN CONTROL UNIT)

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## DIAGNOSIS SYSTEM (SIREN CONTROL UNIT)

### Diagnosis Description

INFOID:000000010926586

#### DIAGNOSIS FUNCTION

Siren control unit has a self-diagnosis function which displays the diagnosis results for the following items.

- Circuit diagnosis: Displays if malfunction exists or not in the circuits between siren control unit and BCM or siren control unit and intruder sensor.
  - Circuits are normal: Hazard warning lamp blinks 3 times.
  - Circuit is malfunctioning: Hazard warning lamp does not blink.
- Alarm history: Displays alarm activation history for the maximum 3 items.
  - Siren sounds for 0.4 seconds and sound interval is 0.4 seconds.
  - When multiple symptoms exist, the interval between each alarm history is 2 seconds.

Number of siren sounds	Cause of alarm activation
0	History is not found
1	Battery is disconnected and connected
2	Movement to enter into passenger room is detected
3	Communication between BCM and siren control unit is interrupted
4	Door or hood is opened
5	Difference of ID recognition between siren control unit and BCM
6	Communication between siren control unit and intruder sensor is interrupted

- Component diagnosis: Displays malfunctioning component (siren control unit or intruder sensor).
  - Siren sounds for 1 second and sound interval is 0.4 seconds.
  - When multiple symptoms exist, the interval between each diagnosis result is 2 seconds.

Number of siren sounds	Malfunctioning component
0	Malfunctioning component is not found
1	Siren control unit
2	Intruder sensor

#### SELF-DIAGNOSIS PROCEDURE

1. Connect CONSULT.
2. Turn ignition switch ON.
3. Select "ACTIVE TEST" mode of "THEFT ALM" of "BCM" using CONSULT.
4. Select "SIREN" and touch "ON" to start self-diagnosis.
5. Self-diagnosis result is displayed after 2 seconds.

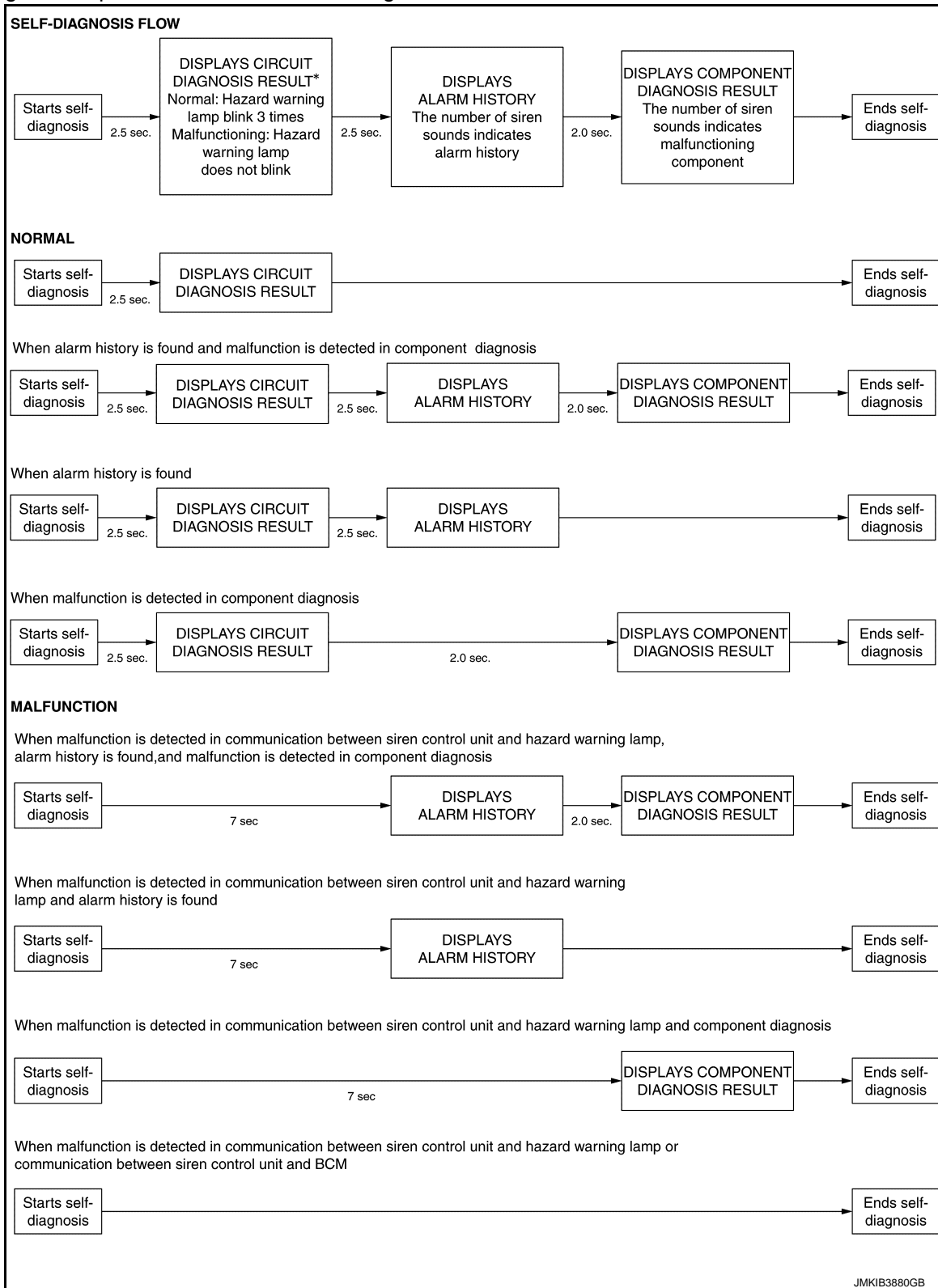
#### SELF-DIAGNOSIS RESULT DISPLAY

# DIAGNOSIS SYSTEM (SIREN CONTROL UNIT)

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

Self-diagnosis is performed as shown in the figure.



\*: Communication between siren control unit and hazard warning lamp

## DIAGNOSIS PROCEDURE

### Precaution for Diagnosis Procedure

- Self-diagnosis result is erased from siren control unit when setting alarm system after performing the self-diagnosis.
- When performing self-diagnosis, it is advised to record the self-diagnosis result display on a memo pad.
- When replacing siren control unit, never set alarm system after performing the self-diagnosis.

# DIAGNOSIS SYSTEM (SIREN CONTROL UNIT)

## < SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

- The display pattern of the self-diagnosis is complicated. Therefore, repeat self-diagnosis multiple times to check the display pattern correctly.
- Malfunctioning part and alarm activation history can be checked effectively by comparing self-diagnosis result display and the record on the memo pad.
- It is advised to obtain and record information for the following items which are necessary when investigation is needed.
  - Self-diagnosis result (Circuit diagnosis, Alarm history, Component diagnosis)
  - Conditions of alarm activation (Place, Time, Weather)
  - Articles in passenger room (Accessories, Cellular phones, Beverage containers, and others)
  - Opening and closing status of door windows
  - Record and timing of battery discharge and battery replacement
  - Serial number of siren control unit (on siren control unit label)
  - Serial number of intruder sensor, if this sensor is cause of malfunction or alarm activation

## 1.INSPECTION START

Perform SELF-DIAGNOSIS PROCEDURE described above to start self-diagnosis.

>> GO TO 2.

## 2.CHECK CIRCUIT DIAGNOSIS RESULT

Check circuit diagnosis result display.

The diagnosis result is displayed by hazard warning lamp blink as per the following.

Number of hazard warning lamp blinks	Description
3 times	Normal
0 times	<ul style="list-style-type: none"><li>• Circuit malfunctioning between siren control unit and BCM (communication line)</li><li>• Circuit malfunctioning between siren control unit and BCM (hazard switch line)</li></ul>

Does hazard warning lamp blink?

YES >> GO TO 8.

NO >> GO TO 3.

## 3.CHECK VEHICLE SECURITY SYSTEM OPERATION 1

1. Turn ignition switch OFF.
2. Close hood and all doors.
3. Lock all doors using the Keyfob.
4. Check that security indicator lamp blink quickly for 20 seconds. (PRE-ARMED phase)

Does security indicator lamp blink quickly?

YES >> GO TO 5.

NO >> GO TO 4.

## 4.CHECK MALFUNCTIONING CIRCUIT 1

Check power supply and ground circuit for siren control unit. Refer to [SEC-294, "SIREN CONTROL UNIT : Diagnosis Procedure"](#).

>> INSPECTION END

## 5.CHECK VEHICLE SECURITY SYSTEM OPERATION 2

1. Check that security indicator lamp blinks slowly. (ARMED phase)
2. Hold up and move a hand over intruder sensor.

Does siren sound?

YES >> GO TO 6.

NO >> GO TO 7.

## 6.CHECK MALFUNCTIONING CIRCUIT 2

Check the following circuit.

- Circuit between siren control unit and BCM (hazard switch signal circuit). Refer to [SEC-304, "Component Function Check"](#).

# DIAGNOSIS SYSTEM (SIREN CONTROL UNIT)

< SYSTEM DESCRIPTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

>> INSPECTION END

## 7. CHECK MALFUNCTIONING CIRCUIT 3

Check the following circuit.

- Circuit between siren control unit and BCM (communication signal circuit). Refer to [SEC-303, "Component Function Check"](#).

>> INSPECTION END

## 8. ALARM HISTORY DISPLAY

Check alarm history display.

The cause of alarm activation is indicated by the number of siren sounds.

Number of siren sounds	Cause of alarm activation
0	History is not found
1	Battery is disconnected and connected
2	Movement to enter into passenger room is detected
3	Communication between BCM and siren control unit is interrupted
4	Door or hood is opened
5	Operate ignition switch with an unregistered key
6	Communication between siren control unit and intruder sensor is interrupted

Does siren sound?

YES (A history is found)>>Check the cause of the alarm activation.

NO (History is not found)>>GO TO 9.

## 9. SYSTEM DIAGNOSIS RESULT DISPLAY

Check component diagnosis result display.

The malfunctioning part is indicated by the number of siren sounds.

Number of siren sounds	Malfunctioning component
0	Malfunctioning component is not found
1	Siren control unit
2	Intruder sensor

Does siren sound?

YES >> Replace malfunctioning component.

NO >> GO TO 10.

## 10. OPERATION CHECK

1. Close hood and all doors.
2. Lock all doors using the Intelligent Key or door request switch.
3. Check that security indicator lamp blinks quickly for 20 seconds.

### NOTE:

If hood is not fully closed, security indicator lamp blinks slowly after all doors are locked. Fully close hood and then lock all doors again.

4. Check that security indicator lamp blinks slowly and siren does not sound. Refer to [SEC-217, "VEHICLE SECURITY SYSTEM : System Description"](#).

>> INSPECTION END

# SIREN CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

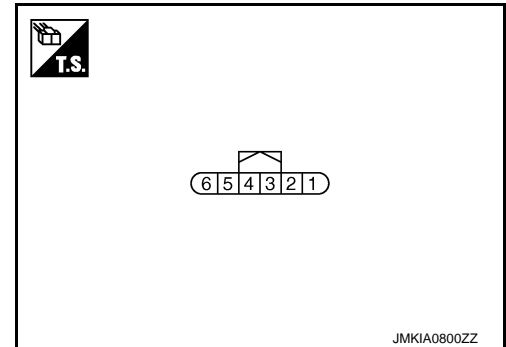
## ECU DIAGNOSIS INFORMATION

### SIREN CONTROL UNIT

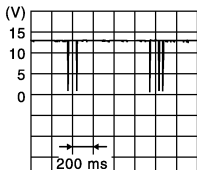
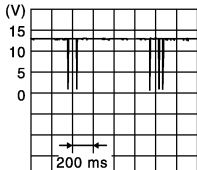
Reference Value

INFOID:000000010926622

#### TERMINAL LAYOUT



#### PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition		Value
+	-	Signal name	Input/ Output			
1 (BR)	Ground	Hazard switch	Input	Hazard switch: ON		0 – 1 V
				Hazard switch: OFF	Except Alarm phase	9 – 16 V
					Alarm phase	0 – 1 V
2 (P)	Ground	Battery power supply	Input	Ignition switch: OFF		9 – 16 V
3 (V)	Ground	Communication line (BCM)	Input/ Output	Armed phase		 NNKIA0175ZZ
				Disarmed phase		9 – 16 V
4 (Y)	Ground	Communication line (Sensor)	Input/ Output	Armed phase		 NNKIA0175ZZ
				Disarmed phase		9 – 16 V
5 (B)	Ground	Ground	—	Power supply position: ON		0 – 1 V

# ECM, IPDM E/R, BCM

< ECU DIAGNOSIS INFORMATION >

[WITHOUT INTELLIGENT KEY SYSTEM]

## ECM, IPDM E/R, BCM

### List of ECU Reference

INFOID:0000000011009466

ECU		Reference
ECM	Reference Value	MR20DD: <a href="#">EC-89, "Reference Value"</a> QR25DE: <a href="#">EC-501, "Reference Value"</a> R9M: <a href="#">EC-889, "Reference Value"</a>
	Fail-safe	MR20DD: <a href="#">EC-103, "Fail-safe"</a> QR25DE: <a href="#">EC-513, "Fail Safe"</a> R9M: <a href="#">EC-901, "Fail-safe"</a>
	DTC Inspection Priority Chart	MR20DD: <a href="#">EC-107, "DTC Inspection Priority Chart"</a> QR25DE: <a href="#">EC-515, "DTC Inspection Priority Chart"</a> R9M: <a href="#">EC-907, "DTC Inspection Priority Chart"</a>
	DTC Index	MR20DD: <a href="#">EC-109, "DTC Index"</a> QR25DE: <a href="#">EC-517, "DTC Index"</a> R9M: <a href="#">EC-908, "DTC Index"</a>
BCM	Reference Value	<a href="#">BCS-53, "Reference Value"</a>
	Fail-safe	<a href="#">BCS-76, "Fail-safe"</a>
	DTC Inspection Priority Chart	<a href="#">BCS-77, "DTC Inspection Priority Chart"</a>
	DTC Index	<a href="#">BCS-78, "DTC Index"</a>
IPDM E/R	Reference Value	<a href="#">PCS-22, "Reference Value"</a>
	Fail-safe	<a href="#">PCS-34, "Fail-safe"</a>
	DTC Inspection Priority Chart	<a href="#">PCS-37, "DTC Inspection Priority Chart"</a>
	DTC Index	<a href="#">PCS-38, "DTC Index"</a>

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# SECURITY CONTROL SYSTEM

[WITHOUT INTELLIGENT KEY SYSTEM]

< WIRING DIAGRAM >

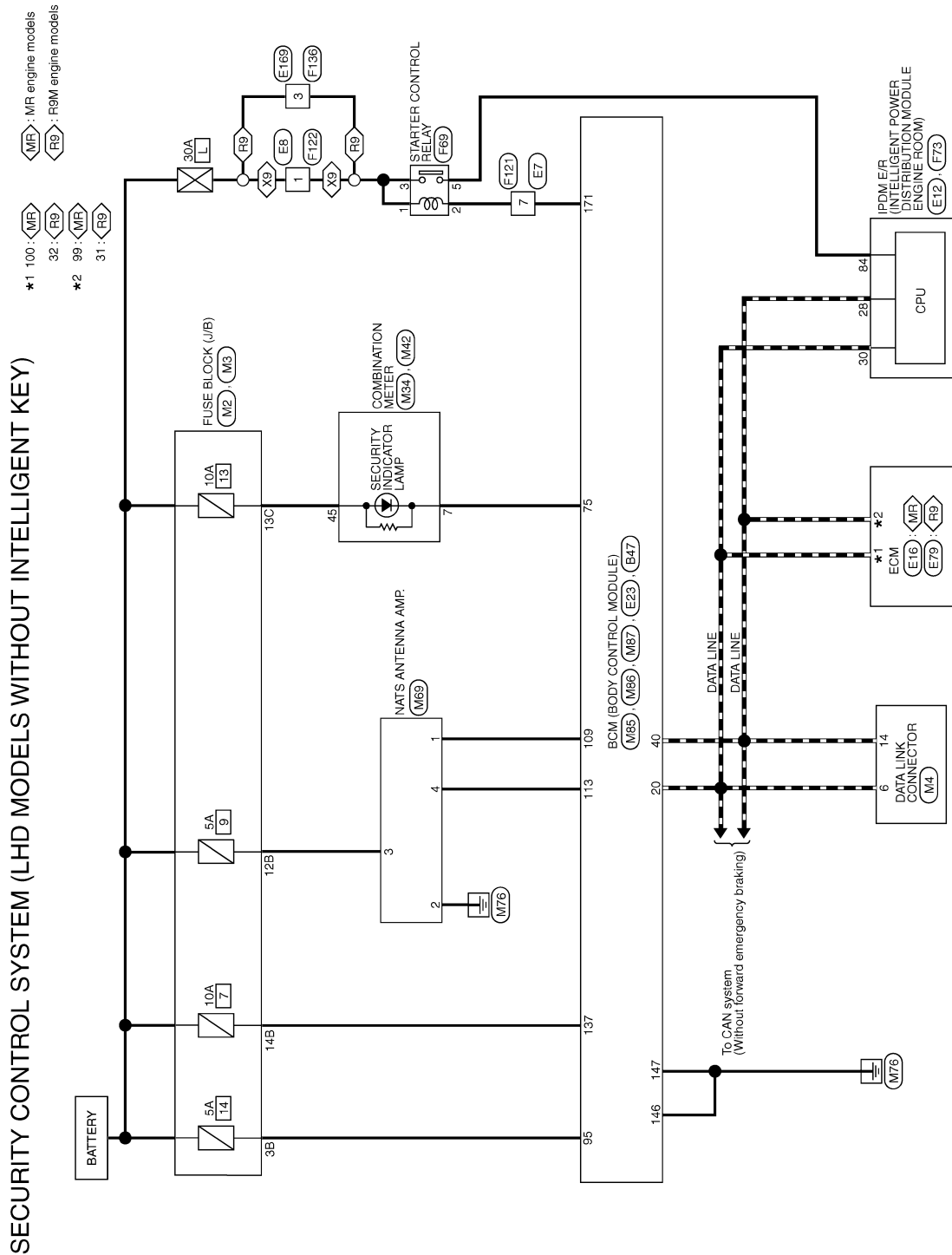
## WIRING DIAGRAM

### SECURITY CONTROL SYSTEM

#### Wiring Diagram

LHD models

INFOID:0000000010922272



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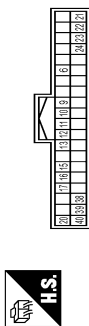
# SECURITY CONTROL SYSTEM

[WITHOUT INTELLIGENT KEY SYSTEM]

< WIRING DIAGRAM >

## SECURITY CONTROL SYSTEM (LHD MODELS WITHOUT INTELLIGENT KEY)

Connector No.	B47
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH



Terminal No.	Color	Wire	Signal Name (Specification)
6	R		BACK DOOR OPENER REQUEST SW
9	G		HANDS FREE SENSOR
10	W		REAR RH DOOR SW
11	LG		BACK DOOR SW
12	R		REAR LH DOOR SW
13	SB		PASSENGER DOOR SW
15	LAG		REAR WHEEL AUTO STOP
16	Y		BACK DOOR OPENER SW
17	SB		DRIVER DOOR SW
20	L		CANH
21	BR		BUMPER ANTENNA(-)
22	Y		REAR ANTENNA(+)
23	L		REAR ANTENNA(+)
24	G		BUMPER ANTENNA(+)
38	V		SIREN
39	LAW		HIGH-MOUNTED STOP LAMP
40	P		CANL

Connector No.	E7
Connector Name	WIRE TO WIRE
Connector Type	NS16MR-CS



Terminal No.	Color	Wire	Signal Name (Specification)
1	BR		- [With MR20 or QR25 engine]
1	SB		- [With R3M engine]
2	BR		- [With MR20 or QR25 engine]
2	GR		- [With R3M engine]
3	G		-
4	R		-
5	B		- [With R3M engine]
5	L		- [With R3M engine]
5	LG		- [With QR25 engine]
6	BG		-
7	G		-
8	V		- [With MR20 engine or R3M engine]
8	W		- [With QR25 engine]
9	BG		- [With R3M engine]
9	BR		- [With MR20 engine]
10	BR		-
11	Y		-
12	L		- [With R3M engine]
12	LG		- [With QR25 engine]
13	BR		- [With MR20 or QR25 engine]
13	R		- [With R3M engine]
15	L		-
16	SB		-



Terminal No.	Color	Wire	Signal Name (Specification)
25	LG		-
26	W		-
27	SB		-
28	P		-
30	L		-
31	G		-
32	B		-
33	BG		-
34	LG		-
35	V		-
36	Y		-
37	B		-
38	GR		-
39	BR		-
45	L		-
46	P		-
47	W		-
48	R		-

Connector No.	E8
Connector Name	WIRE TO WIRE
Connector Type	MO2MM-LC



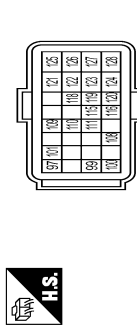
Terminal No.	Color	Wire	Signal Name (Specification)
1	L		-

Connector No.	E12
Connector Name	POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH24FGY-NH



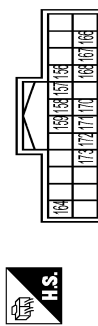
Terminal No.	Color	Wire	Signal Name (Specification)
25	LG		-
26	W		-
27	SB		-
28	P		-
30	L		-
31	G		-
32	B		-
33	BG		-
34	LG		-
35	V		-
36	Y		-
37	B		-
38	GR		-
39	BR		-
45	L		-
46	P		-
47	W		-
48	R		-

Connector No.	E16
Connector Name	ECM
Connector Type	RH24FB-F28-L-LH



Terminal No.	Color	Wire	Signal Name (Specification)
97	W		BAROMETRIC PRESSURE SENSOR
99	P		CANL
100	L		CANH
101	Y		SENSOR POWER SUPPLY
108	R		CLUTCH PEDAL POSITION SWITCH
109	LG		IGNITION SWITCH
110	G		ASCD STEERING SWITCH
111	BR		SENSOR GROUND
115	V		STOP LAMP SWITCH
116	GR		BRAKE PEDAL POSITION SWITCH
118	SB		SENSOR POWER SUPPLY
119	Y		ACCELERATOR PEDAL POSITION SENSOR 2
120	LG		SENSOR GROUND
121	BR		POWER SUPPLY FOR ECM
122	V		SENSOR POWER SUPPLY
123	B		ECM GROUND
124	R		SENSOR GROUND
125	B		ECM GROUND
126	GR		ACCELERATOR PEDAL POSITION SENSOR 1
127	R		SENSOR GROUND
128	B		ECM GROUND

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



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

# SECURITY CONTROL SYSTEM

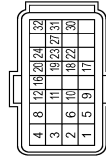
[WITHOUT INTELLIGENT KEY SYSTEM]

< WIRING DIAGRAM >

## SECURITY CONTROL SYSTEM (LHD MODELS WITHOUT INTELLIGENT KEY)

172	V	PTC RELAY-1 CONTROL
173	BG	PTC RELAY-2 CONTROL

Connector No.	E79
Connector Name	ECM
Connector Type	RH24FB-R28-RH



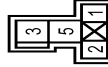
Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	ECM GROUND
2	W	ACCELERATOR PEDAL POSITION SENSOR 1
3	Y	SENSOR Z-AXIS AND ACCELERATOR PEDAL POSITION SENSOR 1-L
4	B	ECM GROUND
5	L	POWER SUPPLY FOR ECM
6	G	SENSOR POWER SUPPLY, ACCELERATOR PEDAL POSITION SENSOR 1-L
8	B	ECM GROUND
9	L	FUEL HEATER AND WATER IN FUEL LEVEL SENSOR
10	L	SENSOR POWER SUPPLY, ACCELERATOR PEDAL POSITION SENSOR 1-L
11	V	ACCELERATOR PEDAL POSITION SENSOR 2
12	P	SENSOR GROUND, ACCELERATOR PEDAL POSITION SENSOR 2
16	BG	STOP LAMP SWITCH [With M/T]
16	R	BRAKE PEDAL POSITION SWITCH [With CVT]
17	LG	IGNITION SWITCH
18	G	ASC/D STEERING SWITCH
19	BR	SENSOR GROUND (ASC/D STEERING SWITCH)
20	BR	FUEL PUMP CONTROL MODULE (COMMAND)
22	G	FUEL PUMP CONTROL MODULE (DIAGNOSIS)
23	V	SPEED LIMITER MAIN SWITCH
24	R	CLUTCH PEDAL POSITION SWITCH
27	V	CLUTCH INTERLOCK SWITCH
30	BR	ASC/D MAIN SWITCH
31	P	CAN/L
32	L	CAN/H

Connector No.	E169
Connector Name	WIRE TO WIRE
Connector Type	M06MW-LC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	BG	-
3	L	-
4	W	-
5	G	-
6	W	-

Connector No.	F69
Connector Name	STARTER CONTROL RELAY
Connector Type	MS02FL-M2-LC



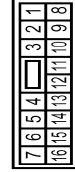
Terminal No.	Color Of Wire	Signal Name [Specification]
1	SB	-
2	G	-
3	L	-
5	GR	-

Connector No.	F73
Connector Name	FROM ER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	YL06FG-Y



Terminal No.	Color Of Wire	Signal Name [Specification]
81	G	-
83	L	-
84	GR	-
85	P	-
86	LG	-

Connector No.	F121
Connector Name	WIRE TO WIRE
Connector Type	NS16FR-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	- [With MR20 or QR25 engine]
1	P	- [With R5M engine]
2	BR	- [With QR25 engine]
2	GR	- [With MR20 engine]
2	Y	- [With R5M engine]
3	G	-
4	BG	-
5	B	- [With MR20 engine]
5	L	- [With R5M engine]
5	LG	- [With QR25 engine]
6	V	-
7	G	-
8	V	- [With MR20 engine or R5M engine]
8	W	- [With QR25 engine]
9	B	- [With MR20 engine]

9	W	- [With R5M engine]
10	BR	-
11	P	- [Without ISS]
11	R	- [With ISS]
12	G	- [With QR25 engine]
12	L	- [With R5M engine]
13	R	- [With R5M engine]
13	Y	- [With MR20 or QR25 engine]
15	L	-
16	LG	-

Connector No.	F122
Connector Name	WIRE TO WIRE
Connector Type	M02FW-LC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-

Connector No.	F136
Connector Name	WIRE TO WIRE
Connector Type	M06FW-LC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	BG	-
3	L	-
4	W	-
5	BG	-
6	W	-

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# SECURITY CONTROL SYSTEM

[WITHOUT INTELLIGENT KEY SYSTEM]

< WIRING DIAGRAM >

## SECURITY CONTROL SYSTEM (LHD MODELS WITHOUT INTELLIGENT KEY)

Connector No.	M2
Connector Name	FUSE BLOCK (L/B)
Connector Type	NS16FBR-CS



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

Terminal No.	Color	Wire	Signal Name [Specification]
10B	GR	-	[With MR20 engine or RSM engine]
10B	LA/GR	-	[With Q25 Engine]
12B	BR	-	-
14B	W	-	-
16B	W	-	-
18B	GR	-	-
18B	G	-	-
20B	R	-	-
30B	V	-	-
6B	L/L	-	-
7B	LAV	-	-

Connector No.	M3
Connector Name	FUSE BLOCK (L/B)
Connector Type	NS16FW-CS



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

Terminal No.	Color	Wire	Signal Name [Specification]
10C	LG	-	-
13C	LA/G	-	-
14C	R	-	-
15C	L	-	-
16C	LAV	-	-
1C	R	-	-
2C	G	-	-
3C	Y	-	-
4C	LG	-	-

5C	GR	-
6C	LAV	-
7C	Y	-
8C	BR	- [With ISS]
8C	LA/BR	- [Without ISS]
9C	L	-

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



11	14	15	16
3	4	5	6
1	2	7	8

Terminal No.	Color	Wire	Signal Name [Specification]
3	LG	-	-
4	B	-	-
5	B	-	-
6	L	-	-
8	Y	-	-
11	SB	-	-
14	P	-	-
15	BR	-	-
16	W	-	-

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



1		7	9	15	17	18	20							
21	22	23	25	28	30	31	32	33			36	37	38	39

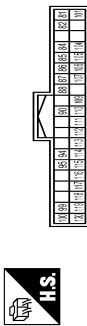
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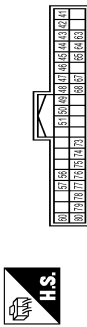
< WIRING DIAGRAM >

## SECURITY CONTROL SYSTEM (LHD MODELS WITHOUT INTELLIGENT KEY)

Connector No.	M86
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Connector No.	M87
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40GY-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
81	L	KEY SWITCH
82	LA/R	KEY SW (ST) [Without intelligent key]
83	W	PASS DOOR REQ SW [With intelligent key]
84	BR	COMBI SW OUTPUT 2
85	SB	COMBI SW OUTPUT 1
86	P	COMBI SW OUTPUT 3
87	BG	COMBI SW OUTPUT 4
88	W	PUSH/IGN SW (LL) CONT
89	Y	S/L CONDITION
94	G	DETENTION SW
95	V	EXTENDED STORAGE FUSE SW
99	R	STOP/START OFF SW
100	V	DRIVER DOOR ANT +
101	Y	PUSH SW
104	R	DR DOOR UNLK SENS
105	Y	DR DOOR REQ SW
106	W	ACC OUTPUT
107	V	SENSOR CANCEL SW
109	P	NATS ANTENNA AMP.
110	BG	DIMMER SIGNAL
111	R	DOOR LK STAT IND OUTPUT
112	SB	STOP/START OFF SW INDICATOR
113	LG	NATS ANTENNA AMP.
114	Y	NATS ANTENNA AMP.
115	W	NATS ANTENNA AMP.
116	BG	ROOM ANT 1 -
117	GR	ROOM ANT 1 +
118	SB	PASSENGER DOOR ANT -
119	P	PASSENGER DOOR ANT +
120	BR	DRIVER DOOR ANT +

Terminal No.	Color Of Wire	Signal Name [Specification]
41	V	STEERING LOCK UNIT POWER SUPPLY
42	LA/G	TURN SIG LH (SIDE)
43	LAY	TURN SIG RH (SIDE)
44	P	INTERIOR ROOM LAMP RELAY CONT
45	R	CANL
46	L	CANH
47	G	LIGHT & RAIN SENSOR
48	L	CANL
49	R	CANH
50	BG	DOOR LOCK SW
51	Y	HAZARD SW
56	P	DONGLE
57	L	CVT SHIFT SELECT (DETENT SW) PWR
60	R	HEADLAMP WASHER SW
63	G	POWER WINDOW RELAY CONT
64	LA/R	REAR WINDOW DEFROGGER RELAY CONT
65	BR	ACC RELAY CONT
67	Y	IGN RELAY (FIB) CONT OUTPUT
68	LAW	BLOWER RELAY CONT
73	LG	COMBI SW INPUT 5
74	Y	COMBI SW OUTPUT 5
75	BG	SECURITY IND LAMP CONT
76	G	COMBI SW INPUT 3
77	GR	COMBI SW INPUT 4
78	V	COMBI SW INPUT 1
79	W	COMBI SW INPUT 2
80	SB	DOOR UNLOCK SW

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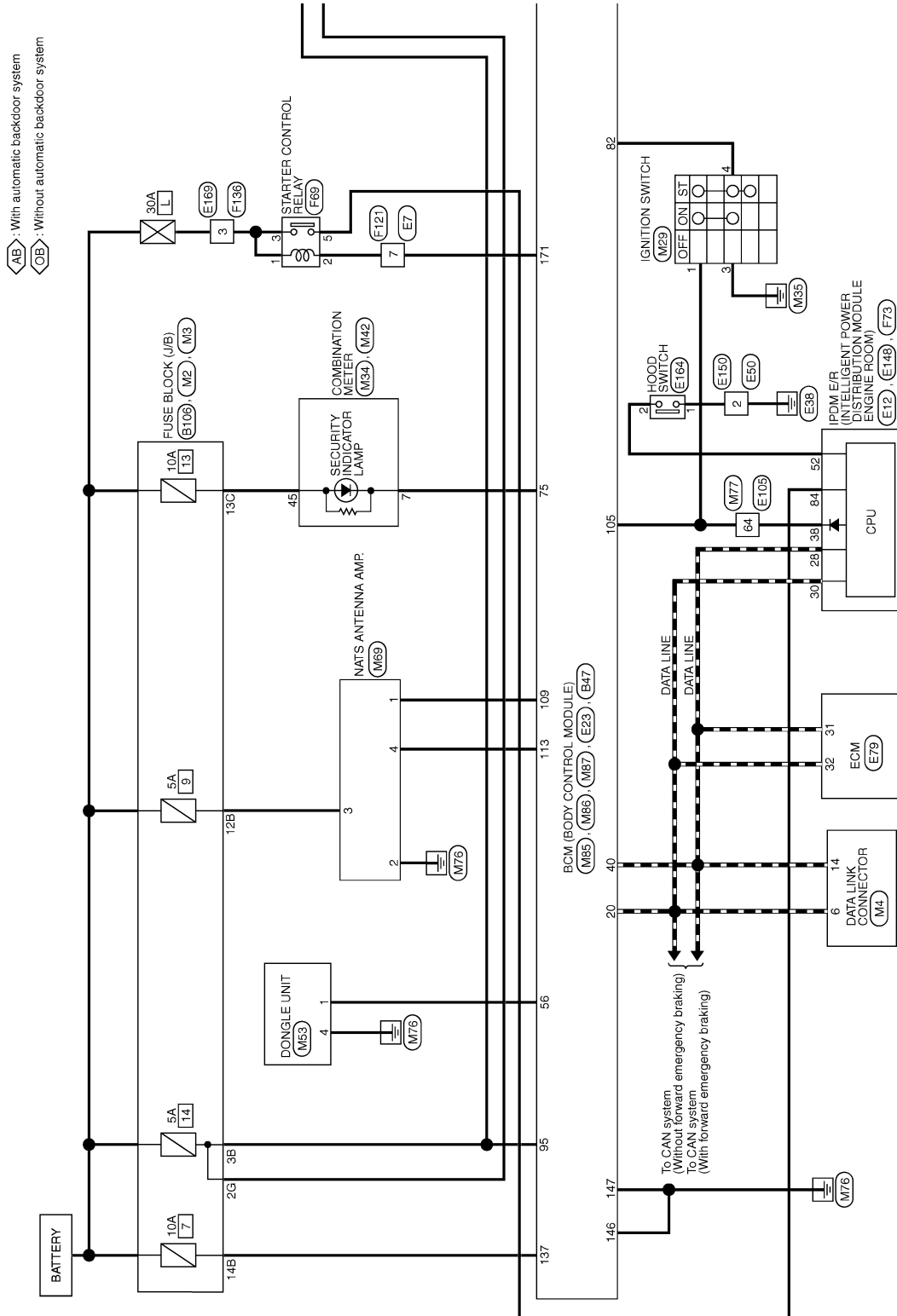
# SECURITY CONTROL SYSTEM

[WITHOUT INTELLIGENT KEY SYSTEM]

< WIRING DIAGRAM >

RHD models

## SECURITY CONTROL SYSTEM (RHD MODELS WITHOUT INTELLIGENT KEY)



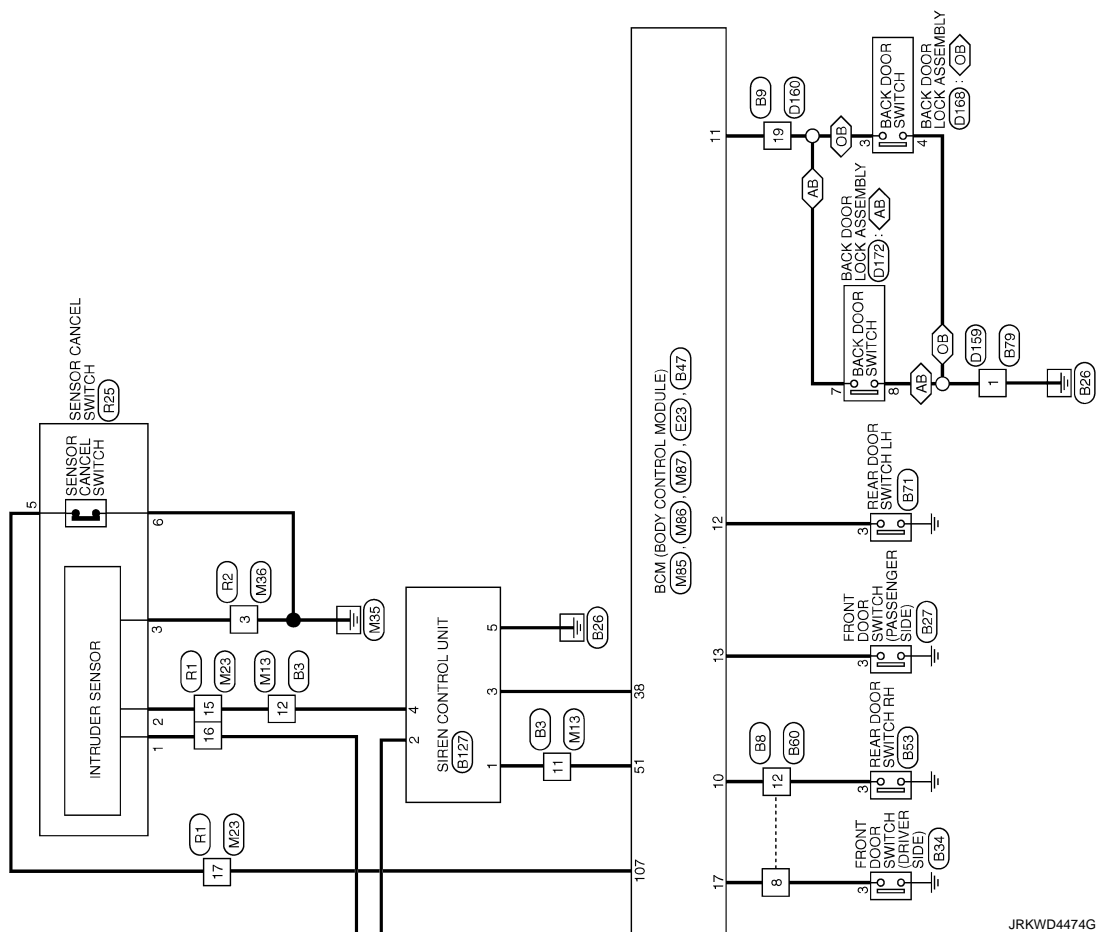
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# SECURITY CONTROL SYSTEM

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[WITHOUT INTELLIGENT KEY SYSTEM]



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# SECURITY CONTROL SYSTEM

[WITHOUT INTELLIGENT KEY SYSTEM]

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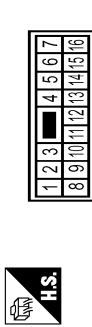
## SECURITY CONTROL SYSTEM (RHD MODELS WITHOUT INTELLIGENT KEY)

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH



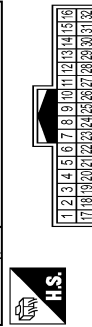
Terminal No.	Color Of Wire	Signal Name [Specification]
1	SB	-
2	V	-
3	LA/R	-
4	GR	-
5	Y	-
6	LG	-
7	BG	-
8	W	-
9	LAY	-
10	BR	-
11	Y	-
12	W	-
13	V	-
14	L	-
15	L	-
16	BR	-
17	Y	-
18	LA/L	- [Without PSM] - [With PSM]
19	SB	-
20	LG	-
21	G	-
22	V	-
23	BR	-
24	P	-
25	L	-
26	G	-
27	SHIELD	-
28	W	-
29	B	-
30	R	-
31	R	-
32	R	-

Connector No.	B8
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



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

Connector No.	B9
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	SB	-
2	V	-
3	LA/R	-
4	GR	-
5	Y	-
6	LG	-
7	BG	-
8	W	-
9	LAY	-
10	BR	-
11	Y	-
12	W	-
13	V	-
14	L	-
15	L	-
16	BR	-
17	Y	-
18	LA/L	- [Without PSM] - [With PSM]
19	SB	-
20	LG	-
21	G	-
22	V	-
23	BR	-
24	P	-
25	L	-
26	G	-
27	SHIELD	-
28	W	-
29	B	-
30	R	-
31	R	-
32	R	-

Terminal No.	13	W	-
Terminal No.	14	V	-
Terminal No.	15	BR	-
Terminal No.	16	SB	-
Terminal No.	17	LA/W	-
Terminal No.	18	LA/R	-
Terminal No.	19	LG	-
Terminal No.	20	LA/G	-
Terminal No.	21	LA/G	-
Terminal No.	22	LA/R	-
Terminal No.	23	LA/R	-
Terminal No.	24	R	-
Terminal No.	29	Y	-
Terminal No.	30	G	-
Terminal No.	31	GR	-
Terminal No.	32	LG	-

Connector No.	B27
Connector Name	FRONT DOOR SWITCH (PASSENGER SIDE)
Connector Type	TH32MW-NH



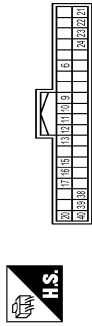
Terminal No.	Color Of Wire	Signal Name [Specification]
1	SB	-
2	V	-
3	GR	-
3	SB	-

Connector No.	B34
Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)
Connector Type	TH32MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	SB	-
3	SB	-

Connector No.	B47
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH32MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
6	R	BACK DOOR OPENER REQUEST SW
9	G	HANDS FREE SENSOR
10	W	REAR RH DOOR SW
11	LG	BACK DOOR SW
12	R	REAR LH DOOR SW
13	SB	PASSENGER DOOR SW
15	LA/G	REAR WIPER AUTO STOP
16	Y	BACK DOOR OPENER SW
17	SB	DRIVER DOOR SW
20	L	CANH
21	BR	BUMPER ANTENNA(-)
22	Y	REAR ANTENNA(-)
23	L	REAR ANTENNA(+)
24	G	BUMPER ANTENNA(+)
38	V	SIREN
39	LA/W	HIGH-MOUNTED STOP LAMP
40	P	CANL

JRKWD4475GB

# SECURITY CONTROL SYSTEM

[WITHOUT INTELLIGENT KEY SYSTEM]

< WIRING DIAGRAM >

## SECURITY CONTROL SYSTEM (RHD MODELS WITHOUT INTELLIGENT KEY)

Connector No.	B53
Connector Name	REAR DOOR SWITCH-RH
Connector Type	TH04FW-NH



Connector No.	B71
Connector Name	REAR DOOR SWITCH-LH
Connector Type	TH04FW-NH



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



Connector No.	D160
Connector Name	WIRE TO WIRE
Connector Type	TH02FW-NH



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

Terminal No.	Color Of Wire	Signal Name [Specification]
3	W	-

Connector No.	B60
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



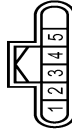
7	6	5	4	<div></div>	3	2	1	
16	15	14	13	12	11	10	9	8

Terminal No.	Color Of Wire	Signal Name [Specification]
3	R	-

Connector No.	B79
Connector Name	WIRE TO WIRE
Connector Type	M02MW-LC



Connector No.	B127
Connector Name	SIREN CONTROL UNIT
Connector Type	RH06FB



Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	BLINKER LINE
2	P	+B
3	V	COM LINE
4	Y	SERIAL LINE
5	B	GND

Terminal No.	Color Of Wire	Signal Name [Specification]
1	LA/LG	-
2	LA/GR	-
3	P	-
6	L	-
7	L	-
8	GR	- [For LHD models]
9	SB	- [For RHD models]
10	LAV	-
11	LA/BR	-
12	W	-
13	LAV	-
14	R	-
15	P	-
16	P	-

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

Connector No.	B106
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS06FW-CS



Connector No.	D159
Connector Name	WIRE TO WIRE
Connector Type	M02FW-LC



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

# SECURITY CONTROL SYSTEM

[WITHOUT INTELLIGENT KEY SYSTEM]

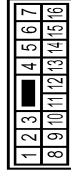
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## SECURITY CONTROL SYSTEM (RHD MODELS WITHOUT INTELLIGENT KEY)

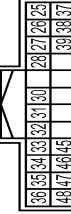
Connector No.	D168
Connector Name	BACK DOOR LOCK ASSEMBLY
Connector Type	NS04FW-CS



Connector No.	E7
Connector Name	WIRE TO WIRE
Connector Type	NS16MBF-CS



Connector No.	E12
Connector Name	POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH24FGY-NH



Terminal No.	Signal Name [Specification]
1	W
2	GR
3	W
4	GR

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

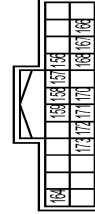


Terminal No.	Color	Wire	Signal Name [Specification]
1	BR	-	[With MR20 or QR25 engine]
2	SB	-	[With R3M engine]
3	GR	-	[With MR20 or QR25 engine]
4	GR	-	[With R3M engine]
5	B	-	[With MR20 engine]
6	L	-	[With QR25 engine]
7	LG	-	[With R3M engine]
8	GR	-	[With MR20 engine]
9	BR	-	[With QR25 engine]
10	BR	-	[With R3M engine]
11	Y	-	[With MR20 engine]
12	L	-	[With QR25 engine]
13	R	-	[With R3M engine]
14	L	-	[With MR20 engine]
15	L	-	[With QR25 engine]
16	SB	-	[With R3M engine]

Terminal No.	Signal Name [Specification]
1	W
2	W
4	W
5	W
6	W
7	W
8	B

Terminal No.	Color	Wire	Signal Name [Specification]
25	LG	-	-
26	W	-	-
27	SB	-	-
28	P	-	-
30	L	-	-
31	G	-	-
32	B	-	-
33	GR	-	-
34	LG	-	-
35	V	-	-
36	Y	-	-
37	B	-	-
38	GR	-	-
39	BR	-	-
45	L	-	-
46	P	-	-
47	W	-	-
48	R	-	-

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



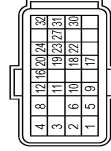
Terminal No.	Color	Wire	Signal Name [Specification]
156	V	-	CLUTCH INTERLOCK SW
157	LG	-	STOP LAMP SW 2
158	W	-	STOP LAMP SW 1
159	R	-	ASCD CLUTCH SWITCH
164	Y	-	INTELLIGENT KEY WARNING BUZZER
166	P	-	STEERING LOCK UNIT POWER SUPPLY
167	BR	-	TURN SIG LH (FRONT)
168	GR	-	TURN SIG RH (FRONT)
170	L	-	PTC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

Connector No.	E50
Connector Name	WIRE TO WIRE
Connector Type	M02MM-GY-LC



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

Connector No.	E79
Connector Name	ECM
Connector Type	RH24FB-F28-R-RH



# SECURITY CONTROL SYSTEM

[WITHOUT INTELLIGENT KEY SYSTEM]

< WIRING DIAGRAM >

## SECURITY CONTROL SYSTEM (RHD MODELS WITHOUT INTELLIGENT KEY)

Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	ECM GROUND
2	W	ACCELERATOR PEDAL POSITION SENSOR 1 L
3	Y	SENSOR GROUND/ACCELERATOR PEDAL POSITION SENSOR 1 R
4	B	ECM GROUND
5	L	POWER SUPPLY FOR ECM
6	G	SENSOR POWER SUPPLY / ACCELERATOR PEDAL POSITION SENSOR 1 L
8	B	ECM GROUND
9	L	FUEL HEATER AND WATER IN FUEL LEVEL SENSOR
10	L	SENSOR POWER SUPPLY / ACCELERATOR PEDAL POSITION SENSOR 2
11	V	ACCELERATOR PEDAL POSITION SENSOR 2
12	P	SENSOR GROUND/ACCELERATOR PEDAL POSITION SENSOR 2
16	BG	STOP LAMP SWITCH [With M/T]
17	R	BRAKE PEDAL POSITION SWITCH [With CVT]
17	LG	IGNITION SWITCH
18	G	ASCD STEERING SWITCH
19	BR	SENSOR GROUND/ASCD STEERING SWITCH
20	BR	FUEL PUMP CONTROL MODULE (COMMAND)
22	G	FUEL PUMP CONTROL MODULE (ACCESS)
23	V	SPEED LIMITER MAIN SWITCH
24	R	CLUTCH PEDAL POSITION SWITCH
27	V	CLUTCH INTERLOCK SWITCH
30	BR	ASCD MAIN SWITCH
31	P	CANL
32	L	CANH

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80FV-CS16-TM4



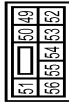
Terminal No.	Color Of Wire	Signal Name [Specification]
2	W	-
5	V	- [Without ISS]
5	W	- [With ISS]
8	L	-
9	LG	-
10	W	-
20	W	-
21	B	-

Terminal No.	Color Of Wire	Signal Name [Specification]
22	SHIELD	-
31	Y	-
32	W	-
33	SB	-
34	LG	-
35	BG	-
36	LG	-
37	V	-
38	G	-
39	BR	-
40	L	-
41	P	-
47	GR	-
48	SB	-
51	P	-
52	L	-
53	W	-
54	Y	-
55	BR	-
56	P	-
57	B	-
58	L	-
59	W	-
60	G	-
61	BR	-
62	V	-
63	BR	-
64	GR	-
65	LG	-
66	BG	-
67	L	-
68	R	-
71	V	-
72	L	-
73	R	-
76	L	-
77	V	-
78	LG	-
79	SHIELD	-
80	GR	-
82	Y	-
83	SB	-
84	L	-
85	G	-
86	Y	-
87	B	-
88	B	-
91	P	-
92	BR	-
93	W	-

Connector No.	E164
Connector Name	HOOD SWITCH
Connector Type	RK02MGY



Connector No.	E148
Connector Name	POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	NS08FBR-CS



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

Terminal No.	Color Of Wire	Signal Name [Specification]
49	R	-
50	L	-
51	V	-
52	W	-
53	GR	-
54	LG	-
55	SB	-
56	BG	-



Connector No.	E169
Connector Name	WIRE TO WIRE
Connector Type	M06MY-LC

Connector No.	E150
Connector Name	WIRE TO WIRE
Connector Type	M02FW-GY-LC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	BG	-
3	L	-
4	W	-
5	G	-
6	W	-

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

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# SECURITY CONTROL SYSTEM

[WITHOUT INTELLIGENT KEY SYSTEM]

< WIRING DIAGRAM >

## SECURITY CONTROL SYSTEM (RHD MODELS WITHOUT INTELLIGENT KEY)

Connector No.	F69
Connector Name	STARTER CONTROL RELAY
Connector Type	MS02FL-M2-LC



Connector No.	F121
Connector Name	WIPE TO WIRE
Connector Type	NS16FBR-CS



Connector No.	F136
Connector Name	WIPE TO WIRE
Connector Type	MO8FW-LC



Connector No.	M3
Connector Name	FUSE BLOCK (UB)
Connector Type	NS16FW-CS



Terminal No.	Wire	Signal Name [Specification]
1	SB	-
2	G	-
3	L	-
4	GR	-

Terminal No.	Wire	Signal Name [Specification]
1	B	- [With MR20 or QR25 engine]
2	P	- [With R3M engine]
3	BR	- [With QR25 engine]
4	GR	- [With MR20 engine]
5	Y	- [With R3M engine]
6	G	-
7	BG	-
8	B	- [With MR20 engine]
9	L	- [With R3M engine]
10	LG	- [With QR25 engine]
11	P	- [With MR20 engine or R3M engine]
12	G	- [With QR25 engine]
13	R	- [With R3M engine]
14	Y	- [With MR20 or QR25 engine]
15	L	-
16	LG	-

Terminal No.	Wire	Signal Name [Specification]
1	L	-
2	BG	-
3	W	-
4	W	-
5	BG	-
6	W	-

Terminal No.	Wire	Signal Name [Specification]
10C	LG	-
13C	LA/G	-
14C	R	-
15C	L	-
16C	LAW	-
1C	R	-
2C	G	-
3C	Y	-
4C	LG	-
5C	GR	-
6C	LAR	-
7C	Y	-
8C	BR	- [With ISS]
9C	L	- [Without ISS]

Connector No.	F73
Connector Name	POWER INTELLIGENT POWER DISTRIBUTION MODULE (PDM) (R3M)
Connector Type	YLA06F-GY



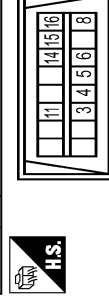
Connector No.	M2
Connector Name	FUSE BLOCK (UB)
Connector Type	NS16FBR-CS



Terminal No.	Wire	Signal Name [Specification]
10C	LG	-
13C	LA/G	-
14C	R	-
15C	L	-
16C	LAW	-
1C	R	-
2C	G	-
3C	Y	-
4C	LG	-
5C	GR	-
6C	LAR	-
7C	Y	-
8C	BR	- [With ISS]
9C	L	- [Without ISS]

Terminal No.	Wire	Signal Name [Specification]
81	G	-
83	L	-
84	GR	-
85	P	-
86	LG	-

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Wire	Signal Name [Specification]
10B	GR	- [With MR20 engine or R3M engine]
10B	LA/GR	- [With QR25 Engine]
12B	BR	-
14B	W	-
15B	W	-
16B	GR	-
1B	G	-
2B	R	-
3B	V	-
6B	LAL	-
7B	LAV	-

Terminal No.	Wire	Signal Name [Specification]
3	LG	-
4	B	-
5	B	-
6	L	-
8	Y	-

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# SECURITY CONTROL SYSTEM

[WITHOUT INTELLIGENT KEY SYSTEM]

< WIRING DIAGRAM >

## SECURITY CONTROL SYSTEM (RHD MODELS WITHOUT INTELLIGENT KEY)

Terminal No.	Color Of Wire	Signal Name [Specification]
11	SB	-
14	P	-
15	BR	-
16	W	-

Connector No.	M13
Connector Name	WIRE TO WIPE
Connector Type	TH32FW-NH

Terminal No.	Color Of Wire	Signal Name [Specification]
13	SB	-
14	P	-
15	BR	-
16	W	-
17	SB	-
18	P	-
19	BR	-
20	W	-
21	SB	-
22	P	-
23	BR	-
24	W	-
25	SB	-
26	P	-
27	BR	-
28	W	-
29	SB	-
30	P	-
31	BR	-
32	W	-



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GROUND
2	Y	SECURITY SIGNAL
3	R	ECO MODE SWITCH SIGNAL
4	SB	AMBIENT SENSOR SIGNAL
5	GR	METER CONTROL SWITCH SIGNAL
6	SB	TRIP RESET SWITCH SIGNAL
7	Y	AMBIENT SENSOR GROUND
8	G	STEERING SWITCH SIGNAL A
9	SB	STEERING SWITCH SIGNAL B
10	R	STEERING SWITCH SIGNAL C
11	B	STEERING SWITCH SIGNAL D

Terminal No.	Color Of Wire	Signal Name [Specification]
1	SB	-
2	V	-
3	SB	-
4	BR	-
5	L	-
6	Y	-
7	LG	-
8	BG	-
9	W	-
10	Y	-
11	R	-
12	SB	-
13	LG	-
14	V	-
15	SB	-
16	Y	-
17	LA/BR	-
18	LA/L	-
19	BG	-
20	BG	-
21	BG	-
22	GR	-
23	GR	-
24	P	-
25	L	-
26	BR	-
27	SHIELD	-
28	W	-
29	B	-
30	R	-
31	R	-
32	R	-

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

Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GROUND
2	Y	SECURITY SIGNAL
3	GR	ECO MODE SWITCH SIGNAL
4	SB	AMBIENT SENSOR SIGNAL
5	GR	METER CONTROL SWITCH SIGNAL
6	SB	TRIP RESET SWITCH SIGNAL
7	Y	AMBIENT SENSOR GROUND
8	G	STEERING SWITCH SIGNAL A
9	SB	STEERING SWITCH SIGNAL B
10	R	STEERING SWITCH SIGNAL C
11	B	STEERING SWITCH SIGNAL D



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GROUND
2	Y	SECURITY SIGNAL
3	GR	ECO MODE SWITCH SIGNAL
4	SB	AMBIENT SENSOR SIGNAL
5	GR	METER CONTROL SWITCH SIGNAL
6	SB	TRIP RESET SWITCH SIGNAL
7	Y	AMBIENT SENSOR GROUND
8	G	STEERING SWITCH SIGNAL A
9	SB	STEERING SWITCH SIGNAL B
10	R	STEERING SWITCH SIGNAL C
11	B	STEERING SWITCH SIGNAL D

Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GROUND
2	Y	SECURITY SIGNAL
3	GR	ECO MODE SWITCH SIGNAL
4	SB	AMBIENT SENSOR SIGNAL
5	GR	METER CONTROL SWITCH SIGNAL
6	SB	TRIP RESET SWITCH SIGNAL
7	Y	AMBIENT SENSOR GROUND
8	G	STEERING SWITCH SIGNAL A
9	SB	STEERING SWITCH SIGNAL B
10	R	STEERING SWITCH SIGNAL C
11	B	STEERING SWITCH SIGNAL D
12	Y	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)
13	LG	MANUAL MODE SIGNAL
14	SB	NON-MANUAL MODE SIGNAL
15	BG	MANUAL MODE SHIFT UP SIGNAL
16	BR	MANUAL MODE SHIFT DOWN SIGNAL
17	GR	ILLUMINATION CONTROL SWITCH SIGNAL (+)
18	G	ILLUMINATION CONTROL SWITCH SIGNAL (-)
19	V	VEHICLE SPEED SIGNAL (6-PULSE)
20	W	VEHICLE SPEED SIGNAL (2-PULSE)

Connector No.	M29
Connector Name	IGNITION SWITCH
Connector Type	TH44FW-NH

Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	IGNITION SIGNAL
2	B	IGNITION SIGNAL
3	LA/R	IGNITION SIGNAL



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	IGNITION SIGNAL
2	B	IGNITION SIGNAL
3	LA/R	IGNITION SIGNAL

Connector No.	M36
Connector Name	WIRE TO WIPE
Connector Type	NS08FW-CS

Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GROUND
2	Y	SECURITY SIGNAL
3	B	ECO MODE SWITCH SIGNAL



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GROUND
2	Y	SECURITY SIGNAL
3	GR	ECO MODE SWITCH SIGNAL
4	SB	AMBIENT SENSOR SIGNAL
5	GR	METER CONTROL SWITCH SIGNAL
6	SB	TRIP RESET SWITCH SIGNAL
7	Y	AMBIENT SENSOR GROUND
8	G	STEERING SWITCH SIGNAL A
9	SB	STEERING SWITCH SIGNAL B
10	R	STEERING SWITCH SIGNAL C
11	B	STEERING SWITCH SIGNAL D

Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GROUND
2	Y	SECURITY SIGNAL
3	B	ECO MODE SWITCH SIGNAL

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

Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GROUND
2	Y	SECURITY SIGNAL
3	GR	ECO MODE SWITCH SIGNAL
4	SB	AMBIENT SENSOR SIGNAL
5	GR	METER CONTROL SWITCH SIGNAL
6	SB	TRIP RESET SWITCH SIGNAL
7	Y	AMBIENT SENSOR GROUND
8	G	STEERING SWITCH SIGNAL A
9	SB	STEERING SWITCH SIGNAL B
10	R	STEERING SWITCH SIGNAL C
11	B	STEERING SWITCH SIGNAL D



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GROUND
2	Y	SECURITY SIGNAL
3	GR	ECO MODE SWITCH SIGNAL
4	SB	AMBIENT SENSOR SIGNAL
5	GR	METER CONTROL SWITCH SIGNAL
6	SB	TRIP RESET SWITCH SIGNAL
7	Y	AMBIENT SENSOR GROUND
8	G	STEERING SWITCH SIGNAL A
9	SB	STEERING SWITCH SIGNAL B
10	R	STEERING SWITCH SIGNAL C
11	B	STEERING SWITCH SIGNAL D

Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	CAN-H
2	P	CAN-L
3	W	ILLUMINATION CONTROL SIGNAL
4	LA/B	FUEL LEVEL SENSOR GROUND
5	LA/G	BATTERY POWER SUPPLY
6	LA/R	IGNITION SIGNAL [Without ISS]
7	V	IGNITION SIGNAL [With ISS]
8	SB	AV COMMUNICATION SIGNAL (H)
9	LG	AV COMMUNICATION SIGNAL (L)
10	Y	OIL LEVEL SENSOR SIGNAL
11	BG	OIL LEVEL SENSOR GROUND
12	LA/L	FUEL LEVEL SENSOR SIGNAL
13	B	GROUND

JRKWD4480GB

# SECURITY CONTROL SYSTEM

[WITHOUT INTELLIGENT KEY SYSTEM]

< WIRING DIAGRAM >

## SECURITY CONTROL SYSTEM (RHD MODELS WITHOUT INTELLIGENT KEY)

Connector No.	M53
Connector Name	DOUBLE UNIT
Connector Type	TH04FW-NH



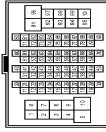
Terminal No.	Color	Wire	Signal Name [Specification]
1	P	B	DATA&SV SUPPLY
4	B		GND

Connector No.	M69
Connector Name	NATS ANTENNA AMP.
Connector Type	TH04FW-NH



Terminal No.	Color	Wire	Signal Name [Specification]
1	P		CLOCK
2	GR		GND
3	BR		L PWR
4	LG		DATA

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH00MW-CS16-TM4



Terminal No.	Color	Wire	Signal Name [Specification]
2	LAR		-
5	V		- [Without ISS]
8	W		- [Without ISS]
9	G		-
10	R		-
20	W		-
21	B		-
22	SHIELD		-
31	V		-
32	GR		-
33	G		-
34	LG		-
35	BG		-
36	LG		-
37	V		-
38	G		-
39	BR		-
40	L		-
41	P		-
47	Y		-
48	BG		-
51	GR		-
52	SB		-
53	R		-
54	LAL		-
55	BR		-
56	P		-
57	B		-
58	L		-
59	W		-
60	LAR		-
61	P		-
62	V		-
63	LAR		-
64	Y		-

65	GR	-
67	BG	-
68	R	-
71	V	-
72	L	-
73	Y	-
76	L	-
77	V	-
78	LG	-
79	SHIELD	-
80	L	- [With ISS]
82	GR	- [Without ISS]
83	LG	-
84	SB	-
85	G	-
86	G	-
87	B	-
88	B	-
91	L	-
92	W	-
93	W	-
96	LG	-
97	BR	-
98	V	-
99	R	-

Connector No.	M85
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS16FBR-CS



Terminal No.	Color	Wire	Signal Name [Specification]
137	W		BAT POWER SUPPLY (FUSE)
138	SB		INT ROOM LAMP CONT
139	V		PASSENGER DOOR UNLOCK OUTPUT
141	V		FRONT DOOR LOCK OUTPUT
143	LAV		POWER SUPPLY (FR DOOR LK ACT)
144	BG		POWER SUPPLY (TURN SIGNAL)
145	GR		POWER SUPPLY (STOP LAMP)

146	B	GROUND
147	B	GROUND
148	G	DRIVER DOOR UNLOCK OUTPUT
149	W	FRONT DOOR SUPERLOCK OUTPUT
151	R	POWER SUPPLY (REAR DOOR LK ACT)
152	LG	POWER SUPPLY (REAR WIPER)

Connector No.	M86
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH04FB-NH



Terminal No.	Color	Wire	Signal Name [Specification]
81	L		KEY SWITCH
82	LAR		KEY SW (STI Without Intelligent key)
82	W		PASS DOOR REQ SW (With Intelligent key)
84	BR		COMBI SW OUTPUT 2
85	SB		COMBI SW OUTPUT 1
86	P		COMBI SW OUTPUT 3
87	BG		COMBI SW OUTPUT 4
88	W		PUSH-BTN IGN SW ILL CONT
90	Y		SIL CONDITION
94	G		DETENTION SW
95	V		EXTENDED STORAGE FUSE SW
99	R		STOP/START OFF SW
100	V		DRIVER DOOR ANT +
101	Y		PUSH SW
104	R		DR DOOR UNLK SENS
105	Y		DR DOOR REQ SW
106	W		A2C OUTPUT
107	V		SENSOR CANCEL SW
109	P		NATS ANTENNA AMP.
110	BG		DIMMER SIGNAL
111	R		DOOR LK STAT IND OUTPUT
112	SB		STOP/START OFF SW INDICATOR
113	LG		NATS ANTENNA AMP.
114	V		NATS ANTENNA AMP.
115	W		NATS ANTENNA AMP.
116	BG		ROOM ANT 1 -
117	GR		ROOM ANT 1 +
118	SB		PASSENGER DOOR ANT -

JRKWD4481GB

A  
B  
C  
D  
E  
F  
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H  
I  
J  
L  
M  
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O  
P

SEC

# SECURITY CONTROL SYSTEM

[WITHOUT INTELLIGENT KEY SYSTEM]

< WIRING DIAGRAM >

## SECURITY CONTROL SYSTEM (RHD MODELS WITHOUT INTELLIGENT KEY)

119	P	PASSENGER DOOR ANT +
120	BR	DRIVER DOOR ANT +

Connector No.	M87
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FGV-AH

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# DIAGNOSIS AND REPAIR WORK FLOW

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[WITHOUT INTELLIGENT KEY SYSTEM]

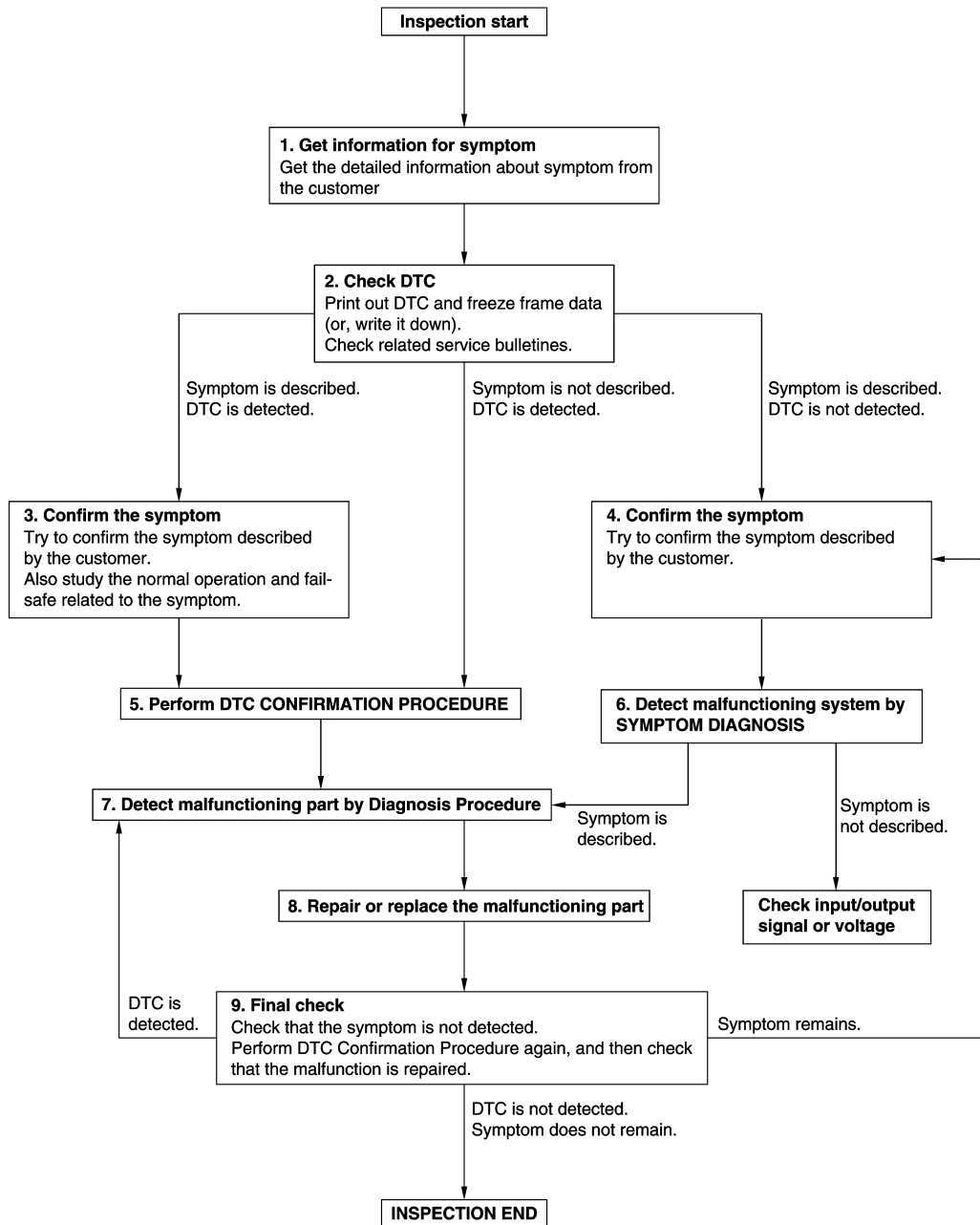
## BASIC INSPECTION

### DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:0000000010922273

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DETAILED FLOW

# DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

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## 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-77. "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 on 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-44. "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 >

[WITHOUT INTELLIGENT KEY SYSTEM]

Inspect according to Diagnosis Procedure of the system.

Is malfunctioning part detected?

YES >> GO TO 8.

NO >> Check according to [GI-44. "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 again 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 >

[WITHOUT INTELLIGENT KEY SYSTEM]

### ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

#### ECM

##### ECM : Description

INFOID:0000000010922274

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 a virgin ECM that has never been energized on-board.

##### NOTE:

- When the replaced ESM is not a brand new, the specified procedure (Initialization of BCM and registration of ignition keys) using CONSULT is necessary.
- 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:0000000010922275

#### 1.PERFORM ECM RECOMMUNICATING FUNCTION

1. Install ECM.
2. Insert the registered ignition key\* into key cylinder, then turn ignition switch 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 OFF.
5. Start the engine.

>> GO TO 2.

#### 2.PERFORM ADDITIONAL SERVICE WHEN REPLACING ECM

Perform [EC-141. "Work Procedure"](#) (MR20DD), [EC-944. "Work Procedure"](#) (R9M) or [EC-550. "Work Procedure"](#) (QR25DE).

>> END

#### BCM

##### BCM : Description

INFOID:0000000010922276

##### BEFORE REPLACEMENT

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

##### NOTE:

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

##### AFTER REPLACEMENT

##### CAUTION:

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

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

##### NOTE:

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

##### BCM : Work Procedure

INFOID:0000000010922277

#### 1.SAVING VEHICLE SPECIFICATION

##### CONSULT Configuration

Perform "READ CONFIGURATION" to save or print current vehicle specification. Refer to [BCS-106. "Description"](#).

## ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

< BASIC INSPECTION >

[WITHOUT INTELLIGENT KEY SYSTEM]

### NOTE:

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

>> GO TO 2.

## 2.REPLACE BCM

Replace BCM. Refer to [BCS-121, "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-106, "Work Procedure"](#).

>> GO TO 4.

## 4.INITIALIZE BCM (NATS)

Perform BCM initialization. (NATS)

>> WORK END

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**DTC/CIRCUIT DIAGNOSIS****P161D IMMOBILIZER****DTC Description**

INFOID:0000000010922278

**DTC DETECTION LOGIC**

DTC	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
P161D	IMMOBILIZER (Immobilizer)	When BCM detects an immobilizer malfunction and engine start is prohibited.

**POSSIBLE CAUSE**

BCM

**FAIL-SAFE**

Inhibit engine cranking

**DTC CONFIRMATION PROCEDURE****1.PERFORM DTC CONFIRMATION PROCEDURE**

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

**Is DTC detected?**

- YES >> Refer to [SEC-264, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

**Diagnosis Procedure**

INFOID:0000000010922279

**1.REPLACE BCM**Replace BCM. Refer to [BCS-121, "Removal and Installation"](#).

&gt;&gt; INSPECTION END

# P161E IMMOBILIZER

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## P161E IMMOBILIZER

### DTC Description

INFOID:0000000010922280

### DTC DETECTION LOGIC

DTC	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
P161E	IMMOBILIZER (Immobilizer)	When CONSULT is not used during ECM replacement.

### POSSIBLE CAUSE

- BCM
- ECM

### FAIL-SAFE

Inhibit engine cranking

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

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

#### Is DTC detected?

- YES >> Refer to [SEC-265, "Diagnosis Procedure"](#).  
NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).  
NO-2 >> Confirmation after repair: INSPECTION END

### Diagnosis Procedure

INFOID:0000000010922281

#### 1.ECM REGISTRATION

Using CONSULT, register ECM.

#### Is the DTC detected?

- YES >> GO TO 2.  
NO >> INSPECTION END

#### 2.REPLACE BCM

Replace BCM. Refer to [BCS-121, "Removal and Installation"](#).

#### Is the DTC detected?

- YES >> GO TO 3.  
NO >> INSPECTION END

#### 3.REPLACE ECM

Replace ECM. Refer to [EC-430, "Removal and Installation"](#) (MR20DD) or [EC-1226, "Removal and Installation"](#) (R9M).

>> INSPECTION END

## P161F IMMOBILIZER

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

### P161F IMMOBILIZER

#### DTC Description

INFOID:0000000010922282

#### DTC DETECTION LOGIC

DTC	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
P161F	IMMOBILIZER (Immobilizer)	When BCM detects an immobilizer malfunction and engine start is prohibited.

#### POSSIBLE CAUSE

ECM

#### FAIL-SAFE

Inhibit engine cranking

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

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

##### Is DTC detected?

- YES >> Refer to [SEC-266. "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-44. "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

#### Diagnosis Procedure

INFOID:0000000010922283

##### 1.REPLACE ECM

Replace ECM. Refer to [EC-430. "Removal and Installation"](#) (MR20DD) or [EC-1226. "Removal and Installation"](#) (R9M).

>> INSPECTION END

# P1616 ECM

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## P1616 ECM

### DTC Logic

INFOID:0000000010926589

### DTC DETECTION LOGIC

DTC	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
P1616	NATS MALFUNCTION (Nissan Anti-Theft System malfunction)	ECM ROM is malfunctioning

### POSSIBLE CAUSE

ECM

### FAIL-SAFE

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON and wait 2 seconds or more.
2. Check DTC in "Self Diagnostic Result" mode of "ENGINE" using CONSULT.

#### Is DTC detected?

- YES >> Refer to [SEC-267, "Diagnosis Procedure"](#).  
NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).  
NO-2 >> Confirmation after repair: INSPECTION END

### Diagnosis Procedure

INFOID:0000000010926590

#### 1.INSPECTION START

1. Turn ignition switch ON.
2. Select "Self Diagnostic Result" mode of "ENGINE" using CONSULT.
3. Touch "ERASE".
4. Perform DTC CONFIRMATION PROCEDURE for DTC P1616. Refer to [SEC-267, "DTC Logic"](#).

#### Is DTC P1616 displayed again?

- YES >> GO TO 2.  
NO >> INSPECTION END

#### 2.REPLACE ECM

Replace ECM. Refer to [EC-430, "Removal and Installation"](#) (MR20DD) or [EC-1226, "Removal and Installation"](#) (R9M).

>> INSPECTION END

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SEC

## B20DF STARTER RELAY OFF CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

### B20DF STARTER RELAY OFF CIRCUIT

#### DTC Description

INFOID:0000000010922308

#### DTC DETECTION LOGIC

DTC	CONSULT screen items (Trouble diagnosis content)		DTC detecting condition
B20DF	STARTER RELAY OFF CIRC (Starter relay off circuit)	[CIRC SHORT TO GROUND OR OPEN]	When IPDM E/R performs starter relay ON output but starter relay is OFF.

#### POSSIBLE CAUSE

- Harness or connectors  
(Starter relay circuit is open or shorted)
- IPDM E/R
- Starter motor

#### FAIL-SAFE

—

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Check DTC in “Self Diagnosis Result” mode of “IPDM E/R” using CONSULT.

##### Is DTC detected?

- YES >> Refer to [SEC-268, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

#### Diagnosis Procedure

INFOID:0000000010922309

##### 1.CHECK “S” TERMINAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect starter motor connector.
3. Shift selector lever to “P” or “N” position.
4. Check voltage between starter motor harness connector and ground.

QR25DE engine models

(+)		(-)	Condition	Voltage
Starter motor				
Connector	Terminal			
F10	2	Ground	When the ignition switch is in START position	12 V or more

MR20DD engine models

(+)		(-)	Condition	Voltage
Starter motor				
Connector	Terminal			
F47	2	Ground	When the ignition switch is in START position	12 V or more

## B20DF STARTER RELAY OFF CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

R9M engine models

Row engine models		(-)	Condition	Voltage
(+)				
Starter motor				
Connector	Terminal			
F130	2	Ground	When the ignition switch is in START position	12 V or more

Is the inspection result normal?

YES >> GO TO 2.

NO >> GO TO 3.

### 2.REPLACE STARTER MOTOR

Replace starter motor. [STR-27. "MR20DD : Removal and Installation"](#) (MR20DD engine models), [STR-34. "QR25DE : Removal and Installation"](#) (QR25 engine models) or [STR-39. "R9M : Removal and Installation"](#) (R9M engine models).

>> INSPECTION END

### 3.CHECK STARTER MOTER INPUT SIGNAL CIRCUIT

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

QR25DE engine models

Starter motor		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
F10	2	F73	81	Existed

MR20DD engine models

Starter motor		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
F47	2	F73	81	Existed

R9M engine models

Starter motor		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
F130	2	F73	81	Existed

4. Check continuity between starter motor harness connector and ground.

IPDM E/R		Ground	Continuity
Connector	Terminal		
F73	81		Not existed

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-60. "Removal and Installation"](#).

>> INSPECTION END

## B2190 CHAIN OF BCM - IMM ANT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

### B2190 CHAIN OF BCM - IMM ANT

#### DTC Description

INFOID:00000001092284

#### DTC DETECTION LOGIC

DTC	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B2190-00	CHAIN OF BCM-IMM ANT (Chain of body control module - immobilizer antenna)	When BCM cannot detect the immobilizer ID in 0.6 seconds.

#### POSSIBLE CAUSE

Ignition key

#### FAIL-SAFE

Inhibit engine cranking

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Make the conditions that BCM enters in the low power consumption mode (BCM sleep condition). Refer to [BCS-18, "POWER CONSUMPTION CONTROL SYSTEM : System Description"](#).
2. Turn ignition switch ON.
3. Check to DTC in "Self Diagnostic Result" mode of "BCM" CONSULT.

##### Is DTC detected?

- YES >> Refer to [SEC-270, "Diagnosis Procedure"](#).  
NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).  
NO-2 >> Confirmation after repair: INSPECTION END

#### Diagnosis Procedure

INFOID:00000001092285

##### 1.IGNITION KEY REGISTRATION

Using CONSULT, register all Ignition Keys again.

>> GO TO 2.

##### 2.CHECK SELF DIAGNOSIS RESULT

1. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.
2. Erase DTC.
3. Perform DTC CONFIRMATION PROCEDURE for B2190-00. Refer to [SEC-270, "DTC Description"](#).

##### Is DTC detected?

- YES >> GO TO 3.  
NO >> INSPECTION END

##### 3.CHECK FUSE

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

Signal name	Fuse No.
Battery power supply	9 (5A)

##### Is the fuse fusing?

- YES >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.  
NO >> GO TO 4.

##### 4.CHECK NATS ANTENNA AMP. POWER SUPPLY

1. Disconnect NATS antenna amp. connector.
2. Check voltage between NATS antenna amp. harness connector and ground.

**B2190 CHAIN OF BCM - IMM ANT**

&lt; DTC/CIRCUIT DIAGNOSIS &gt;

**[WITHOUT INTELLIGENT KEY SYSTEM]**

(+)		(-)	Voltage
NATS antenna amp.			
Connector	Terminal		
M69	3	Ground	Battery voltage

Is the inspection result normal?

YES &gt;&gt; GO TO 6.

NO &gt;&gt; GO TO 5.

**5.CHECK NATS ANTENNA AMP. POWER SUPPLY CIRCUIT**

1. Disconnect fuse block (J/B) connector.
2. Check continuity between NATS antenna amp. harness connector and fuse block (J/B) harness connector.

NATS antenna amp.		Fuse block (J/B)		Continuity
Connector	Terminal	Connector	Terminal	
M69	3	M2	12B	Existed

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

NATS antenna amp.		Ground	Continuity
Connector	Terminal		
M69	3		Not existed

Is the inspection result normal?

YES &gt;&gt; Replace fuse block (J/B).

NO &gt;&gt; Repair or replace harness.

**6.CHECK NATS ANTENNA AMP. GROUND CIRCUIT**

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

NATS antenna amp.		Ground	Continuity
Connector	Terminal		
M69	2		Existed

Is the inspection result normal?

YES &gt;&gt; GO TO 7.

NO &gt;&gt; Repair or replace harness.

**7.CHECK NATS ANTENNA COMMUNICATION SIGNAL**

Check voltage between NATS antenna amp. harness connector and ground.

(+)		(-)	Condition	Voltage
NATS antenna amp.				
Connector	Terminal			
M69	1	Ground	Just after inserting ignition key into key cylinder	Pointer of tester should move
			Other than above	0 V
	4		Just after inserting ignition key into key cylinder	Pointer of tester should move
			Other than above	0 V

Is the inspection result normal?YES >> Replace NATS antenna amp. Refer to [SEC-311, "Removal and Installation"](#).

NO &gt;&gt; GO TO 8.

**8.CHECK NATS ANTENNA COMMUNICATION SIGNAL CIRCUIT**

## B2190 CHAIN OF BCM - IMM ANT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

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

NATS antenna amp.		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M69	1	M86	109	Existed
	4		113	

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M69	109		Not existed
	113		

Is the inspection result normal?

YES >> GO TO 9.

NO >> Repair or replace harness.

### 9. REPLACE BCM

Replace BCM. Refer to [BCS-121, "Removal and Installation"](#).

>> INSPECTION END

## B2191 ID DISCORD, BCM - IMM ANT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

### B2191 ID DISCORD, BCM - IMM ANT

#### DTC Description

INFOID:0000000010922286

#### DTC DETECTION LOGIC

DTC	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B2191-00	ID DISCORD, BCM-IMMANT (Identification discord, body control module - immobilizer antenna)	When BCM continuously cannot detect inconsistency of Immobilizer ID in 0.6 seconds or more.

#### POSSIBLE CAUSE

Ignition key

#### FAIL-SAFE

Inhibit engine cranking

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

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

##### Is DTC detected?

- YES >> Refer to [SEC-273, "Diagnosis Procedure"](#).  
NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).  
NO-2 >> Confirmation after repair: INSPECTION END

#### Diagnosis Procedure

INFOID:0000000010922287

##### 1.IGNITION KEY REGISTRATION

Using CONSULT, register all Ignition Keys again.

##### Can engine be started with the registered Ignition Key?

- YES >> INSPECTION END  
NO >> GO TO 2.

##### 2.REPLACE IGNITION KEY

1. Prepare Ignition Key that matches the vehicle.
2. Registration of all Ignition Key using CONSULT.

##### Can engine be started with the registered Ignition Key?

- YES >> INSPECTION END  
NO >> GO TO 3.

##### 3.CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

>> INSPECTION END

## B2192 ID DISCORD, BCM-ECM

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

### B2192 ID DISCORD, BCM-ECM

#### DTC Description

INFOID:000000010922288

#### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B2192-00	ID DISCORD BCM-ECM (Identification discord body control module - engine control module)	The ID verification results between BCM and ECM are NG.

#### POSSIBLE CAUSE

- BCM
- ECM

#### FAIL-SAFE

—

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

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

##### Is DTC detected?

- YES >> Refer to [SEC-274, "Diagnosis Procedure"](#).  
NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).  
NO-2 >> Confirmation after repair: INSPECTION END

#### Diagnosis Procedure

INFOID:000000010922289

##### 1.PERFORM INITIALIZATION

Perform initialization of BCM and registration of all ignition keys using CONSULT.

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

- YES >> INSPECTION END  
NO >> GO TO 2.

##### 2.CHECK SELF DIAGNOSIS RESULT

1. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.
2. Erase DTC.
3. Perform DTC CONFIRMATION PROCEDURE for DTC B2192-00. Refer to [SEC-274, "DTC Description"](#).

##### Is DTC detected?

- YES >> GO TO 3.  
NO >> INSPECTION END

##### 3.REPLACE BCM

Replace BCM. Refer to [BCS-121, "Removal and Installation"](#).

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

- YES >> INSPECTION END  
NO >> GO TO 4.

##### 4.REPLACE ECM

Replace ECM. Refer to [EC-430, "Removal and Installation"](#) (MR20DD engine models), [EC-806, "Removal and Installation"](#) (QR25DE engine models) or [EC-1226, "Removal and Installation"](#) (R9M engine models).

>> INSPECTION END

## B2193 CHAIN OF BCM-ECM

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

### B2193 CHAIN OF BCM-ECM

#### DTC Description

INFOID:0000000010922290

#### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B2193-00	CHAIN OF BCM-ECM (Chain of body control module - engine control module)	Inactive communication between BCM and ECM

#### 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 B2193-00 is displayed with DTC U1000-00 or U1010-00, first perform the trouble diagnosis for DTC U1000-00 or U1010-00.

##### Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. U1000-00: Refer to [BCS-110, "DTC Description"](#). U1010-00: Refer to [BCS-111, "DTC Description"](#).
- NO >> GO TO 2.

##### 2.PERFORM DTC CONFIRMATION PROCEDURE

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

##### Is DTC detected?

- YES >> Refer to [SEC-275, "Diagnosis Procedure"](#).
- NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).
- NO-2 >> Confirmation after repair: INSPECTION END

#### Diagnosis Procedure

INFOID:0000000010922291

##### 1.CHECK DTC PRIORITY

If DTC B2193-00 is displayed with DTC U1000-00 or U1010-00, first perform the trouble diagnosis for DTC U1000-00 or U1010-00.

##### Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. U1000-00: Refer to [BCS-110, "DTC Description"](#). U1010-00: Refer to [BCS-111, "DTC Description"](#).
- NO >> GO TO 2.

##### 2.REPLACE BCM

Replace BCM. Refer to [BCS-121, "Removal and Installation"](#).

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

- YES >> INSPECTION END
- NO >> GO TO 3.

##### 3.REPLACE ECM

Replace ECM. Refer to [EC-430, "Removal and Installation"](#) (MR20DD engine models), [EC-806, "Removal and Installation"](#) (QR25DE engine models) or [EC-1226, "Removal and Installation"](#) (R9M engine models).

## **B2193 CHAIN OF BCM-ECM**

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

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>> INSPECTION END

# B2195 ANTI-SCANNING

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## B2195 ANTI-SCANNING

### DTC Description

INFOID:0000000010922292

### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B2195-00	ANTI-SCANNING (Anti-scanning)	ID verification between BCM and ECM that is out of the specified specification is detected.

### POSSIBLE CAUSE

ID verification request out of the specified specification

### FAIL-SAFE

Inhibit engine cranking

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

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

#### Is DTC detected?

- YES >> Refer to [SEC-277, "Diagnosis Procedure"](#).  
NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).  
NO-2 >> Confirmation after repair: INSPECTION END

### Diagnosis Procedure

INFOID:0000000010922293

#### 1.CHECK SELF DIAGNOSTIC RESULT 1

1. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.
2. Erase DTC.
3. Perform DTC CONFIRMATION PROCEDURE for DTC B2195-00. Refer to [SEC-277, "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

1. Obtain the customers approval to remove unspecified accessory part related to engine start, and then remove it.
2. Select "Self Diagnostic Result" of "BCM" using CONSULT.
3. Erase DTC.
4. Perform DTC CONFIRMATION PROCEDURE for DTC B2195-00. Refer to [SEC-277, "DTC Description"](#).

#### Is DTC detected?

- YES >> GO TO 4.  
NO >> INSPECTION END

#### 4.REPLACE BCM

Replace BCM. Refer to [BCS-121, "Removal and Installation"](#).

>> INSPECTION END

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SEC

## B2196 DONGLE UNIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

### B2196 DONGLE UNIT

#### Description

INFOID:0000000010926594

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

#### DTC Logic

INFOID:0000000010926595

#### DTC DETECTION LOGIC

DTC	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B2196-00	DONGLE NG (Dongle unit not good)	The ID verification results between BCM and dongle unit is invalid.

#### POSSIBLE CAUSE

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

#### FAIL-SAFE

Inhibit engine cranking

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Turn ignition switch OFF.
3. Turn ignition switch ON.
4. Check DTC in Self-diagnosis result mode of BCM using CONSULT.

##### Is the DTC detected?

- YES >> Refer to [SEC-278, "Diagnosis Procedure"](#).  
NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).  
NO-2 >> Confirmation after repair: INSPECTION END

#### Diagnosis Procedure

INFOID:0000000010926596

##### 1.PERFORM INITIALIZATION

1. Perform initialization of BCM and registration of all mechanical keys using CONSULT.  
For initialization and registration procedures, refer to CONSULT Immobilizer mode and follow the on-screen instructions.
2. Start the engine.

##### Does the engine start?

- YES >> INSPECTION END  
NO >> GO TO 2.

##### 2.CHECK DONGLE UNIT CIRCUIT

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

BCM		Dongle unit		Continuity
Connector	Terminal	Connector	Terminal	
M87	56	M53	1	Existed

4. Check continuity between BCM harness connector and ground.

## B2196 DONGLE UNIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

BCM		Ground	Continuity
Connector	Terminal		
M87	56		Not existed

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		
M53	4		Existed

Is the inspection result normal?

YES >> Replace dongle unit.

NO >> Repair or replace harness.

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## B2198 NATS ANTENNA AMP.

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

### B2198 NATS ANTENNA AMP.

#### DTC Description

INFOID:0000000010922294

#### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B2198-00	NATS ANTENNA AMP. (Nissan Anti-Theft System antenna amplifier)	Inactive communication between NATS antenna amp. and BCM

#### POSSIBLE CAUSE

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

#### FAIL-SAFE

Inhibit engine cranking

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Make the conditions that BCM enters in the low power consumption mode (BCM sleep condition).  
Refer to [BCS-18, "POWER CONSUMPTION CONTROL SYSTEM : System Description"](#).
2. Turn ignition switch ON.
3. Check DTC in "Self Diagnostic Result" mode of "BCM" using CONSULT.

##### Is DTC detected?

- YES >> Refer to [SEC-280, "Diagnosis Procedure"](#).  
NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).  
NO-2 >> Confirmation after repair: INSPECTION END

#### Diagnosis Procedure

INFOID:0000000010922295

##### 1.CHECK NATS ANTENNA AMP. POWER SUPPLY

1. Disconnect NATS antenna amp. connector.
2. Check voltage between NATS antenna amp. harness connector and ground.

NATS antenna amp.		(-)	voltage
Connector	Terminal		
M69	3	Ground	Battery voltage

##### Is the inspection result normal?

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

##### 2.CHECK FUSE

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

Signal name	Fuse No
Battery voltage	9 (5A)

##### Is the inspection result normal?

- YES >> GO TO 3.  
NO >> Replace the blown fuse after repairing the cause of blowing.

##### 3.CHECK NATS ANTENNA AMP. POWER SUPPLY CIRCUIT

1. Disconnect fuse block (J/B) connector.

## B2198 NATS ANTENNA AMP.

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

2. Check continuity between NATS antenna amp. harness connector and fuse block (J/B) harness connector.

NATS antenna amp.		Fuse block (J/B)		Continuity
Connector	Terminal	Connector	Terminal	
M69	3	M2	12B	Existed

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

NATS antenna amp.		Ground	Continuity
Connector	Terminal		Not existed
M69	3		

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

NO >> Repair or replace harness.

### 4.CHECK NATS ANTENNA AMP. GROUND CIRCUIT

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

NATS antenna amp.		Ground	Continuity
Connector	Terminal		Existed
M69	2		

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

### 5.CHECK NATS ANTENNA AMP. COMMUNICATION SIGNAL

Check voltage between NATS antenna amp. harness connector and ground.

(+) (+)		(−)	Condition	Voltage (V)
NATS antenna amp.				
Connector	Terminal			
M69	1	Ground	Just after inserting ignition key into key cylinder	Pointer of tester should move
	4		Other than above	0 V
			Just after inserting ignition key into key cylinder	Pointer of tester should move
				Other than above

Is the inspection result normal?

YES >> Replace NATS antenna amp. Refer to [SEC-311, "Removal and Installation"](#).

NO >> GO TO 6.

### 6.CHECK NATS ANTENNA AMP. COMMUNICATION SIGNAL CIRCUIT

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

NATS antenna amp.		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M69	1	M86	109	Existed
	4		113	

3. Check continuity between BCM harness connector and ground.

## B2198 NATS ANTENNA AMP.

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

BCM		Ground	Continuity
Connector	Terminal		
M86	113		Not existed
	109		

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace harness.

**7**.REPLACE BCM

Replace BCM. Refer to [BCS-121. "Removal and Installation"](#).

>> INSPECTION END

## B2608 STARTER RELAY

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

### B2608 STARTER RELAY

#### DTC Description

INFOID:0000000010922296

#### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B2608-00	STARTER RELAY (Starter relay)	BCM outputs starter relay OFF signal but BCM receives starter relay ON signal from IPDM E/R (CAN).

#### POSSIBLE CAUSE

- Harness or connectors  
(CAN communication line is open or shorted.)
- Harness or connectors  
(Starter relay circuit is open or shorted.)
- IPDM E/R

#### FAIL-SAFE

Inhibit engine cranking

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

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

##### Is DTC detected?

- YES >> Refer to [SEC-283, "Diagnosis Procedure"](#).  
NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).  
NO-2 >> Confirmation after repair: INSPECTION END

#### Diagnosis Procedure

INFOID:0000000010922297

##### 1.CHECK DTC OF IPDM E/R

Check DTC in "Self Diagnostic Result" mode of "IPDM E/R" using CONSULT.

##### Is DTC detected?

- YES >> Perform the trouble diagnosis related to the detected DTC. Refer to [PCS-38, "DTC Index"](#).  
NO >> GO TO 2.

##### 2.CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

##### Is the inspection result normal?

- YES >> INSPECTION END  
NO >> Replace IPDM E/R. Refer to [PCS-60, "Removal and Installation"](#).

## B260F ENGINE STATUS

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

### B260F ENGINE STATUS

#### DTC Description

INFOID:0000000010922298

#### DTC DETECTION LOGIC

DTC No.	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B260F-00	ENG STATE SIG LOST (Engine state signal lost)	BCM has not yet received the engine status signal from ECM when ignition switch is in the ON position.

#### POSSIBLE CAUSE

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

#### FAIL-SAFE

Inhibit engine cranking

#### DTC CONFIRMATION PROCEDURE

##### 1.CHECK DTC PRIORITY

If DTC B260F-00 is displayed with DTC U1000-00 or U1010-00, first perform the trouble diagnosis for DTC U1000-00 or U1010-00.

##### Is applicable DTC detected?

YES >> Perform diagnosis of applicable. U1000-00: Refer to [BCS-110, "DTC Description"](#) U1010-00: Refer to [BCS-111, "DTC Description"](#).

NO >> GO TO 2.

##### 2.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON and wait 2 seconds or more.
2. Check DTC in "Self Diagnostic Result" mode of "BCM" using CONSULT.

##### Is DTC detected?

YES >> Refer to [SEC-284, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

#### Diagnosis Procedure

INFOID:0000000010922299

##### 1.CHECK DTC PRIORITY

If DTC B260F-00 is displayed with DTC U1000-00 or U1010-00, first perform the trouble diagnosis for DTC U1000-00 or U1010-00.

##### Is applicable DTC detected?

YES >> Perform diagnosis of applicable. U1000-00: Refer to [BCS-110, "DTC Description"](#) U1010-00: Refer to [BCS-111, "DTC Description"](#).

NO >> GO TO 2.

##### 2.INSPECTION START

1. Turn ignition switch ON.
2. Select "Self Diagnostic Result" mode of "BCM" using CONSULT.
3. Touch "ERASE".
4. Perform DTC CONFIRMATION PROCEDURE for DTC B260F-00. Refer to [SEC-284, "DTC Description"](#).

##### Is DTC detected?

YES >> GO TO 3.

NO >> INSPECTION END

##### 3.REPLACE ECM

B260F ENGINE STATUS

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

Replace ECM. Refer to [EC-430. "Removal and Installation"](#) (MR20DD engine models), [EC-806. "Removal and Installation"](#) (QR25DE engine models) or [EC-1226. "Removal and Installation"](#) (R9M engine models).

>> INSPECTION END

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## B27D1 START CUT RELAY OFF

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

### B27D1 START CUT RELAY OFF

#### DTC Description

INFOID:0000000010922300

#### DTC DETECTION LOGIC

DTC	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B27D1-00	START CUT RELAY OFF (Starter cut relay OFF)	When the starter relay/starter control relay status signal transmitted from IPDM E/R via CAN communication is (OFF/OFF) after 0.5 seconds elapse, even though BCM is operating the starter control relay ON output.

#### POSSIBLE CAUSE

- Starter control relay
- Harness or connectors  
(Starter control relay circuit is shorted)

#### FAIL-SAFE

—

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

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

##### Is DTC detected?

- YES >> Refer to [SEC-286, "Diagnosis Procedure"](#).  
NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).  
NO-2 >> Confirmation after repair: INSPECTION END

#### Diagnosis Procedure

INFOID:0000000010922301

##### 1.CHECK STARTER CONTROL RELAY INPUT SIGNAL

Check voltage between BCM harness connector and ground.

(+)		(-)	Condition	Voltage
BCM				
Connector	Terminal			
E23	171	Ground	Engine cranking	0 - 0.5 V
			Other than engine cranking	9 - 16 V

##### Is the inspection result normal?

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

##### 2.CHECK FUSE

Check that the following fuse is not blown.

Signal name	Fuse
Battery power supply	30A
	L

##### Is the fuse fusing?

- YES >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.  
NO >> GO TO 3.

##### 3.CHECK STARTER CONTROL RELAY INPUT SIGNAL CIRCUIT

## B27D1 START CUT RELAY OFF

[WITHOUT INTELLIGENT KEY SYSTEM]

### < DTC/CIRCUIT DIAGNOSIS >

1. Disconnect BCM connector and starter control relay connector.
2. Check continuity between BCM harness connector and starter control relay harness connector.

BCM		Starter control relay		Continuity
Connector	Terminal	Connector	Terminal	
E23	171	F69	2	Existed

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
E23	171		Not Existed

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

### 4.CHECK STARTER CONTROL RELAY OUTPUT SIGNAL

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

(+)		(-)	Condition	Voltage
IPDM E/R				
Connector	Terminal			
F73	84	Ground	Other than engine cranking	0 - 1 V
			Engine cranking	6 - 16 V

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-60, "Removal and Installation"](#).

NO >> GO TO 5.

### 5.CHECK STARTER CONTROL RELAY OUTPUT SIGNAL CIRCUIT

1. Check continuity between IPDM E/R harness connector and starter control relay harness connector.

IPDM E/R		Starter control relay		Continuity
Connector	Terminal	Connector	Terminal	
F73	84	F69	5	Existed

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
F73	84		Not existed

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

### 6.CHECK STARTER CONTROL RELAY

Check starter control relay. Refer to [SEC-288, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 7.

NO >> Replace starter control relay.

### 7.CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

>> INSPECTION END

B27D1 START CUT RELAY OFF

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

Component Inspection

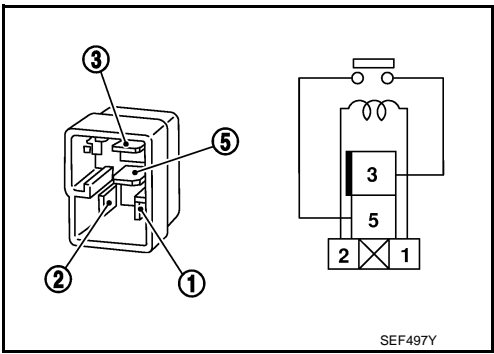
INFOID:0000000010922302

1.CHECK STARTER CONTROL RELAY

- 1. Disconnect starter control relay.
- 2. Check continuity between starter relay terminals.

Is the inspection result normal?

YES >> INSPECTION END  
NO >> Replace starter control relay.



starter control relay		Condition	Continuity
Terminal			
③	⑤	12 V direct current supply between terminals ① and ②	Existed
		No current supply	Not existed

# B27D2 START CUT RELAY ON

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## B27D2 START CUT RELAY ON

### DTC Description

INFOID:0000000010922303

### DTC DETECTION LOGIC

DTC	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B27D2-00	START CUT RELAY ON (Starter cut relay ON)	When BCM starter control relay is in OFF status, and when the starter relay/starter control relay status signal is (ON/ON)

### POSSIBLE CAUSE

- Harness or connectors  
(Starter control relay circuit is shorted)
- Starter control relay
- BCM

### FAIL-SAFE

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### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

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

#### Is DTC detected?

YES >> Refer to [SEC-289, "Diagnosis Procedure"](#).

NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).

NO-2 >> Confirmation after repair: INSPECTION END

### Diagnosis Procedure

INFOID:0000000010922304

#### 1.CHECK STARTER CONTROL RELAY INPUT SIGNAL

Check voltage between BCM harness connector and ground.

(+)		(-)	Condition	Voltage
BCM				
Connector	Terminal			
E23	171	Ground	Engine cranking	0 - 0.5 V
			Other than engine cranking	9 - 16 V

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

#### 2.CHECK FUSE

Check that the following fuse is not blown

Signal name	Fuse
Battery power supply	30A
	L

#### Is the fuse fusing?

YES >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.

NO >> GO TO 3.

#### 3.CHECK STARTER CONTROL RELAY INPUT SIGNAL CIRCUIT

1. Disconnect BCM connector and starter control relay connector.

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## B27D2 START CUT RELAY ON

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

2. Check continuity between BCM harness connector and starter control relay harness connector.

BCM		Starter control relay		Continuity
Connector	Terminal	Connector	Terminal	
E23	171	F69	2	Existed

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
E23	171		Not Existed

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

### 4.CHECK STARTER CONTROL RELAY OUTPUT SIGNAL

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

(+)		(-)	Condition	Voltage
IPDM E/R				
Connector	Terminal			
F73	84	Ground	Other than engine cranking	0 - 1 V
			Engine cranking	6 - 16 V

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-60, "Removal and Installation"](#).

NO >> GO TO 5

### 5.CHECK STARTER CONTROL RELAY OUTPUT SIGNAL CIRCUIT

1. Check continuity between IPDM E/R harness connector and starter control relay harness connector.

IPDM E/R		Starter control relay		Continuity
Connector	Terminal	Connector	Terminal	
F73	84	F69	5	Existed

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
F73	84		Not existed

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

### 6.CHECK STARTER CONTROL RELAY

Check starter control relay. Refer to [SEC-288, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 7.

NO >> Replace starter control relay.

### 7.REPLACE BCM

Replace BCM. [BCS-121, "Removal and Installation"](#).

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 8.

## B27D2 START CUT RELAY ON

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

### 8.CHECK INTERMITTENT INCIDENT

Refer to [GI-44. "Intermittent Incident"](#).

>> INSPECTION END

### Component Inspection

INFOID:0000000010922305

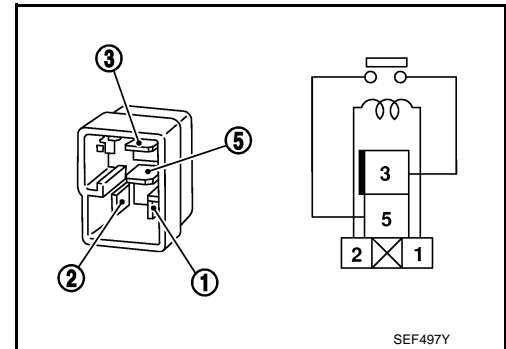
#### 1.CHECK STARTER CONTROL RELAY

1. Disconnect starter control relay.
2. Check continuity between starter relay terminals.

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace starter control relay.



starter control relay		Condition	Continuity
Terminal			
③	⑤	12 V direct current supply between terminals ① and ②	Existed
		No current supply	Not existed

## B27DA IPDM CAN COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

### B27DA IPDM CAN COMM CIRCUIT

#### DTC Description

INFOID:0000000010922306

#### DTC DETECTION LOGIC

DTC	CONSULT screen items (Trouble diagnosis content)	DTC detecting condition
B27DA-00	IPDM CAN COMM CIRCUIT (Intelligent power distribution module controller area network communication circuit)	When BCM cannot detect CAN communication with IPDM E/R.

#### POSSIBLE CAUSE

- Harness or connectors  
(The CAN communication line is open or shorted.)
- IPDM E/R
- BCM

#### FAIL-SAFE

Inhibit steering lock

#### DTC CONFIRMATION PROCEDURE

##### 1.CHECK DTC PRIORITY

If DTC B27DA-00 is displayed with DTC U1000-00 or U1010-00, first perform the trouble diagnosis for DTC U1000-00 or U1010-00.

##### Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. U1000-00: Refer to [BCS-110, "DTC Description"](#) U1010-00: Refer to [BCS-111, "DTC Description"](#).  
NO >> GO TO 2.

##### 2.PERFORM DTC CONFIRMATION PROCEDURE

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

##### Is DTC detected?

- YES >> Refer to [SEC-292, "Diagnosis Procedure"](#).  
NO-1 >> To check malfunction symptom before repair: Refer to [GI-44, "Intermittent Incident"](#).  
NO-2 >> Confirmation after repair: INSPECTION END

#### Diagnosis Procedure

INFOID:0000000010922307

##### 1.CHECK DTC PRIORITY

If DTC B27DA-00 is displayed with DTC U1000-00 or U1010-00, first perform the trouble diagnosis for DTC U1000-00 or U1010-00.

##### Is applicable DTC detected?

- YES >> Perform diagnosis of applicable. U1000-00: Refer to [BCS-110, "DTC Description"](#) DTC U1010-00: [BCS-111, "DTC Description"](#)  
NO >> GO TO 2.

##### 2.CHECK DTC OF IPDM E/R

Check DTC in "Self Diagnostic Result" mode of "IPDM E/R" using CONSULT. Refer to [PCS-38, "DTC Index"](#).

##### Is the inspection result normal?

- YES >> GO TO 6.  
NO >> GO TO 3.

##### 3.REPLACE IPDM E/R

Replace IPDM E/R. Refer to [PCS-60, "Removal and Installation"](#).

## B27DA IPDM CAN COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 4.

### 4.CHECK SELF DIAGNOSTIC RESULT

Check DTC in "Self Diagnostic Result" mode of "BCM" using CONSULT. Refer to [BCS-78, "DTC Index"](#).

Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 5.

### 5.REPLACE BCM

Replace BCM. Refer to [BCS-121, "Removal and Installation"](#).

>> INSPECTION END

### 6.CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

>> INSPECTION END

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# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## POWER SUPPLY AND GROUND CIRCUIT

### SIREN CONTROL UNIT

#### SIREN CONTROL UNIT : Diagnosis Procedure

INFOID:0000000010926597

#### 1.CHECK FUSE

Check that the following fuse is not blown.

Signal name	Fuse
Battery power supply	14 (5 A)

Is the fuse fusing?

YES >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.

NO >> GO TO 2.

#### 2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect siren control unit connector.
3. Check voltage between siren control unit harness connector and the ground.

(+) Siren control unit		(-)	Voltage (Approx.)
Connector	Terminal	Ground	
B127	2		Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

#### 3.CHECK GROUND CIRCUIT

Check continuity between siren control unit harness connectors and the ground.

Siren control unit		Ground	Continuity
Connector	Terminal		
B127	5		Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace harness.

# SECURITY INDICATOR LAMP

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## SECURITY INDICATOR LAMP

### Diagnosis Procedure

INFOID:0000000010922310

#### 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.

(+)		(-)	Voltage (V) (Approx.)
Combination meter			
Connector	Terminal		
M42	45	Ground	Battery voltage

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

(+)		(-)	Voltage
BCM			
Connector	Terminal		
M87	75	Ground	9 - 16 V

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 5.

#### 4.REPLACE BCM

Replace BCM. Refer to [BCS-121, "Removal and Installation"](#).

>> INSPECTION END

#### 5.CHECK SECURITY INDICATOR LAMP CIRCUIT

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

Combination meter		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M34	7	M87	75	Existed

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

## SECURITY INDICATOR LAMP

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

Combination meter		Ground	Continuity
Connector	Terminal		
M34	7		Not existed

Is the inspection result normal?

- YES >> Replace combination meter. Refer to [MWI-151, "Removal and Installation"](#).  
NO >> Repair or replace harness.

# HOOD SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## HOOD SWITCH

### Component Function Check

INFOID:0000000010926599

#### 1.CHECK FUNCTION

1. Select "HOOD SW" in "Data Monitor" mode of "IPDM E/R" using CONSULT.
2. Check "HOOD SW" indication under the following condition.

Monitor item	Condition		Indication
HOOD SW	Hood	Open	ON
		Close	OFF

Is the indication normal?

- YES >> Hood switch is OK.  
NO >> Refer to [SEC-297, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:0000000010926600

#### 1.CHECK HOOD SWITCH SIGNAL CIRCUIT 1

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

(+)		(-)	Voltage
Hood switch			
Connector	Terminal		
E164	2	Ground	9 - 16 V

Is the inspection result normal?

- YES >> GO TO 3.  
NO >> GO TO 2.

#### 2.CHECK HOOD SWITCH SIGNAL CIRCUIT 2

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

IPDM E/R		Hood switch		Continuity
Connector	Terminal	Connector	Terminal	
E148	52	E164	2	Existed

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
E148	52		Not existed

Is the inspection result normal?

- YES >> Replace IPDM E/R. Refer to [PCS-60, "Removal and Installation"](#).  
NO >> Repair or replace harness.

#### 3.CHECK HOOD SWITCH GROUND CIRCUIT

Check continuity between hood switch harness connector and ground.

Hood switch		Ground	Continuity
Connector	Terminal		
E164	1		Existed

## HOOD SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

Is the inspection result normal?

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

### 4.CHECK HOOD SWITCH

Refer to [SEC-298, "Component Inspection"](#).

Is the inspection result normal?

- YES >> GO TO 5.  
NO >> Replace hood lock assembly. Refer to [DLK-768, "HOOD LOCK : Removal and Installation"](#).

### 5.CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

>> INSPECTION END

## Component Inspection

INFOID:0000000010926601

### 1.CHECK HOOD SWITCH

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

Hood switch		Condition		Continuity
Terminal				
1	2	Hood lock	Unlock condition	Not existed
			Lock condition	Existed

Is the inspection result normal?

- YES >> INSPECTION END  
NO >> Replace hood lock assembly. Refer to [DLK-768, "HOOD LOCK : Removal and Installation"](#).

# INTRUDER SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## INTRUDER SENSOR

### Component Function Check

INFOID:0000000010926602

#### 1.CHECK INTRUDER SENSOR FUNCTION

1. Turn ignition switch OFF.
2. Check that hood is closed completely.
3. Get in the vehicle and close all doors.
4. Lock doors using Keyfob.
5. Check security indicator lamp blinks to confirm that the vehicle security system is shifted into the ARMED phase. Refer to [SEC-217, "VEHICLE SECURITY SYSTEM : System Description"](#).
6. Hold up and move a hand over intruder sensor.
7. Check that siren sounds after a few seconds.

##### Does the siren sound?

YES >> Intruder sensor is OK.

NO >> Refer to [SEC-299, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:0000000010926603

#### 1.CHECK INTRUDER SENSOR POWER SUPPLY

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

(+)		(-)	Voltage (Approx.)
Sensor cancel switch			
Connector	Terminal		
R25	1	Ground	Battery voltage

##### Is the inspection result normal?

YES >> GO TO 2.

NO-1 >> Check 5 A fuse [No. 14, located in the fuse block].

NO-2 >> Check harness for open or short between fuse and sensor cancel switch.

#### 2.CHECK INTRUDER SENSOR SIGNAL CIRCUIT

1. Disconnect siren control unit connector.
2. Check continuity between siren control unit harness connector and sensor cancel switch harness connector.

Siren control unit		Sensor cancel switch		Continuity
Connector	Terminal	Connector	Terminal	
B127	4	R25	2	Existed

3. Check continuity between siren control unit harness connector and ground.

Siren control unit		Ground	Continuity
Connector	Terminal		
B127	4		Not existed

##### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

#### 3.CHECK INTRUDER SENSOR GROUND CIRCUIT

Check continuity between sensor cancel switch harness connector and ground.

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## INTRUDER SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

Sensor cancel switch		Ground	Continuity
Connector	Terminal		
R25	3		Existed

Is the inspection result normal?

- YES    >> Replace intruder sensor.  
NO     >> Repair or replace harness.

# SENSOR CANCEL SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

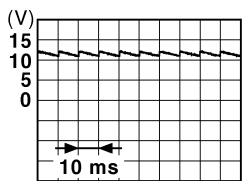
## SENSOR CANCEL SWITCH

### Diagnosis Procedure

INFOID:0000000010926604

#### 1.CHECK SENSOR CANCEL SWITCH SIGNAL

1. Turn ignition switch OFF.
2. Disconnect sensor cancel switch connector.
3. Check signal between sensor cancel switch harness connector and ground with oscilloscope.

(+)		(-)	Voltage
Sensor cancel switch			
Connector	Terminal		
R25	5	Ground	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

#### 2.CHECK SENSOR CANCEL SWITCH CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between BCM harness connector and sensor cancel switch harness connector.

BCM		Sensor cancel switch		Continuity
Connector	Terminal	Connector	Terminal	
M86	107	R25	5	Existed

3. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M86	107		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-121, "Removal and Installation"](#).

NO >> Repair or replace harness.

#### 3.CHECK GROUND CIRCUIT

Check continuity between sensor cancel switch harness connector and ground.

Sensor cancel switch		Ground	Continuity
Connector	Terminal		
R25	6		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

#### 4.CHECK SENSOR CANCEL SWITCH

Refer to [SEC-302, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 5.

## SENSOR CANCEL SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

NO >> Replace sensor cancel switch.

### 5.CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

>> INSPECTION END

## Component Inspection

INFOID:0000000010926605

### 1.CHECK SENSOR CANCEL SWITCH

1. Turn ignition switch OFF.
2. Disconnect sensor cancel switch connector.
3. Check continuity between sensor cancel switch terminals.

Sensor cancel switch		Condition		Continuity
Terminal				
5	6	Sensor cancel switch	Press	Existed
			Release	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace sensor cancel switch.

# SIREN CONTROL UNIT CIRCUIT (COMMUNICATION SIGNAL)

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## SIREN CONTROL UNIT CIRCUIT (COMMUNICATION SIGNAL)

### Component Function Check

INFOID:0000000010926606

#### 1.CHECK SIREN CONTROL UNIT FUNCTION

1. Turn ignition switch OFF.
2. Check that hood is closed completely.
3. Get in the vehicle and close all doors.
4. Lock doors using Keyfob.
5. Check security indicator lamp blinks to confirm that the vehicle security system is shifted into the ARMED phase. Refer to [SEC-217. "VEHICLE SECURITY SYSTEM : System Description"](#).

Is the inspection result normal?

- YES >> Siren control unit circuit (communication signal) is OK.  
NO >> Refer to [SEC-303. "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:0000000010926607

#### 1.CHECK SIREN CONTROL UNIT SIGNAL CIRCUIT

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

Siren control unit		BCM		Continuity
Connector	Terminal	Connector	Terminal	
B127	3	B47	38	Existed

5. Check continuity between siren control unit harness connector and ground.

Siren control unit		Ground	Continuity
Connector	Terminal		
B127	3		Not existed

Is the inspection result normal?

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

#### 2.CHECK INTERMITTENT INCIDENT

Refer to [GI-44. "Intermittent Incident"](#).

>> INSPECTION END

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# SIREN CONTROL UNIT CIRCUIT (HAZARD SWITCH SIGNAL)

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## SIREN CONTROL UNIT CIRCUIT (HAZARD SWITCH SIGNAL)

### Component Function Check

INFOID:0000000010926608

#### 1.CHECK SIREN CONTROL UNIT FUNCTION

1. Turn ignition switch OFF.
2. Check that hood is closed completely.
3. Get in the vehicle and close all doors.
4. Lock doors using Keyfob.
5. Check security indicator lamp blinks to confirm that the vehicle security system is shifted into the ARMED phase. Refer to [SEC-217, "VEHICLE SECURITY SYSTEM : System Description"](#).
6. Hold up and move a hand over intruder sensor.
7. Check that hazard warning lamps blinks after a few seconds.

Does the siren sound?

YES >> Siren control unit circuit (hazard switch signal) is OK.

NO >> Refer to [SEC-304, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:0000000010926609

#### 1.CHECK SIREN CONTROL UNIT SIGNAL CIRCUIT

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

Siren control unit		BCM		Continuity
Connector	Terminal	Connector	Terminal	
B127	1	M87	51	Existed

5. Check continuity between siren control unit harness connector and ground.

Siren control unit		Ground	Continuity
Connector	Terminal		
B127	1		Not existed

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

#### 2.CHECK INTERMITTENT INCIDENT

Refer to [GI-44, "Intermittent Incident"](#).

>> INSPECTION END

# SECURITY INDICATOR LAMP DOES NOT TURN ON OR BLINK

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## SYMPTOM DIAGNOSIS

### SECURITY INDICATOR LAMP DOES NOT TURN ON OR BLINK

#### Description

INFOID:0000000010922311

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-259, "Work Flow"](#).
- Check that vehicle is under the condition shown in "CONDITIONS OF VEHICLE (OPERATING CONDITIONS)" before starting diagnosis, and check each symptom.

#### CONDITIONS OF VEHICLE (OPERATING CONDITIONS)

Ignition switch is not in the ON position.

#### Diagnosis Procedure

INFOID:0000000010922312

#### 1.CHECK SECURITY INDICATOR LAMP

Check security indicator lamp function.

Refer to [SEC-295, "Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

#### 2.REPLACE BCM

• Replace BCM. Refer to [BCS-121, "Removal and Installation"](#).

• Confirm the operation after replacement.

Is the result normal?

YES >> INSPECTION END

NO >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

SEC

# VEHICLE SECURITY SYSTEM CANNOT BE SET

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## VEHICLE SECURITY SYSTEM CANNOT BE SET KEY FOB

### KEY FOB : Description

INFOID:0000000010926612

Armed phase is not activated when all doors are locked using keyfob.

#### NOTE:

Check that vehicle is under the condition shown in "CONDITIONS OF VEHICLE (OPERATING CONDITIONS)" before starting diagnosis, and check each symptom.

#### CONDITION OF VEHICLE (OPERATING CONDITIONS)

"SECURITY ALARM SET": ON

Check the setting of "SECURITY ALARM SET" in "Work Support" mode of "THEFT ALM" of "BCM" using CONSULT.

### KEY FOB : Diagnosis Procedure

INFOID:0000000010926613

#### 1.CHECK REMOTE KEYLESS ENTRY SYSTEM

Lock/unlock door with keyfob. Refer to [DLK-649, "REMOTE KEYLESS ENTRY FUNCTION : System Description"](#) (With super lock) or [DLK-800, "REMOTE KEYLESS ENTRY SYSTEM : System Description"](#) (With out super lock).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to [DLK-718, "Diagnosis Procedure"](#).

#### 2.CHECK HOOD SWITCH

Check hood switch. Refer to [SEC-297, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace hood switch.

#### 3.REPLACE BCM

- Replace BCM. Refer to [BCS-121, "Removal and Installation"](#).
- Confirm the operation after replacement.

Is the result normal?

YES >> INSPECTION END

NO >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

## DOOR LOCK AND UNLOCK SWITCH

### DOOR LOCK AND UNLOCK SWITCH : Description

INFOID:0000000010926614

ARMED phase is not activated when door is locked using door lock and unlock 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)

- SECURITY ALARM SET: ON

Check the setting of "SECURITY ALARM SET" in "Work Support" mode of "THEFT ALM" of "BCM" using CONSULT.

### DOOR LOCK AND UNLOCK SWITCH : Diagnosis Procedure

INFOID:0000000010926615

#### 1.CHECK POWER DOOR LOCK SYSTEM (DOOR LOCK FUNCTION)

Lock/unlock door with door lock and unlock switch. Refer to [DLK-646, "System Description"](#) (With super lock) or [DLK-797, "POWER DOOR LOCK SYSTEM : System Description"](#) (Without super lock).

Is the inspection result normal?

YES >> GO TO 2.

# VEHICLE SECURITY SYSTEM CANNOT BE SET

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

NO >> Check power door lock system (door lock function). Refer to [DLK-713, "ALL DOOR : Diagnosis Procedure"](#) (With super lock) or [DLK-855, "ALL DOOR : Diagnosis Procedure"](#) (Without super lock).

## 2.CHECK HOOD SWITCH

Check hood switch. Refer to [SEC-297, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or Replace hood switch.

## 3.REPLACE BCM

- Replace BCM. Refer to [BCS-121, "Removal and Installation"](#).
- Confirm the operation after replacement.

Is the result normal?

YES >> INSPECTION END

NO >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

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SEC

# VEHICLE SECURITY ALARM DOES NOT ACTIVATE

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## VEHICLE SECURITY ALARM DOES NOT ACTIVATE

### Description

INFOID:0000000010926618

Alarm does not operate when alarm operating condition is satisfied.

#### NOTE:

Check that vehicle is under the condition shown in "CONDITIONS OF VEHICLE (OPERATING CONDITIONS)" before starting diagnosis, and check each symptom.

#### CONDITION OF VEHICLE (OPERATING CONDITIONS)

"SECURITY ALARM SET": ON

Check the setting of "SECURITY ALARM SET" in "Work Support" mode of "THEFT ALM" of "BCM" using CONSULT.

### Diagnosis Procedure

INFOID:0000000010926619

#### 1.CHECK SENSOR CANCEL SWITCH

Check sensor cancel switch.

Refer to [SEC-301, "Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace sensor cancel switch.

#### 2.PERFORM SELF-DIAGNOSIS OF SIREN CONTROL UNIT

Perform self-diagnosis of siren control unit.

Refer to [SEC-238, "Diagnosis Description"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace malfunctioning parts.

#### 3.CHECK DOOR SWITCH

Check door switch.

Refer to [DLK-695, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace the malfunctioning door switch. Refer to [DLK-787, "Removal and Installation"](#).

#### 4.CHECK HOOD SWITCH

Check hood switch.

Refer to [SEC-297, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace hood switch.

#### 5.CHECK INTRUDER SENSOR

Check intruder sensor.

Refer to [SEC-299, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace intruder sensor.

#### 6.REPLACE SIREN CONTROL UNIT

1. Replace siren control unit.

2. Confirm the operation after replacement.

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 7.

# VEHICLE SECURITY ALARM DOES NOT ACTIVATE

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## 7. REPLACE BCM

Replace BCM. Refer to [BCS-121, "Removal and Installation"](#)

Is the inspection result normal?

YES >> INSPECTION END

NO >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

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# INTRUDER SENSOR CANNOT BE DEACTIVATED

< SYMPTOM DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

## INTRUDER SENSOR CANNOT BE DEACTIVATED

### Diagnosis Procedure

INFOID:0000000010926620

#### 1.CHECK SENSOR CANCEL SWITCH

---

Check sensor cancel switch.

Refer to [SEC-301, "Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace sensor cancel switch.

#### 2.REPLACE SIREN CONTROL UNIT

---

1. Replace siren control unit.

2. Confirm the operation after replacement.

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 3.

#### 3.REPLACE BCM

---

Replace BCM. Refer to [BCS-121, "Removal and Installation"](#)

Is the inspection result normal?

YES >> INSPECTION END

NO >> Check intermittent incident. Refer to [GI-44, "Intermittent Incident"](#).

## REMOVAL AND INSTALLATION

### NATS ANTENNA AMP.

#### Removal and Installation

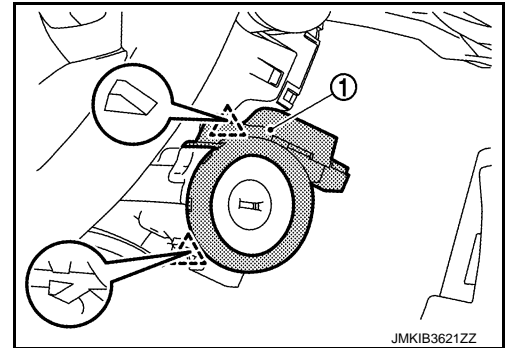
INFOID:0000000010922313

#### REMOVAL

1. Remove the steering column covers.  
Refer to [PCS-116, "Removal and Installation"](#).
2. Disengage NATS antenna amp. fixing pawl and then remove NATS antenna amp. ① from steering lock assembly.



: Pawl



#### INSTALLATION

Install in the reverse order of removal.

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