

# SECTION SEC

## SECURITY CONTROL SYSTEM

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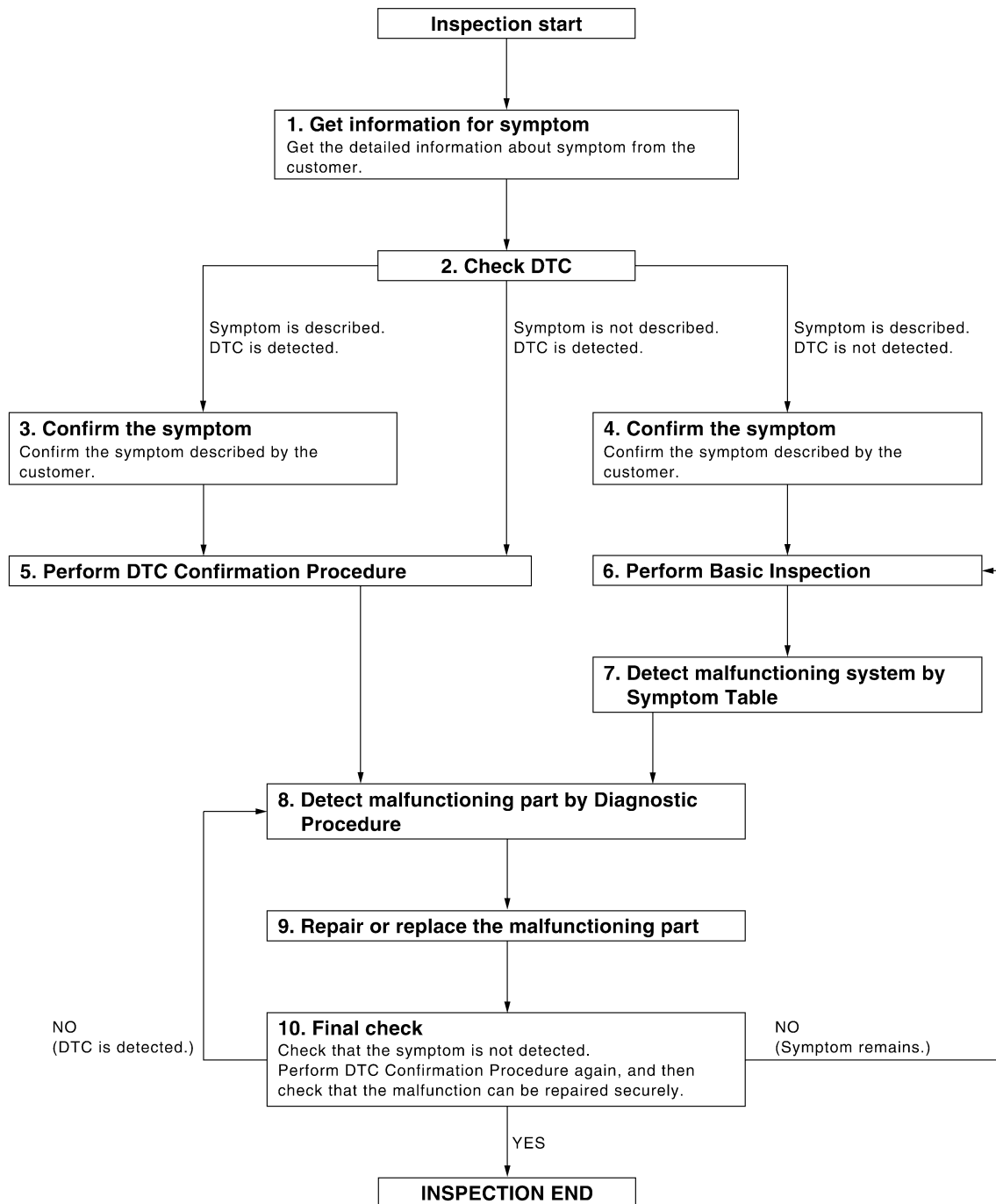
## BASIC INSPECTION

### DIAGNOSIS AND REPAIR WORKFLOW

#### Work Flow

INFOID:000000007422314

#### OVERALL SEQUENCE



ALKIA0246GB

#### DETAILED FLOW

# DIAGNOSIS AND REPAIR WORKFLOW

[COUPE]

< BASIC INSPECTION >

## 1.GET INFORMATION FOR SYMPTOM

Get the detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurred).

>> GO TO 2.

## 2.CHECK DTC WITH BCM AND IPDM E/R

1. Check "Self Diagnostic Result" with CONSULT.
2. Perform the following procedure if DTC is displayed.
  - Record DTC and freeze frame data (Print them out with 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.

Is any symptom described and any DTC detected?

Symptom is described, DTC is displayed>>GO TO 3.  
Symptom is described, DTC is not displayed>>GO TO 4.  
Symptom is not described, DTC is displayed>>GO TO 5.

## 3.CONFIRM THE SYMPTOM

Confirm the symptom described by the customer.  
Connect CONSULT to the vehicle in "Data Monitor" mode and check real time diagnosis results.  
Verify relationship between the symptom and the condition when the symptom is detected.

>> GO TO 5.

## 4.CONFIRM THE SYMPTOM

Confirm the symptom described by the customer.  
Connect CONSULT to the vehicle in "Data Monitor" mode and check real time diagnosis results.  
Verify relationship 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 displayed DTC, and then check that DTC is detected again.  
At this time, always keep CONSULT connected to the vehicle, and check diagnostic results in real time.  
If two or more DTCs are detected, refer to [BCS-65, "DTC Inspection Priority Chart"](#) and determine trouble diagnosis order.

### NOTE:

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

Is DTC detected?

YES >> GO TO 8.  
NO >> Refer to [GI-42, "Intermittent Incident"](#).

## 6.PERFORM BASIC INSPECTION

Perform [PCS-48, "Pre-Inspection for Multi-System Diagnostic"](#).

Inspection End>>GO TO 7.

## 7.DETECT MALFUNCTIONING SYSTEM BY SYMPTOM TABLE

Detect malfunctioning system according to following symptom tables based on the confirmed symptom in step 4, and determine the trouble diagnosis order based on possible causes and symptoms.

- Intelligent Key system/engine start function: [SEC-214, "Symptom Table"](#).
- Vehicle security system: [SEC-215, "Symptom Table"](#).

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SEC

# DIAGNOSIS AND REPAIR WORKFLOW

[COUPE]

< BASIC INSPECTION >

- Nissan vehicle immobilizer system-NATS: [SEC-216. "Symptom Table"](#).

>> GO TO 8.

## 8.DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE

Inspect according to Diagnostic Procedure of the system.

### NOTE:

The Diagnostic Procedure described based on open circuit inspection. A short circuit inspection is also required for the circuit check in the Diagnostic Procedure.

Is malfunctioning part detected?

YES >> GO TO 9.

NO >> Check voltage of related BCM terminals using CONSULT.

## 9.REPAIR OR REPLACE THE MALFUNCTIONING PART

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

>> GO TO 10.

## 10.FINAL CHECK

When DTC was detected in step 2, perform DTC Confirmation Procedure or Component Function Check again, and then check that the malfunction have been fully repaired.

When symptom was described from the customer, refer to confirmed symptom in step 3 or 4, and check that the symptom is not detected.

Is the inspection result normal?

NO (DTC is detected)>>GO TO 8.

NO (Symptom remains)>>GO TO 6.

YES >> Inspection End.

## PRE-INSPECTION FOR DIAGNOSTIC

## Pre-Inspection for Multi-System Diagnostic

INFOID:000000007422315

The engine start function, door lock function, power distribution system and NATS-IVIS/NVIS are closely related to each other. Narrow down the system in question by performing this inspection to identify which system is malfunctioning. For example, the vehicle security system can operate only when the door lock and power distribution system are operating normally.

## 1.CHECK DOOR LOCK OPERATION

Check the door lock for normal operation with the Intelligent Key and door request switch. Successful door lock operation with the Intelligent Key and request switch indicates that the remote keyless entry receiver and inside key antenna required for engine start are functioning normally.

Can the door be locked with the Intelligent Key and door request switch?

YES >> GO TO 2.

NO >> Refer to [DLK-187, "Symptom Table"](#).

## 2.CHECK ENGINE STARTING

Check that the engine starts when the Intelligent Key is inserted into the key slot.

Does the engine start?

YES >> GO TO 3.

NO >> Refer to [SEC-214, "Symptom Table"](#).

## 3.CHECK STEERING LOCK OPERATION

Check that the steering locks when operating the door switch after switching the power supply from ON position (or ACC position) to LOCK position.

If the door switch is malfunctioning, BCM cannot lock the steering. If BCM does not detect DTC, electronic steering column lock is normal.

Does steering lock?

YES >> GO TO 4.

NO >> Refer to [DLK-65, "Component Function Check"](#).

## 4.CHECK POWER SUPPLY INDICATOR SWITCHING

Press push-button ignition switch and check that the position indicator switches from LOCK, through ACC to ON when steering is locked.

Is each position indicator illuminating?

YES >> GO TO 5.

NO >> Refer to [PCS-79, "Component Function Check"](#).

## 5.CHECK VEHICLE SECURITY SYSTEM

Refer to [SEC-11, "Vehicle Security Operation Check"](#).

Are the inspection results normal?

YES >> Inspection End.

NO >> Repair vehicle security system as necessary.

## Vehicle Security Operation Check

INFOID:000000007422316

## 1.INSPECTION START

Turn ignition switch "OFF" and pull out Intelligent Key from key slot.

**NOTE:**

Before starting operation check, open front windows.

>> GO TO 2.

## 2.CHECK SECURITY INDICATOR LAMP

1. Lock doors using Intelligent Key or mechanical key.
2. Check that security indicator lamp illuminates for 30 seconds.

## < BASIC INSPECTION >

### Does security indicator lamp illuminate?

YES >> GO TO 3.

NO >> Perform diagnosis and repair. Refer to [SEC-141. "Component Function Check"](#).

## 3.CHECK ALARM FUNCTION

1. After 30 seconds, security indicator lamp will start to blink.

2. Open any door or hood before unlocking with Intelligent Key or mechanical key, or open trunk lid without Intelligent Key or mechanical key.

### Does alarm function properly?

YES >> GO TO 4.

NO >> Check the following.

- The vehicle security system does not phase in alarm mode. Refer to [SEC-215. "Symptom Table"](#).
- Alarm (horn, headlamp and hazard lamp) do not operate. Refer to [SEC-215. "Symptom Table"](#).

## 4.CHECK ALARM CANCEL OPERATION

Unlock any door or open trunk lid using Intelligent Key or mechanical key.

### Does alarm (horn, headlamp and hazard lamp) stop.

YES >> Inspection End.

NO >> Check door lock function. Refer to [DLK-17. "DOOR REQUEST SWITCH : System Description"](#).



## INSPECTION AND ADJUSTMENT

### ECM RE-COMMUNICATING FUNCTION

#### ECM RE-COMMUNICATING FUNCTION : Description

INFOID:000000007422317

Performing following procedure can automatically perform re-communication of ECM and BCM, but only when the ECM has been replaced with a new one (\*1).

\*1: New one means an ECM which has never been energized on-board.

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

**NOTE:**

- When registering new Key IDs or replacing the ECM that is not brand new, refer to CONSULT Immobilizer mode and follow the on-screen instructions.
- If multiple keys are attached to the key holder, separate them before work.
- Distinguish keys with unregistered key ID from those with registered ID.

#### ECM RE-COMMUNICATING FUNCTION : Special Repair Requirement

INFOID:000000007422318

### 1.PERFORM ECM RE-COMMUNICATING FUNCTION

1. Install ECM.
2. Insert the registered Intelligent Key (\*2), turn ignition switch to "ON".  
\*2: To perform this step, use the key that has been used before performing ECM replacement.
3. Maintain ignition switch in "ON" position for at least 5 seconds.
4. Turn ignition switch to "OFF".
5. Start engine.

**Can engine be started?**

YES >> Procedure is completed.

NO >> Initialize control unit. Refer to CONSULT Immobilizer mode and follow the on-screen instructions.

SEC

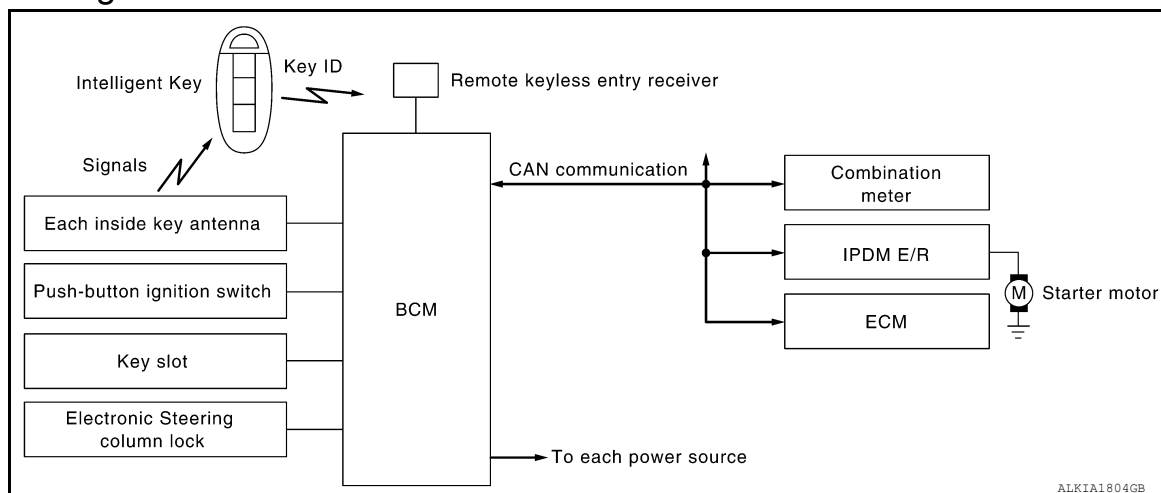
**[COUPE]**

## < SYSTEM DESCRIPTION >

## SYSTEM DESCRIPTION

## INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

## System Diagram



## System Description

INFOID:0000000007422320

### INPUT/OUTPUT SIGNAL CHART

Switch	Input signal to BCM	BCM function	Actuator
Push-button ignition switch	Push switch	Engine start function	<ul style="list-style-type: none"> <li>Steering lock relay</li> <li>Electronic steering column lock</li> <li>Starter relay (IPDM E/R)</li> <li>Starter control relay (IPDM E/R)</li> <li>Starter motor</li> <li>KEY warning lamp</li> </ul>
CVT shift selector (CVT models)	P range		
Transmission range switch (CVT models)	N, P range		
Clutch interlock switch (M/T models)	Clutch ON/OFF		
Stop lamp switch	Brake ON/OFF		
Each inside key antenna	Request signal		
Remote keyless entry receiver	Key ID		
Each door switch	Door open/close		
ECM	Engine status signal		

## SYSTEM DESCRIPTION

- The engine start function of Intelligent Key system is a system that makes it possible to start and stop the engine without removing the key. It verifies the electronic ID using two-way communications when pressing the push-button ignition switch while carrying the Intelligent Key, which operates based on the results of electronic ID verification for Intelligent Key using two-way communications between the Intelligent Key and the vehicle.

**NOTE:**

The driver should carry the Intelligent Key at all times.

- Intelligent Key has 2 IDs [for Intelligent Key and for NVIS (NATS)]. It can perform the door lock/unlock operation and the push-button ignition switch operation when the registered Intelligent Key is carried.
- When the Intelligent Key battery is discharged, it can be used as emergency back-up by inserting the Intelligent Key to the key slot. At that time, perform the NVIS (NATS) ID verification. If it is used when the Intelligent Key is carried, perform the Intelligent Key ID verification.
- If the ID is successfully verified, and when push-button ignition switch is pressed, electronic steering column lock will be released and initiating the engine will be possible.
- If the door lock/unlock operation is performed when the Intelligent Key battery is discharged, all doors lock/unlock can be performed by operating the driver door key cylinder using the mechanical key set in the Intelligent Key.

# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

[COUPE]

## < SYSTEM DESCRIPTION >

- Intelligent Key can be registered up to 4 keys (Including the standard Intelligent Key) on request from the owner.

### NOTE:

- Refer to [SEC-14, "System Description"](#) for any functions other than engine start function of Intelligent Key system.

## PRECAUTIONS FOR INTELLIGENT KEY SYSTEM

- In the Intelligent Key system of model L32, the transponder [the chip for NVIS (NATS) ID verification] is integrated into the Intelligent Key. (For the conventional models, it is integrated into the mechanical key.) Therefore, the mechanical key cannot perform the ID verification, and thus it cannot start the engine. Instead, the NVIS (NATS) ID verification can be performed by inserting the Intelligent Key into the key slot, and then it can start the engine.**

## OPERATION WHEN INTELLIGENT KEY IS CARRIED

- When the push-button ignition switch is pressed and brake pedal is depressed, the BCM signals the inside key antenna and transmits the request signal to the Intelligent Key.
- The Intelligent Key receives the request signal and transmits the Intelligent Key ID signal to the BCM via the remote keyless entry receiver.
- The BCM receives the Intelligent Key ID signal and verifies it with the registered ID.
- BCM transmits the steering column lock unlock signal to electronic steering column lock and IPDM E/R if the verification results are OK.
- IPDM E/R turns the steering lock relay ON and supplies power to the electronic steering column lock.
- Release of the steering column lock.
- BCM transmits the power supply stop signal to IPDM E/R when it confirms that the electronic steering column lock is in the unlock condition.
- IPDM E/R turns the steering column lock relay OFF and stops power supply to the electronic steering column lock.
- BCM turns ACC relay ON and transmits the ignition power supply ON signal to IPDM E/R.
- IPDM E/R turns the ignition relay ON and starts the ignition power supply.
- BCM confirms that the shift position is P or N (CVT models).
- BCM transmits the starter request signal via CAN communication to IPDM E/R and turns the starter relay in IPDM E/R ON if BCM judges that the engine start condition is satisfied.
- IPDM E/R turns the starter control relay ON when receiving the starter request signal.
- Battery power is supplied through the starter relay and the starter control relay to operate the starter motor and to start the cranking.

### CAUTION:

**If a malfunction is detected in the Intelligent Key system, the "KEY" warning lamp in the combination meter illuminates. At that time, the engine cannot be started.**

- When BCM received feedback signal from ECM acknowledging the engine has been initiated, the BCM transmits a stop signal to IPDM E/R and stops the cranking by turning OFF the starter motor relay. (If the engine initiating has failed, the cranking will stop automatically within 5 seconds.)

### CAUTION:

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

\*: For the engine start condition, refer to "PUSH-BUTTON IGNITION SWITCH OPERATION PROCEDURE".

## OPERATION RANGE

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

## OPERATION WHEN KEY SLOT IS USED

When the Intelligent Key battery is discharged, it performs the NVIS (NATS) ID verification between the integrated transponder and BCM by inserting the Intelligent Key into the key slot, and then the engine can be started.

For details relating to starting the engine using key slot, refer to [SEC-20, "System Diagram"](#).

## BATTERY SAVER SYSTEM

# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

[COUPE]

## < SYSTEM DESCRIPTION >

When all the following conditions are met for 60 minutes, the battery saver system will cut off the power supply to prevent battery discharge.

- The ignition switch is in the ACC position
- All doors are closed
- CVT selector lever is in the P position
- No Intelligent Key failures (Intelligent Key warning indicator is not ON)

Reset Condition of Battery Saver System

### CVT models

In order to prevent the battery from discharging, the battery saver system will cut off the power supply when all doors are closed, the selector lever is on P position and the ignition switch is left on ACC position for 1 hour. If any of the following conditions are met the battery saver system is released and the steering will change automatically to lock position from OFF position.

- Opening any door
- Operating with request switch on door lock
- Operating with Intelligent Key on door lock

Press push-button ignition switch and ignition switch will change to ACC position from OFF position.

### M/T models

If any of the conditions above is met the battery saver system is released but the steering will not lock. In this case, the steering operation OFF to LOCK is prohibited.

## ELECTRONIC STEERING COLUMN LOCK OPERATION

Steering is locked by electronic steering column lock when ignition switch is in the OFF position, CVT selector lever is in the P position and any of the following conditions are met.

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

## PUSH-BUTTON IGNITION SWITCH OPERATION PROCEDURE

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

### NOTE:

- When an Intelligent Key is within the detection area of inside key antenna or when it is inserted to the key slot, it is equivalent to the operations below.
- When starting the engine, the BCM monitors under the engine start conditions,
  - Brake pedal operating condition (CVT models)
  - CVT selector lever position (CVT models)
  - Clutch pedal operating condition (M/T models)
  - Vehicle speed
  - Electronic steering column lock condition
  - Engine status
- Unless each start condition is fulfilled, the engine will not respond regardless of how many times the engine switch is pressed. At that time, illumination repeats the position in the order of LOCK→ACC→ON→OFF.

Power supply position	Engine start/stop condition		Push-button ignition switch operation frequency
	Brake pedal (CVT) /clutch pedal (M/T)	CVT selector lever position	
LOCK → ACC	Not depressed	Any position	1
LOCK → ACC → ON	Not depressed	Any position	2
LOCK → ACC → ON → OFF	Not depressed	Any position	3
LOCK → START ACC → START ON → START (Engine start)	Depressed	P or N position (*1)	1 [If the switch is pressed once, the engine starts from any power supply position (LOCK, ACC, and ON)]
Engine is running → OFF (Engine stop)	—	Any position Vehicle speed < 4 km/h (2 MPH)	1

# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< SYSTEM DESCRIPTION >

[COUPE]

Power supply position	Engine start/stop condition		Push-button ignition switch operation frequency
	Brake pedal (CVT) /clutch pedal (M/T)	CVT selector lever position	
Engine is running → ACC (Engine stop)	—	Any position other than P (*2)	1
Engine stall return operation while driving	—	P position	1

\*1: When the CVT selector lever position is N position, the engine start condition is different according to the vehicle speed.

- At vehicle speed of 4 km/h (2 MPH) or less, the engine can start only when the brake pedal is depressed.
- At vehicle speed of 4 km/h (2 MPH) or more, the engine can start even if the brake pedal is not depressed. (It is the same as “Engine stall return operation while driving”.)

\*2: When the CVT selector lever position is in any position other than P position and when the vehicle speed is 5 km/h (3 MPH) or more, the engine stop condition is different.

- Press and hold the push-button ignition switch for 2 seconds or more. (When the push-button ignition switch is pressed for too short a time, the operation may be invalid, so properly press and hold to prevent an incorrect operation.)
- Press the push-button ignition switch 3 times or more within 1.5 seconds. (Emergency stop operation)

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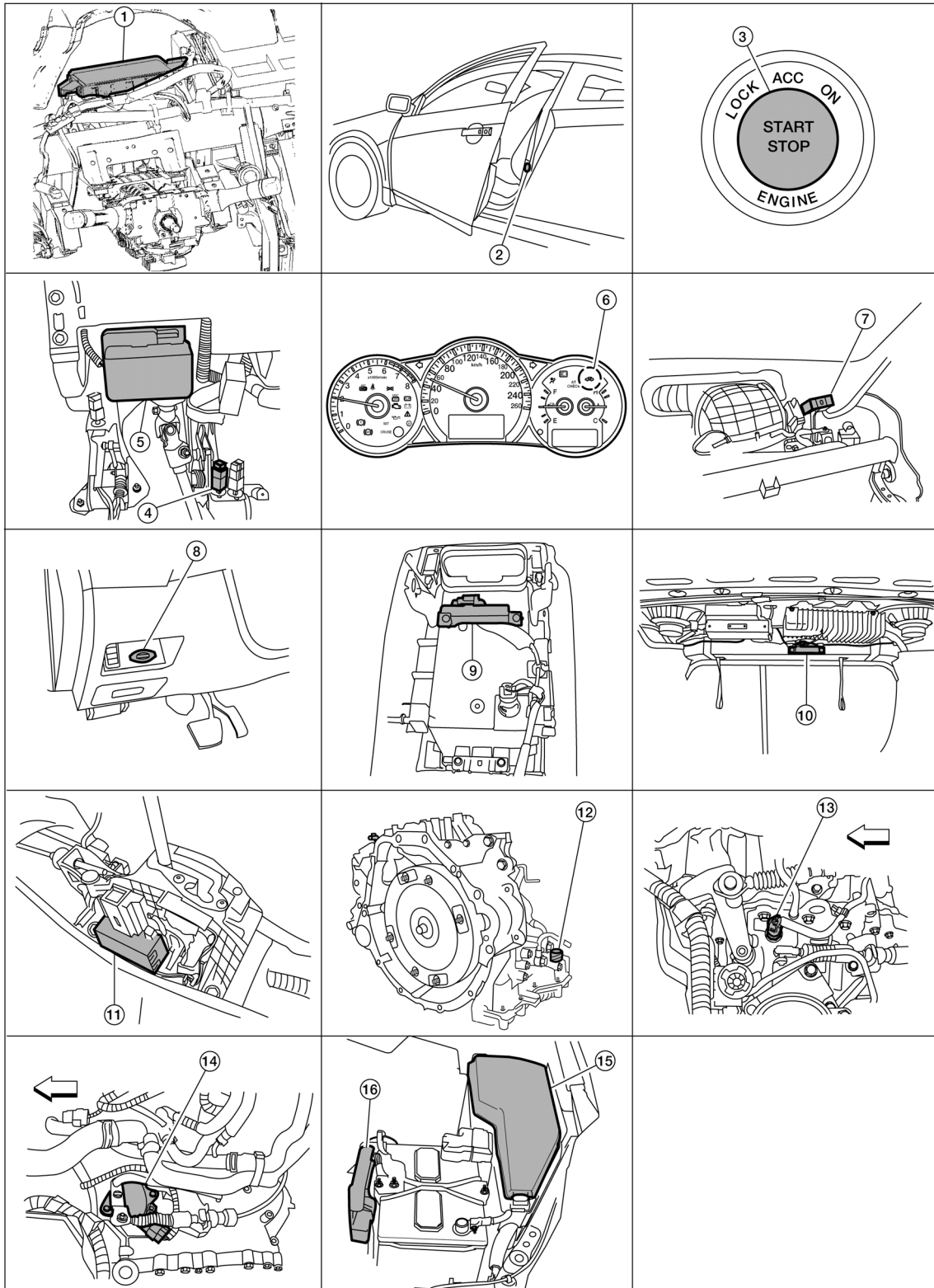
# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< SYSTEM DESCRIPTION >

[COUPE]

## Component Parts Location

INFOID:000000007422321



AWK1A16342Z

# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

[COUPE]

## < SYSTEM DESCRIPTION >

- |  |  |  |
|--|--|--|
| 1. Body control module M16, M17, M18, M19, M21<br>(view with instrument panel removed) | 2. Door switch LH B8<br>RH B108  | 3. Push button ignition switch M38                                     |
| 4. Stop lamp switch E38<br>(view with lower driver instrument panel removed)           | 5. Electronic steering column lock M32<br>(steering column)            | 6. Security indicator lamp   |
| 7. Remote keyless entry receiver M27<br>(view with instrument panel removed)           | 8. Key slot M40  | 9. Front console antenna M203<br>(bottom view of console)              |
| 10. Rear parcel shelf antenna B29  | 11. CVT shift selector (park position switch) M23<br>(with CVT)        | 12. Transmission range switch (TCM connector) F16<br>(with VQ35DE CVT) |
| 13. Park neutral position switch F32<br>(with M/T)                                     | 14. Transmission range switch (TCM connector) F25<br>(with QR25DE CVT) | 15. IPDM E/R E17, E18, F10   |
| 16. ECM E10  |  |  |

## Component Description

INFOID:000000007422322

Component	Reference
BCM	<a href="#">SEC-117</a>
Electronic steering column lock	<a href="#">SEC-106</a>
Push-button ignition switch	<a href="#">SEC-118</a>
Door switch	<a href="#">DLK-65</a>
CVT shift selector (park position switch)	<a href="#">SEC-82</a>
Inside key antenna	<a href="#">DLK-58</a>
Remote keyless entry receiver	<a href="#">DLK-115</a>
Stop lamp switch	<a href="#">SEC-73</a>
Transmission range switch	<a href="#">SEC-92</a>
Clutch interlock switch	<a href="#">SEC-55</a>
Steering lock relay	<a href="#">SEC-96</a>
Starter relay	<a href="#">SEC-99</a>
Starter control relay	<a href="#">SEC-81</a>
Security indicator	<a href="#">SEC-141</a>
Key warning lamp	<a href="#">SEC-140</a>

# NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

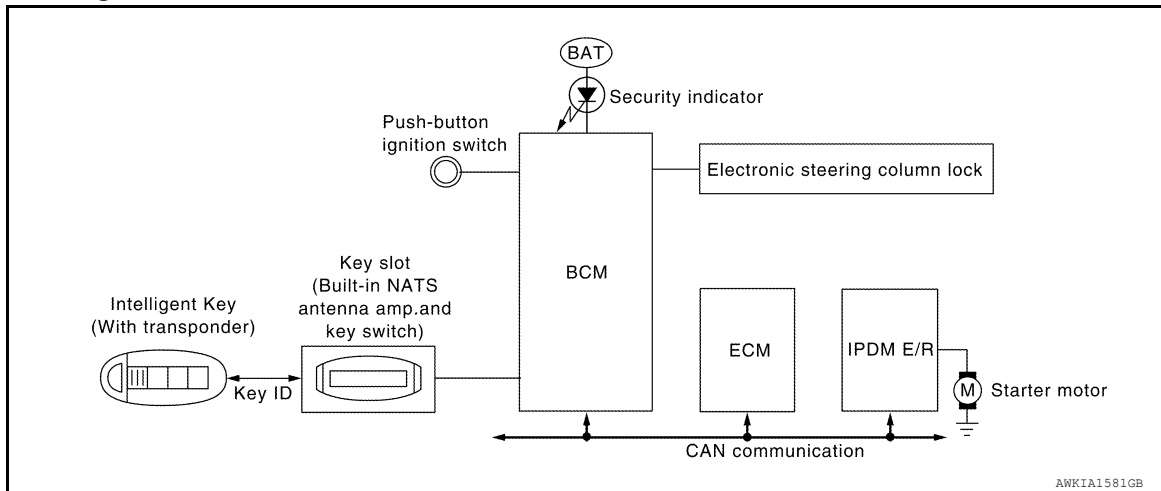
< SYSTEM DESCRIPTION >

[COUPE]

## NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

### System Diagram

INFOID:000000007422323



### System Description

INFOID:000000007422324

### INPUT/OUTPUT SIGNAL CHART

Switch	Input signal to BCM	BCM function	Actuator
Push-button ignition switch	Push switch	NVIS (NATS)	<ul style="list-style-type: none"> <li>Steering lock relay</li> <li>Electronic steering column lock</li> <li>Starter relay (IPDM E/R)</li> <li>Starter control relay (IPDM E/R)</li> <li>Starter motor</li> <li>KEY warning lamp</li> <li>Security indicator lamp</li> </ul>
CVT shift selector (CVT models)	P range		
Transmission range switch (CVT models)	N, P range		
Clutch interlock switch (M/T models)	Clutch ON/OFF		
Stop lamp switch	Brake ON/OFF		
Key slot	Key ID		
Each door switch	Door open/close		
ECM	Engine status signal		

### SYSTEM DESCRIPTION

- The NVIS (NATS) is an anti-theft system by registering an Intelligent Key ID in to the vehicle and prevents the engine being started by an unregistered Intelligent Key. It has a higher protection against auto thefts that duplicate mechanical key.
- It performs the ID verification when starting the engine in the same way as the Intelligent Key system. But, it performs the NVIS (NATS) ID verification when inserting the Intelligent Key and performs the Intelligent Key ID verification when carrying the Intelligent Key.
- The Intelligent Key system of L32 is not the same as the conventional models. The mechanical key integrated in the Intelligent Key cannot start the engine. When the Intelligent Key battery is discharged, the NVIS (NATS) ID verification memorized to the transponder integrated with Intelligent Key is performed by inserting the Intelligent Key into the key slot. If the verification results are OK, the engine start operation can be performed by the push-button ignition switch operation.
- Locate the security indicator and apply the anti-theft system equipment sticker, forewarn that the NVIS (NATS) is onboard with the model.
- The security indicator always blinks when the Intelligent Key is removed from the key slot and when the power supply position is in LOCK position.
- Intelligent Key can be registered up to 4 keys (Including the standard ignition key) on request from the owner.
- The specified registration is required when replacing ECM, BCM or Intelligent Key. The registrations procedure for NVIS (NATS) and registration procedure for Intelligent Key when installing the BCM, refer to CONSULT Immobilizer mode and follow the on-screen instructions.



# NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

## < SYSTEM DESCRIPTION >

[COUPE]

- Possible symptom of NVIS (NATS) malfunction is "Engine cannot start". In L32, the engine can be started with the Intelligent Key system and NVIS (NATS). Identify the possible causes according to "Work Flow", Refer to [SEC-8, "Work Flow"](#).
- If ECM other than Genuine NISSAN is installed, the engine cannot be started. For ECM replacement procedure, refer to [SEC-13, "ECM RE-COMMUNICATING FUNCTION : Special Repair Requirement"](#).

## PRECAUTIONS FOR KEY REGISTRATION

- The key registration is a procedure that erases the current NVIS (NATS) ID once, and then re-registers a new ID operation. Therefore the registered Intelligent Key is necessary for this procedure. Before starting the registration operation collect all registered Intelligent Keys from the customer
- When registering the Intelligent Key, performs only one procedure to register simultaneously both ID (NVIS "NATS" ID registration and Intelligent Key ID registration).  
The NVIS (NATS) ID registration is the procedure that registers the ID stored into the transponder (integrated in Intelligent Key) to BCM.  
The Intelligent Key ID registration is the procedure that registers the ID to BCM.
- When performing the Intelligent Key system registration only, the engine cannot be started by inserting the key into the key slot. When performing the NVIS (NATS) registration only, the engine cannot be started by the operation when carrying the key. The registrations of both systems should be performed.

## SECURITY INDICATOR

- Warns that the vehicle is equipped with NVIS (NATS).
- The security indicator always blinks when the Intelligent Key is removed from the key slot and when the ignition switch is in LOCK position.

### NOTE:

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

SEC

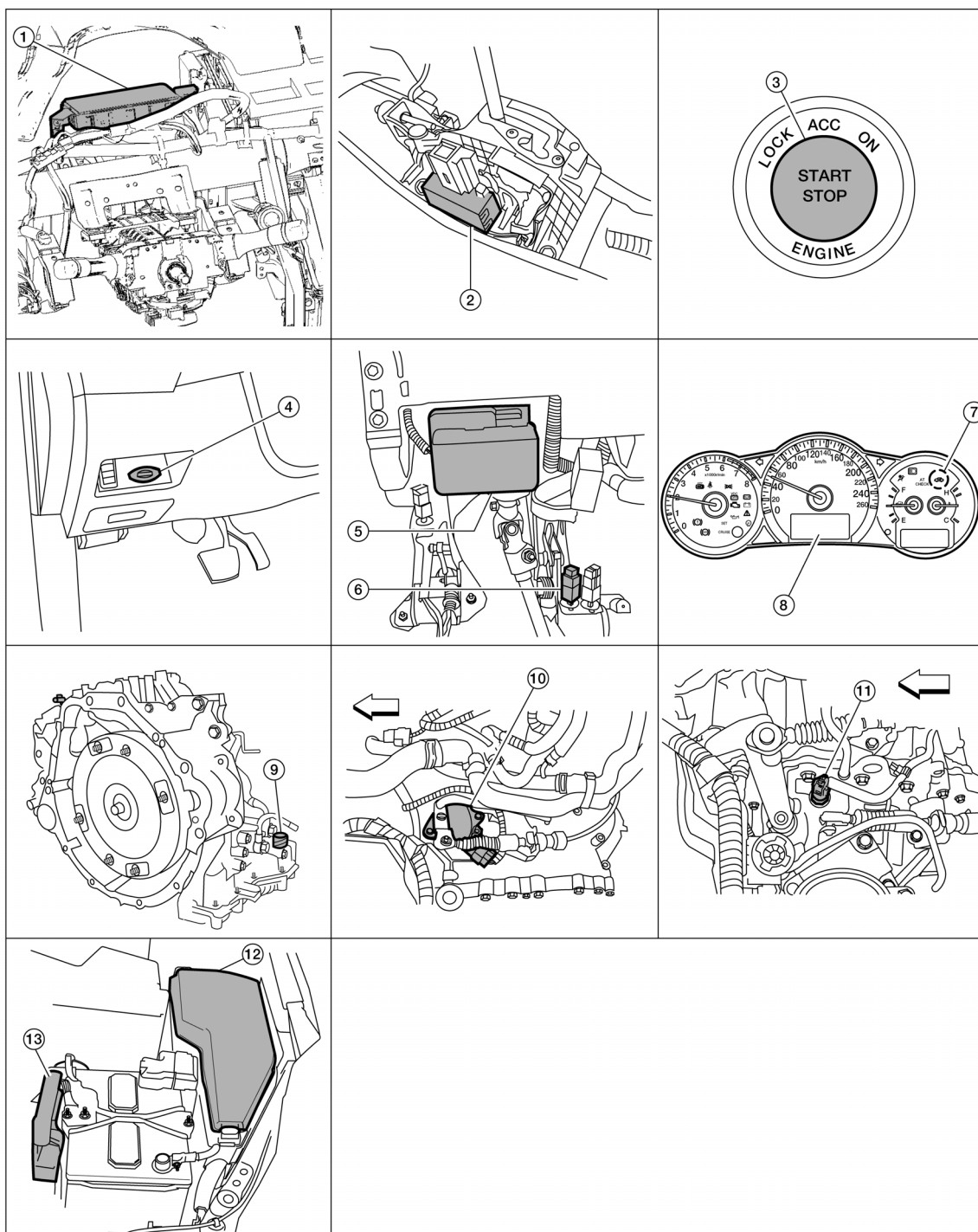
# NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

< SYSTEM DESCRIPTION >

[COUPE]

## Component Parts Location

INFOID:000000007422325



ABK1A24492Z

- |   |   |  |
|---|---|--|
| 1. Body control module M16, M17, M18, M19, M21 (view with instrument panel removed) | 2. CVT shift selector (park position switch) M23 (with CVT) | 3. Push button ignition switch M38   |
| 4. Key slot M40   | 5. Electronic steering column lock M32 (steering column)    | 6. Stop lamp switch E38 (view with lower LH instrument panel removed)        |
| 7. Security indicator lamp  | 8. Information display                                      | 9. Transmission range switch connector (TCM connector) F16 (with VQ35DE CVT) |

NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

< SYSTEM DESCRIPTION >

[COUPE]

10. Transmission range switch connector (TCM connector) F25  
(with QR25DE CVT)
11. Park neutral position switch F32  
(with M/T)
12. IPDM E/R E17, E18, F10
13. ECM E10

Component Description

INFOID:000000007422326

Component	Reference
BCM	<a href="#">SEC-117</a>
Electronic steering column lock	<a href="#">SEC-106</a>
Push-button ignition switch	<a href="#">SEC-118</a>
Door switch	<a href="#">DLK-65</a>
CVT shift selector (park position switch)	<a href="#">SEC-82</a>
Inside key antenna	<a href="#">DLK-58</a>
Remote keyless entry receiver	<a href="#">DLK-115</a>
Stop lamp switch	<a href="#">SEC-73</a>
Transmission range switch	<a href="#">SEC-92</a>
Clutch switch	<a href="#">SEC-55</a>
Steering lock relay	<a href="#">SEC-96</a>
Starter relay	<a href="#">SEC-99</a>
Starter control relay	<a href="#">SEC-81</a>
Security indicator	<a href="#">SEC-141</a>
Key warning lamp	<a href="#">SEC-140</a>

SEC

# VEHICLE SECURITY SYSTEM

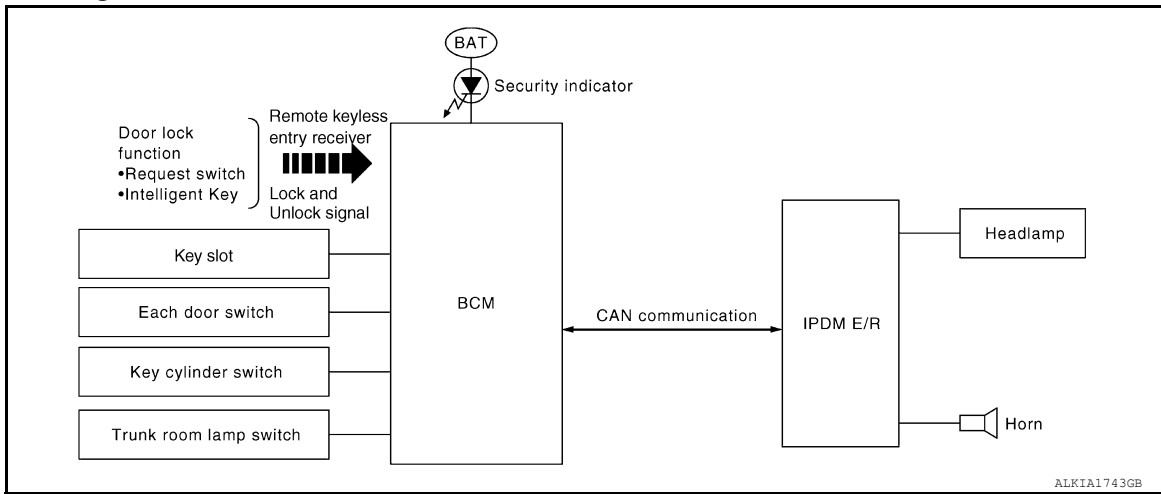
< SYSTEM DESCRIPTION >

[COUPE]

## VEHICLE SECURITY SYSTEM

### System Diagram

INFOID:000000007422327



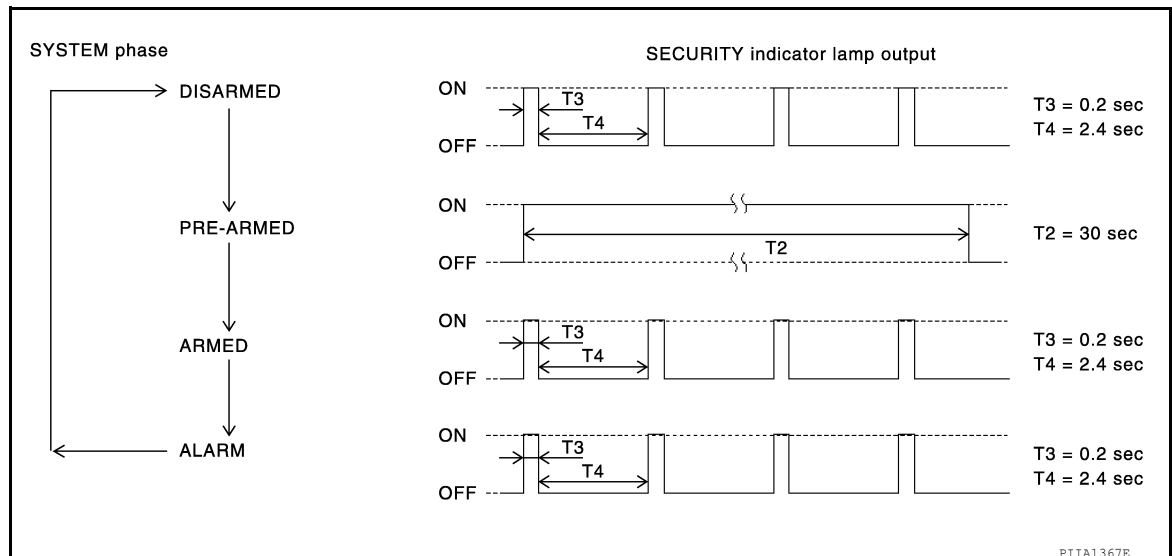
### System Description

INFOID:000000007422328

### INPUT/OUTPUT SIGNAL CHART

Switch	Input signal to BCM	BCM system	Actuator
All door switch	Open or close	Vehicle security system	<ul style="list-style-type: none"><li>• IPDM E/R</li><li>• Headlamp</li><li>• Horn</li><li>• Security indicator lamp</li></ul>
Trunk room lamp switch			
Door key cylinder switch	Lock or unlock		
Door lock and unlock switch			
Door request switch			
Intelligent Key	Lock or unlock		
	Panic alarm		
Key slot	Intelligent Key Sensing		

### OPERATION FLOW



### SETTING THE VEHICLE SECURITY SYSTEM

Initial Condition

- Ignition switch is in OFF position.

# VEHICLE SECURITY SYSTEM

[COUPE]

## < SYSTEM DESCRIPTION >

### Disarmed Phase

- When doors or trunk is open, the vehicle security system is set in the disarmed phase on the assumption that the owner is inside or near the vehicle.
- When the vehicle security system is in the disarmed phase, the security indicator lamp blinks every 2.4 seconds.

### Pre-armed Phase and Armed Phase

When the following operation 1 or 2 is performed, the vehicle security system turns into the “pre-armed” phase. (The security indicator lamp illuminates.)

1. BCM receives LOCK signal from front door key cylinder switch or Intelligent Key, after trunk and all doors are closed.
2. Trunk and all doors are closed after front doors are locked by key or door lock and unlock switch. The security indicator lamp illuminates for 30 seconds. Then, the system automatically shifts into the “armed” phase.

### CANCELING THE SET VEHICLE SECURITY SYSTEM

When one of the following operations is performed, the armed phase is canceled.

1. Unlock the doors with the key or Intelligent Key.
2. Turn ignition switch “ON” or “ACC” position.

### CANCELING THE ALARM OPERATION OF THE VEHICLE SECURITY SYSTEM

When unlocking the door with the key or Intelligent Key the alarm operation is canceled.

### ACTIVATING THE ALARM OPERATION OF THE VEHICLE SECURITY SYSTEM

Check that the system is in the armed phase. (The security indicator lamp blinks every 2.4 seconds.)

When the following operation 1 or 2 is performed, the system sounds the horns and flashes the headlamps for about 50 seconds.

1. Trunk or any door is opened during armed phase.
2. Disconnecting and connecting the battery connector before canceling armed phase.

### PANIC ALARM OPERATION

Intelligent Key system will not operate horn and headlamps if the ignition switch is in the ACC or ON position. When the Intelligent Key system is triggered, ground is supplied intermittently to both headlamp relay and horn relay.

When headlamp relay and horn relay are energized, then power is supplied to headlamps (LH and RH) and horns (HIGH and LOW).

The headlamp flashes and the horn sounds intermittently.

The alarm automatically turns off after 30 seconds or when BCM receives any signal from Intelligent Key.

A  
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SEC

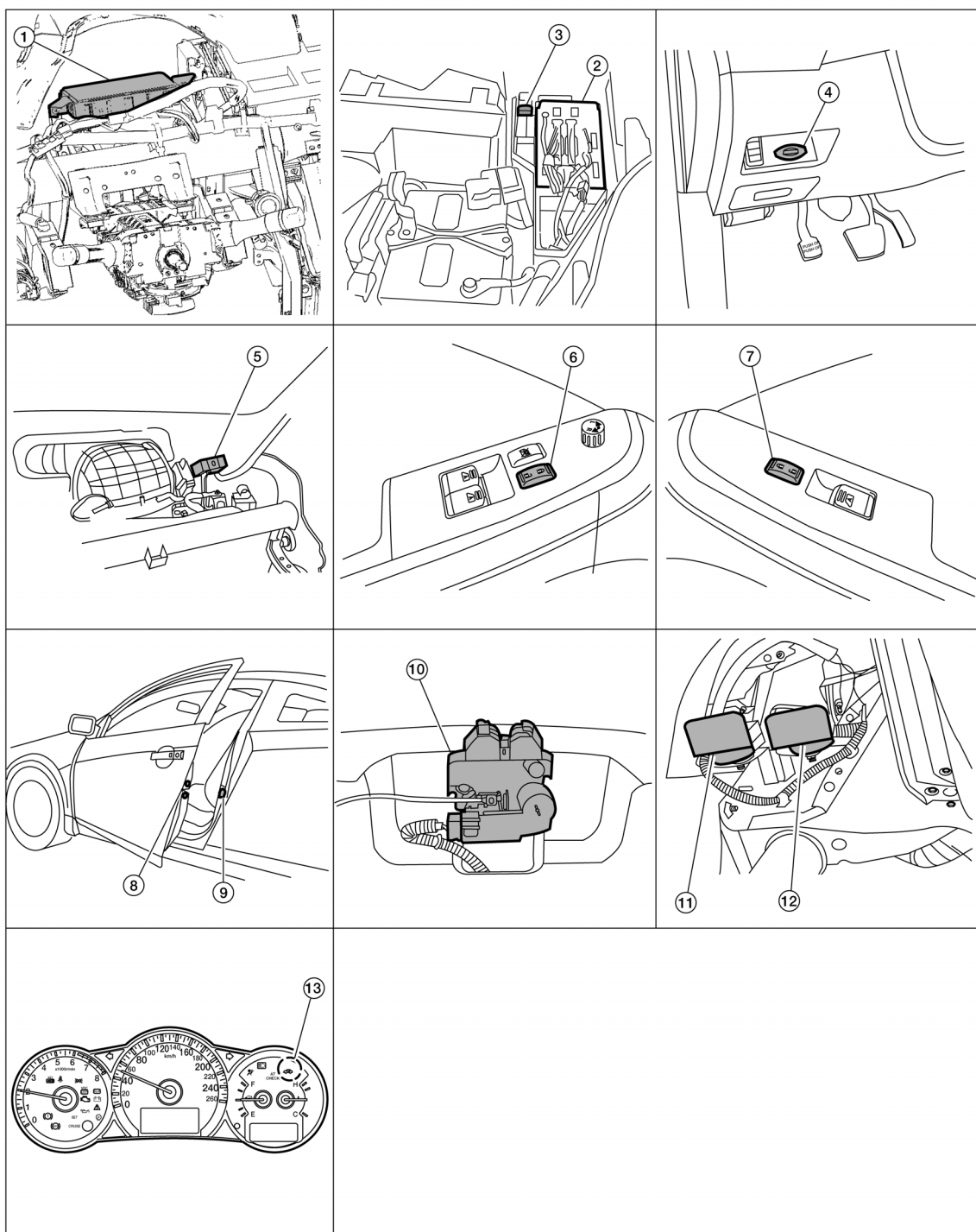
# VEHICLE SECURITY SYSTEM

[COUPE]

< SYSTEM DESCRIPTION >

## Component Parts Location

INFOID:000000007422329



AWKIA16352Z

- |   |   |   |
|---|---|---|
| 1. Body control module M16, M17, M18, M19, M21 (view with instrument panel removed) | 2. IPDM E/R E17, E18  | 3. Horn relay H-1                                       |
| 4. Key slot M40   | 5. Remote keyless entry receiver M27 (view with instrument panel removed) | 6. Main power window and door lock/unlock switch D7, D8 |
| 7. Power window and door lock/unlock switch RH D105                                 | 8. Door lock assembly LH (key cylinder switch) D10                        | 9. Door switch LH B8 RH B108                            |

# VEHICLE SECURITY SYSTEM

## < SYSTEM DESCRIPTION >

[COUPE]

10. Trunk lamp switch and trunk release solenoid T4    11. Horn (high) E216  
(view with front fender protector LH removed)    12. Horn (low) E215
13. Security indicator lamp (part of combination meter) M24

## Component Description

INFOID:000000007422330

Component	Reference
BCM	<a href="#">SEC-24</a>
Horn relay	<a href="#">SEC-137</a>
Security indicator	<a href="#">SEC-141</a>
Door switch	<a href="#">DLK-65</a>
Door lock actuator	<a href="#">DLK-102</a>
Trunk lid lock assembly	<a href="#">DLK-105</a>
Door key cylinder switch	<a href="#">DLK-76</a>
Door lock and unlock switch	<a href="#">DLK-68</a>

SEC

# DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[COUPE]

## DIAGNOSIS SYSTEM (BCM)

### COMMON ITEM

#### COMMON ITEM : Diagnosis Description

INFOID:000000007630932

#### BCM CONSULT FUNCTION

CONSULT performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
WORK SUPPORT	Changes the setting for each system function.
SELF-DIAG RESULTS	Displays the diagnosis results judged by BCM.
CAN DIAG SUPPORT MNTR	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	This function is not used even though it is displayed.

#### 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.

System	Sub system selection item	Diagnosis mode		
		WORK SUPPORT	DATA MONITOR	ACTIVE TEST
Door lock	DOOR LOCK	×	×	×
Rear window defogger	REAR DEFOGGER		×	×
Warning chime	BUZZER		×	×
Interior room lamp timer	INT LAMP		×	×
Remote keyless entry system	MULTI REMOTE ENT		×	
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER	×	×	×
Air conditioner	AIR CONDITONER		×	
Intelligent Key system	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
BCM	BCM	×		
Immobilizer	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	
Trunk open	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×
TPMS	AIR PRESSURE MONITOR	×	×	×

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

INFOID:000000007630933

#### ECU IDENTIFICATION

Displays the BCM part No.

#### SELF-DIAG RESULT

Refer to [SEC-168, "DTC Index"](#).



# DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[COUPE]

## INTELLIGENT KEY

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

INFOID:000000007630934

#### WORK SUPPORT

Monitor item	Description
CONFIRM KEY FOB ID	It can be checked whether Intelligent Key ID code is registered or not in this mode.
AUTO LOCK SET	Auto door lock time can be changed in this mode. <ul style="list-style-type: none"> <li>• MODE1: 1 minute</li> <li>• MODE2: 5 minutes</li> <li>• MODE3: 30 seconds</li> <li>• MODE4: 2 minutes</li> </ul>
LOCK/UNLOCK BY I-KEY	Door lock/unlock function by door request switch mode can be changed to operate (ON) or not operate (OFF) in this mode.
ENGINE START BY I-KEY	Engine start function mode can be changed to operate (ON) or not operate (OFF) with this mode.
TRUNK/GLASS HATCH OPEN	Buzzer reminder function mode by trunk request switch can be changed to operate (ON) or not operate (OFF) with this mode.
PANIC ALARM SET	Panic alarm button pressing time on Intelligent Key remote control button can be selected from the following with this mode. <ul style="list-style-type: none"> <li>• MODE1: 0.5 sec.</li> <li>• MODE2: Non-operation</li> <li>• MODE3: 1.5 sec.</li> </ul>
PW DOWN SET	Unlock button pressing time on Intelligent Key button can be selected from the following with this mode. <ul style="list-style-type: none"> <li>• MODE1: 3 sec.</li> <li>• MODE2: Non-operation</li> <li>• MODE3: 5 sec.</li> </ul>
TRUNK OPEN DELAY	Trunk button pressing time on Intelligent Key button can be selected from the following with this mode. <ul style="list-style-type: none"> <li>• MODE1: 0.5 sec.</li> <li>• MODE2: 1.5 sec.</li> <li>• MODE3: OFF: No delay</li> </ul>
LO- BATT OF KEY FOB WARN	Intelligent Key low battery warning mode can be changed to operate (ON) or not operate (OFF) with this mode.
ANTI KEY LOCK IN FUNCTI	Key reminder function mode can be changed to operate (ON) or not operate (OFF) with this mode.
HAZARD ANSWER BACK	Hazard reminder function mode can be selected from the following with this mode. <ul style="list-style-type: none"> <li>• LOCK ONLY: Door lock operation only</li> <li>• UNLOCK ONLY: Door unlock operation only</li> <li>• LOCK/UNLOCK: Lock/unlock operation</li> <li>• OFF: Non-operation</li> </ul>
ANS BACK I-KEY LOCK	Buzzer reminder function (lock operation) mode by door request switch (driver side and passenger side) can be selected from the following with this mode. <ul style="list-style-type: none"> <li>• Horn chirp: Sound horn</li> <li>• Buzzer: Sound Intelligent Key warning buzzer</li> <li>• OFF: Non-operation</li> </ul>
ANS BACK I-KEY UNLOCK	Buzzer reminder function (unlock operation) mode by door request switch can be changed to operate (ON) or not operate (OFF) with this mode.
SHORT CRANKING OUTPUT	Starter motor can be forcibly activated.
INSIDE ANT DIAGNOSIS	This function allows inside key antenna self-diagnosis.
HORN WITH KEYLESS LOCK	Horn reminder function mode by Intelligent Key button can be changed to operate (ON) or not operate (OFF) with this mode.

#### SELF-DIAG RESULT

Refer to [SEC-168. "DTC Index"](#).

# DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[COUPE]

## DATA MONITOR

Monitor Item	Condition
REQ SW-DR	Indicates [ON/OFF] condition of door request switch (driver side).
REQ SW-AS	Indicates [ON/OFF] condition of door request switch (passenger side).
REQ SW-BD/TR	Indicates [ON/OFF] condition of trunk opener request switch.
PUSH SW	Indicates [ON/OFF] condition of push button ignition switch.
CLUTCH SW	Indicates [ON/OFF] condition of clutch switch.
IGN RLY2 -F/B	Indicates [ON/OFF] condition of ignition relay 2.
ACC RLY-F/B	Indicates [ON/OFF] condition of accessory relay-1.
BRAKE SW 1	Indicates [ON/OFF] condition of brake switch.
BRAKE SW 2	Indicates [ON/OFF] condition of brake switch.
DETE/CANCL SW	Indicates [ON/OFF] condition of P position.
SFT PN/N SW	Indicates [ON/OFF] condition of P or N position.
S/L -LOCK	Indicates [ON/OFF] condition of steering lock (LOCK).
S/L -UNLOCK	Indicates [ON/OFF] condition of steering lock (UNLOCK).
S/L RELAY-F/B	Indicates [ON/OFF] condition of ignition switch.
UNLK SEN-DR	Indicates [ON/OFF] condition of driver door UNLOCK status.
PUSH SW -IPDM	Indicates [ON/OFF] condition of push button ignition switch.
IGN RLY1 -F/B	Indicates [ON/OFF] condition of ignition relay 1.
DETE SW -IPDM	Indicates [ON/OFF] condition of P position.
SFT PN -IPDM	Indicates [ON/OFF] condition of P or N position.
SFT P -MET	Indicates [ON/OFF] condition of P position.
SFT N -MET	Indicates [ON/OFF] condition of N position.
ENGINE STATE	Indicates [STOP/STALL/CRANK/RUN] condition of engine states.
S/L LOCK-IPDM	Indicates [ON/OFF] condition of steering lock (LOCK) request.
S/L UNLOCK-IPDM	Indicates [ON/OFF] condition of steering lock (UNLOCK) request.
S/L RELAY-REQ	Indicates [ON/OFF] condition of steering lock relay.
VEH SPEED 1	Display the vehicle speed signal received from combination meter by numerical value [Km/h].
VEH SPEED 2	Display the vehicle speed signal received from ABS or VDC or CVT by numerical value [Km/h].
DOOR STAT-DR	Indicates [LOCK/READY/UNLK] condition of driver side door status.
DOOR STAT-AS	Indicates [LOCK/READY/UNLK] condition of passenger side door status.
ID OK FLAG	Indicates [SET/RESET] condition of key ID.
PRMT ENG STRT	Indicates [SET/RESET] condition of engine start possibility.
KEY SW -SLOT	Indicates [ON/OFF] condition of key slot.
RKE OPE COUN1	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing.
TRNK/HAT MNTR	Indicates [ON/OFF] condition of trunk lid.
RKE-LOCK	Indicates [ON/OFF] condition of LOCK signal from Intelligent Key.
RKE-UNLOCK	Indicates [ON/OFF] condition of UNLOCK signal from Intelligent Key.
RKE-TR/BD	Indicates [ON/OFF] condition of TRUNK OPEN signal from Intelligent Key.
RKE-PANIC	Indicates [ON/OFF] condition of PANIC button of Intelligent Key.
RKE-P/W OPEN	Indicates [ON/OFF] condition of P/W DOWN signal from Intelligent Key.
RKE-MODE CHG	Indicates [ON/OFF] condition of MODE CHANGE signal from Intelligent Key.
PRMT RKE STRT	Indicates [ON/OFF] condition of ENGINE START signal from Intelligent Key.

# DIAGNOSIS SYSTEM (BCM)

## < SYSTEM DESCRIPTION >

[COUPE]

Monitor Item	Condition
RKE OPE COUN2	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing.
REVERSE SW	Indicates [ON/OFF] condition of R position.

## ACTIVE TEST

Test item	Description
BATTERY SAVER	This test is able to check interior room lamp operation. The interior room lamp is activated after "ON" on CONSULT screen is touched.
PW REMOTO DOWN SET	This test is able to check power window down operation. The power window down is activated after "ON" on CONSULT screen is touched.
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation. The Intelligent Key warning buzzer is activated after "ON" on CONSULT screen is touched.
INSIDE BUZZER	This test is able to check warning chime in combination meter operation. <ul style="list-style-type: none"> <li>Take away warning chime sounds when "TAKE OUT" on CONSULT screen is touched.</li> <li>Key warning chime sounds when "KEY" on CONSULT screen is touched.</li> <li>OFF position warning chime sounds when "KNOB" on CONSULT screen is touched.</li> </ul>
INDICATOR	This test is able to check warning lamp operation. <ul style="list-style-type: none"> <li>"KEY" Warning lamp illuminates when "KEY ON" on CONSULT screen is touched.</li> <li>"KEY" Warning lamp blinks when "KEY IND" on CONSULT screen is touched.</li> </ul>
INT LAMP	This test is able to check interior room lamp operation. The interior room lamp is activated after "ON" on CONSULT screen is touched.
LCD	This test is able to check meter display information <ul style="list-style-type: none"> <li>Engine start information displays when "BP N" on CONSULT screen is touched.</li> <li>Engine start information displays when "BP I" on CONSULT screen is touched.</li> <li>Key ID warning displays when "ID NG" on CONSULT screen is touched.</li> <li>P position warning displays when "SFT P" on CONSULT screen is touched.</li> <li>Intelligent Key insert information displays when "INSRT" on CONSULT screen is touched.</li> <li>Intelligent Key low battery warning displays when "BATT" on CONSULT screen is touched.</li> <li>Take away through window warning displays when "NO KY" on CONSULT screen is touched.</li> <li>Take away warning display when "OUTKEY" on CONSULT screen is touched.</li> <li>OFF position warning display when "LK WN" on CONSULT screen is touched.</li> </ul>
FLASHER	This test is able to check hazard warning lamp operation. The hazard warning lamps are activated after "LH/RH/OFF" on CONSULT screen is touched.
HORN	This test is able to check horn operation. The horn is activated after "ON" on CONSULT screen is touched.
P RANGE	This test is able to check CVT shift selector power supply CVT shift selector power is supplied when "ON" on CONSULT screen is touched.
ENGINE SW ILLUMI	This test is able to check push-ignition switch illumination operation. Push-ignition switch illumination illuminates when "ON" on CONSULT screen is touched.
LOCK INDICATOR	This test is able to check LOCK indicator in push-ignition switch operation. LOCK indicator in push-ignition switch illuminates when "ON" on CONSULT screen is touched.
ACC INDICATOR	This test is able to check ACC indicator in push-ignition switch operation. ACC indicator in push-ignition switch illuminates when "ON" on CONSULT screen is touched.
IGNITION ON IND	This test is able to check ON indicator in push-ignition switch operation. ON indicator in push-ignition switch illuminates when "ON" on CONSULT screen is touched.
KEY SLOT ILLUMI	This test is able to check key slot illumination operation. Key slot illumination blinks when "ON" on CONSULT screen is touched.
TRUNK/BACK DOOR	This test is able to check trunk opener actuator open operation. This actuator opens when "OPEN" on CONSULT screen is touched.

## THEFT ALM

# DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[COUPE]

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

INFOID:000000007630935

### WORK SUPPORT

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

### DATA MONITOR

Monitored Item	Description
REQ SW -DR	Indicates [ON/OFF] condition of front door request switch (driver side).
REQ SW -AS	Indicates [ON/OFF] condition of front door request switch (passenger side).
REQ SW -BD/TR	Indicates [ON/OFF] condition of trunk request switch.
PUSH SW	Indicates [ON/OFF] condition of push-button ignition switch
UNLK SEN -DR	Indicates [ON/OFF] condition of driver door UNLOCK status.
KEY SW -SLOT	Indicates [ON/OFF] condition of key slot.
DOOR SW-DR	Indicates [ON/OFF] condition of front door switch LH.
DOOR SW-AS	Indicates [ON/OFF] condition of front door switch RH.
DOOR SW-RR	Indicates [ON/OFF] condition of rear door switch RH.
DOOR SW-RL	Indicates [ON/OFF] condition of rear door switch LH.
CDL LOCK SW	Indicates [ON/OFF] condition of lock signal from door lock/unlock switch LH and RH.
CDL UNLOCK SW	Indicates [ON/OFF] condition of unlock signal from door lock/unlock switch LH and RH.
KEY CYL LK-SW	Indicates [ON/OFF] condition of lock signal from front door key cylinder switch.
KEY CYL UN-SW	Indicates [ON/OFF] condition of unlock signal from front door key cylinder switch.
TR/BD OPEN SW	Indicates [ON/OFF] condition of trunk opener switch.
TRNK/HAT MNTR	Indicates [ON/OFF] condition of trunk lid.
RKE-LOCK	Indicates [ON/OFF] condition of LOCK signal from Intelligent Key.
RKE-UNLOCK	Indicates [ON/OFF] condition of UNLOCK signal from Intelligent Key.
RKE-TR/BD	Indicates [ON/OFF] condition of TRUNK OPEN signal from Intelligent Key.

### ACTIVE TEST

Test item	Operation	Description
THEFT IND		This test is able to check security indicator lamp operation. The lamp will be turned on when "ON" on CONSULT screen is touched.
VEHICLE SECURITY HORN		This test is able to check vehicle security horn operation. The horns will be activated for 0.5 seconds after "ON" on CONSULT screen is touched.
HEAD LAMP(HI)		This test is able to check vehicle security lamp operation. The headlamps will be activated for 0.5 seconds after "ON" on CONSULT screen is touched.
FLASHER	RH	Outputs the voltage to blink the right side turn signal lamps.
	LH	Outputs the voltage to blink the left side turn signal lamps.
	Off	Stops the voltage to turn the turn signal lamps OFF.

### IMMU

## IMMU : CONSULT Function (BCM - IMMU)

INFOID:000000007630936

### DATA MONITOR

# DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[COUPE]

Monitor item	Content
CONFIRM ID ALL	Indicates [YET] at all time. Switch to [DONE] when a registered Intelligent Key is inserted into the key slot.
CONFIRM ID4	
CONFIRM ID3	
CONFIRM ID2	
CONFIRM ID1	
TP 4	Indicates the number of ID which has been registered.
TP 3	
TP 2	
TP 1	
PUSH SW	Indicates [ON/OFF] condition of push-button ignition switch.
KEY SW -SLOT	Indicates [ON/OFF] condition of key slot.

## ACTIVE TEST

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

SEC

**DTC/CIRCUIT DIAGNOSIS****U1000 CAN COMM CIRCUIT****Description**

INFOID:000000007422336

Refer to [LAN-6, "System Description"](#).**DTC Logic**

INFOID:000000007422337

**DTC DETECTION LOGIC**

CONSULT display description	DTC Detection Condition	Possible cause
CAN COMM CIRCUIT [U1000]	When BCM cannot communicate CAN communication signal continuously for 2 seconds or more	In CAN communication system, any item (or items) of the following listed below is malfunctioning. <ul style="list-style-type: none"> <li>• Transmission</li> <li>• Receiving (ECM)</li> <li>• Receiving (VDC/TCS/ABS)</li> <li>• Receiving (METER/M&amp;A)</li> <li>• Receiving (TCM)</li> <li>• Receiving (IPDM E/R)</li> </ul>

**Diagnosis Procedure**

INFOID:000000007422338

**1.PERFORM SELF DIAGNOSTIC**

1. Turn ignition switch ON and wait for 2 second or more.
2. Check "Self Diagnostic Result".

Is "CAN COMM CIRCUIT" displayed?

- YES >> Refer to [LAN-7, "CAN Communication Control Circuit"](#).
- NO >> Refer to [GI-42, "Intermittent Incident"](#).

## U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

### U1010 CONTROL UNIT (CAN)

#### DTC Logic

INFOID:000000007422339

#### DTC DETECTION LOGIC

CONSULT display description	DTC Detection Condition	Possible cause
CAN COMM CIRCUIT [U1010]	BCM detected internal CAN communication circuit malfunction.	BCM

#### Diagnosis Procedure

INFOID:000000007422340

#### 1. REPLACE BCM

When DTC U1010 is detected, replace BCM.

>> Replace BCM. Refer to [BCS-92, "Removal and Installation"](#).

SEC

## B2013 ID DISCORD, IMMU-STRG

## Description

INFOID:000000007422341

BCM performs the ID verification with the electronic steering column lock and releases the steering lock if both BCM and electronic steering column lock ID are same. BCM starts the communication with the electronic steering column lock when Intelligent Key is carried into the passenger compartment and the push-button ignition switch is pressed.

## DTC Logic

INFOID:000000007422342

## DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2013	ID DISCORD, IMMU-STRG	The ID verification results between BCM and electronic steering column lock are NG. The registration is necessary.	<ul style="list-style-type: none"> <li>Electronic steering column lock</li> </ul>

## DTC CONFIRMATION PROCEDURE

## 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Lock steering.
2. Press the push-button ignition switch
3. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

- YES >> Go to [SEC-36, "Diagnosis Procedure"](#).  
 NO >> Inspection End.

## Diagnosis Procedure

INFOID:000000007422343

## 1.PERFORM INITIALIZATION

Perform initialization with CONSULT. Re-register all Intelligent Keys.  
 For initialization and registration of Intelligent Key. Refer to CONSULT Immobilizer mode and follow the on-screen instructions.

Can the system be initialized and can steering lock be released with re-registered Intelligent Key?

- YES >> Electronic steering column lock was unregistered.  
 NO >> Replace electronic steering column lock.



# B2014 CHAIN OF STRG-IMMU

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

## B2014 CHAIN OF STRG-IMMU

### Description

INFOID:000000007422344

BCM performs the ID verification with the electronic steering column lock to release the steering. BCM starts the communication with the electronic steering column lock when Intelligent Key is carried into the passenger compartment and the push-button ignition switch is pressed.

### DTC Logic

INFOID:000000007422345

### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2014	CHAIN OF STRG-IMMU	Inactive communication between electronic steering column lock and BCM	<ul style="list-style-type: none"><li>• Harness or connectors (electronic steering column lock circuit is open or shorted)</li><li>• Electronic steering column lock</li><li>• BCM</li></ul>

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Lock steering.
2. Press the push-button ignition switch.
3. Check "Self diagnostic result" with CONSULT.

#### Is DTC detected?

- YES >> Go to [SEC-37. "Diagnosis Procedure"](#).  
NO >> Inspection End.

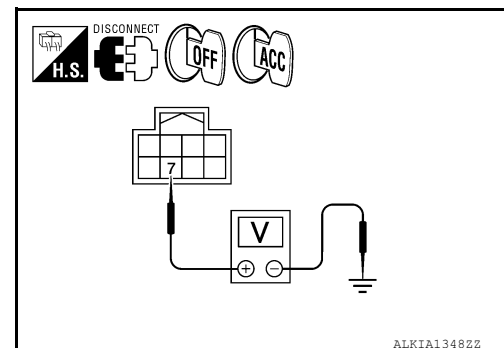
### Diagnosis Procedure

INFOID:000000007422346

Regarding Wiring Diagrams information, refer to [SEC-181. "Wiring Diagram"](#).

#### 1.CHECK ELECTRONIC STEERING COLUMN LOCK POWER SUPPLY

1. Turn ignition switch OFF.
2. Disconnect electronic steering column lock harness connector.
3. Check voltage between electronic steering column lock harness connector and ground while turning ignition switch from OFF to ACC.



Electronic steering column lock		Ground	Ignition switch position	Voltage [V]
Connector	Terminal			
M32	7	Ground	OFF → ACC	Battery voltage
			OFF or ON	0

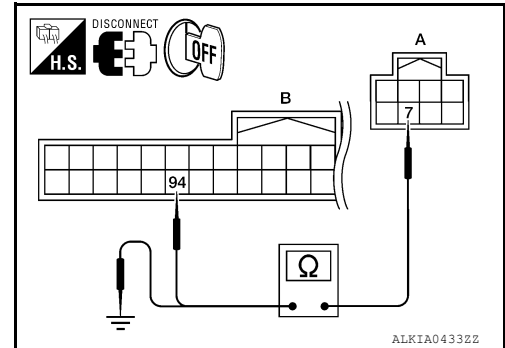
#### Is the inspection normal?

## < DTC/CIRCUIT DIAGNOSIS >

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

### 2.CHECK ELECTRONIC STEERING COLUMN LOCK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM harness connector.
3. Check continuity between electronic steering column lock harness connector M32 (A) terminal 7 and BCM harness connector M19 (B) terminal 94.



Electronic steering column lock		BCM		Continuity
Connector	Terminal	connector	Terminal	
A: M32	7	B: M19	94	Yes

4. Check continuity between electronic steering column lock harness connector M32 (A) terminal 7 and ground.

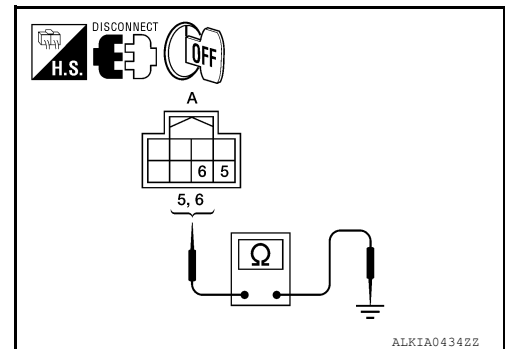
Electronic steering column lock		Ground	Continuity
Connector	Terminal		
A: M32	7	Ground	No

Is the inspection normal?

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

### 3.CHECK ELECTRONIC STEERING COLUMN LOCK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between electronic steering column lock and ground.



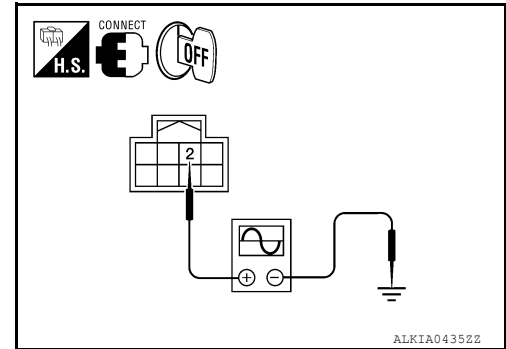
Electronic steering column lock		Ground	Continuity
Connector	Terminal		
M32	5	Ground	Yes
	6		

Is the inspection normal?

YES >> GO TO 4.  
NO >> Repair harness or connector.

## 4.CHECK ELECTRONIC STEERING COLUMN LOCK COMMUNICATION SIGNAL

1. Connect electronic steering column lock harness connector.
2. Using an oscilloscope, read voltage signal between electronic steering column lock harness connector and ground.



Electronic steering column lock		Ground	Electronic steering column lock condition	Value
Connector	Terminal			
M32	2	Ground	Lock	Battery voltage
			Lock or unlock	
			For 15 seconds after unlock	Battery voltage
			15 seconds or later after unlock.	0 V

**Steering is locked**

**: Opening the door when ignition switch is ON to OFF.**

**Steering is unlocked**

**: Ignition switch is OFF to ACC.**

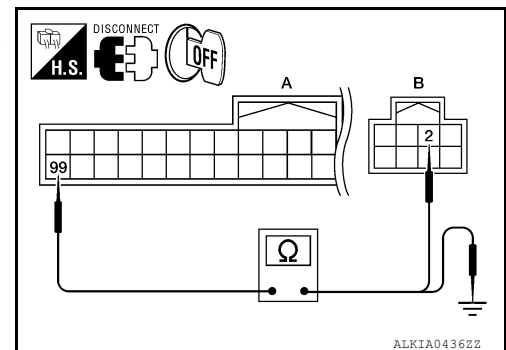
Is the inspection normal?

YES >> Replace electronic steering column lock.

NO >> GO TO 5.

## 5.CHECK ELECTRONIC STEERING COLUMN LOCK COMMUNICATION CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM harness connector.
3. Check continuity between BCM harness connector M19 (A) terminal 99 and electronic steering column lock harness connector M32 (B) terminal 2.



## B2014 CHAIN OF STRG-IMMU

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

BCM		Electronic steering column lock		Continuity
Connector	Terminal	connector	Terminal	
A: M19	99	B: M32	2	Yes

4. Check continuity between BCM harness connector M19 (A) terminal 99 and ground.

BCM		Ground	Continuity
Connector	Terminal		
A: M19	99	Ground	No

Is the inspection normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

### 6.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End.

## B2108 STEERING LOCK RELAY

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

### B2108 STEERING LOCK RELAY

#### Description

INFOID:000000007422347

The steering lock relay ON signal is transmitted to IPDM E/R by BCM via CAN communication. IPDM E/R turns the steering lock relay ON and transmits the release of the steering to BCM.

#### DTC Logic

INFOID:000000007422348

#### DTC DETECTION LOGIC

##### NOTE:

- If DTC B2108 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-34, "DTC Logic"](#).
- If DTC B2108 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-35, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2108	STRG LCK RELAY ON	IPDM E/R detects that the relay is stuck at ON position for about 1 second even if the IPDM E/R receives steering lock relay ON/OFF signal from BCM.	<ul style="list-style-type: none"><li>• IPDM E/R</li></ul>

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Press the push-button ignition switch under the following conditions and wait for at least 1 second.
  - CVT selector lever is in the P position
  - Do not depress the brake pedal.
2. Check "Self diagnostic result" with CONSULT.

##### Is DTC detected?

- YES >> Go to [SEC-41, "Diagnosis Procedure"](#).  
NO >> Inspection End.

#### Diagnosis Procedure

INFOID:000000007422349

##### 1.CHECK FUSE

1. Turn ignition switch OFF.
2. Check 10A fuse (No. 40, located in IPDM E/R).

##### Is the inspection normal?

- YES >> Replace IPDM E/R. Refer to [PCS-45, "Removal and Installation"](#).  
NO >> Check the following.
  - Harness for open or short between IPDM E/R and battery
  - Fuse

## B2109 STEERING LOCK RELAY

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

### B2109 STEERING LOCK RELAY

#### Description

INFOID:000000007422350

The steering lock relay ON signal is transmitted to IPDM E/R by BCM via CAN communication. IPDM E/R turns the steering lock relay ON and transmits the release of the steering to BCM.

#### DTC Logic

INFOID:000000007422351

#### DTC DETECTION LOGIC

##### NOTE:

- If DTC B2109 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-34, "DTC Logic"](#).
- If DTC B2109 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-35, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2109	STRG LCK RELAY OFF	IPDM E/R detects that the relay is stuck at OFF position for about 1 second even if the IPDM E/R receives steering lock relay ON/OFF signal from BCM.	<ul style="list-style-type: none"><li>• Harness or connector (power supply circuit)</li><li>• IPDM E/R</li><li>• Battery</li></ul>

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Press the push-button ignition switch under the following conditions and wait for at least 1 second.
  - CVT selector lever is in the P or N position
  - Do not depress the brake pedal
2. Check "Self diagnostic result" with CONSULT.

##### Is DTC detected?

- YES >> Go to [SEC-42, "Diagnosis Procedure"](#).  
NO >> Inspection End.

#### Diagnosis Procedure

INFOID:000000007422352

##### 1.CHECK POWER SUPPLY CIRCUIT

Check IPDM E/R power supply circuit. Refer to [PCS-20, "Diagnosis Procedure"](#).

##### Is the inspection normal?

- YES >> GO TO 2.  
NO >> Repair the malfunctioning parts

##### 2.CHECK FUSE

1. Turn ignition switch OFF.
2. Check 10A fuse (No. 40, located in IPDM E/R).

##### Is the inspection normal?

- YES >> Replace IPDM E/R. Refer to [PCS-45, "Removal and Installation"](#).  
NO >> Check the following.
  - Harness for open or short between IPDM E/R and battery
  - Fuse

# B210A STEERING LOCK CONDITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

## B210A STEERING LOCK CONDITION SWITCH

### Description

INFOID:000000007422353

There are 2 switches in the steering unit. IPDM E/R compares those 2 switches conditions to judge the present steering status and transmit the result to BCM via CAN communication.

### DTC Logic

INFOID:000000007422354

### DTC DETECTION LOGIC

#### NOTE:

- If DTC B210A is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-34, "DTC Logic"](#).
- If DTC B210A is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-35, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B210A	STRG LCK STATE SW	BCM detects the mismatch between the following for 1 second <ul style="list-style-type: none"><li>• Steering lock or unlock</li><li>• Feedback of steering lock status from IPDM E/R (CAN)</li></ul>	<ul style="list-style-type: none"><li>• Harness or connectors [Electronic steering column lock circuit (BCM side) is open or shorted]</li><li>• Harness or connectors [Electronic steering column lock circuit (IPDM E/R side) is open or shorted.]</li><li>• Electronic steering column lock</li><li>• IPDM E/R</li></ul>

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Press the push-button ignition switch under the following conditions and wait for at least 1 second.
  - CVT selector lever is in the P or N position
  - Do not depress the brake pedal
2. Check "Self diagnostic result" with CONSULT.

#### Is DTC detected?

- YES >> Go to [SEC-43, "Diagnosis Procedure"](#).  
NO >> Inspection End.

### Diagnosis Procedure

INFOID:000000007422355

Regarding Wiring Diagrams information, refer to [SEC-181, "Wiring Diagram"](#).

#### 1.INSPECTION START

Check the case in which DTC is detected.

- Case1: It is detected after ignition switch is changed from ON to OFF and door switch is pressed
- Case2: It is detected after ignition switch is changed from ON to OFF

#### In which case is DTC detected?

- Case1 >> GO TO 2.  
Case2 >> GO TO 7.

#### 2.CHECK BCM OUTPUT SIGNAL

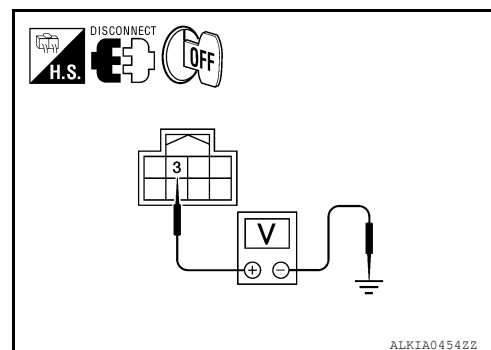
1. Turn ignition switch OFF.
2. Disconnect electronic steering column lock harness connector and IPDM E/R harness connector.

# B210A STEERING LOCK CONDITION SWITCH

[COUPE]

## < DTC/CIRCUIT DIAGNOSIS >

- Check voltage between electronic steering column lock harness connector and ground.



Electronic steering column lock		Ground	Voltage [V]
Connector	Terminal		
M32	3	Ground	Battery voltage

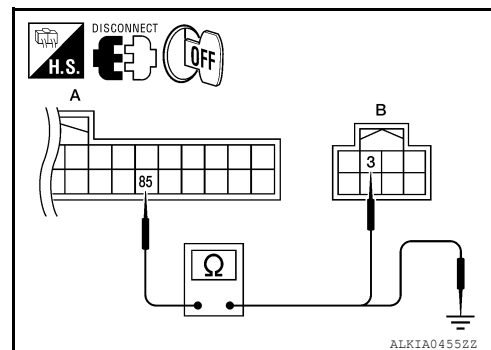
Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

## 3.CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-I

- Disconnect BCM harness connector.
- Check continuity between BCM harness connector M19 (A) terminal 85 and electronic steering column lock harness connector M32 (B) terminal 3.



BCM		Electronic steering column lock		Continuity
Connector	Terminal	Connector	Terminal	
A: M19	85	B: M32	3	Yes

- Check continuity between BCM harness connector M19 (A) terminal 85 and ground.

BCM		Ground	Continuity
Connector	Terminal		
A: M19	85	Ground	No

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

## 4.CHECK IPDM E/R OUTPUT SIGNAL

- Connect IPDM E/R harness connector.
- Disconnect BCM harness connector.

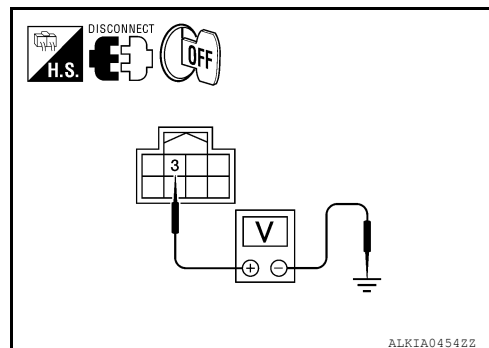


# B210A STEERING LOCK CONDITION SWITCH

[COUPE]

## < DTC/CIRCUIT DIAGNOSIS >

- Check voltage between electronic steering column lock harness connector and ground.



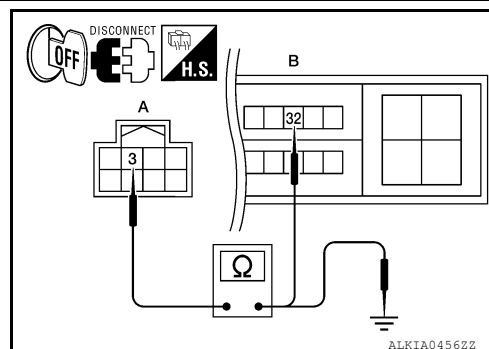
Electronic steering column lock		Ground	Voltage [V]
Connector	Terminal		
M32	3	Ground	Battery voltage

Is the inspection result normal?

- YES >> Replace electronic steering column lock.  
 NO >> GO TO 5.

## 5.CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-II

- Check continuity between electronic steering column lock harness connector M32 (A) terminal 3 and IPDM E/R harness connector E18 (B) terminal 32.



Electronic steering column lock		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: M32	3	B: E18	32	Yes

- Check continuity between electronic steering column lock harness connector M32 (A) terminal 3 and ground.

Electronic steering column lock		Ground	Continuity
Connector	Terminal		
A: M32	3	Ground	No

Is the inspection result normal?

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

## 6.CHECK INTERMITTENT INCIDENT

Refer to [GI-42. "Intermittent Incident"](#).

>> Inspection End.

## 7.CHECK BCM OUTPUT SIGNAL

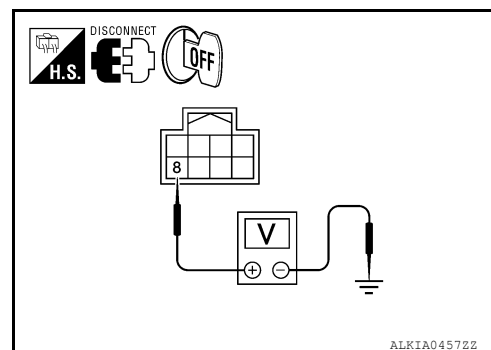
- Turn ignition switch OFF.
- Disconnect electronic steering column lock harness connector and IPDM E/R harness connector.

## B210A STEERING LOCK CONDITION SWITCH

[COUPE]

### < DTC/CIRCUIT DIAGNOSIS >

- Check voltage between electronic steering column lock harness connector and ground.



Electronic steering column lock		Ground	Voltage [V]
Connector	Terminal		
M32	8	Ground	Battery voltage

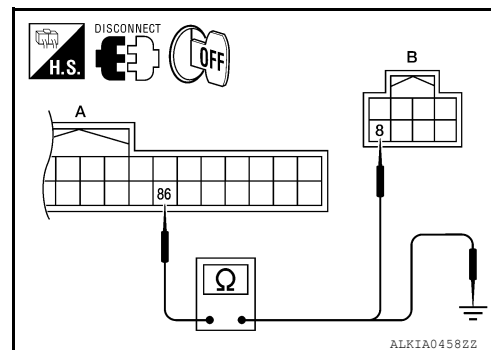
Is the inspection result normal?

YES >> GO TO 9.

NO >> GO TO 8.

### 8.CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-I

- Disconnect BCM harness connector M122.
- Check continuity between BCM harness connector M19 (A) terminal 86 and electronic steering column lock harness connector M32 (B) terminal 8.



BCM		Electronic steering column lock		Continuity
Connector	Terminal	Connector	Terminal	
A: M19	86	B: M32	8	Yes

- Check continuity between BCM harness connector M19 (A) terminal 86 and ground.

BCM		Ground	Continuity
Connector	Terminal		
A: M19	86	Ground	No

Is the inspection result normal?

YES >> GO TO 11.

NO >> Repair harness or connector.

### 9.CHECK IPDM E/R OUTPUT SIGNAL

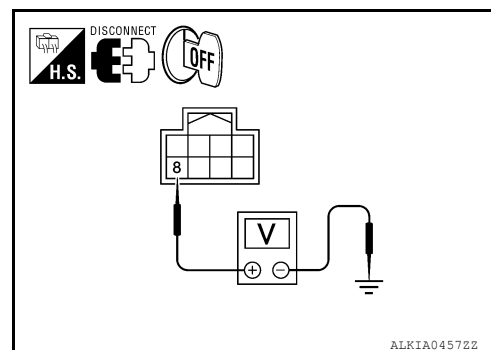
- Connect IPDM E/R harness connector.
- Disconnect BCM harness connector.

# B210A STEERING LOCK CONDITION SWITCH

[COUPE]

## < DTC/CIRCUIT DIAGNOSIS >

- Check voltage between electronic steering column lock harness connector and ground.



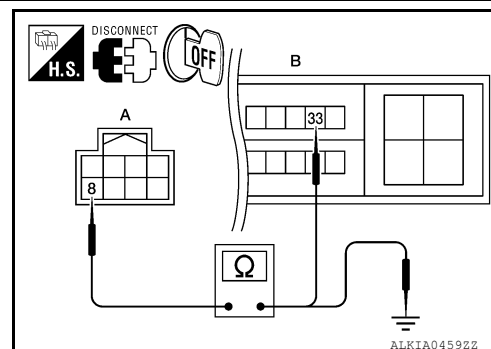
Electronic steering column lock		Ground	Voltage [V]
Connector	Terminal		
M32	8	Ground	Battery voltage

Is the inspection result normal?

- YES >> Replace electronic steering column lock.  
 NO >> GO TO 10.

## 10.CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-II

- Check continuity between electronic steering column lock harness connector M32 (A) terminal 8 and IPDM E/R harness connector E18 (B) terminal 33.



Electronic steering column lock		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: M32	8	B: E18	33	Yes

- Check continuity between electronic steering column lock harness connector and ground.

Electronic steering column lock		Ground	Continuity
Connector	Terminal		
A: M32	8	Ground	No

Is the inspection result normal?

- YES >> GO TO 11.  
 NO >> Repair harness or connector.

## 11.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End.

## B210B STARTER CONTROL RELAY

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

### B210B STARTER CONTROL RELAY

#### Description

INFOID:000000007422356

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

#### DTC Logic

INFOID:000000007422357

#### DTC DETECTION LOGIC

##### NOTE:

- If DTC B210B is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-34, "DTC Logic"](#).
- If DTC B210B is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-35, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B210B	START CONT RLY ON	IPDM E/R detects that the relay is stuck at ON position even if the followings condition are met for about 1 second. <ul style="list-style-type: none"><li>• Starter control relay ON/OFF signal from BCM</li><li>• Clutch interlock or transmission range switch input signal</li></ul>	<ul style="list-style-type: none"><li>• IPDM E/R</li></ul>

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn the power supply position to start under the following conditions and wait for at least 1 second.
  - CVT selector lever is in the P or N position.
  - Depress the brake pedal
2. Check "Self diagnostic result" with CONSULT.

##### Is DTC detected?

- YES >> Go to [SEC-48, "Diagnosis Procedure"](#).  
NO >> Inspection End.

#### Diagnosis Procedure

INFOID:000000007422358

##### 1.INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**  
See [PCS-29, "DTC Index"](#).

##### Is the DTC B210B displayed again?

- YES >> Replace IPDM E/R. Refer [PCS-45, "Removal and Installation"](#).  
NO >> Inspection End.

# B210C STARTER CONTROL RELAY

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

## B210C STARTER CONTROL RELAY

### Description

INFOID:000000007422359

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

### DTC Logic

INFOID:000000007422360

### DTC DETECTION LOGIC

#### NOTE:

- If DTC B210C is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-34, "DTC Logic"](#).
- If DTC B210C is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-35, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B210C	START CONT RLY OFF	IPDM E/R detects that the relay is stuck at ON position even if the followings condition are met for about 1 second. <ul style="list-style-type: none"><li>• Starter control relay ON/OFF signal from BCM</li><li>• Clutch interlock or shift transmission range switch input signal</li></ul>	<ul style="list-style-type: none"><li>• IPDM E/R</li></ul>

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn the power supply position to start under the following conditions and wait for at least 1 second.
  - CVT selector lever is in the P or N position.
  - Depress the brake pedal
2. Check "Self diagnostic result" with CONSULT.

#### Is DTC detected?

- YES >> Go to [SEC-49, "Diagnosis Procedure"](#).  
NO >> Inspection End.

### Diagnosis Procedure

INFOID:000000007422361

#### 1.INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**  
See [PCS-29, "DTC Index"](#).

#### Is the DTC B210C displayed again?

- YES >> Replace IPDM E/R. Refer to [PCS-45, "Removal and Installation"](#).  
NO >> Inspection End.

# B210D STARTER RELAY

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

## B210D STARTER RELAY

### Description

INFOID:000000007422362

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

### DTC Logic

INFOID:000000007422363

#### DTC DETECTION LOGIC

##### NOTE:

- If DTC B210D is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-34, "DTC Logic"](#).
- If DTC B210D is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-35, "DTC Logic"](#).
- If DTC B210D is displayed with DTC B2617, first perform the trouble diagnosis for DTC B2617. Refer to [SEC-115, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B210D	STARTER RELAY ON	IPDM E/R detects that the relay is stuck at ON position even if the followings condition are met for about 1 second. <ul style="list-style-type: none"><li>• Starter control relay ON/OFF signal from BCM</li><li>• Clutch interlock or shift transmission range switch input</li></ul>	<ul style="list-style-type: none"><li>• IPDM E/R</li></ul>

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Ignition switch ON under the following conditions and wait for at least 1 second.
  - CVT selector lever is P or N position
  - Do not depress the brake pedal
2. Check "Self diagnostic result" with CONSULT.

##### Is DTC detected?

- YES >> Go to [SEC-50, "Diagnosis Procedure"](#).  
NO >> Inspection End.

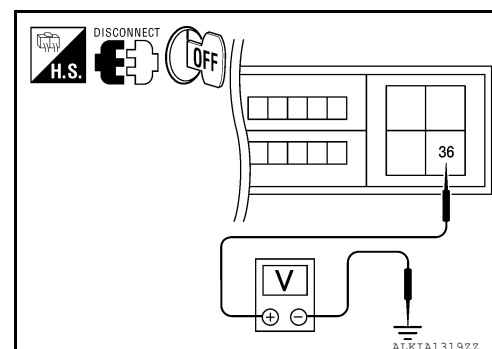
### Diagnosis Procedure

INFOID:000000007422364

Regarding Wiring Diagrams information, refer to [SEC-204, "Wiring Diagram"](#).

##### 1.CHECK STARTER RELAY POWER SUPPLY CIRCUIT

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



## B210D STARTER RELAY

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

IPDM E/R		Ground	Voltage (V)
Connector	Terminal		
E18	36	Ground	Battery voltage

Is the inspection result normal?

- YES >> Replace IPDM E/R. Refer to [PCS-45, "Removal and Installation"](#).  
NO >> Check harness for open or short between IPDM E/R and battery.

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

SEC

## B210E STARTER RELAY

## Description

INFOID:000000007422365

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

## DTC Logic

INFOID:000000007422366

## DTC DETECTION LOGIC

**NOTE:**

- If DTC B210E is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-34, "DTC Logic"](#).
- If DTC B210E is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-35, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B210E	STARTER RELAY OFF	IPDM E/R detects that the relay is stuck at ON position even if the followings condition are met for about 1 second. <ul style="list-style-type: none"> <li>• Starter control relay ON/OFF signal from BCM</li> <li>• Clutch interlock or shift transmission range switch input</li> </ul>	<ul style="list-style-type: none"> <li>• IPDM E/R</li> </ul>

## DTC CONFIRMATION PROCEDURE

**1. PERFORM DTC CONFIRMATION PROCEDURE**

1. Turn ignition switch ON under the following conditions and wait for at least 1 second.
  - CVT selector lever is in the P or N position
  - Do not depress the brake pedal
2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

- YES >> Go to [SEC-52, "Diagnosis Procedure"](#).  
 NO >> Inspection End.

## Diagnosis Procedure

INFOID:000000007422367

Regarding Wiring Diagrams information, refer to [SEC-204, "Wiring Diagram"](#).

**1. INSPECTION START**

Check which type of transmission the vehicle is equipped with.

Which type of transmission

- CVT >> GO TO 2.  
 M/T >> GO TO 3.

**2. CHECK STARTER RELAY OUTPUT SIGNAL/CVT MODELS**

1. Turn ignition switch OFF.
2. Disconnect BCM harness connector.

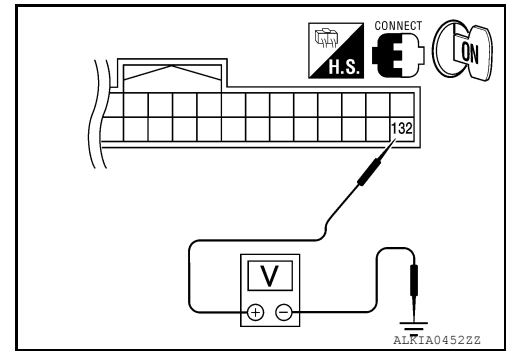


# B210E STARTER RELAY

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

3. Check voltage between BCM harness connector and ground.



BCM connector		Ground	Condition			Voltage (V)
Connector	Terminal		Ignition switch	Brake pedal	CVT selector lever	
M21	132	Ground	ON	Depressed	P or N	Battery voltage
					Other than above	0

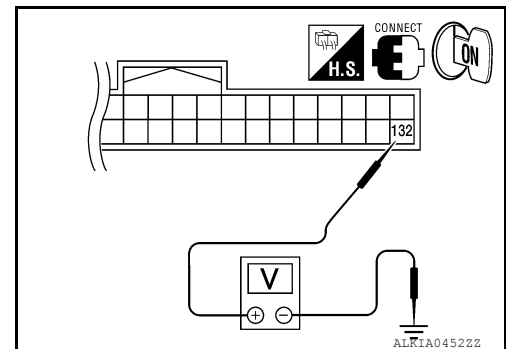
Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

## 3.CHECK STARTER RELAY OUTPUT SIGNAL / M/T MODELS

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



BCM connector		Ground	Condition		Voltage (V)
Connector	Terminal		Ignition switch	Clutch pedal	
M21	132	Ground	OFF	Not depressed	0
				Depressed	Battery voltage

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

## 4.CHECK STARTER RELAY OUTPUT SIGNAL CIRCUIT

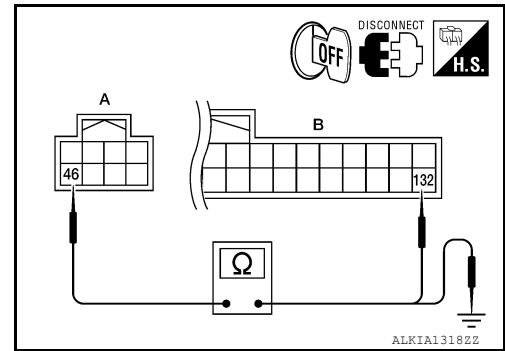
1. Disconnect IPDM E/R harness connector.

## B210E STARTER RELAY

[COUPE]

### < DTC/CIRCUIT DIAGNOSIS >

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



IPDM E/R		BCM		Continuity
Connector	Terminal	Connector	Terminal	
A: E17	46	B: M21	132	Yes

3. Check continuity between BCM harness connector and ground.

IPDM E/R		Ground	Continuity
Connector	Terminal		
A: E17	46	Ground	No

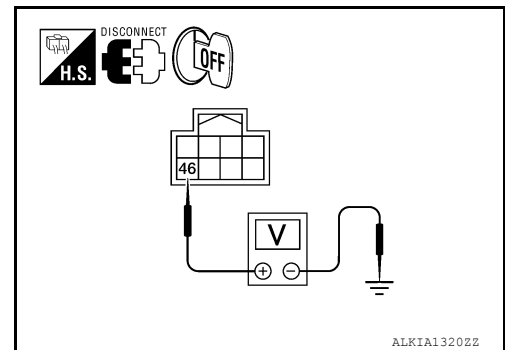
Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-45, "Removal and Installation"](#).

NO >> Repair harness connector.

### 5. CHECK STARTER RELAY POWER SUPPLY CIRCUIT

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



IPDM E/R		Ground	Voltage (V)
Connector	Terminal		
E17	46	Ground	Battery voltage

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-45, "Removal and Installation"](#).

NO >> Check harness for open or short between IPDM E/R and battery.

# B210F TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

## B210F TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

### Description

INFOID:000000007422368

IPDM E/R confirms the shift position with the following signals.

- Transmission range switch (CVT models)
- Clutch interlock switch (M/T models)
- Shift position signal from BCM (CAN)

### DTC Logic

INFOID:000000007422369

#### DTC DETECTION LOGIC

##### NOTE:

- If DTC B210F is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-34, "DTC Logic"](#)
- If DTC B210F is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-34, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B210F	INTER LOCK/TRANSMISSION RANGE SW ON	IPDM E/R detects a mismatch between the signals below for 1 second or more. <ul style="list-style-type: none"><li>• Clutch interlock input signal (M/T models)</li><li>• Shift transmission range switch input signal (CVT models)</li><li>• Shift position signal from BCM (CAN)</li></ul>	<ul style="list-style-type: none"><li>• Harness or connectors [Transmission range switch circuit is open or shorted (CVT models)] or (Clutch interlock switch circuit is open or shorted.)</li><li>• Clutch interlock switch (M/T models)</li><li>• Transmission range switch (CVT models)</li></ul>

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions and wait for at least 1 second.
  - CVT selector lever is in the P or N position
  - Do not depress the brake pedal
2. Check "Self diagnostic result" with CONSULT.

##### Is DTC detected?

- YES >> Go to [SEC-55, "Diagnosis Procedure"](#).  
NO >> Inspection End.

### Diagnosis Procedure

INFOID:000000007422370

Regarding Wiring Diagrams information, refer to [SEC-204, "Wiring Diagram"](#).

##### 1.INSPECTION START

Check which type of transmission the vehicle is equipped with.

##### Which type of transmission

- CVT >> GO TO 2.  
M/T >> GO TO 5.

##### 2.CHECK DTC WITH BCM

Refer to [BCS-67, "DTC Index"](#).

##### Is the inspection result normal?

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

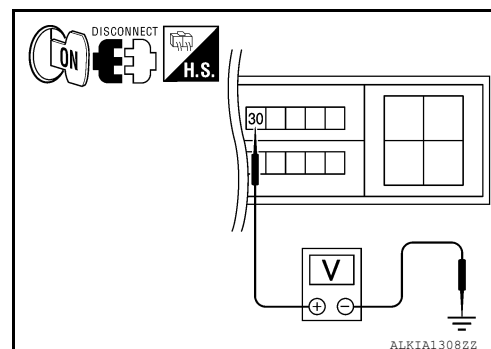
##### 3.CHECK TRANSMISSION RANGE SWITCH INPUT SIGNAL

# B210F TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

[COUPE]

## < DTC/CIRCUIT DIAGNOSIS >

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



IPDM E/R		Ground	Condition		Voltage (V)
Connector	Terminal				
E18	30	Ground	CVT selector lever	P or N	0
				Other than above	Battery voltage

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-45, "Removal and Installation"](#).

NO >> GO TO 4.

## 4. CHECK TRANSMISSION RANGE SWITCH CIRCUIT

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

TCM		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
F16 (VQ35DE)	20	E18	72	Yes
F25 (QR25DE)	2			

4. Check continuity between TCM harness connector and ground.

TCM		Ground	Continuity
Connector	Terminal		
F16 (VQ35DE)	20	Ground	No
F25 (QR25DE)	2		

Is the inspection result normal?

YES >> GO TO 10.

NO >> Repair harness or connector.

## 5. CHECK CLUTCH INTERLOCK SWITCH INPUT SIGNAL (BCM)

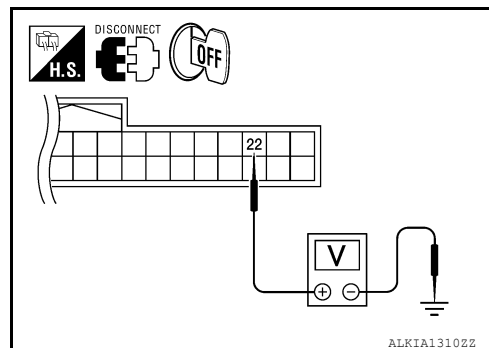
1. Turn ignition switch OFF.
2. Disconnect BCM harness connector.

# B210F TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

- Check voltage between BCM harness connector and ground.



BCM		Ground	Condition	Voltage (V)
Connector	Terminal			
M18	22	Ground	Clutch pedal Not depressed	0
			Clutch pedal Depressed	Battery voltage

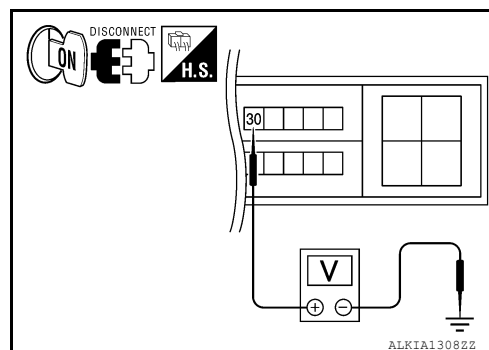
Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 7.

## 6.CHECK CLUTCH INTERLOCK SWITCH INPUT SIGNAL

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



IPDM E/R		Ground	Condition	Voltage (V)
Connector	Terminal			
E18	30	Ground	Clutch pedal Not depressed	0
			Clutch pedal Depressed	Battery voltage

Is the inspection result normal?

YES >> Replace the IPDM E/R. Refer to [PCS-45. "Removal and Installation"](#).

NO >> Check harness for open between clutch interlock switch and IPDM E/R.

## 7.CHECK CLUTCH INTERLOCK SWITCH POWER SUPPLY

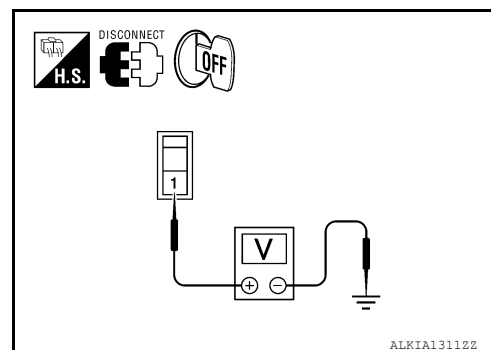
- Disconnect clutch interlock switch harness connector.

# B210F TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

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



Clutch interlock switch		Ground	Voltage (V)
Connector	Terminal		
E36	1	Ground	Battery voltage

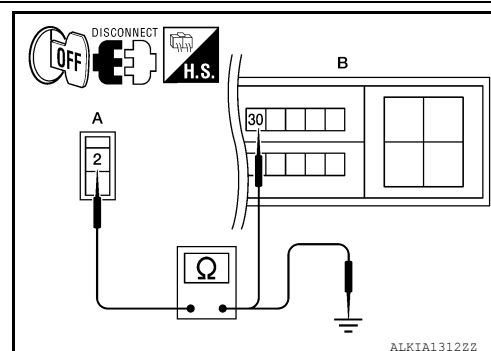
Is the inspection result normal?

YES >> GO TO 8.

NO >> Check harness for open or short between clutch interlock switch and fuse.

## 8.CHECK CLUTCH INTERLOCK SWITCH CIRCUIT

1. Check continuity between IPDM E/R harness connector and clutch interlock switch harness connector.



Clutch interlock switch		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: E36	2	B: E18	30	Yes

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

Clutch interlock switch		Ground	Continuity
Connector	Terminal		
A: E36	2	Ground	No

Is the inspection result normal?

YES >> GO TO 9.

NO >> Repair harness or connector.

## 9.CHECK CLUTCH INTERLOCK SWITCH

Refer to [SEC-59, "Component Inspection"](#).

Is the inspection result normal?

YES >> Replace the IPDM E/R. Refer to [PCS-45, "Removal and Installation"](#).

NO >> Replace clutch interlock switch.

## 10.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

# B210F TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

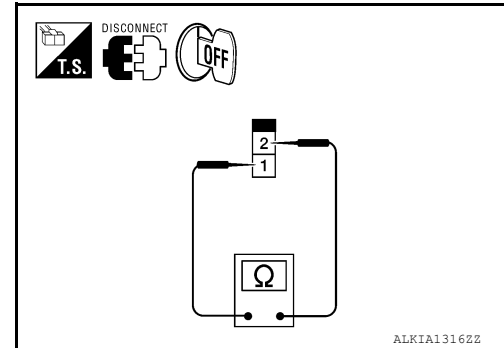
>> Inspection End.

## Component Inspection

INFOID:000000007422371

### 1.CHECK CLUTCH INTERLOCK SWITCH

1. Turn ignition switch OFF.
2. Disconnect clutch interlock switch harness connector.
3. Check continuity between clutch interlock switch under the following conditions.



Clutch interlock switch		Condition		Continuity
Terminal				
1	2	Clutch pedal	Not depressed	No
			Depressed	Yes

Is the inspection result normal?

- YES >> Inspection End.  
NO >> Replace clutch interlock switch.

SEC

# B2110 TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

## B2110 TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

### Description

INFOID:000000007422372

IPDM E/R confirms the shift position with the following signals.

- Transmission range switch (CVT models)
- Clutch inter lock switch (M/T models)
- Shift position signal from BCM (CAN)

### DTC Logic

INFOID:000000007422373

#### DTC DETECTION LOGIC

##### NOTE:

- If DTC B2110 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-34, "DTC Logic"](#).
- If DTC B2110 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-35, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2110	INTER LOCK/ TRANSMISSION RANGE SW	IPDM E/R detects mismatch between the signals below for 1 second or more. <ul style="list-style-type: none"><li>• Clutch interlock input signal (M/T models)</li><li>• Shift transmission range switch input signal (CVT models)</li></ul>	<ul style="list-style-type: none"><li>• Harness or connectors [Transmission range switch circuit is open or shorted (CVT models)] or (Clutch interlock switch circuit is open or shorted.)</li><li>• Clutch inter lock switch (M/T models)</li><li>• Transmission range switch (CVT models)</li></ul>

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn the ignition switch ON under the following conditions and wait for at least 1 second.
  - CVT selector lever is in the P or N position
  - Do not depress the brake pedal
2. Check "Self diagnostic result" with CONSULT.

##### Is DTC detected?

- YES >> Go to [SEC-60, "Diagnosis Procedure"](#).  
NO >> Inspection End.

### Diagnosis Procedure

INFOID:000000007422374

Regarding Wiring Diagrams information, refer to [SEC-204, "Wiring Diagram"](#).

##### 1.INSPECTION START

Check which type of transmission the vehicle is equipped with.

##### Which type of transmission

- CVT >> GO TO 2.  
M/T >> GO TO 5.

##### 2.CHECK DTC WITH BCM

Refer to [BCS-67, "DTC Index"](#).

##### Is the inspection result normal?

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

##### 3.CHECK TRANSMISSION RANGE SWITCH INPUT SIGNAL

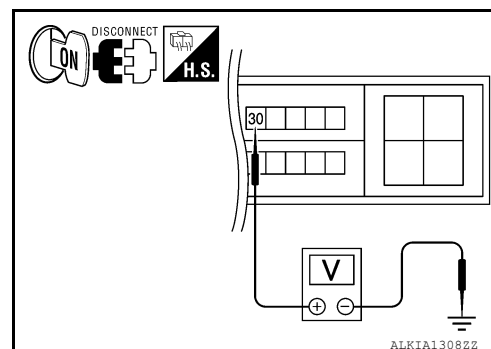


# B2110 TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

[COUPE]

## < DTC/CIRCUIT DIAGNOSIS >

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



IPDM E/R		Ground	Condition		Voltage (V)
Connector	Terminal				
E18	30	Ground	CVT selector lever	P or N	0
				Other than above	Battery voltage

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-45, "Removal and Installation"](#).

NO >> GO TO 4.

## 4.CHECK TRANSMISSION RANGE SWITCH CIRCUIT

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

TCM		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
F16	20	E18	72	Yes
F25	2			

4. Check continuity between TCM harness connector and ground.

TCM		Ground	Continuity
Connector	Terminal		
F16	20	Ground	No
F25	2		

Is the inspection result normal?

YES >> GO TO 10.

NO >> Repair harness or connector.

## 5.CHECK CLUTCH INTERLOCK SWITCH INPUT SIGNAL (BCM)

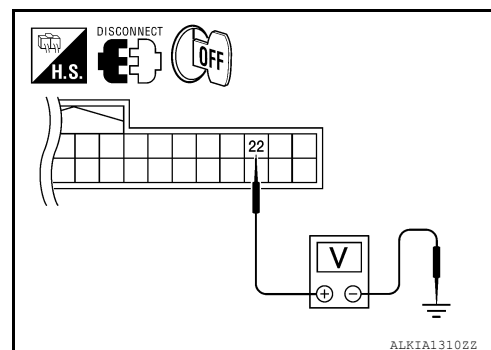
1. Turn ignition switch OFF.
2. Disconnect BCM harness connector.

# B2110 TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

3. Check voltage between BCM harness connector and ground.



BCM		Ground	Condition		Voltage (V)
Connector	Terminal				
M18	22	Ground	Clutch pedal	Not depressed	0
				Depressed	Battery voltage

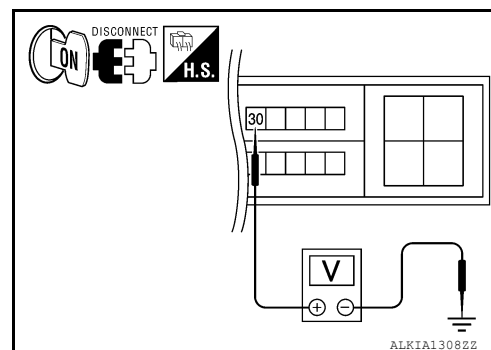
Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 7.

## 6. CHECK CLUTCH INTERLOCK SWITCH INPUT SIGNAL

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



IPDM E/R		Ground	Condition		Voltage (V)
Connector	Terminal				
E18	30	Ground	Clutch pedal	Not depressed	0
				Depressed	Battery voltage

Is the inspection result normal?

YES >> Replace the IPDM E/R. Refer to [PCS-45. "Removal and Installation"](#).

NO >> Check harness for open between clutch interlock switch and IPDM E/R.

## 7. CHECK CLUTCH INTERLOCK SWITCH POWER SUPPLY

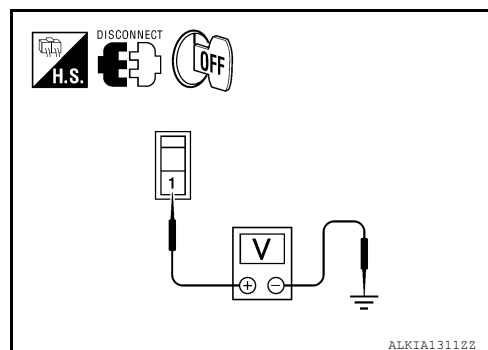
1. Disconnect clutch interlock switch harness connector.

# B2110 TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

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



Clutch interlock switch		Ground	Voltage (V)
Connector	Terminal		
E36	1	Ground	Battery voltage

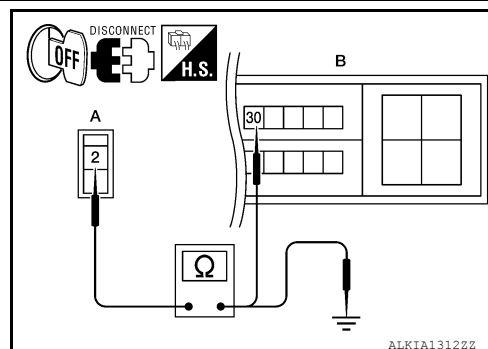
Is the inspection result normal?

YES >> GO TO 8.

NO >> Check harness for open or short between clutch interlock switch and fuse.

## 8.CHECK CLUTCH INTERLOCK SWITCH CIRCUIT

1. Check continuity between IPDM E/R harness connector and clutch interlock switch harness connector.



Clutch interlock switch		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: E36	2	B: E18	30	Yes

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

Clutch interlock switch		Ground	Continuity
Connector	Terminal		
A: E36	2	Ground	No

Is the inspection result normal?

YES >> GO TO 9.

NO >> Repair harness or connector.

## 9.CHECK CLUTCH INTERLOCK SWITCH

Refer to [SEC-64, "Component Inspection"](#).

Is the inspection result normal?

YES >> Replace the IPDM E/R. Refer to [PCS-45, "Removal and Installation"](#).

NO >> Replace clutch interlock switch.

## 10.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

# B2110 TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

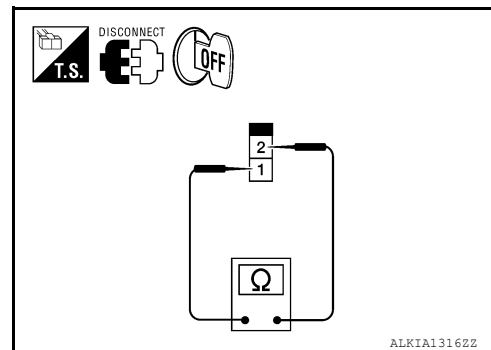
>> Inspection End.

## Component Inspection

INFOID:000000007422375

### 1.CHECK CLUTCH INTERLOCK SWITCH

1. Turn ignition switch OFF.
2. Disconnect clutch interlock switch harness connector.
3. Check continuity between clutch interlock switch under the following conditions.



Clutch interlock switch		Condition		Continuity
Terminal				
1	2	Clutch pedal	Not depressed	No
			Depressed	Yes

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace clutch interlock switch.

# B2190, P1610 NATS ANTENNA AMP

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

## B2190, P1610 NATS ANTENNA AMP

### Description

INFOID:000000007422376

Performs ID verification through BCM and Intelligent Key when push-button ignition switch is pressed.  
Prohibits the release of steering lock or start of engine when an unregistered ID of Intelligent Key is used.

### DTC Logic

INFOID:000000007422377

### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2190	NATS ANTENNA AMP	Inactive communication between key slot and BCM.	<ul style="list-style-type: none"><li>• Harness or connectors (The key slot circuit is open or shorted)</li><li>• Key slot</li><li>• BCM</li></ul>
P1610			

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Insert Intelligent Key into the key slot.
2. Check "Self diagnostic result" with CONSULT.

##### Is DTC detected?

YES >> Go to [SEC-65, "Diagnosis Procedure"](#).  
NO >> GO TO 2.

#### 2.PERFORM DTC CONFIRMATION PROCEDURE

1. Press the push-button ignition switch.
2. Check "Self diagnostic result" with CONSULT.

##### Is DTC detected?

YES >> Go to [SEC-65, "Diagnosis Procedure"](#).  
NO >> Inspection End.

### Diagnosis Procedure

INFOID:000000007422378

SEC

Regarding Wiring Diagrams information, refer to [SEC-204, "Wiring Diagram"](#).

#### 1. INSPECTION START

Check the case in which DTC is detected.

- Case1: It is detected when Intelligent Key is inserted into key slot.
- Case2: It is detected after Intelligent Key is inserted into key slot and push-button ignition switch is pressed.

##### In which case is DTC detected?

Case1. >> GO TO 2.  
Case2. >> GO TO 4.

#### 2.CHECK KEY SLOT INPUT SIGNAL

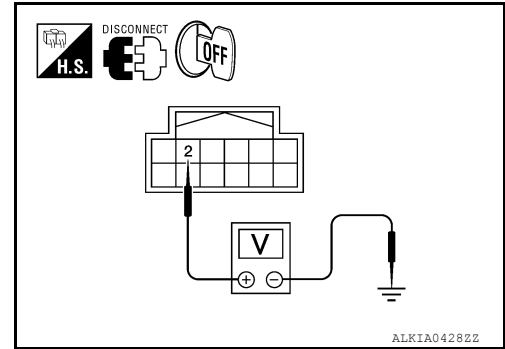
1. Turn ignition switch OFF.
2. Disconnect key slot harness connector.

## B2190, P1610 NATS ANTENNA AMP

[COUPE]

### < DTC/CIRCUIT DIAGNOSIS >

3. Check voltage between key slot harness connector and ground.



Key slot		Ground	Voltage [V] (approx.)
Connector	Terminal		
M40	2	Ground	Battery voltage

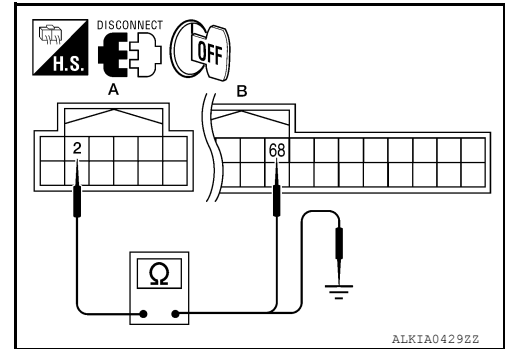
#### Is the inspection result normal?

YES >> Replace key slot. Refer to [SEC-220, "Removal and Installation"](#).

NO >> GO TO 3.

### 3.CHECK KEY SLOT CIRCUIT

1. Disconnect BCM harness connector.
2. Check continuity between key slot harness connector M40 (A) terminal 2 and BCM harness connector M19 (B) terminal 68.



Key slot		BCM		Continuity
Connector	Terminal	Connector	Terminal	
A: M40	2	B: M19	68	Yes

3. Check continuity between key slot harness connector M40 (A) terminal 2 and ground.

Key slot		Ground	Continuity
Connector	Terminal		
A: M40	2	Ground	No

#### Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair harness or connector.

### 4.CHECK PUSH-BUTTON IGNITION SWITCH OPERATION

Press push-button ignition switch and check if it turns ON.

#### Does ignition switch turn to ON?

YES >> GO TO 5.

NO >> GO TO 7.

### 5.CHECK KEY SLOT COMMUNICATION SIGNAL

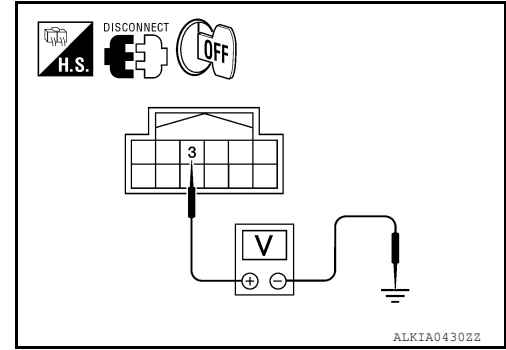
1. Turn ignition switch OFF.

# B2190, P1610 NATS ANTENNA AMP

[COUPE]

## < DTC/CIRCUIT DIAGNOSIS >

2. Disconnect key slot harness connector.
3. Check voltage between key slot harness connector and ground.



Key slot		Ground	Continuity
Connector	Terminal		
M40	3	Ground	Yes

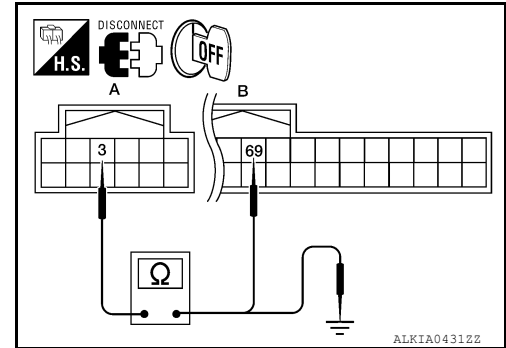
### Is the inspection result normal?

YES >> Replace key slot. Refer to [SEC-220. "Removal and Installation"](#).

NO >> GO TO 6.

## 6.CHECK KEY SLOT COMMUNICATION SIGNAL CIRCUIT

1. Disconnect BCM harness connector.
2. Check continuity between key slot harness connector M40 (A) terminal 3 and BCM harness connector M19 (B) terminal 69.



Key slot		BCM		Continuity
Connector	Terminal	Connector	Terminal	
A: M40	3	B: M19	69	Yes

3. Check continuity between key slot harness connector M40 (A) terminal 3 and ground.

Key slot		Ground	Continuity
Connector	Terminal		
A: M40	3	Ground	No

### Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair harness or connector.

## 7.CHECK KEY SLOT GROUND CIRCUIT

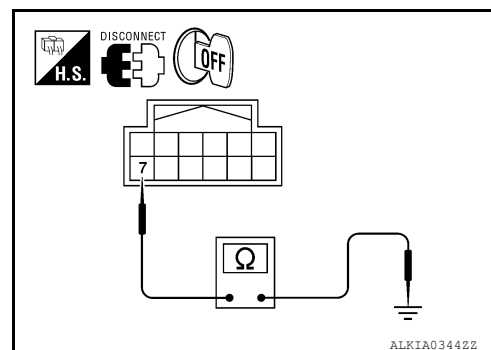
1. Turn ignition switch OFF.
2. Disconnect key slot harness connector.

## B2190, P1610 NATS ANTENNA AMP

[COUPE]

### < DTC/CIRCUIT DIAGNOSIS >

3. Check continuity between key slot harness connector and ground.



Key slot		Ground	Continuity
Connector	Terminal		
M40	7	Ground	Yes

Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair harness or connector.

### 8.CHECK INTERMITTENT INCIDENT

Refer to [GI-42. "Intermittent Incident"](#).

>> Inspection End.



## B2191, P1615 DIFFERENCE OF KEY

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

### B2191, P1615 DIFFERENCE OF KEY

#### Description

INFOID:000000007422379

Performs ID verification through BCM and Intelligent Key when push-button ignition switch is pressed. Prohibits the release of steering lock or start of engine when an unregistered ID of Intelligent Key is used.

#### DTC Logic

INFOID:000000007422380

#### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2191 P1615	DIFFERENCE OF KEY	The ID verification results between BCM and Intelligent Key are NG. The registration is necessary.	• Intelligent Key

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Insert the Intelligent Key in the key slot. Press the push-button ignition switch.
2. Check "Self diagnostic result" with CONSULT.

##### Is DTC detected?

- YES >> Go to [SEC-69. "Diagnosis Procedure"](#).  
NO >> Inspection End.

#### Diagnosis Procedure

INFOID:000000007422381

##### 1.PERFORM INITIALIZATION

Perform initialization with CONSULT. Re-register all Intelligent Keys. For initialization and registration of Intelligent Key. Refer to CONSULT Immobilizer mode and follow the on-screen instructions.

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

- YES >> Intelligent Key was unregistered.  
NO >> BCM is malfunctioning.  
• Replace BCM. Refer to [BCS-92. "Removal and Installation"](#).  
• Perform initialization again

SEC

**B2192, P1611 ID DISCORD, IMMU-ECM****Description**

INFOID:000000007422382

BCM performs the ID verification with ECM that allows the engine to start. Start the engine if the ID is OK. ECM prevents the engine from starting if the ID is not registered. BCM starts the communication with ECM if ignition switch is turned ON.

**DTC Logic**

INFOID:000000007422383

**DTC DETECTION LOGIC****NOTE:**

- If DTC B2192 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-34, "DTC Logic"](#).
- If DTC B2192 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-35, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2192 P1611	ID DISCORD, IMMU-ECM	The ID verification results between BCM and ECM are NG. The registration is necessary.	<ul style="list-style-type: none"> <li>• BCM</li> <li>• ECM</li> </ul>

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

1. Turn ignition switch ON under the following conditions.
  - CVT selector lever is in the P or N position
  - Do not depress the brake pedal
2. Check "Self diagnostic result" with CONSULT.

**Is DTC detected?**

- YES >> Go to [SEC-70, "Diagnosis Procedure"](#).  
 NO >> Inspection End.

**Diagnosis Procedure**

INFOID:000000007422384

**1.PERFORM INITIALIZATION**

Perform initialization with CONSULT. Re-register all Intelligent Keys.  
 For initialization and registration of Intelligent Key. Refer to CONSULT Immobilizer mode and follow the on-screen instructions.

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

- YES >> ID was unregistered.  
 NO >> BCM is malfunctioning.
  - Replace BCM. Refer to [BCS-92, "Removal and Installation"](#).
  - Perform initialization again
  - Replace ECM

## B2193, P1612 CHAIN OF ECM-IMMU

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

### B2193, P1612 CHAIN OF ECM-IMMU

#### Description

INFOID:000000007422385

BCM performs the ID verification with ECM that allows the engine to start. Start the engine if the ID is OK. ECM prevents the engine from starting if the ID is not registered. BCM starts the communication with ECM if ignition switch is turned ON.

#### DTC Logic

INFOID:000000007422386

#### DTC DETECTION LOGIC

##### NOTE:

- If DTC B2193 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-34, "DTC Logic"](#).
- If DTC B2193 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-35, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2193	CHAIN OF ECM-IMMU	Inactive communication between ECM and BCM	<ul style="list-style-type: none"><li>• Harness or connectors (The CAN communication line is open or shorted)</li><li>• BCM</li><li>• ECM</li></ul>
P1612			

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions.
  - CVT selector lever is in the P or N position.
  - Do not depress brake pedal.
2. Check "Self diagnostic result" with CONSULT.

##### Is DTC detected?

- YES >> Go to [SEC-71, "Diagnosis Procedure"](#).  
NO >> Inspection End.

#### Diagnosis Procedure

INFOID:000000007422387

##### 1.REPLACE BCM

1. Replace BCM.
2. Perform initialization with CONSULT.  
For initialization, refer to CONSULT Immobilizer mode and follow the on-screen instructions.

##### Does the engine start?

- YES >> BCM is malfunctioning.
  - Replace BCM. Refer to [BCS-92, "Removal and Installation"](#).
  - Perform initialization again.
- NO >> ECM is malfunctioning.
  - Replace ECM.
  - Perform ECM re-communicating function.

## B2195 ANTI-SCANNING

## Description

INFOID:000000007422388

When ignition switch is turned ON, BCM performs ID verification with ECM. If ID verification that is out of the specified specification is detected, BCM prohibits further ID verification and engine cranking.

## DTC Logic

INFOID:000000007422389

## DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2195	ANTI-SCANNING	ID verification between BCM and ECM that is out of the specified specification is detected	ID verification request out of the specified specification

## DTC CONFIRMATION PROCEDURE

## 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions.

CVT models

- Selector lever is in the P or N position
- Do not depress brake pedal

M/T models

- Do not depress clutch pedal

2. Check "Self-diagnostic result" using CONSULT.

Is DTC detected?

- YES >> Refer to [SEC-72, "Diagnosis Procedure"](#).  
 NO >> Inspection End.

## Diagnosis Procedure

INFOID:000000007422390

## 1.CHECK SELF-DIAGNOSTIC RESULT-1

1. Perform "Self-diagnostic result" of BCM using CONSULT.
2. Erase DTC.
3. Perform DTC Confirmation Procedure. Refer to [SEC-72, "DTC Logic"](#).

Is DTC B2195 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 >> Replace BCM. Refer to [BCS-92, "Removal and Installation"](#).

## 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. Perform "Self-diagnostic result" of BCM using CONSULT.
3. Erase DTC.
4. Perform DTC Confirmation Procedure. Refer to [SEC-72, "DTC Logic"](#).

Is DTC B2195 detected?

- YES >> Replace BCM. Refer to [BCS-92, "Removal and Installation"](#).  
 NO >> Inspection End

# B2555 STOP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

## B2555 STOP LAMP

### Description

INFOID:000000007422391

BCM detects the stop lamp status and confirms the stop lamp switch ON/OFF status. BCM confirms the engine start condition according to the stop lamp switch ON/OFF status.

### DTC Logic

INFOID:000000007422392

### DTC DETECTION LOGIC

DTC	CONSULT	DTC detecting condition	Possible cause
B2555	STOP LAMP	BCM makes a comparison between the upper voltage and lower voltage of stop lamp switch. The BCM then judges from their values to detect the malfunctioning circuit.	<ul style="list-style-type: none"><li>• Fuse</li><li>• Stop lamp switch</li><li>• Stop lamp relay-1 (with CVT)</li><li>• Harness or connectors</li></ul>

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Depress the brake pedal and wait for at least 1 second.
2. Check "Self diagnostic result" with CONSULT.

#### Is DTC detected?

YES >> Refer to [SEC-73, "Diagnosis Procedure \(With CVT\)"](#) or [SEC-75, "Diagnosis Procedure \(With M/T\)"](#).

NO >> Inspection End.

### Diagnosis Procedure (With CVT)

INFOID:000000007422393

Regarding Wiring Diagram information, refer to [SEC-181, "Wiring Diagram"](#).

#### 1.CHECK FUSE

1. Check 10A fuse [No.7, located in fuse block (J/B)].

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace the blown fuse after repairing the shorted circuit.

#### 2.CHECK STOP LAMP SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect BCM harness connector.
3. Check voltage between BCM harness connector M18 terminal 26 and ground.

BCM		Ground	Stop lamp switch position	Voltage [V]
Connector	Terminal			
M18	26	Ground	Depressed	Battery voltage
			Released	0

#### Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-92, "Removal and Installation"](#).

NO >> GO TO 3.

#### 3.CHECK STOP LAMP SWITCH POWER SUPPLY CIRCUIT

1. Check voltage between stop lamp harness connector E38 terminal 2 and ground.

## B2555 STOP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

Stop lamp switch		Ground	Stop lamp switch position	Voltage [V]
Connector	Terminal			
E38	2	Ground	Depressed	Battery voltage
			Released	0

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 9.

### 4.CHECK STOP LAMP RELAY-1 SIGNAL CIRCUIT

1. Check voltage between stop lamp relay-1 harness connector E57 terminal 1 and ground.

Stop lamp relay-1		Ground	Stop lamp switch position	Voltage [V]
Connector	Terminal			
E57	1	Ground	Depressed	Battery voltage
			Released	0

Is the inspection result normal?

YES >> GO TO 5.

NO >> Check harness for open or short between stop lamp relay-1 connector and stop lamp switch.  
Repair or replace necessary parts.

### 5.CHECK STOP LAMP RELAY-1 POWER SUPPLY

1. Check voltage between stop lamp relay-1 harness connector E57 terminal 5 and ground.

Stop lamp relay-1		Ground	Voltage
Connector	Terminal		
E57	5	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 6.

NO >> Check pin terminals and connection of stop lamp relay-1 harness connector and harness for abnormal conditions. Repair or replace necessary parts.

### 6.CHECK STOP LAMP RELAY-1 GROUND CIRCUIT

1. Disconnect stop lamp relay-1 E-57 connector.
2. Check continuity between stop lamp relay-1 harness connector E57 terminal 2 and ground.

Stop lamp relay-1		Ground	Continuity
Connector	Terminal		
E57	2	Ground	Yes

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair harness or connector.

### 7.CHECK STOP LAMP RELAY-1 OUTPUT CIRCUIT

1. Connect stop lamp relay-1 E57 connector.
2. Check voltage between stop lamp relay-1 harness connector E57 terminal 3 and ground.

Stop lamp relay-1		Ground	Stop lamp switch position	Voltage [V]
Connector	Terminal			
E57	3	Ground	Depressed	Battery voltage
			Released	0

## B2555 STOP LAMP

[COUPE]

### < DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 8.

NO >> GO TO 10.

### 8.CHECK STOP LAMP SWITCH CIRCUIT

1. Check continuity between stop lamp relay-1 harness connector E57 terminal 3 and BCM harness connector M18 terminal 26.

Stop lamp relay-1		BCM		Continuity
Connector	Terminal	Connector	Terminal	
E57	3	M18	26	Yes

2. Check continuity between stop lamp relay-1 harness connector E57 terminal 3 and ground.

Stop lamp relay-1		Ground	Continuity
Connector	Terminal		
E57	3	Ground	No

Is the inspection result normal?

YES >> GO TO 11.

NO >> Repair harness or connector.

### 9.CHECK STOP LAMP SWITCH

Refer to [SEC-76, "Component Inspection"](#).

Is the inspection result normal?

YES >> Repair or replace harness between stop lamp switch and fuse block J/B.

NO >> Replace stop lamp switch.

### 10.CHECK STOP LAMP RELAY-1

Refer to [SEC-76, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 11.

NO >> Replace stop lamp relay-1.

### 11.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End.

### Diagnosis Procedure (With M/T)

INFOID:000000007422394

Regarding Wiring Diagram information, refer to [SEC-181, "Wiring Diagram"](#).

### 1.CHECK STOP LAMP SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect BCM harness connector.

## B2555 STOP LAMP

[COUPE]

### < DTC/CIRCUIT DIAGNOSIS >

3. Check voltage between BCM harness connector and ground.

BCM		Ground	Stop lamp switch position	Voltage [V]
Connector	Terminal			
M18	26	Ground	Depressed	Battery voltage
			Released	0

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-92, "Removal and Installation"](#)

NO >> GO TO 2

### 2. CHECK STOP LAMP SWITCH POWER SUPPLY CIRCUIT

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

Stop lamp switch		Ground	Voltage [V]
Connector	Terminal		
E38	1	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 3

NO >> Check harness for open or short between stop lamp switch and fuse.

### 3. CHECK STOP LAMP SWITCH CIRCUIT

1. Check continuity between stop lamp switch harness connector E38 terminal 2 and BCM harness connector M18 terminal 26.

Stop lamp switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
E38	2	M18	26	Yes

2. Check continuity between stop lamp switch harness connector E38 terminal 2 and ground.

Stop lamp switch		Ground	Continuity
Connector	Terminal		
E38	2	Ground	No

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair harness or connector.

### 4. CHECK STOP LAMP SWITCH

Refer to [SEC-76, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 5

NO >> Replace stop lamp switch.

### 5. CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End.

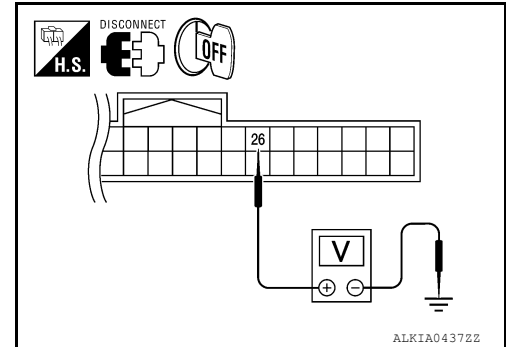
## Component Inspection

### STOP LAMP SWITCH

Revision: February 2013

SEC-76

2012 Altima GCC



INFOID:0000000007422395



## B2555 STOP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

### 1. CHECK STOP LAMP SWITCH

1. Turn ignition switch OFF.
2. Disconnect stop lamp switch harness connector E38.
3. Check continuity between stop lamp switch terminals 1 and 2 under the following conditions.

Stop lamp switch		Condition		Continuity
Terminal				
1	2	Brake pedal	Released	No
			Depressed	Yes

Is the inspection result normal?

- YES >> Inspection End.  
NO >> Replace stop lamp switch.

### STOP LAMP RELAY-1

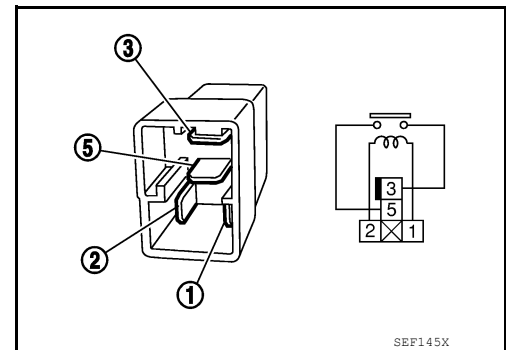
#### 1. CHECK STOP LAMP RELAY-1

Check continuity between stop lamp relay-1 terminals 3 and 5.

Condition	Continuity
Apply battery voltage between terminals 1 and 2	Yes
No voltage supplied	No

Is the inspection result normal?

- YES >> Inspection End.  
NO >> Replace stop lamp relay-1.



# B2556 PUSH-BUTTON IGNITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

## B2556 PUSH-BUTTON IGNITION SWITCH

### Description

INFOID:000000007422396

The switch that changes the power supply position. BCM maintains the power supply position status. BCM changes the power supply position with the operation of the push-button ignition switch.

### DTC Logic

INFOID:000000007422397

### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2556	PUSH-BUTTON IGNITION SWITCH	BCM detects the push-button ignition switch stuck to ON for 100 seconds or more	<ul style="list-style-type: none"><li>• Harness or connectors (Push-button ignition switch circuit is shorted.)</li><li>• Push-button ignition switch</li></ul>

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine and wait for at least 100 seconds.
2. Check "Self diagnostic result" with CONSULT.

#### Is DTC detected?

YES >> Go to [SEC-78, "Diagnosis Procedure"](#).  
NO >> Inspection End.

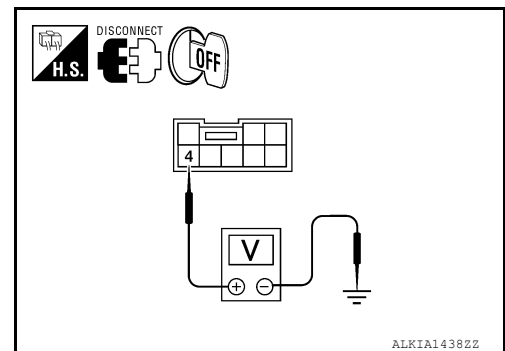
### Diagnosis Procedure

INFOID:000000007422398

Regarding Wiring Diagrams information, refer to [SEC-204, "Wiring Diagram"](#).

#### 1.CHECK PUSH-BUTTON IGNITION SWITCH INPUT SIGNAL

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



Push-button ignition switch		Ground	Voltage [V]
Connector	Terminal		
M38	4	Ground	Battery voltage

#### Is the inspection normal?

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

#### 2.CHECK PUSH-BUTTON IGNITION SWITCH

Refer to [SEC-79, "Component Inspection"](#).

## B2556 PUSH-BUTTON IGNITION SWITCH

[COUPE]

### < DTC/CIRCUIT DIAGNOSIS >

#### Is the inspection normal?

YES >> GO TO 3.

NO >> Replace push-button ignition switch. Refer to [SEC-221. "Removal and Installation"](#).

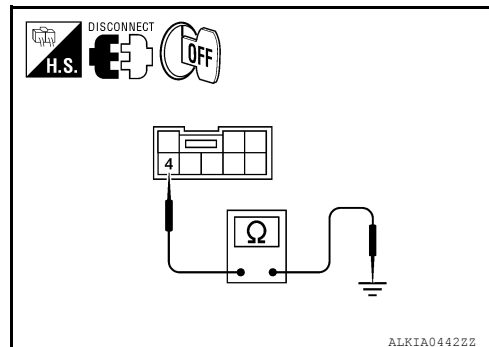
### 3.CHECK INTERMITTENT INCIDENT

Refer to [GI-42. "Intermittent Incident"](#).

>> Inspection End.

### 4.CHECK PUSH-BUTTON IGNITION SWITCH CIRCUIT FOR SHORT

1. Disconnect BCM harness connector and IPDM E/R harness connector.
2. Check continuity between push-button ignition switch harness connector and ground.



Push-button ignition switch		Ground	Continuity
Connector	Terminal		
M38	4	Ground	No

#### Is the inspection normal?

YES >> Replace BCM. Refer to [BCS-92. "Removal and Installation"](#).

NO >> Repair harness or connector.

## Component Inspection

INFOID:000000007422399

### 1.CHECK PUSH-BUTTON IGNITION SWITCH

1. Turn ignition switch OFF.
2. Disconnect push-button ignition switch harness connector.
3. Check continuity between push-button ignition switch terminals under the following conditions.

Push-button ignition switch		Condition	Continuity
Terminal			
1	4	Pressed	Yes
		Not pressed	No

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace push-button ignition switch. Refer to [SEC-221. "Removal and Installation"](#).

## B2557 VEHICLE SPEED

## Description

INFOID:000000007422400

BCM receives the 2 vehicle speed signals via CAN communication. 1 signal is transmitted by the “unified meter” Another signal is transmitted by “ABS actuator and electric unit (control unit)”. BCM compares both signals to detect the vehicle speed.

## DTC Logic

INFOID:000000007422401

## DTC DETECTION LOGIC

**NOTE:**

- If DTC B2557 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-34, "DTC Logic"](#).
- If DTC B2557 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-35, "DTC Logic"](#).

DTC	Self-diagnosis name	DTC detecting condition	Possible causes
B2557	VEHICLE SPEED	BCM detects the following difference between the vehicle speed from “unified meter” and the one from “ABS actuator and electric unit” for 10 seconds continuously <ul style="list-style-type: none"> <li>• One is 10km/h or more and the other is 4km/h or less.</li> </ul>	<ul style="list-style-type: none"> <li>• Wheel sensor</li> <li>• Unified meter</li> <li>• ABS actuator and electric unit (control unit)</li> </ul>

## DTC CONFIRMATION PROCEDURE

**1.PERFORM DTC CONFIRMATION PROCEDURE**

1. Drive the vehicle at the vehicle speed of 10 km/h or more and wait for at least 10 seconds.
2. Check “Self diagnostic result” with CONSULT.

Is DTC detected?

- YES >> Go to [SEC-80, "Diagnosis Procedure"](#).  
 NO >> Inspection End.

## Diagnosis Procedure

INFOID:000000007422402

**1.CHECK DTC WITH “ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)”**

Check “Self diagnostic result” with CONSULT. Refer to [BRC-115, "DTC No. Index"](#).

Is the inspection result normal?

- YES >> GO TO 2.  
 NO >> Repair or replace.

**2.CHECK UNIFIED METER.**

Check unified meter. Refer to [MWI-4, "Work Flow"](#).

>> Inspection End.

## B2560 STARTER CONTROL RELAY

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

### B2560 STARTER CONTROL RELAY

#### Description

INFOID:000000007422403

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

#### DTC Logic

INFOID:000000007422404

#### DTC DETECTION LOGIC

##### NOTE:

- If DTC B2560 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-34, "DTC Logic"](#).
- If DTC B2560 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-35, "DTC Logic"](#).

DTC	Self-diagnosis name	DTC detecting condition	Possible causes
B2560	STARTER CONTROL RELAY	BCM detects a mismatch between the OFF request of starter control relay to IPDM E/R and the feedback. (The feedback is ON instead of OFF.)	• IPDM E/R

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions and wait for at least 2 seconds.
  - CVT selector lever is in the P position
  - Depress the brake pedal
2. Check "Self diagnostic result" with CONSULT.

##### Is DTC detected?

- YES >> Go to [SEC-81, "Diagnosis Procedure"](#).  
NO >> Inspection End.

#### Diagnosis Procedure

INFOID:000000007422405

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

Check "Self diagnostic result" with CONSULT. Refer to [PCS-29, "DTC Index"](#).

##### Is the inspection result normal?

- YES >> GO TO 2.  
NO >> Repair or replace.

##### 2.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End.

**B2601 SHIFT POSITION****Description**

INFOID:000000007422406

BCM confirms the shift position with the following 2 signals.

- CVT selector lever
- P position signal from IPDM E/R (CAN)

**DTC Logic**

INFOID:000000007422407

**DTC DETECTION LOGIC****NOTE:**

- If DTC B2601 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-34, "DTC Logic"](#).
- If DTC B2601 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-35, "DTC Logic"](#).
- If DTC B2601 is displayed with DTC B2605, first perform the trouble diagnosis for DTC B2605. Refer to [SEC-94, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2601	SHIFT POSITION	BCM detects when a difference between the shift P input signal and the shift position signal received from IPDM E/R via CAN communication continues for 2 seconds or more	<ul style="list-style-type: none"><li>• Harness or connectors (CVT shift selector circuit is open or shorted.)</li><li>• CVT shift selector (park position switch)</li></ul>

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

1. Turn ignition switch ON under the following conditions, and wait for at least 2 seconds.
  - CVT selector lever is in the P position.
  - Do not depress the brake pedal.
2. Check "Self diagnostic result" with CONSULT.
3. Turn ignition switch ON under the following conditions, and wait for at least 2 seconds.
  - CVT selector lever is in other than P position.
  - Do not depress the brake pedal.
4. Check "Self diagnostic result" with CONSULT.

**Is DTC detected?**

- YES >> Go to [SEC-82, "Diagnosis Procedure"](#).  
NO >> Inspection End.

**Diagnosis Procedure**

INFOID:000000007422408

Regarding Wiring Diagrams information, refer to [SEC-204, "Wiring Diagram"](#).

**1. CHECK CVT SHIFT SELECTOR POWER SUPPLY**

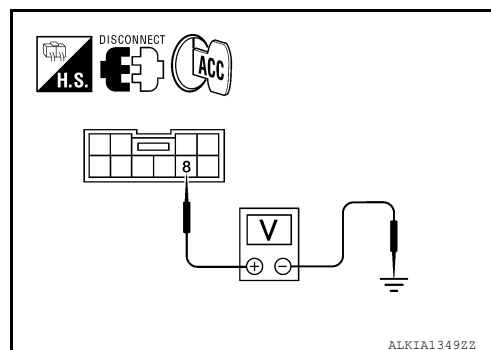
1. Turn ignition switch to ACC.
2. Disconnect CVT shift selector (park position switch) harness connector.

## B2601 SHIFT POSITION

[COUPE]

### < DTC/CIRCUIT DIAGNOSIS >

- Check voltage between CVT shift selector (park position switch) harness connector and ground.



CVT shift selector (park position switch)		Ground	Voltage [V]
Connector	Terminal		
M23	8	Ground	Battery voltage

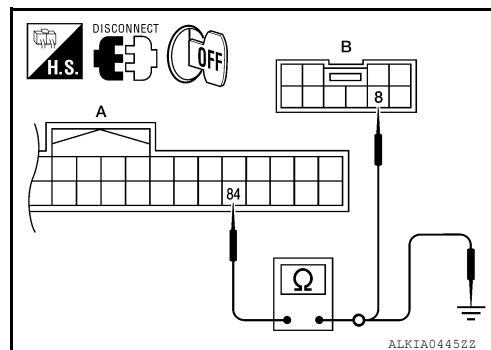
Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

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

- Disconnect BCM harness connector.
- Check continuity between BCM harness connector M19 (A) terminal 84 and CVT shift selector (park position switch) harness connector M23 (B) terminal 8.



BCM		CVT shift selector (park position switch)		Continuity
Connector	Terminal	Connector	Terminal	
A: M19	84	B: M23	8	Yes

- Check continuity between BCM harness connector M19 (A) terminal 84 and ground.

BCM		Ground	Continuity
Connector	Terminal		
A: M19	84	Ground	No

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-92. "Removal and Installation"](#).

NO >> Repair harness or connector.

### 3.CHECK CVT SHIFT SELECTOR CIRCUIT (BCM)

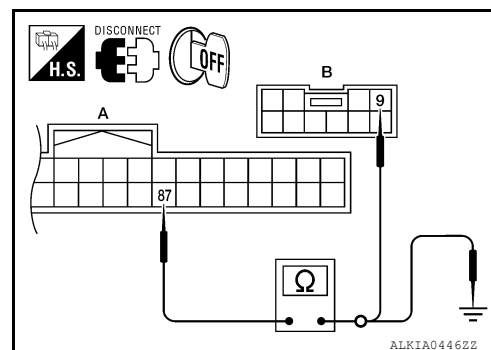
- Disconnect BCM harness connector and IPDM E/R harness connector.

## B2601 SHIFT POSITION

[COUPE]

### < DTC/CIRCUIT DIAGNOSIS >

- Check continuity between BCM harness connector M19 (A) terminal 87 and CVT shift selector (park position switch) harness connector M23 (B) terminal 9.



BCM		CVT shift selector (park position switch)		Continuity
Connector	Terminal	Connector	Terminal	
A: M19	87	B: M23	9	Yes

- Check continuity between BCM harness connector M19 (A) terminal 87 and ground.

BCM		Ground	Continuity
Connector	Terminal		
A: M19	87	Ground	No

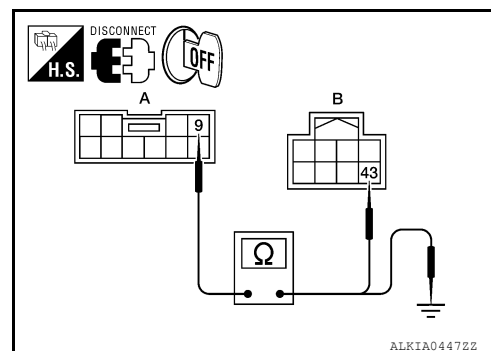
Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair harness or connector.

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

- Disconnect BCM harness connector.
- Check continuity between CVT shift selector (park position switch) harness connector M23 (A) terminal 9 and IPDM E/R harness connector E17 (B) terminal 43.



CVT shift selector (park position switch)		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: M23	9	B: E17	43	Yes

- Check continuity between CVT shift selector (park position switch) harness connector M23 (A) terminal 9 and ground.

CVT shift selector (park position switch)		Ground	Continuity
Connector	Terminal		
A: M23	9	Ground	No

Is the inspection result normal?

YES >> GO TO 5.



## B2601 SHIFT POSITION

[COUPE]

< DTC/CIRCUIT DIAGNOSIS >

NO >> Repair harness or connector.

### 5.CHECK CVT SHIFT SELECTOR

Refer to [SEC-85, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace CVT shift selector. Refer to [TM-239, "Removal and Installation"](#) (RE0F09B), or [TM-404, "Removal and Installation"](#) (RE0F10A).

### 6.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End.

## Component Inspection

INFOID:000000007422409

### 1.CHECK CVT SHIFT SELECTOR (PARK POSITION SWITCH)

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

CVT shift selector (park position switch)		Condition		Continuity
Terminal				
8	9	CVT selector lever	P position	No
			Other than above	Yes

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace CVT shift selector. Refer to [TM-239, "Removal and Installation"](#) (RE0F09B), or [TM-404, "Removal and Installation"](#) (RE0F10A).

SEC

## B2602 SHIFT POSITION

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

### B2602 SHIFT POSITION

#### Description

INFOID:000000007422410

BCM confirms the shift position with the following 2 signals.

- CVT selector lever
- Speed signal from meter

#### DTC Logic

INFOID:000000007422411

#### DTC DETECTION LOGIC

##### NOTE:

- If DTC B2602 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-34, "DTC Logic"](#).
- If DTC B2602 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-35, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2602	SHIFT POSITION	BCM detects the following status for 10 seconds. <ul style="list-style-type: none"><li>• Shift position is in P position</li><li>• Vehicle speed is 4km/h (2 MPH) or more</li><li>• Ignition switch is in the ON position</li></ul>	<ul style="list-style-type: none"><li>• Harness or connectors (CVT drive circuit is open or shorted)</li><li>• CVT shift selector (park position switch)</li><li>• Combination meter</li></ul>

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine under the following conditions and wait for at least 10 seconds.
  - CVT selector lever is in the P or N position
  - Depress the brake pedal.
2. Drive the vehicle for at least 10 seconds at a speed greater than 4 km/h (2 MPH).
3. Check "Self diagnostic result" with CONSULT.

##### Is DTC detected?

- YES >> Go to [SEC-86, "Diagnosis Procedure"](#).  
NO >> Inspection End.

#### Diagnosis Procedure

INFOID:000000007422412

Regarding Wiring Diagrams information, refer to [SEC-204, "Wiring Diagram"](#).

##### 1.CHECK DTC WITH "COMBINATION METER"

Check "Self diagnostic result" with CONSULT. Refer to [MWI-47, "DTC Index"](#).

##### Is the inspection result normal?

- YES >> GO TO 2.  
NO >> Repair or replace.

##### 2.CHECK CVT SHIFT SELECTOR POWER SUPPLY

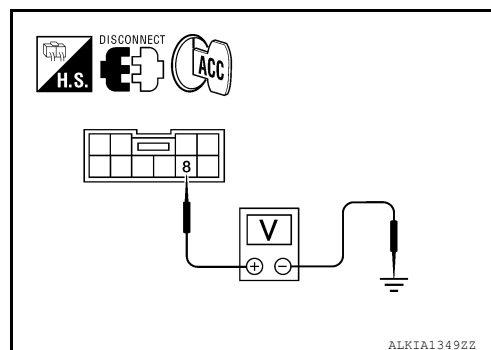
1. Turn ignition switch to ACC.
2. Disconnect CVT shift selector (park position switch) harness connector.

## B2602 SHIFT POSITION

[COUPE]

### < DTC/CIRCUIT DIAGNOSIS >

- Check voltage between CVT shift selector (park position switch) harness connector and ground.



CVT shift selector (park position switch)		Ground	Voltage [V]
Connector	Terminal		
M23	8	Ground	Battery voltage

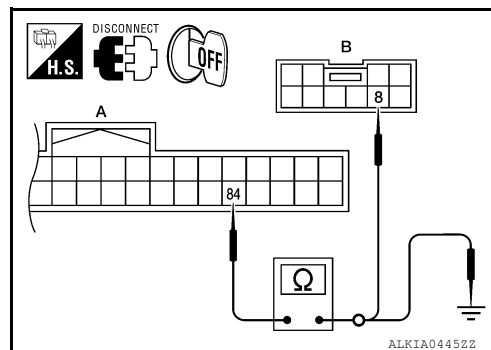
Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

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

- Disconnect BCM harness connector.
- Check continuity between BCM harness connector M19 (A) terminal 84 and CVT shift selector (park position switch) harness connector M23 (B) terminal 8.



BCM		CVT shift selector (park position switch)		Continuity
Connector	Terminal	Connector	Terminal	
A: M19	84	B: M23	8	Yes

- Check continuity between BCM harness connector M19 (A) terminal 84 and ground.

BCM		Ground	Continuity
Connector	Terminal		
A: M19	84	Ground	No

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-92. "Removal and Installation"](#).

NO >> Repair harness or connector.

### 4.CHECK CVT SHIFT SELECTOR CIRCUIT

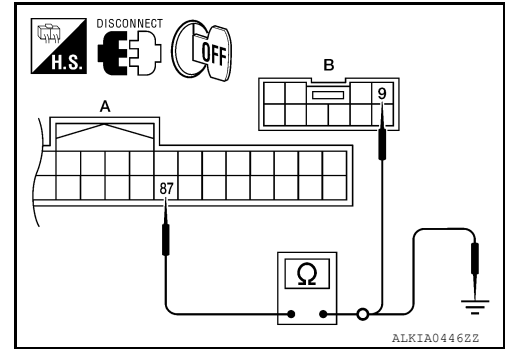
- Disconnect BCM harness connector.

## B2602 SHIFT POSITION

[COUPE]

### < DTC/CIRCUIT DIAGNOSIS >

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



BCM		CVT shift selector (park position switch)		Continuity
Connector	Terminal	Connector	Terminal	
A: M19	87	B: M23	9	Yes

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

BCM		Ground	Continuity
Connector	Terminal		
A: M19	87	Ground	No

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair harness or connector.

### 5.CHECK CVT SHIFT SELECTOR

Refer to [SEC-85. "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace CVT shift selector. Refer to [TM-239. "Removal and Installation"](#).

### 6.CHECK INTERMITTENT INCIDENT

Refer to [GI-42. "Intermittent Incident"](#).

>> Inspection End.

# B2603 SHIFT POSITION STATUS

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

## B2603 SHIFT POSITION STATUS

### Description

INFOID:000000007422413

BCM confirms the shift position with the following 2 signals.

- CVT selector lever
- Transmission range switch

### DTC Logic

INFOID:000000007422414

### DTC DETECTION LOGIC

#### NOTE:

- If DTC B2603 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-34, "DTC Logic"](#).
- If DTC B2603 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-35, "DTC Logic"](#).

DTC	Self-diagnosis name	DTC detecting condition	Possible causes
B2603	SHIFT POSITION STATUS	BCM detects the followings status for 500 ms or more when shift is in P position and, ignition switch is in ON position. <ul style="list-style-type: none"><li>• Transmission range switch: approx. 0V</li><li>• CVT shift selector (park position switch): approx 0V</li></ul>	<ul style="list-style-type: none"><li>• Harness or connector (CVT shift selector circuit is open or shorted.)</li><li>• Harness or connectors [Transmission range) switch circuit is open or shorted.]</li><li>• CVT shift selector (park position switch)</li><li>• Transmission range switch</li></ul>

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine under the following conditions and wait for at least 1 second.
  - CVT selector lever is in the P position.
  - Do not depress the brake pedal.
2. Shift to N and wait for at least 1 second.
3. Shift to any gear other than P or N and wait for at least 1 second.
4. Check "Self diagnostic result" with CONSULT.

#### Is DTC detected?

- YES >> Go to [SEC-89, "Diagnosis Procedure"](#).
- NO >> Inspection End.

### Diagnosis Procedure

INFOID:000000007422415

Regarding Wiring Diagrams information, refer to [SEC-181, "Wiring Diagram"](#).

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

Check "Self diagnostic result" with CONSULT. Refer to [PCS-29, "DTC Index"](#).

#### Is the inspection result normal?

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

#### 2.CHECK TRANSMISSION RANGE SWITCH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect TCM harness connector and BCM harness connector.
3. Check continuity between TCM harness connector terminal and BCM harness connector M18 terminal 48.

# B2603 SHIFT POSITION STATUS

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

TCM		BCM		Continuity
Connector	Terminal	Connector	Terminal	
F16 (VQ35DE)	20	M18	48	Yes
F25 (QR25DE)	2			

4. Check continuity between TCM harness connector terminal and ground.

TCM		Ground	Continuity
Connector	Terminal		
F16 (VQ35DE)	20	Ground	No
F25 (QR25DE)	2		

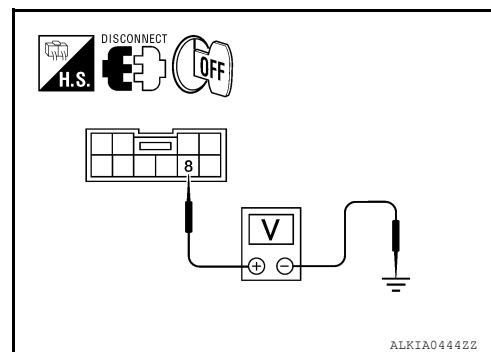
Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

## 3. CHECK CVT SHIFT SELECTOR POWER SUPPLY

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



CVT shift selector (park position switch)		Ground	Voltage [V]
Connector	Terminal		
M23	8	Ground	Battery voltage

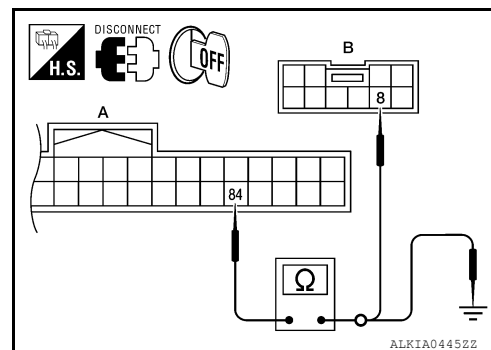
Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

## 4. CHECK CVT SHIFT SELECTOR POWER SUPPLY CIRCUIT

- Disconnect BCM harness connector.
- Check continuity between BCM harness connector M19 (A) terminal 84 and CVT shift selector (park position switch) harness connector M23 (B) terminal 8.



## B2603 SHIFT POSITION STATUS

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

BCM		CVT shift selector (park position switch)		Continuity
Connector	Terminal	Connector	Terminal	
A: M19	84	B: M23	8	Yes

3. Check continuity between BCM harness connector M19 (A) terminal 84 and ground.

BCM		Ground	Continuity
Connector	Terminal		
A: M19	84	Ground	No

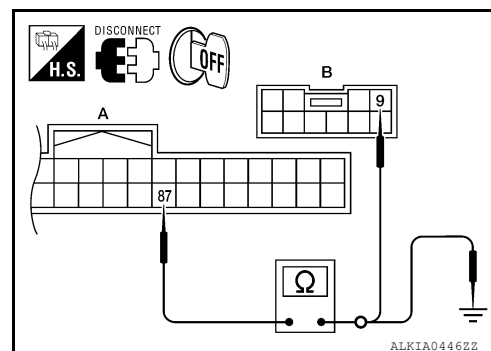
Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-92, "Removal and Installation"](#).

NO >> Repair harness or connector.

### 5.CHECK CVT SHIFT SELECTOR CIRCUIT

1. Disconnect BCM harness connector.
2. Check continuity between BCM harness connector M19 (A) terminal 87 and CVT shift selector (park position switch) harness connector M23 (B) terminal 9.



BCM		CVT shift selector (park position switch)		Continuity
Connector	Terminal	Connector	Terminal	
A: M19	87	B: M23	9	Yes

3. Check continuity between BCM harness connector M19 (A) terminal 87 and ground.

BCM		Ground	Continuity
Connector	Terminal		
A: M19	87	Ground	No

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

### 6.CHECK CVT SHIFT SELECTOR

Refer to [SEC-85, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 7.

NO >> Replace CVT shift selector. Refer to [TM-239, "Removal and Installation"](#) (RE0F09B), or [TM-404, "Removal and Installation"](#) (RE0F10A).

### 7.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End.

## B2604 PNP SWITCH

## Description

INFOID:000000007422416

BCM confirms the shift position with the following 4 signals.

- CVT selector lever
- Transmission range position switch
- P position signal from IPDM E/R (CAN)
- P position signal from TCM (CAN)

## DTC Logic

INFOID:000000007422417

## DTC DETECTION LOGIC

**NOTE:**

- If DTC B2604 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-34, "DTC Logic"](#).
- If DTC B2604 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-35, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2604	PNP SWITCH	<p>BCM detects the following status for 500 ms or more when the ignition switch is in the ON position.</p> <ul style="list-style-type: none"> <li>• Transmission range switch indicates vehicle is in P or N shift position. Signal from TCM indicates vehicle is in forward or reverse gear.</li> <li>• Transmission range switch indicates vehicle is in forward or reverse gear. Signal from TCM indicates vehicle is in P or N.</li> </ul>	<ul style="list-style-type: none"> <li>• Harness or connectors [The transmission range switch circuit is open or shorted.]</li> <li>• Transmission range switch</li> <li>• TCM</li> </ul>

## DTC CONFIRMATION PROCEDURE

**1. PERFORM DTC CONFIRMATION PROCEDURE**

1. Start the engine under the following conditions and wait for at least 1 seconds.
  - CVT selector lever is in the P position
  - Do not depress the brake pedal
2. Use CVT selector lever to select each gear one at a time. Wait at each gear for at least 1 second.
3. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

- YES >> Go to [SEC-92, "Diagnosis Procedure"](#).  
 NO >> Inspection End.

## Diagnosis Procedure

INFOID:000000007422418

Regarding Wiring Diagrams information, refer to [SEC-181, "Wiring Diagram"](#).

**1. CHECK DTC WITH TCM**

Check "Self diagnostic result" with CONSULT. Refer to [TM-196, "DTC Index"](#) (RE0F09B), or refer to (RE0F10A) [TM-359, "DTC Index"](#).

Is the inspection result normal?

- YES >> GO TO 2.  
 NO >> Repair or replace.

**2. CHECK TRANSMISSION RANGE SWITCH CIRCUIT**

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



## B2604 PNP SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

TCM		BCM		Continuity
Connector	Terminal	Connector	Terminal	
F16 (VQ35DE)	20	M18	48	Yes
F25 (QR25DE)	2			

4. Check continuity between TCM harness connector and ground.

TCM		Ground	Continuity
Connector	Terminal		
F16 (VQ35DE)	20	Ground	No
F25 (QR25DE)	2		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

### 3.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End.

SEC

## B2605 PNP SWITCH

## Description

INFOID:000000007422419

BCM confirms the shift position with the following 4 signals.

- CVT selector lever
- Transmission range switch
- P position signal from IPDM E/R (CAN)
- P position signal from TCM (CAN)

## DTC Logic

INFOID:000000007422420

## DTC DETECTION LOGIC

**NOTE:**

- If DTC B2605 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-34, "DTC Logic"](#).
- If DTC B2605 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-35, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2605	PNP SWITCH	BCM detects the following status for 500 ms or more when the ignition switch is in ON position <ul style="list-style-type: none"> <li>• N position input signal exists. Shift position signal from IPDM E/R does not exist.</li> <li>• N position input signal does not exist. Shift position signal from IPDM E/R exists.</li> </ul>	<ul style="list-style-type: none"> <li>• Harness or connectors [The transmission range switch circuit is open or shorted.]</li> <li>• Transmission range switch</li> <li>• IPDM E/R</li> </ul>

## DTC CONFIRMATION PROCEDURE

**1. PERFORM DTC CONFIRMATION PROCEDURE**

1. Turn ignition switch ON under the following conditions and wait for at least 1 seconds.
  - CVT selector lever is in the P or N position
  - Do not depress the brake pedal.
2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to [SEC-94, "Diagnosis Procedure"](#).

NO >> Inspection End.

## Diagnosis Procedure

INFOID:000000007422421

Regarding Wiring Diagrams information, refer to [SEC-181, "Wiring Diagram"](#).

**1. CHECK DTC WITH IPDM E/R**

Check "Self diagnostic result" with CONSULT. Refer to [PCS-29, "DTC Index"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace.

**2. CHECK TRANSMISSION RANGE SWITCH CIRCUIT**

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

## B2605 PNP SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

TCM		BCM		Continuity
Connector	Terminal	Connector	Terminal	
F16 (VQ35DE)	20	M18	48	Yes
F25 (QR25DE)	2			

4. Check continuity between TCM harness connector and ground.

TCM		Ground	Continuity
Connector	Terminal		
F16 (VQ35DE)	20	Ground	No
F25 (QR25DE)	2		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

### 3.CHECK INTERMITTENT INCIDENT

Refer to [GI-42. "Intermittent Incident"](#).

>> Inspection End.

SEC

## B2606 STEERING LOCK RELAY

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

### B2606 STEERING LOCK RELAY

#### Description

INFOID:000000007422422

The steering lock relay ON signal is transmitted to IPDM E/R by BCM via CAN communication. IPDM E/R turns the steering lock relay ON and transmits the release of the steering to BCM.

#### DTC Logic

INFOID:000000007422423

#### DTC DETECTION LOGIC

##### NOTE:

- If DTC B2606 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-34, "DTC Logic"](#).
- If DTC B2606 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-35, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2606	STEERING LOCK RELAY	BCM detects that there is a mismatch between the following statuses. <ul style="list-style-type: none"><li>• Electronic steering column lock ON signal transmitted by IPDM E/R</li><li>• The electronic steering column lock status feedback</li></ul>	<ul style="list-style-type: none"><li>• Steering lock relay (in IPDM E/R)</li></ul>

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Press the push-button ignition switch under the following conditions.
  - CVT selector lever is in the P or N position.
  - Do not depress the brake pedal.
2. Steering is locked.
3. Check "Self diagnostic result" with CONSULT.

##### Is DTC detected?

YES >> Go to [SEC-96, "Diagnosis Procedure"](#).

NO >> Inspection End.

#### Diagnosis Procedure

INFOID:000000007422424

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

Check "Self diagnostic result" with CONSULT. Refer to [PCS-29, "DTC Index"](#).

##### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace.

##### 2.INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End.

# B2607 STEERING LOCK RELAY

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

## B2607 STEERING LOCK RELAY

### Description

INFOID:000000007422425

BCM requests to IPDM E/R to supply power to electronic steering column lock. IPDM E/R sends status of electronic steering column lock back to BCM.

### DTC Logic

INFOID:000000007422426

### DTC DETECTION LOGIC

#### NOTE:

- If DTC B2607 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-34, "DTC Logic"](#).
- If DTC B2607 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-35, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2607	STEERING LOCK RELAY	BCM detects that there is a difference between the following statuses. <ul style="list-style-type: none"><li>• BCM request for electronic steering column lock power supply (ON/OFF)</li><li>• IPDM E/R status of electronic steering column lock power supply (ON/OFF)</li></ul>	<ul style="list-style-type: none"><li>• Harness or connectors (electronic steering column lock power supply circuit is open or shorted)</li><li>• Steering lock relay (in IPDM E/R)</li></ul>

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Press the push-button ignition switch under the following conditions.
  - CVT selector lever is in the P position
  - Do not depress brake pedal
2. Steering lock is locked.
3. Check "Self diagnostic result" with CONSULT.

#### Is DTC detected?

YES >> Go to [SEC-97, "Diagnosis Procedure"](#).

NO >> Inspection End.

### Diagnosis Procedure

INFOID:000000007422427

Regarding Wiring Diagrams information, refer to [SEC-181, "Wiring Diagram"](#).

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

Check "Self diagnostic result" with CONSULT. Refer to [PCS-29, "DTC Index"](#).

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace malfunctioning parts.

#### 2.CHECK ELECTRONIC STEERING COLUMN LOCK POWER SUPPLY CIRCUIT

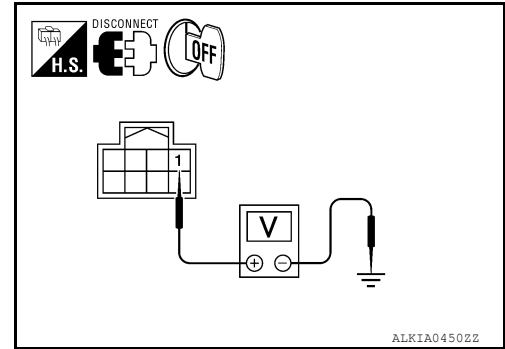
1. Turn ignition switch OFF.
2. Disconnect electronic steering column lock harness connector.

## B2607 STEERING LOCK RELAY

[COUPE]

### < DTC/CIRCUIT DIAGNOSIS >

- Check voltage between electronic steering column lock and ground under the following conditions.



Electronic steering column lock		Ground	Condition	Voltage (V)
Connector	Terminal			
M32	1	Ground	Press push-button ignition switch when steering lock is in lock condition.	Battery voltage

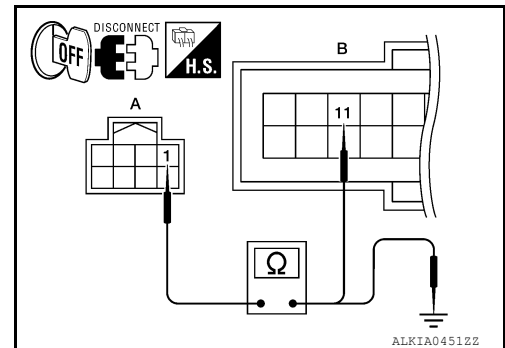
Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

### 3.CHECK ELECTRONIC STEERING COLUMN LOCK POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- Disconnect IPDM E/R harness connector.
- Check continuity between electronic steering column lock and IPDM E/R harness connector.



Electronic steering column lock		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: M32	1	B: E18	11	Yes

- Check continuity between electronic steering column lock and ground.

Electronic steering column lock		Ground	Continuity
Connector	Terminal		
A: M32	1	Ground	No

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-45, "Removal and Installation"](#).

NO >> Repair harness or connector.

### 4.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End.

# B2608 STARTER RELAY

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

## B2608 STARTER RELAY

### Description

INFOID:000000007422428

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

### DTC Logic

INFOID:000000007422429

#### DTC DETECTION LOGIC

##### NOTE:

- If DTC B2608 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-34. "DTC Logic"](#).
- If DTC B2608 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-35. "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2608	STARTER RELAY	BCM receives starter relay ON signal (CAN) from IPDM E/R even if BCM turns the starter relay OFF	<ul style="list-style-type: none"><li>• Harness or connectors (starter relay circuit is open or shorted.)</li><li>• IPDM E/R</li></ul>

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Press the push-button ignition switch under the following conditions.
  - CVT selector lever is in the P or N position.
  - Depress the brake pedal.
2. Check "Self diagnostic result" with CONSULT.

##### Is DTC detected?

- YES >> Go to [SEC-99. "Diagnosis Procedure"](#).  
NO >> Inspection End.

### Diagnosis Procedure

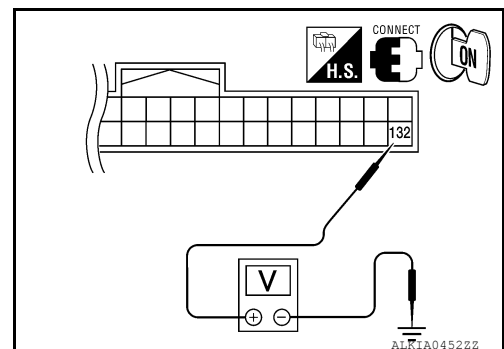
INFOID:000000007422430

SEC

Regarding Wiring Diagrams information, refer to [SEC-181. "Wiring Diagram"](#).

##### 1.CHECK STARTER RELAY

1. Turn ignition switch ON.
2. Check voltage between BCM harness connector and ground under the following condition.



## B2608 STARTER RELAY

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

BCM		Ground	Condition		Voltage (V)
Connector	Terminal				
M21	132	Ground	CVT selector lever	N or P position	Battery voltage
				Other than above	0
			Clutch pedal	Not depressed	0
				Depressed	Battery voltage

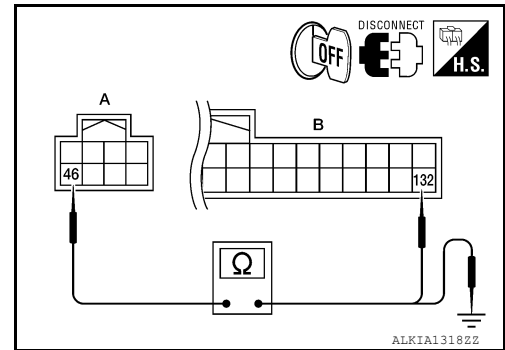
Is the measurement value within the specification?

YES >> GO TO 3.

NO >> GO TO 2.

### 2.CHECK STARTER RELAY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM harness connector M21 and IPDM E/R harness connector E17.
3. Check continuity between IPDM E/R harness connector and BCM harness connector.



IPDM E/R		BCM		Continuity
Connector	Terminal	Connector	Terminal	
A: E17	46	B: M21	132	Yes

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
A: E17	46	Ground	No

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-45, "Removal and Installation"](#).

NO >> Repair harness or connector.

### 3.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End.



# B2609 STEERING STATUS

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

## B2609 STEERING STATUS

### Description

INFOID:000000007422431

There are 2 switches in the electronic steering column lock (steering column lock/unlock switch 1 and 2). BCM compares those two switches conditions to judge the present steering status.

### DTC Logic

INFOID:000000007422432

### DTC DETECTION LOGIC

#### NOTE:

- If DTC B2609 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-34, "DTC Logic"](#).
- If DTC B2609 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-35, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2609	STEERING STATUS	BCM detects the malfunction of electronic steering column lock switches for 1 second.	<ul style="list-style-type: none"><li>• Harness or connectors [Electronic steering column lock circuit (BCM side) is open or shorted]</li><li>• Harness or connectors [Electronic steering column lock circuit (IPDM E/R side) is open or shorted.]</li><li>• Electronic steering column lock</li><li>• IPDM E/R</li></ul>

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE 1

1. Press the push-button ignition switch under the following conditions and wait for at least 1 second.
  - CVT selector lever is in the P position.
  - Do not depress brake pedal
  - Steering is locked
2. Check "Self diagnostic result" with CONSULT.

#### Is DTC detected?

- YES >> Go to [SEC-101, "Diagnosis Procedure"](#).  
NO >> GO TO 2.

#### 2.PERFORM DTC CONFIRMATION PROCEDURE 2

1. Turn ignition switch ON.
2. Turn ignition switch OFF.
3. Press door switch.
4. Check "Self diagnostic result" with CONSULT.

#### Is DTC detected?

- YES >> Go to [SEC-101, "Diagnosis Procedure"](#).  
NO >> Inspection End.

### Diagnosis Procedure

INFOID:000000007422433

Regarding Wiring Diagrams information, refer to [SEC-181, "Wiring Diagram"](#).

#### 1.INSPECTION START

Check the case in which DTC is detected.

- Case1: It is detected after ignition switch is changed from ON to OFF and door switch is pressed
- Case2: It is detected after ignition switch is changed from ON to OFF

## B2609 STEERING STATUS

[COUPE]

### < DTC/CIRCUIT DIAGNOSIS >

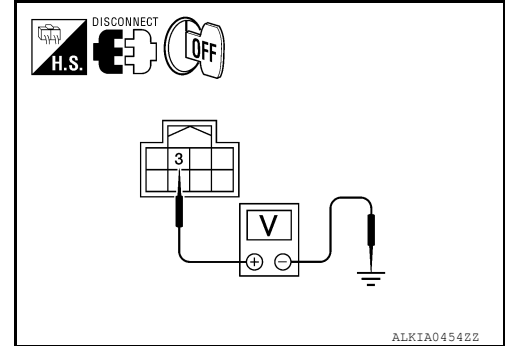
#### In which case is DTC detected?

Case1 >> GO TO 2.

Case2 >> GO TO 7.

### 2.CHECK BCM OUTPUT SIGNAL

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



Electronic steering column lock		Ground	Voltage [V]
Connector	Terminal		
M32	3	Ground	Battery voltage

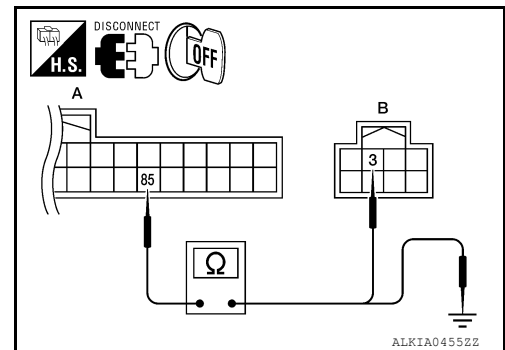
#### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

### 3.CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-I

1. Disconnect BCM harness connector.
2. Check continuity between BCM harness connector M19 (A) terminal 85 and electronic steering column lock harness connector M32 (B) terminal 3.



BCM		Electronic steering column lock		Continuity
Connector	Terminal	Connector	Terminal	
A: M19	85	B: M32	3	Yes

3. Check continuity between BCM harness connector M19 (A) terminal 85 and ground.

BCM		Ground	Continuity
Connector	Terminal		
A: M19	85	Ground	No

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

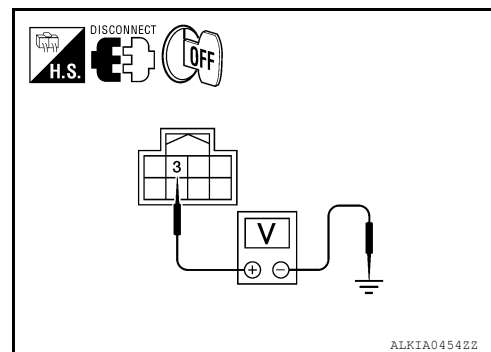
### 4.CHECK IPDM E/R OUTPUT SIGNAL

# B2609 STEERING STATUS

[COUPE]

## < DTC/CIRCUIT DIAGNOSIS >

1. Connect IPDM E/R harness connector.
2. Disconnect BCM harness connector.
3. Check voltage between electronic steering column lock harness connector and ground.



Electronic steering column lock		Ground	Voltage [V]
Connector	Terminal		
M32	3	Ground	Battery voltage

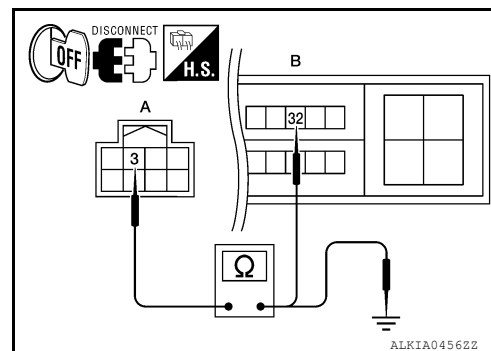
Is the inspection result normal?

YES >> Replace electronic steering column lock.

NO >> GO TO 5.

## 5.CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-II

1. Check continuity between electronic steering column lock harness connector M32 (A) terminal 3 and IPDM E/R harness connector E18 (B) terminal 32.



Electronic steering column lock		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: M32	3	B: E18	32	Yes

2. Check continuity between electronic steering column lock harness connector M32 (A) terminal 3 and ground.

Electronic steering column lock		Ground	Continuity
Connector	Terminal		
A: M32	3	Ground	No

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

## 6.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End.

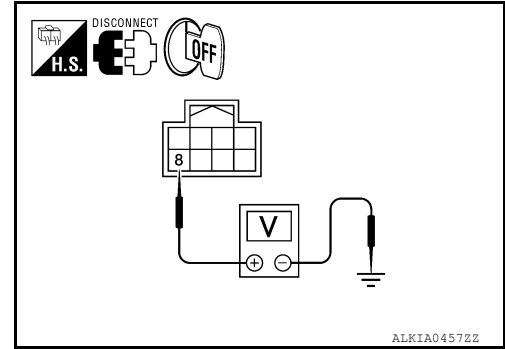
## 7.CHECK BCM OUTPUT SIGNAL

# B2609 STEERING STATUS

[COUPE]

## < DTC/CIRCUIT DIAGNOSIS >

1. Turn ignition switch OFF.
2. Disconnect electronic steering column lock harness connector and IPDM E/R harness connector E5.
3. Check voltage between electronic steering column lock harness connector and ground.



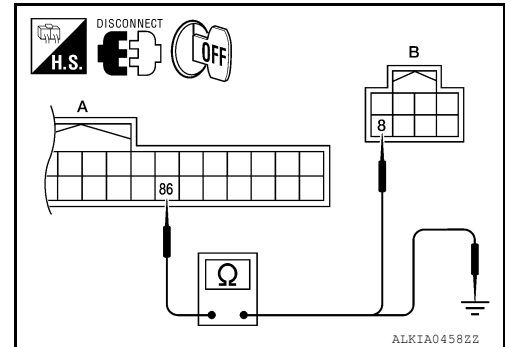
Electronic steering column lock		Ground	Voltage [V]
Connector	Terminal		
M32	8	Ground	Battery voltage

Is the inspection result normal?

- YES >> GO TO 9.  
NO >> GO TO 8.

## 8.CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-I

1. Disconnect BCM harness connector M19.
2. Check continuity between BCM harness connector M19 (A) terminal 86 and electronic steering column lock harness connector M32 (B) terminal 8.



BCM		Electronic steering column lock		Continuity
Connector	Terminal	Connector	Terminal	
A: M19	86	B: M32	8	Yes

3. Check continuity between BCM harness connector M19 (A) terminal 86 and ground.

BCM		Ground	Continuity
Connector	Terminal		
A: M19	86	Ground	No

Is the inspection result normal?

- YES >> GO TO 11.  
NO >> Repair harness or connector.

## 9.CHECK IPDM E/R OUTPUT SIGNAL

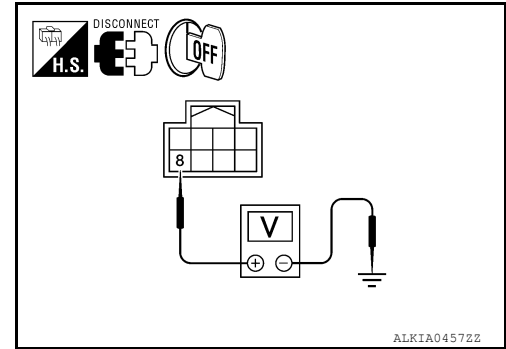
1. Connect IPDM E/R harness connector.
2. Disconnect BCM harness connector M19.

# B2609 STEERING STATUS

[COUPE]

## < DTC/CIRCUIT DIAGNOSIS >

- Check voltage between electronic steering column lock harness connector and ground.



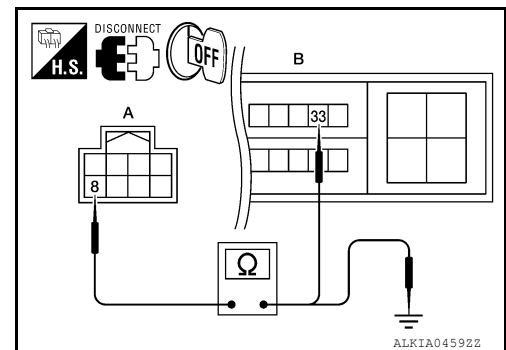
Electronic steering column lock		Ground	Voltage [V]
Connector	Terminal		
M32	8	Ground	Battery voltage

Is the inspection result normal?

- YES >> Replace electronic steering column lock.  
 NO >> GO TO 10.

## 10.CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-II

- Check continuity between electronic steering column lock harness connector M32 (A) terminal 8 and IPDM E/R harness connector E18 (B) terminal 33.



Electronic steering column lock		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: M32	8	B: E18	33	Yes

- Check continuity between electronic steering column lock harness connector and ground.

Electronic steering column lock		Ground	Continuity
Connector	Terminal		
A: M32	8	Ground	No

Is the inspection result normal?

- YES >> GO TO 11.  
 NO >> Repair harness or connector.

## 11.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End.

# B260B ELECTRONIC STEERING COLUMN LOCK

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

## B260B ELECTRONIC STEERING COLUMN LOCK

### Description

INFOID:000000007422434

The electronic steering column lock performs the check by itself according to the steering status.

### DTC Logic

INFOID:000000007422435

### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B260B	ELECTRONIC STEERING COLUMN LOCK	BCM detects malfunctioning of electronic steering column lock before steering unlocking.	<ul style="list-style-type: none"><li>Electronic steering column lock</li></ul>

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Press the push-button ignition switch, when steering is locked.
2. Check "Self diagnostic result" with CONSULT.

#### Is DTC detected?

- YES >> Go to [SEC-106, "Diagnosis Procedure"](#).  
NO >> Inspection End.

### Diagnosis Procedure

INFOID:000000007422436

#### 1.INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**  
See [SEC-106, "DTC Logic"](#).

#### Is the DTC B260B displayed again?

- YES >> Replace electronic steering column lock.  
NO >> Inspection End.

# B260C ELECTRONIC STEERING COLUMN LOCK

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

## B260C ELECTRONIC STEERING COLUMN LOCK

### Description

INFOID:000000007422437

The electronic steering column lock performs the check by itself according to the steering status.

### DTC Logic

INFOID:000000007422438

### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B260C	ELECTRONIC STEERING COLUMN LOCK	BCM detects malfunctioning of electronic steering column lock before steering locking.	• Electronic steering column lock

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Turn ignition switch OFF.
3. Press door switch.
4. Check "Self diagnostic result" with CONSULT.

#### Is DTC detected?

- YES >> Go to [SEC-107, "Diagnosis Procedure"](#).  
NO >> Inspection End.

### Diagnosis Procedure

INFOID:000000007422439

#### 1.INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**  
See [SEC-107, "DTC Logic"](#).

#### Is the DTC B260C displayed again?

- YES >> Replace electronic steering column lock.  
NO >> Inspection End.

# B260D ELECTRONIC STEERING COLUMN LOCK

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

## B260D ELECTRONIC STEERING COLUMN LOCK

### Description

INFOID:000000007422440

The electronic steering column lock performs the check by itself according to the steering lock status (before lock, after lock and unlock).

### DTC Logic

INFOID:000000007422441

### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B260D	ELECTRONIC STEERING COLUMN LOCK	BCM detects malfunctioning of electronic steering column lock after steering locking.	• Electronic steering column lock

### DTC CONFIRMATION PROCEDURE

#### 1. PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Turn ignition switch OFF.
3. Press door switch.
4. Check "Self diagnostic result" with CONSULT.

#### Is DTC detected?

- YES >> Go to [SEC-108, "Diagnosis Procedure"](#).  
NO >> Inspection End.

### Diagnosis Procedure

INFOID:000000007422442

#### 1. INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**  
See [SEC-108, "DTC Logic"](#).

#### Is the DTC B260D displayed again?

- YES >> Replace electronic steering column lock.  
NO >> Inspection End.



# B260F ENGINE STATUS

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

## B260F ENGINE STATUS

### Description

INFOID:000000007422443

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

### DTC Logic

INFOID:000000007422444

### DTC DETECTION LOGIC

#### NOTE:

- If DTC B260F is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-34, "DTC Logic"](#).
- If DTC B260F is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-35, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B260F	INTERRUPTION OF ENGINE STATUS SIGNAL	BCM is not yet received the engine status signal from ECM when ignition switch is in ON position	• ECM

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions.
  - CVT selector lever is in the P position.
  - Do not depress the brake pedal.
2. Check "Self diagnostic result" with CONSULT.

#### Is DTC detected?

- YES >> Go to [SEC-109, "Diagnosis Procedure"](#).  
NO >> Inspection End.

### Diagnosis Procedure

INFOID:000000007422445

#### 1.INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**  
See [SEC-109, "DTC Logic"](#).

#### Is the DTC B260F displayed again?

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

#### 2.REPLACE ECM

1. Replace ECM.
2. Go to [EC-15, "BASIC INSPECTION : Special Repair Requirement"](#) (QR25DE) or [EC-330, "BASIC INSPECTION : Special Repair Requirement"](#) (VQ35DE).

>> Inspection End.

# B2612 STEERING STATUS

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

## B2612 STEERING STATUS

### Description

INFOID:000000007422446

There are 2 switches in the steering unit. IPDM E/R compares those 2 switches conditions to judge the present steering status and transmit the result to BCM via CAN communication.

### DTC Logic

INFOID:000000007422447

### DTC DETECTION LOGIC

#### NOTE:

- If DTC B2612 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-34, "DTC Logic"](#).
- If DTC B2612 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-35, "DTC Logic"](#).

DTC	Self-diagnosis name	DTC detecting condition	Possible causes
B2612	STEERING STATUS	BCM detects the mismatch between the following status for 1 second <ul style="list-style-type: none"><li>• Steering column lock or unlock</li><li>• Feedback of steering column lock status from IPDM E/R (CAN)</li></ul>	<ul style="list-style-type: none"><li>• Harness or connectors [electronic steering column lock circuit (BCM side) is open or shorted]</li><li>• Harness or connectors [electronic steering column lock circuit (IPDM E/R side) is open or shorted.]</li><li>• Electronic steering column lock</li><li>• IPDM E/R</li></ul>

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE 1

1. Press the push-button ignition switch under the following conditions and wait for at least 1 second.
  - CVT selector lever is in the P or N position.
  - Do not depress brake pedal.
  - Steering is locked.
2. Check "Self diagnostic result" with CONSULT.

#### Is DTC detected?

- YES >> Go to [SEC-110, "Diagnosis Procedure"](#).  
NO >> GO TO 2.

#### 2.PERFORM DTC CONFIRMATION PROCEDURE 2

1. Turn ignition switch ON.
2. Turn ignition switch OFF.
3. Press door switch.
4. Check "Self diagnostic result" with CONSULT.

#### Is DTC detected?

- YES >> Go to [SEC-110, "Diagnosis Procedure"](#).  
NO >> Inspection End.

### Diagnosis Procedure

INFOID:000000007422448

Regarding Wiring Diagrams information, refer to [SEC-181, "Wiring Diagram"](#).

#### 1.INSPECTION START

Check the case in which DTC is detected.

- Case1: It is detected after ignition switch is changed from ON to OFF and door switch is pressed.
- Case2: It is detected after ignition switch is changed from ON to OFF

#### In which case is DTC detected?

# B2612 STEERING STATUS

[COUPE]

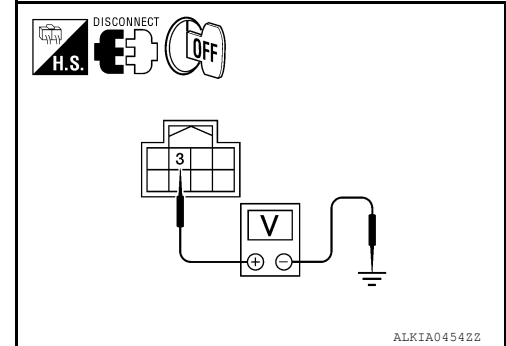
## < DTC/CIRCUIT DIAGNOSIS >

Case1 >> GO TO 2.

Case2 >> GO TO 7.

### 2.CHECK BCM OUTPUT SIGNAL

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



Electronic steering column lock		Ground	Voltage [V]
Connector	Terminal		
M32	3	Ground	Battery voltage

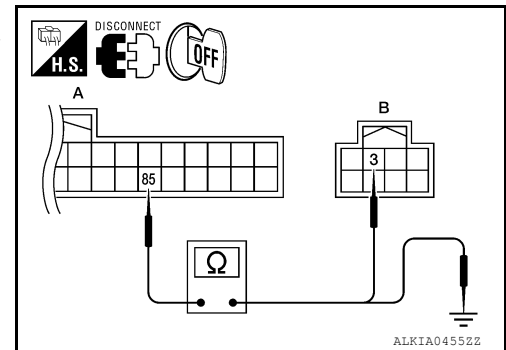
Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

### 3.CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-I

1. Disconnect BCM harness connector.
2. Check continuity between BCM harness connector M19 (A) terminal 85 and electronic steering column lock harness connector M32 (B) terminal 3.



BCM		Electronic steering column lock		Continuity
Connector	Terminal	Connector	Terminal	
A: M19	85	B: M32	3	Yes

3. Check continuity between BCM harness connector M19 (A) terminal 85 and ground.

BCM		Ground	Continuity
Connector	Terminal		
A: M19	85	Ground	No

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

### 4.CHECK IPDM E/R OUTPUT SIGNAL

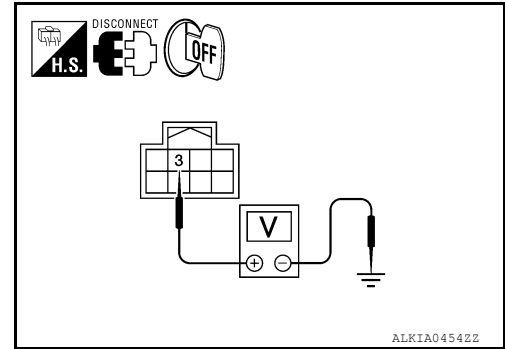
1. Connect IPDM E/R harness connector.
2. Disconnect BCM harness connector.

# B2612 STEERING STATUS

[COUPE]

## < DTC/CIRCUIT DIAGNOSIS >

- Check voltage between electronic steering column lock harness connector and ground.



Electronic steering column lock		Ground	Voltage [V]
Connector	Terminal		
M32	3	Ground	Battery voltage

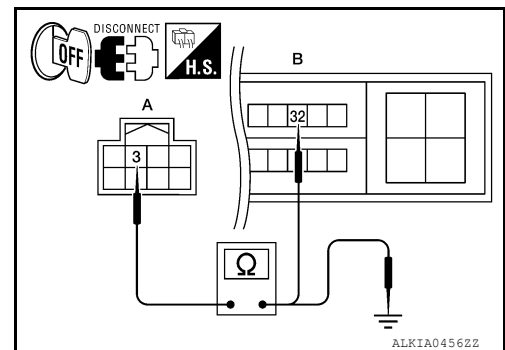
Is the inspection result normal?

YES >> Replace electronic steering column lock.

NO >> GO TO 5.

## 5.CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-II

- Check continuity between electronic steering column lock harness connector M32 (A) terminal 3 and IPDM E/R harness connector E18 (B) terminal 32.



Electronic steering column lock		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: M32	3	B: E18	32	Yes

- Check continuity between electronic steering column lock harness connector M32 (A) terminal 3 and ground.

Electronic steering column lock		Ground	Continuity
Connector	Terminal		
A: M32	3	Ground	No

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

## 6.CHECK INTERMITTENT INCIDENT

Refer to [GI-42. "Intermittent Incident"](#).

>> Inspection End.

## 7.CHECK BCM OUTPUT SIGNAL

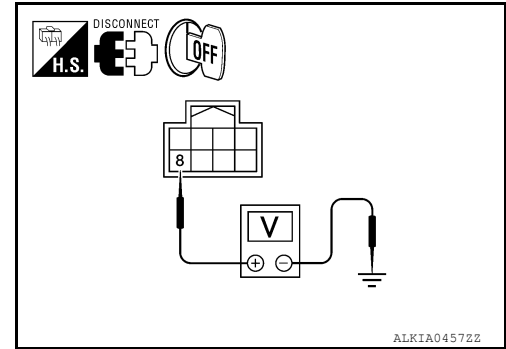
- Turn ignition switch OFF.
- Disconnect electronic steering column lock harness connector and IPDM E/R harness connector.

# B2612 STEERING STATUS

[COUPE]

## < DTC/CIRCUIT DIAGNOSIS >

- Check voltage between electronic steering column lock harness connector and ground.



Electronic steering column lock		Ground	Voltage [V]
Connector	Terminal		
M32	8	Ground	Battery voltage

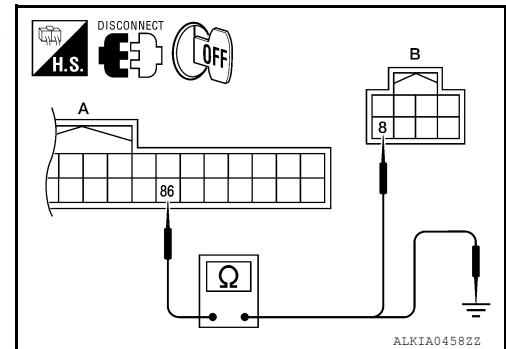
Is the inspection result normal?

YES >> GO TO 9.

NO >> GO TO 8.

## 8.CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-I

- Disconnect BCM harness connector.
- Check continuity between BCM harness connector M19 (A) terminal 86 and electronic steering column lock harness connector M32 (B) terminal 8.



BCM		Electronic steering column lock		Continuity
Connector	Terminal	Connector	Terminal	
A: M19	86	B: M32	8	Yes

- Check continuity between BCM harness connector M19 (A) terminal 86 and ground.

BCM		Ground	Continuity
Connector	Terminal		
A: M19	86	Ground	No

Is the inspection result normal?

YES >> GO TO 11.

NO >> Repair harness or connector.

## 9.CHECK IPDM E/R OUTPUT SIGNAL

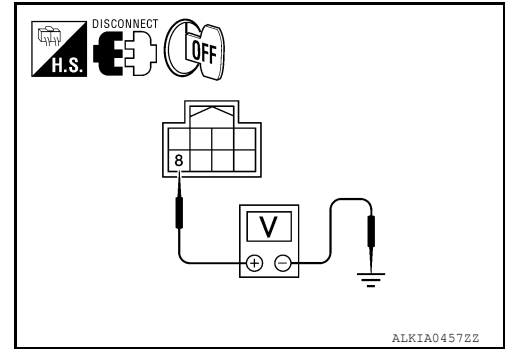
- Connect IPDM E/R harness connector.
- Disconnect BCM harness connector.

## B2612 STEERING STATUS

[COUPE]

### < DTC/CIRCUIT DIAGNOSIS >

3. Check voltage between electronic steering column lock harness connector and ground.



Electronic steering column lock		Ground	Voltage [V]
Connector	Terminal		
M32	8	Ground	Battery voltage

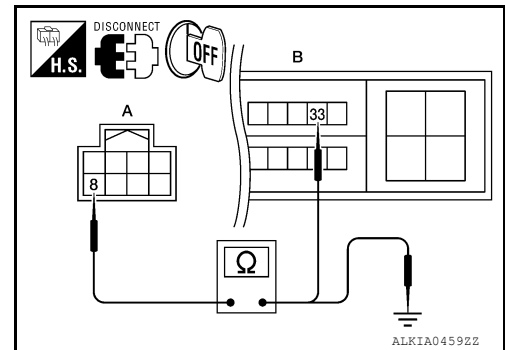
Is the inspection result normal?

YES >> Replace electronic steering column lock.

NO >> GO TO 10.

### 10.CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-II

1. Check continuity between electronic steering column lock harness connector M32 (A) terminal 8 and IPDM E/R harness connector E18 (B) terminal 33.



Electronic steering column lock		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: M32	8	B: E18	33	Yes

2. Check continuity between electronic steering column lock harness connector and ground.

Electronic steering column lock		Ground	Continuity
Connector	Terminal		
A: M32	8	Ground	No

Is the inspection result normal?

YES >> GO TO 11.

NO >> Repair harness or connector.

### 11.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End.

# B2617 STARTER RELAY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

## B2617 STARTER RELAY CIRCUIT

### Description

INFOID:000000007422449

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

### DTC Logic

INFOID:000000007422450

#### DTC DETECTION LOGIC

##### NOTE:

- If DTC B2617 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-34, "DTC Logic"](#).
- If DTC B2617 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-35, "DTC Logic"](#).
- If DTC B2617 is displayed with DTC B2611, first perform the trouble diagnosis for DTC B2611. Refer to [PCS-62, "DTC Logic"](#).
- If DTC B2617 is displayed with DTC B210E, first perform the trouble diagnosis for DTC B210E. Refer to [SEC-115, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2617	STARTER RELAY CIRCUIT	<ul style="list-style-type: none"><li>• An immediate operation of starter relay is requested by BCM, but there is no response for more than 1 second</li><li>• BCM is not commanding starter relay activation, but BCM detects starter relay output is active</li></ul>	<ul style="list-style-type: none"><li>• Harness or connectors (Starter relay circuit is open or shorted.)</li><li>• IPDM E/R</li></ul>

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions and wait for at least 1 second.
  - CVT selector lever is in the P position.
  - Do not depress the brake pedal.
2. Check "Self diagnostic result" with CONSULT.

##### Is DTC detected?

- YES >> Go to [SEC-115, "Diagnosis Procedure"](#).  
NO >> Inspection End.

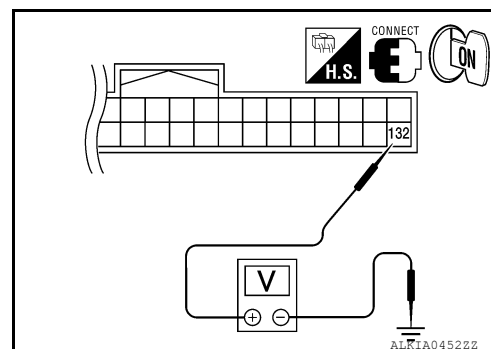
### Diagnosis Procedure

INFOID:000000007422451

Regarding Wiring Diagrams information, refer to [SEC-181, "Wiring Diagram"](#).

##### 1.CHECK STARTER RELAY

1. Turn ignition switch ON.
2. Check voltage between BCM harness connector and ground under the following condition.



## B2617 STARTER RELAY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

BCM		Ground	Transmission type	Condition	Voltage (V)
Connector	Terminal				
M21	132	Ground	CVT: Select lever in Park	Ignition switch cranking or request to start	Battery voltage
				Other than above	0
			M/T: Clutch pedal depressed	Ignition switch cranking or request to start	Battery voltage
				Other than above	0

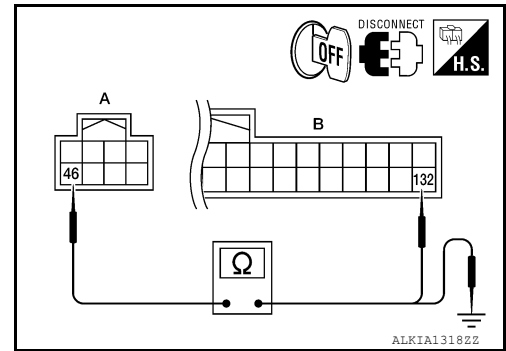
Is the measurement value within the specification.

YES >> GO TO 3.

NO >> GO TO 2.

### 2.CHECK STARTER RELAY CIRCUIT

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



IPDM E/R		BCM		Continuity
Connector	Terminal	Connector	Terminal	
A: E17	46	B: M21	132	Yes

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
A: E17	46	Ground	No

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-92. "Removal and Installation"](#).

NO >> Repair harness or connector.

### 3.CHECK INTERMITTENT INCIDENT

Refer to [GI-42. "Intermittent Incident"](#).

>> Inspection End.



## B2619 BCM

## Description

INFOID:000000007422452

BCM requests IPDM E/R to supply power to electronic steering column lock. After receiving the power, the electronic steering column lock transmits an ON signal to BCM.

## DTC Logic

INFOID:000000007422453

## DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2619	BCM	BCM detects a mismatch between the power supplied to the electronic steering column lock and the feedback for one second or more.	<ul style="list-style-type: none"> <li>• BCM</li> </ul>

## DTC CONFIRMATION PROCEDURE

## 1. PERFORM DTC CONFIRMATION PROCEDURE

- Press the push-button ignition switch under the following conditions and wait for at least 1 second.
  - CVT selector lever is in the P position
  - Do not depress brake pedal
- Check "Self diagnostic result" with CONSULT.

Is DTC detected?

- YES >> Go to [SEC-117, "Diagnosis Procedure"](#).  
 NO >> Inspection End.

## Diagnosis Procedure

INFOID:000000007422454

## 1. INSPECTION START

- Turn ignition switch ON.
- Check "Self diagnostic result" with CONSULT.
- Touch "ERASE".
- Perform DTC Confirmation Procedure.**  
See [SEC-117, "DTC Logic"](#).

Is the DTC B2619 displayed again?

- YES >> Replace BCM. Refer to [BCS-92, "Removal and Installation"](#).  
 NO >> Inspection End

# B261A PUSH-BUTTON IGNITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

## B261A PUSH-BUTTON IGNITION SWITCH

### Description

INFOID:000000007422455

IPDM E/R transmits the push-button ignition switch status via CAN communication to BCM. BCM receives push-button ignition switch status by hardwire input. BCM compares the 2 signals for mismatch.

### DTC Logic

INFOID:000000007422456

### DTC DETECTION LOGIC

#### NOTE:

- If DTC B261A is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-34, "DTC Logic"](#).
- If DTC B261A is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-35, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B261A	PUSH-BUTTON IGNITION SWITCH	BCM detects the mismatch between the following for 1 second or more <ul style="list-style-type: none"><li>• Push-button ignition switch status</li><li>• Push-button ignition switch status from IPDM E/R (CAN)</li></ul>	<ul style="list-style-type: none"><li>• Harness or connectors (Push-button ignition switch circuit is open or shorted)</li><li>• Between BCM and push-button ignition switch</li><li>• Between IPDM E/R and push-button ignition switch</li></ul>

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Press the push-button ignition switch under the following conditions and wait for at least 1 second.
  - CVT selector lever is in the P position
  - Do not depress brake pedal.
2. Check "Self diagnostic result" with CONSULT.

#### Is DTC detected?

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

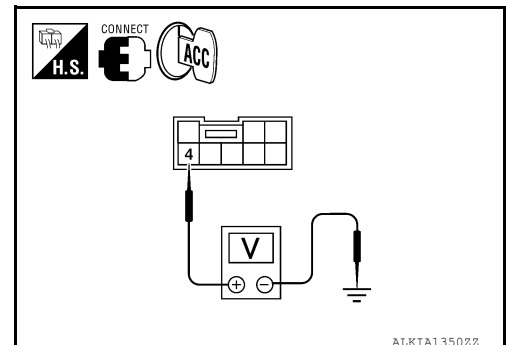
### Diagnosis Procedure

INFOID:000000007422457

Regarding Wiring Diagrams information, refer to [SEC-204, "Wiring Diagram"](#).

#### 1.CHECK PUSH-BUTTON IGNITION SWITCH OUTPUT SIGNAL 1

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



# B261A PUSH-BUTTON IGNITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

Push-button ignition switch		Ground	Voltage (V)
Connector	Terminal		
M38	4	Ground	Battery voltage

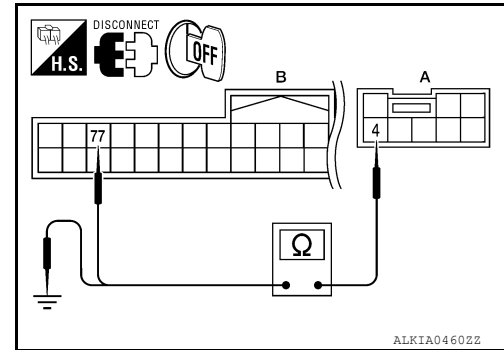
Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

## 2.CHECK PUSH-BUTTON IGNITION SWITCH CIRCUIT

1. Disconnect BCM harness connector.
2. Check continuity between push-button ignition switch harness connector M38 (A) terminal 4 and BCM harness connector M19 (B) terminal 77.



Push-button ignition switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
A: M38	4	B: M19	77	Yes

3. Check continuity between push-button ignition switch harness connector M38 (A) terminal 4 and ground.

Push-button ignition switch		Ground	Continuity
Connector	Terminal		
A: M38	4	Ground	No

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

## 3.CHECK PUSH-BUTTON IGNITION SWITCH CIRCUIT FOR SHORT

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

Push-button ignition switch		Ground	Continuity
Connector	Terminal		
M38	4	Ground	No

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-92, "Removal and Installation"](#).

NO >> Repair harness or connector.

## 4.CHECK PUSH-BUTTON IGNITION SWITCH

Refer to [SEC-119, "Component Inspection"](#).

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace push-button ignition switch. Refer to [SEC-221, "Removal and Installation"](#).

## Component Inspection

INFOID:000000007630847

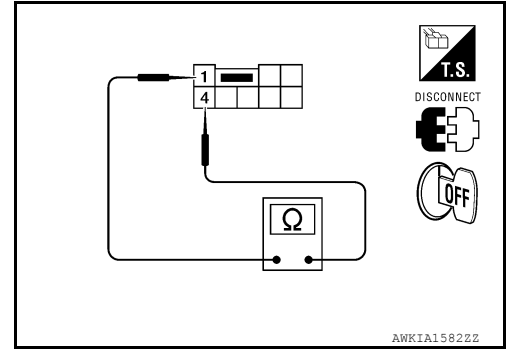
## 1.CHECK PUSH-BUTTON IGNITION SWITCH

## B261A PUSH-BUTTON IGNITION SWITCH

[COUPE]

### < DTC/CIRCUIT DIAGNOSIS >

1. Turn ignition switch OFF.
2. Disconnect push-button ignition switch harness connector.
3. Check continuity between push-button ignition switch terminals under the following conditions.



Push-button ignition switch		Condition	Continuity
Terminal			
1	4	Pressed	Yes
		Not pressed	No

### Is the inspection result normal?

- YES >> Inspection End.
- NO >> Replace push-button ignition switch. Refer to [SEC-221, "Removal and Installation"](#).

&lt; DTC/CIRCUIT DIAGNOSIS &gt;

**B261E VEHICLE TYPE****Description**

INFOID:000000007422458

There are two types of vehicles.

- HEV
- Conventional

**DTC Logic**

INFOID:000000007422459

**DTC DETECTION LOGIC****NOTE:**

- If DTC B261E is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-34, "DTC Logic"](#).
- If DTC B261E is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-35, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B261E	VEHICLE TYPE	Difference of BCM configuration.	BCM

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

1. Turn ignition switch ON under the following conditions.

CVT models

- Selector lever is in the P or N position
- Do not depress brake pedal

M/T models

- Do not depress clutch pedal

2. Check "Self-diagnostic result" using CONSULT.

**Is DTC detected?**

- YES >> Go to [SEC-121, "Diagnosis Procedure"](#).  
 NO >> Inspection End

**Diagnosis Procedure**

INFOID:000000007422460

**1.INSPECTION START**

1. Turn ignition switch ON.
2. Check "Self-diagnostic result" using CONSULT.
3. Touch "ERASE".
4. Perform DTC Confirmation Procedure.  
See [SEC-121, "DTC Logic"](#).

**Is the 1st trip DTC B261E displayed again?**

- YES >> Replace BCM. Refer to [BCS-92, "Removal and Installation"](#).  
 NO >> Inspection End

## B26E1 NO RECEPTION OF ENGINE STATUS SIGNAL

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

### B26E1 NO RECEPTION OF ENGINE STATUS SIGNAL

#### Description

INFOID:000000007422461

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

#### DTC Logic

INFOID:000000007422462

#### DTC DETECTION LOGIC

##### NOTE:

- If DTC B26E1 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-34, "DTC Logic"](#).
- If DTC B26E1 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-35, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B260F	NO RECEPTION OF ENGINE STATUS SIGNAL	BCM does not receive the engine status signal from ECM when ignition switch is in the ON position	• ECM

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions.
  - CVT selector lever is in the P or N position.
  - Do not depress the brake pedal.
2. Check "Self diagnostic result" with CONSULT.

##### Is DTC detected?

- YES >> Go to [SEC-122, "Diagnosis Procedure"](#).  
NO >> Inspection End.

#### Diagnosis Procedure

INFOID:000000007422463

##### 1.INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**  
See [SEC-122, "DTC Logic"](#).

##### Is the DTC B26E1 displayed again?

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

##### 2.REPLACE ECM

1. Replace ECM.
2. Go to [EC-15, "BASIC INSPECTION : Special Repair Requirement"](#) (QR25DE) or [EC-330, "BASIC INSPECTION : Special Repair Requirement"](#) (VQ35DE).

>> Inspection End.

# B26E8 CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

## B26E8 CLUTCH INTERLOCK SWITCH

### Description

INFOID:000000007422464

When clutch interlock switch turns ON, BCM detects that clutch pedal is being depressed and permits to start the engine.

### DTC Logic

INFOID:000000007422465

#### NOTE:

If DTC B26E8 is displayed with DTC B210F, first perform the trouble diagnosis for DTC B210F. Refer to [SEC-123, "DTC Logic"](#).

### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detection condition	Possible cause
B26E8	CLUTCH INTERLOCK SWITCH	Detects that ASCD cancel switch is in the ON position for 2 seconds or more while ignition switch and clutch interlock switch are ON.	<ul style="list-style-type: none"><li>Clutch interlock switch</li><li>Harness or connector (Clutch interlock switch circuit open or shorted)</li></ul>

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON under the following condition.
  - Shift lever is in the neutral position.
  - Depress clutch pedal.
- Check "Self-diagnostic result" using CONSULT.

#### Is DTC detected?

- YES >> Go to [SEC-123, "Diagnosis Procedure"](#).  
NO >> Inspection End

### Diagnosis Procedure

INFOID:000000007422466

Regarding Wiring Diagram information, refer to [SEC-204, "Wiring Diagram"](#).

SEC

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

- Turn ignition switch OFF.
- Disconnect clutch interlock switch connector.
- Check voltage between clutch interlock switch harness connector and ground.

(+) Clutch interlock switch		(-)	Voltage (V) (Approx.)
Connector	Terminal		
E36	1	Ground	Battery voltage

#### Is the inspection result normal?

- YES >> GO TO 2.  
NO-1 >> Check 10 A fuse [No. 31, located in the fuse and fusible link box]  
NO-2 >> Check harness for open or short between clutch interlock switch and fuse.

#### 2.CHECK CLUTCH INTERLOCK SWITCH SIGNAL

- Connect clutch interlock switch connector.
- Disconnect BCM connector.
- Check voltage between BCM harness connector and ground.

## B26E8 CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

(+)		(-)	Condition		Voltage (V) (Approx.)
BCM					
Connector	Terminal				
M18	22	Ground	Clutch pedal	Depressed	Battery voltage
				Released	0

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-92, "Removal and Installation"](#).

NO >> GO TO 3.

### 3.CHECK CLUTCH INTERLOCK SWITCH SIGNAL CIRCUIT

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

Clutch interlock switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
E36	2	M18	22	Yes

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

Clutch interlock switch		Ground	Continuity
Connector	Terminal		
E36	2		No

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

### 4.CHECK CLUTCH INTERLOCK SWITCH

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

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace clutch interlock switch. Refer to [CL-9, "Exploded View"](#).

### 5.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End

## Component Inspection

INFOID:000000007422467

### 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	Yes
			Released	No

Is the inspection result normal?

YES >> Inspection End

NO >> Replace clutch interlock switch. Refer to [CL-9, "Exploded View"](#).



# B26E9 STEERING STATUS

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

## B26E9 STEERING STATUS

### Description

INFOID:000000007422468

There are 2 switches in the electronic steering column lock (steering lock/unlock switch 1 and 2). BCM compares the 2 switch conditions to judge the present steering status.

### DTC Logic

INFOID:000000007422469

### DTC DETECTION LOGIC

#### NOTE:

If DTC B26E9 is displayed with DTC B2609, first perform the trouble diagnosis for DTC B2609. Refer to [SEC-42, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B26E9	S/L STATUS	BCM requests lock to electronic steering column lock, then electronic steering column lock transmits a recognition signal to BCM, but electronic steering column lock remains unlocked.	Electronic steering column lock

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Turn ignition switch OFF.
3. Press driver side door switch and wait 1 second or more.
4. Turn ignition switch ON.
5. Check "Self-diagnostic result" using CONSULT.

#### Is DTC detected?

- YES >> Refer to [SEC-125, "Diagnosis Procedure"](#).  
NO >> Inspection End

### Diagnosis Procedure

INFOID:000000007422470

#### 1.INSPECTION START

1. Turn ignition switch ON.
2. Check "Self-diagnostic result" using CONSULT.
3. Touch "ERASE".
4. Perform DTC Confirmation Procedure.  
Refer to [SEC-125, "DTC Logic"](#).

#### Is the DTC B26E9 displayed again?

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

#### 2.REPLACE ELECTRONIC STEERING COLUMN LOCK

1. Replace electronic steering column lock.
2. Perform DTC confirmation procedure. Refer to [SEC-125, "DTC Logic"](#).

#### Is the DTC B26E9 displayed again?

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

#### 3.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End

**B26EA KEY REGISTRATION****Description**

INFOID:000000007422471

When the registered Intelligent Key is carried, the door lock/unlock operation and the push-button ignition switch operation become possible.

**DTC Logic**

INFOID:000000007422472

**DTC DETECTION LOGIC**

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B26EA	KEY REGISTRATION	Intelligent Key is not registered successfully.	<ul style="list-style-type: none"> <li>• Improper registration operation</li> <li>• Intelligent Key</li> <li>• BCM</li> </ul>

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

1. Perform initialization using CONSULT. Reregister all Intelligent Keys.  
For initialization and registration of Intelligent Key, refer to CONSULT Immobilizer mode and follow the on-screen instructions.
2. Check "Self-diagnostic result" using CONSULT.

**Is DTC detected?**

- YES >> Go to [SEC-123. "Diagnosis Procedure"](#).  
NO >> Inspection End

**Diagnosis Procedure**

INFOID:000000007422473

**1.PERFORM INITIALIZATION**

1. Perform initialization using CONSULT. Reregister all Intelligent Keys.  
For initialization and registration of Intelligent Key, refer to CONSULT Immobilizer mode and follow the on-screen instructions.
2. Check "Self-diagnostic result" using CONSULT.

**Is DTC detected?**

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

**2.REPLACE INTELLIGENT KEY**

1. Replace Intelligent Key. Reregister all Intelligent Keys.
2. Perform initialization using CONSULT. For initialization, refer to CONSULT Immobilizer mode and follow the on-screen instructions.
3. Check "Self-diagnostic result" using CONSULT.

**Is DTC detected?**

- YES >> Replace BCM. Refer to [BCS-92. "Removal and Installation"](#).  
NO >> Inspection End

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

## POWER SUPPLY AND GROUND CIRCUIT

### BCM

#### BCM : Diagnosis Procedure

INFOID:000000007630939

Regarding Wiring Diagram information, refer to [BCS-70. "Wiring Diagram - Coupe"](#) or [BCS-79. "Wiring Diagram - Sedan"](#).

### 1. CHECK FUSE AND FUSIBLE LINK

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

Terminal No.	Signal name	Fuse and fusible link No.
1	Battery power supply	H
11		10

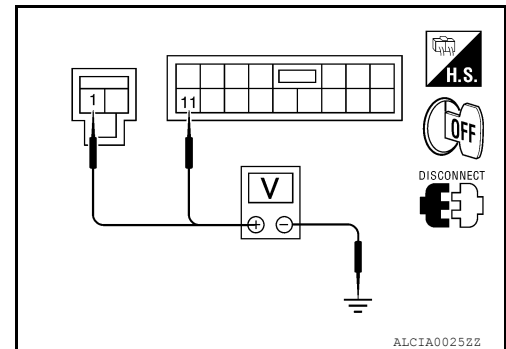
Is the fuse or fusible link blown?

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

### 2. CHECK POWER SUPPLY CIRCUIT

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

Terminals			Voltage (Approx.)
(+)		(-)	
BCM		Ground	
Connector	Terminal		
M16	1		
M17	11		
			Battery voltage



Is the measurement normal?

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

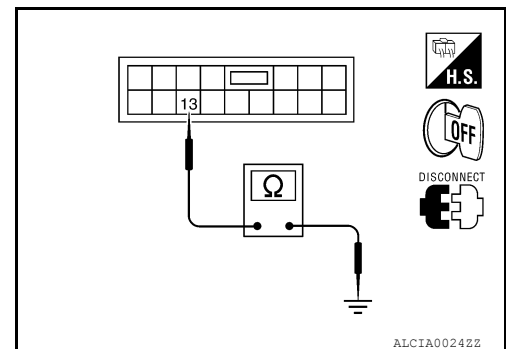
### 3. CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M17	13		Yes

Does continuity exist?

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



#### BCM : Special Repair Requirement

INFOID:000000007630940

### 1. REQUIRED WORK WHEN REPLACING BCM

Initialize control unit. Refer to [BCS-3. "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT \(BCM\) : Work Procedure"](#).

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

>> Work End.

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

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

INFOID:000000007630941

Regarding Wiring Diagram information, refer to [PCS-31, "Wiring Diagram - Coupe"](#) or [PCS-37, "Wiring Diagram - Sedan"](#).

## 1. CHECK FUSES AND FUSIBLE LINK

Check that the following IPDM E/R fuses or fusible link are not blown.

Terminal No.	Signal name	Fuses and fusible link No.
1, 2	Battery power supply	B, D
—		42
		43

Is the fuse blown?

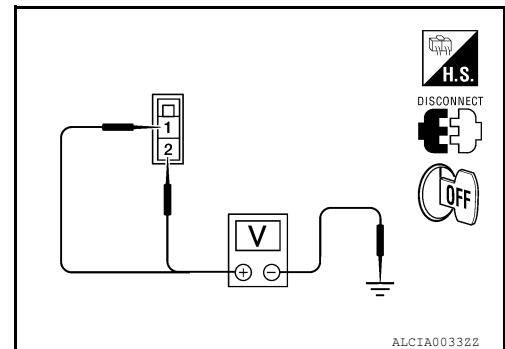
YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

NO >> GO TO 2

## 2. CHECK POWER SUPPLY CIRCUIT

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

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



Is the measurement value normal?

YES >> GO TO 3

NO >> Repair harness or connector.

## 3. CHECK GROUND CIRCUIT

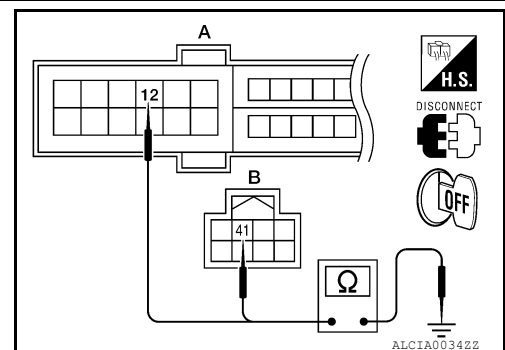
Check continuity between IPDM E/R harness connectors and ground.

IPDM E/R		Ground	Continuity
Connector	Terminal		
A: E18	12	Ground	Yes
B: E17	41		

Does continuity exist?

YES >> Inspection End.

NO >> Repair harness or connector.



## KEY SLOT

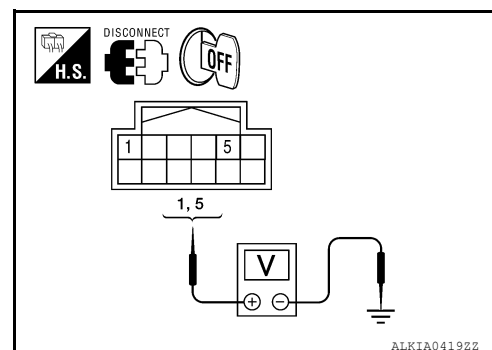
## Diagnosis Procedure

INFOID:000000007422477

Regarding Wiring Diagrams information, refer to [SEC-204. "Wiring Diagram"](#).

## 1. CHECK KEY SLOT POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect key slot connector.
3. Check voltage between slot connector and ground.



Key slot		Ground	Voltage (V) (Approx.)
Connector	Terminal		
M40	1	Ground	Battery voltage
	5		

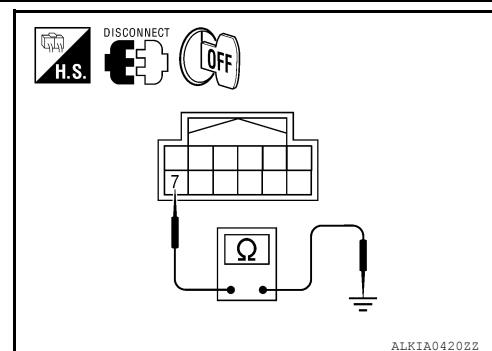
Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace key slot power supply circuit.

## 2. CHECK KEY SLOT GROUND CIRCUIT

Check continuity between key slot connector and ground.



Key slot		Ground	Continuity
Connector	Terminal		
M40	7	Ground	Yes

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace key slot ground circuit.

## 3. CHECK INTERMITTENT INCIDENT

Refer to [GI-42. "Intermittent Incident"](#).

>> Inspection End.

# KEY SLOT ILLUMINATION

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

## KEY SLOT ILLUMINATION

### Description

INFOID:000000007422478

Blinks when Intelligent Key insertion is required.

### Component Function Check

INFOID:000000007422479

### 1.CHECK FUNCTION

#### With CONSULT

Check key slot illumination ("KEY SLOT ILLUMI") Active Test mode.

Is the inspection result normal?

YES >> Key slot function is OK.

NO >> Refer to [SEC-131, "Diagnosis Procedure"](#).

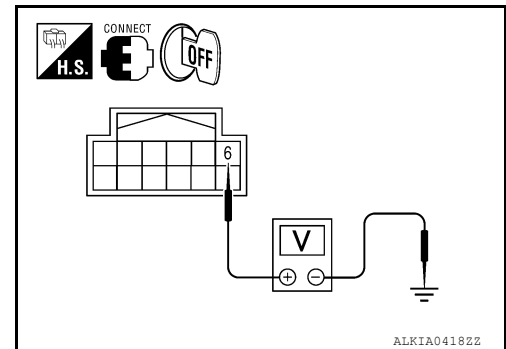
### Diagnosis Procedure

INFOID:000000007422480

Regarding Wiring Diagrams information, refer to [SEC-204, "Wiring Diagram"](#).

### 1.CHECK KEY SLOT ILLUMINATION OUTPUT SIGNAL

Check voltage between key slot connector and ground.



Terminals			Condition	Key slot illumination	Voltage (V) (Approx.)
(+)		(−)			
Key slot connector	Terminal				
M40	6	Ground	Intelligent Key inserted	OFF	Battery voltage
			Intelligent Key removed	ON	0

Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 2.

### 2.CHECK KEY SLOT POWER SUPPLY CIRCUIT

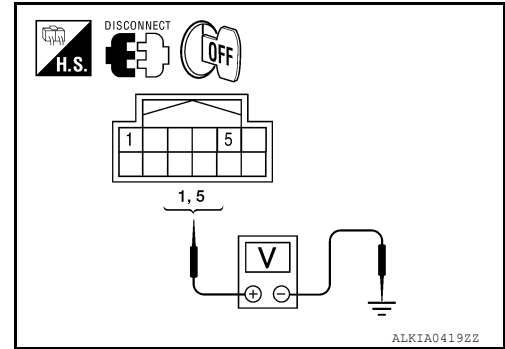
1. Turn ignition switch OFF.
2. Disconnect key slot connector.

# KEY SLOT ILLUMINATION

[COUPE]

## < DTC/CIRCUIT DIAGNOSIS >

3. Check voltage between slot connector and ground.



Terminals		Voltage (V) (Approx.)
(+)	(-)	
Key slot connector	Terminal	
M40	1	Battery voltage
	5	

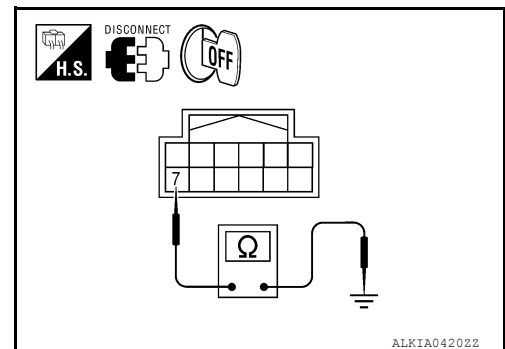
Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace key slot power supply circuit.

## 3.CHECK KEY SLOT GROUND CIRCUIT

Check continuity between key slot connector and ground.



Key slot connector	Terminal	Ground	Continuity
M40	7		Yes

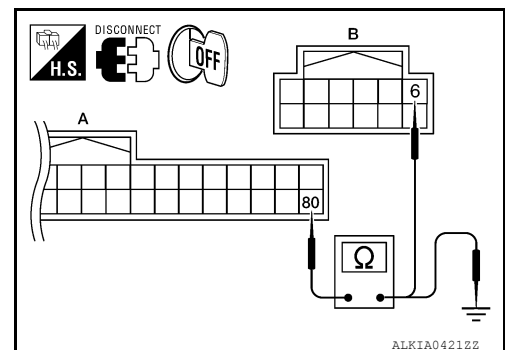
Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace key slot ground circuit.

## 4.CHECK KEY SLOT CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM and key slot connector.
3. Check continuity between BCM connector and key slot connector.





# KEY SLOT ILLUMINATION

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

BCM connector	Terminal	Key slot connector	Terminal	Continuity
A: M19	80	B: M40	6	Yes

4. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
A: M19	80		No

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness between BCM and key slot.

## 5.CHECK KEY SLOT

Refer to [SEC-131, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace key slot. Refer to [SEC-220, "Removal and Installation"](#).

## 6.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End.

SEC

# KEY CYLINDER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

## KEY CYLINDER SWITCH

### Description

INFOID:000000007422481

The main power window and door lock/unlock switch detects condition of the door key cylinder switch and transmits to BCM as the LOCK or UNLOCK signal.

### Component Function Check

INFOID:000000007422482

### 1.CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

Check KEY CYL UN-SW, KEY CYL UN-SW in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT. Refer to [BCS-17, "DOOR LOCK : CONSULT Function \(BCM - DOOR LOCK\)"](#).

Monitor item	Condition
KEY CYL LK-SW	Lock : ON
	Neutral / Unlock : OFF
KEY CYL UN-SW	Unlock : ON
	Neutral / Lock : OFF

Is the inspection result normal?

YES >> Key cylinder switch is OK.

NO >> Refer to [SEC-134, "Diagnosis Procedure"](#).

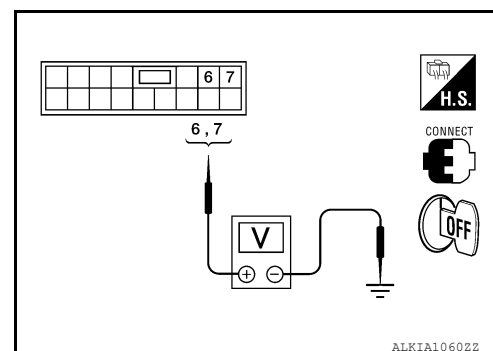
### Diagnosis Procedure

INFOID:000000007422483

Regarding Wiring Diagrams information, refer to [SEC-194, "Wiring Diagram"](#).

### 1.CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

1. Turn ignition switch ON.
2. Check voltage between main power window and door lock/unlock switch connector and ground.



Terminals		Key position	Voltage (V) (Approx.)
(+)	(-)		
Main power window and door lock/unlock switch connector	Terminal		
D7	6	Lock	0
		Neutral / Unlock	5
		Unlock	0
		Neutral / Lock	5

Is the inspection result normal?

# KEY CYLINDER SWITCH

[COUPE]

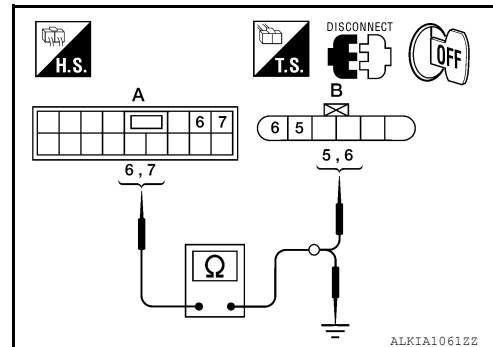
## < DTC/CIRCUIT DIAGNOSIS >

YES >> Replace main power window and door lock/unlock switch. Refer to [DLK-222, "FRONT DOOR LOCK : Removal and Installation"](#). After that, Refer to [DLK-11, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

NO >> GO TO 2

## 2.CHECK DOOR KEY CYLINDER SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect main power window and door lock/unlock switch connector and door lock assembly LH (key cylinder switch) connector.
3. Check continuity between main power window and door lock/unlock switch connector and door lock assembly LH (key cylinder switch) connector.



Main power window and door lock/unlock switch connector	Terminal	Door lock assembly LH (key cylinder switch) connector	Terminal	Continuity
A: D7	6	B: D10	6	Yes
	7		5	

4. Check continuity between main power window and door lock/unlock switch connector and ground.

Power window main switch connector	Terminal	Ground	Continuity
A: D7	6	Ground	No
	7		

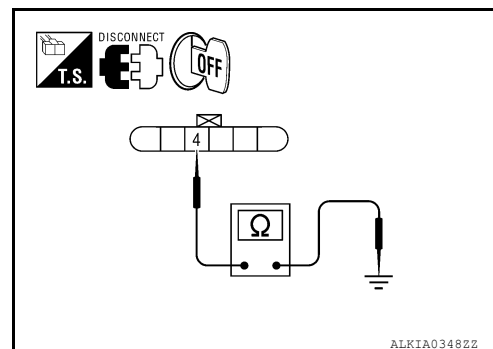
Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

## 3.CHECK DOOR KEY CYLINDER SWITCH GROUND CIRCUIT

Check continuity between door lock assembly LH connector and ground.



Door lock assembly LH connector	Terminal	Ground	Continuity
D10	4	Ground	Yes

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

# KEY CYLINDER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

## 4.CHECK DOOR KEY CYLINDER SWITCH

Check door key cylinder switch.

Refer to [SEC-136, "Component Inspection"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-42, "Intermittent Incident"](#).

NO >> Replace door lock assembly LH (key cylinder switch). Refer to [DLK-222, "FRONT DOOR LOCK : Removal and Installation"](#).

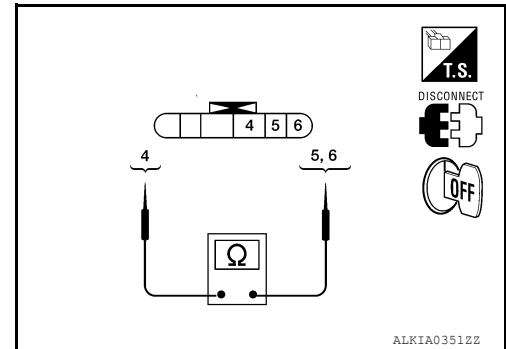
## Component Inspection

INFOID:000000007422484

### COMPONENT INSPECTION

#### 1.CHECK DOOR KEY CYLINDER SWITCH

Check front door lock assembly LH (key cylinder switch).



Terminal		Key position	Continuity
Front door lock assembly LH (key cylinder switch) connector			
5	4	Unlock	Yes
		Neutral / Lock	No
6		Lock	Yes
		Neutral / Unlock	No

Is the inspection result normal?

YES >> Key cylinder switch is OK.

NO >> Replace front door lock assembly LH (key cylinder switch). Refer to [DLK-461, "FRONT DOOR LOCK : Removal and Installation"](#).

## HORN

## Description

INFOID:000000007422485

Horn (high/low) is located inside of front bumper and operates when theft warning system is in alarm phase.

## Component Function Check

INFOID:000000007422486

## 1.CHECK FUNCTION

1. Select HORN in "ACTIVE TEST" mode with CONSULT.
2. Check the horn (high/low) operation.

Test item		Description	
HORN	ON	Horn relay	ON (for 20 ms)

Is the operation normal?

- YES >> Inspection End.  
 NO >> Refer to [SEC-137, "Diagnosis Procedure"](#).

## Diagnosis Procedure

INFOID:000000007422487

Regarding Wiring Diagrams information, refer to [SEC-181, "Wiring Diagram"](#).

## 1.CHECK HORN FUNCTION

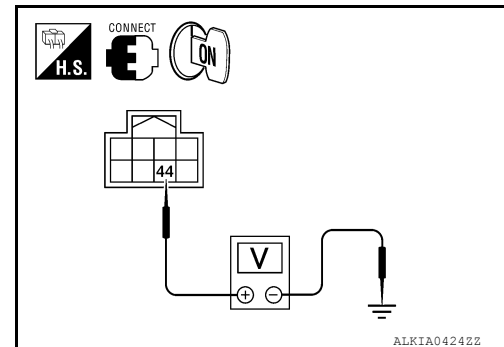
Check horn function with horn switch

Do the horns sound?

- YES >> GO TO 2.  
 NO >> Refer to [HRN-4, "Wiring Diagram"](#).

## 2.CHECK HORN RELAY POWER SUPPLY

1. Turn ignition switch ON.
2. Perform "ACTIVE TEST" ("HORN") with CONSULT.
3. Using an analog voltmeter or an oscilloscope, check voltage between IPDM E/R connector E17 terminal 44 and ground.



IPDM E/R		Ground	Test item		Voltage (V) (Approx.)
Connector	Terminal				
E17	44	Ground	HORN	ON	Battery voltage → 0 → Battery voltage
				Other than above	Battery voltage

Is the inspection result normal?

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

## 3.CHECK HORN RELAY CIRCUIT

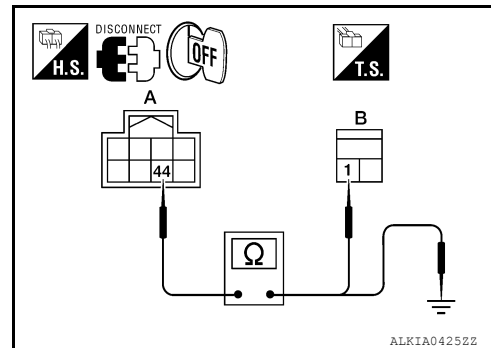
1. Turn ignition switch OFF.

# HORN

[COUPE]

## < DTC/CIRCUIT DIAGNOSIS >

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



IPDM E/R		Horn relay		Continuity
Connector	Terminal	Connector	Terminal	
A: E17	44	B: H-1	1	Yes

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
A: E17	44	Ground	No

Is the inspection result normal?

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

## 4.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

Is the inspection result normal?

- YES >> Replace IPDM E/R.Refer to [PCS-45, "Removal and Installation"](#).  
 NO >> Repair or replace the malfunctioning part.

HEADLAMP

Description

INFOID:000000007422488

Headlamp lighting when theft warning system is alarm phase.

Component Function Check

INFOID:000000007422489

1.CHECK HEADLAMP OPERATION

Check if headlamp operate by lighting switch.

Does headlamp come on when turning switch "ON"?

YES >> Headlamp circuit is OK.

NO >> Check headlamp system. Refer to [SEC-139, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000007422490

1.CHECK HEADLAMP OPERATION

Refer to [EXL-4, "Work Flow"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace.

2.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

Is the inspection result normal?

>> Inspection End.

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SEC

# WARNING LAMP

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

## WARNING LAMP

### Description

INFOID:000000007422491

- Warning lamp is built in combination meter.
- Intelligent Key system malfunction is reported to the driver by the warning lamp illumination.

### Component Function Check

INFOID:000000007422492

#### 1.CHECK FUNCTION

1. Perform "INDICATOR" in the "Active Test" mode with CONSULT.
2. Check warning lamp operation.

Test item		Description	
INDICATOR	ON	Warning lamp	ON
	OFF		OFF

Is the inspection result normal?

- YES >> Inspection End.  
NO >> Go to [SEC-140. "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000007422493

#### 1.CHECK "COMBINATION METER."

Check combination meter function. Refer to [MWI-4. "Work Flow"](#).

Is the inspection result is normal?

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

#### 2.CHECK INTERMITTENT INCIDENT

Refer to [GI-42. "Intermittent Incident"](#).

>> Inspection End.



# VEHICLE SECURITY INDICATOR

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

## VEHICLE SECURITY INDICATOR

### Description

INFOID:000000007422494

- Vehicle security indicator is built in combination meter.
- NVIS (Infinity Vehicle Immobilizer System-NATS) and vehicle security system conditions are indicated by blink or illumination of vehicle security indicator.

### Component Function Check

INFOID:000000007422495

#### 1.CHECK FUNCTION

1. Perform "THEFT IND" in the "ACTIVE TEST" mode with CONSULT.
2. Check vehicle security indicator operation.

Test item		Description	
THEFT IND	ON	Vehicle security indicator	ON
	OFF		OFF

Is the inspection result normal?

- YES >> Inspection End.  
NO >> Go to [SEC-141, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000007422496

#### 1.CHECK COMBINATION METER

Check combination meter. Refer to [MWI-4, "Work Flow"](#).

Is the inspection result is normal?

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

#### 2.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End.

SEC

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[COUPE]

## ECU DIAGNOSIS INFORMATION

### BCM (BODY CONTROL MODULE)

Reference Value

INFOID:000000007630942

#### VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
FR WIPER HI	Other than front wiper switch HI	OFF
	Front wiper switch HI	ON
FR WIPER LOW	Other than front wiper switch LO	OFF
	Front wiper switch LO	ON
FR WASHER SW	Front washer switch OFF	OFF
	Front washer switch ON	ON
FR WIPER INT	Other than front wiper switch INT	OFF
	Front wiper switch INT	ON
FR WIPER STOP	Front wiper is not in STOP position	OFF
	Front wiper is in STOP position	ON
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 6	Wiper intermittent dial position
TURN SIGNAL R	Other than turn signal switch RH	OFF
	Turn signal switch RH	ON
TURN SIGNAL L	Other than turn signal switch LH	OFF
	Turn signal switch LH	ON
TAIL LAMP SW	Other than lighting switch 1ST and 2ND	OFF
	Lighting switch 1ST or 2ND	ON
HI BEAM SW	Other than lighting switch HI	OFF
	Lighting switch HI	ON
HEAD LAMP SW 1	Other than lighting switch 2ND	OFF
	Lighting switch 2ND	ON
HEAD LAMP SW 2	Other than lighting switch 2ND	OFF
	Lighting switch 2ND	ON
PASSING SW	Other than lighting switch PASS	OFF
	Lighting switch PASS	ON
AUTO LIGHT SW	Other than lighting switch AUTO	OFF
	Lighting switch AUTO	ON
FR FOG SW	Front fog lamp switch OFF	OFF
	Front fog lamp switch ON	ON
DOOR SW-DR	Driver door closed	OFF
	Driver door opened	ON
DOOR SW-AS	Passenger door closed	OFF
	Passenger door opened	ON
DOOR SW-RR	Rear RH door closed	OFF
	Rear RH door opened	ON
DOOR SW-RL	Rear LH door closed	OFF
	Rear LH door opened	ON

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[COUPE]

Monitor Item	Condition	Value/Status
CDL LOCK SW	Other than power door lock switch LOCK	OFF
	Power door lock switch LOCK	ON
CDL UNLOCK SW	Other than power door lock switch UNLOCK	OFF
	Power door lock switch UNLOCK	ON
KEY CYL LK-SW	Other than driver door key cylinder LOCK position	OFF
	Driver door key cylinder LOCK position	ON
KEY CYL UN-SW	Other than driver door key cylinder UNLOCK position	OFF
	Driver door key cylinder UNLOCK position	ON
HAZARD SW	When hazard switch is not pressed	OFF
	When hazard switch is pressed	ON
REAR DEF SW	When rear window defogger switch is pressed	ON
FAN ON SIG	When AUTO switch or fan switch is pressed	ON
AIR COND SW	When A/C switch is pressed	ON
TR CANCEL SW	Trunk lid opener cancel switch OFF	OFF
	Trunk lid opener cancel switch ON	ON
TR/BD OPEN SW	Trunk lid opener switch OFF	OFF
	While the trunk lid opener switch is turned ON	ON
TRNK/HAT MNTR	Trunk lid closed	OFF
	Trunk lid opened	ON
RKE-LOCK	When LOCK button of Intelligent Key is not pressed	OFF
	When LOCK button of Intelligent Key is pressed	ON
RKE-UNLOCK	When UNLOCK button of Intelligent Key is not pressed	OFF
	When UNLOCK button of Intelligent Key is pressed	ON
RKE-TR/BD	When TRUNK OPEN button of Intelligent Key is not pressed	OFF
	When TRUNK OPEN button of Intelligent Key is pressed	ON
RKE-PANIC	When PANIC button of Intelligent Key is not pressed	OFF
	When PANIC button of Intelligent Key is pressed	ON
RKE-P/W OPEN	When UNLOCK button of Intelligent Key is not pressed and held	OFF
	When UNLOCK button of Intelligent Key is pressed and held	ON
RKE-MODE CHG	When LOCK/UNLOCK button of Intelligent Key is not pressed and held simultaneously	OFF
	When LOCK/UNLOCK button of Intelligent Key is pressed and held simultaneously	ON
OPTICAL SENSOR	When outside of the vehicle is bright	Close to 5 V
	When outside of the vehicle is dark	Close to 0 V
REQ SW-DR	When driver door request switch is not pressed	OFF
	When driver door request switch is pressed	ON
REQ SW-AS	When passenger door request switch is not pressed	OFF
	When passenger door request switch is pressed	ON
REQ SW-BD/TR	When trunk request switch is not pressed	OFF
	When trunk request switch is pressed	ON
PUSH SW	When engine switch (push switch) is not pressed	OFF
	When engine switch (push switch) is pressed	ON
IGN RLY -F/B	Ignition switch OFF or ACC	OFF
	Ignition switch ON	ON

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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[COUPE]

Monitor Item	Condition	Value/Status
ACC RLY -F/B	Ignition switch OFF	OFF
	Ignition switch ACC or ON	ON
CLUTCH SW	When the clutch pedal is not depressed	OFF
	When the clutch pedal is depressed	ON
BRAKE SW 1	When the brake pedal is not depressed	ON
	When the brake pedal is depressed	OFF
DETE/CANCL SW	When selector lever is in P position	OFF
	When selector lever is in any position other than P	ON
SFT PN/N SW	When selector lever is in any position other than P or N	OFF
	When selector lever is in P or N position	ON
S/L -LOCK	Electronic steering column lock LOCK status	OFF
	Electronic steering column lock UNLOCK status	ON
S/L -UNLOCK	Electronic steering column lock UNLOCK status	OFF
	Electronic steering column lock LOCK status	ON
S/L RELAY-F/B	Ignition switch OFF or ACC	OFF
	Ignition switch ON	ON
UNLK SEN-DR	Driver door UNLOCK status	OFF
	Driver door LOCK status	ON
PUSH SW -IPDM	When engine switch (push switch) is not pressed	OFF
	When engine switch (push switch) is pressed	ON
IGN RLY1 F/B	Ignition switch OFF or ACC	OFF
	Ignition switch ON	ON
DETE SW -IPDM	When selector lever is in P position	OFF
	When selector lever is in any position other than P	ON
SFT PN -IPDM	When selector lever is in any position other than P or N	OFF
	When selector lever is in P or N position	ON
SFT P -MET	When selector lever is in any position other than P	OFF
	When selector lever is in P position	ON
SFT N -MET	When selector lever is in any position other than N	OFF
	When selector lever is in N position	ON
ENGINE STATE	Engine stopped	STOP
	While the engine stalls	STALL
	At engine cranking	CRANK
	Engine running	RUN
S/L LOCK-IPDM	Electronic steering column lock LOCK status	OFF
	Electronic steering column lock UNLOCK status	ON
S/L UNLCK-IPDM	Electronic steering column lock UNLOCK status	OFF
	Electronic steering column lock LOCK status	ON
S/L RELAY-REQ	Ignition switch OFF or ACC	OFF
	Ignition switch ON	ON
VEH SPEED 1	While driving	Equivalent to speedometer reading
VEH SPEED 2	While driving	Equivalent to speedometer reading

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[COUPE]

Monitor Item	Condition	Value/Status
DR DOOR STATE	Driver door LOCK status	LOCK
	Wait with selective UNLOCK operation (5 seconds)	READY
	Driver door UNLOCK status	UNLK
AS DOOR STATE	Passenger door LOCK status	LOCK
	Wait with selective UNLOCK operation (5 seconds)	READY
	Passenger door UNLOCK status	UNLK
ID OK FLAG	Ignition switch ACC or ON	RESET
	Ignition switch OFF	SET
PRMT ENG STAT	When the engine start is prohibited	RESET
	When the engine start is permitted	SET
KEY SW -SLOT	When Intelligent Key is not inserted into key slot	OFF
	When Intelligent Key is inserted into key slot	ON
RKE OPE COUN1	During the operation of Intelligent Key	Operation frequency of Intelligent Key
AIR PRESS FL	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of front LH tire
AIR PRESS FR	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of front RH tire
AIR PRESS RR	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of rear RH tire
AIR PRESS RL	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of rear LH tire
ID REGST FL1	When ID of front LH tire transmitter is registered	DONE
	When ID of front LH tire transmitter is not registered	YET
ID REGST FR1	When ID of front RH tire transmitter is registered	DONE
	When ID of front RH tire transmitter is not registered	YET
ID REGST RR1	When ID of rear RH tire transmitter is registered	DONE
	When ID of rear RH tire transmitter is not registered	YET
ID REGST RL1	When ID of rear LH tire transmitter is registered	DONE
	When ID of rear LH tire transmitter is not registered	YET
WARNING LAMP	Tire pressure indicator OFF	OFF
	Tire pressure indicator ON	ON

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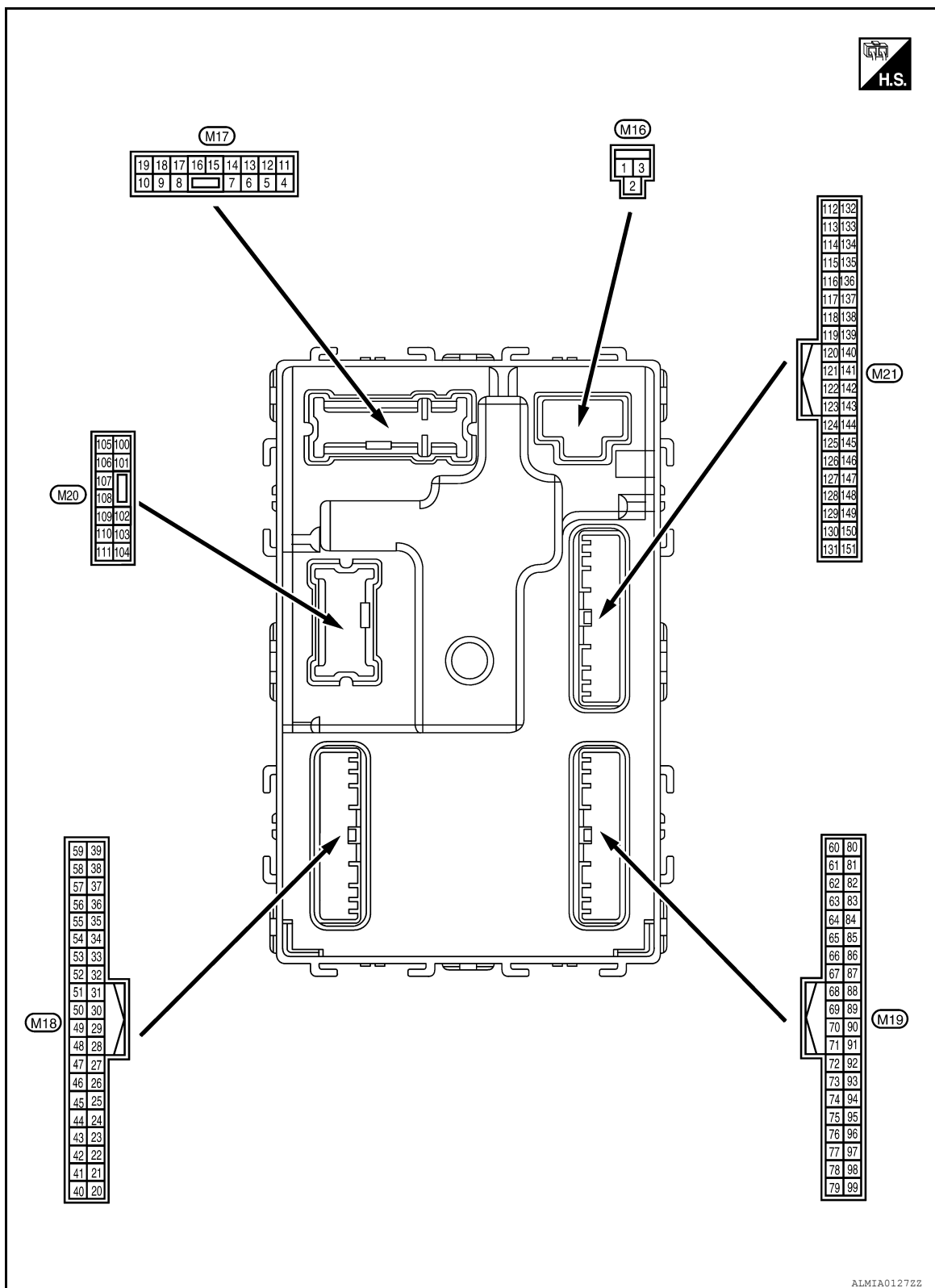
# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[COUPE]

## Terminal Layout

INFOID:000000007630943



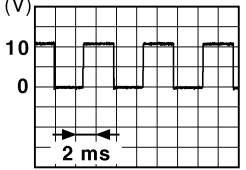
## Physical Values

INFOID:000000007630944

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[COUPE]

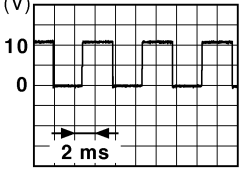
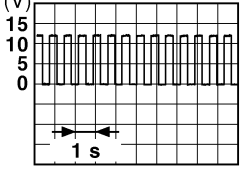
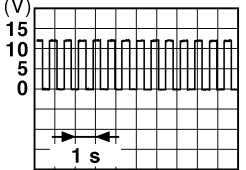
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
1 (W/B)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (R/Y)	Ground	Battery power supply output	Output	Ignition switch OFF		Battery voltage
3 (L/W)	Ground	Ignition power supply output	Output	Ignition switch ON		Battery voltage
4 (P/W)	Ground	Interior room lamp power supply	Output	After passing the interior room lamp battery saver operation time		0V
				Any other time after passing the interior room lamp battery saver operation time		Battery voltage
5 (G/Y)	Ground	Front door RH UNLOCK	Output	Front door RH	UNLOCK (actuator is activated)	Battery voltage
					Other than UNLOCK (actuator is not activated)	0V
7 (R/W)	Ground	Step lamp	Output	Step lamp	ON	0V
					OFF	Battery voltage
8 (V)	Ground	All doors LOCK	Output	All doors	LOCK (actuator is activated)	Battery voltage
					Other than LOCK (actuator is not activated)	0V
9 (G)	Ground	Front door LH UNLOCK	Output	Front door LH	UNLOCK (actuator is activated)	Battery voltage
					Other than UNLOCK (actuator is not activated)	0V
10 <sup>1</sup> (G/Y)	Ground	Rear door RH and rear door LH UNLOCK	Output	Rear door RH and rear door LH	UNLOCK (actuator is activated)	Battery voltage
					Other than UNLOCK (actuator is not activated)	0V
11 (Y/R)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
13 (B)	Ground	Ground	—	Ignition switch ON		0V
14 <sup>1</sup> (O/W)	Ground	Engine switch (push switch) illumination ground	Input	Tail lamp	OFF	0V
					ON	<b>NOTE:</b> When the illumination brightening/dimming level is in the neutral position 

JSNIA0010GB

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[COUPE]

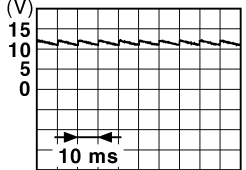
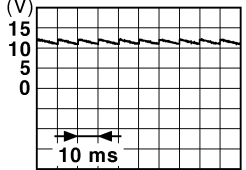
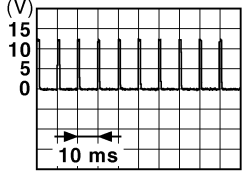
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
14 <sup>8</sup> (R/Y)	Ground	Engine switch (push switch) illumination ground	Input	Tail lamp	OFF	0V
					ON	<b>NOTE:</b> When the illumination brightening/dimming level is in the neutral position  <small>JSNIA0010GB</small>
15 (Y/L)	Ground	ACC indicator lamp	Output	Ignition switch	OFF	Battery voltage
					ACC	0V
17 (G/B)	Ground	Turn signal (RH)	Output	Ignition switch ON	Turn signal switch OFF	0V
					Turn signal switch RH	 <small>PKID0926E</small> 6.5 V
18 (G/Y)	Ground	Turn signal (LH)	Output	Ignition switch ON	Turn signal switch OFF	0V
					Turn signal switch LH	 <small>PKID0926E</small> 6.5 V
19 (Y)	Ground	Room lamp timer control	Output	Interior room lamp	OFF	Battery voltage
					ON	0V
21 (P/B)	Ground	Optical sensor signal	Input	Ignition switch ON	When outside of the vehicle is bright	Close to 5V
					When outside of the vehicle is dark	Close to 0V
22 <sup>2</sup> (R/Y)	Ground	Clutch interlock switch	Input	Clutch interlock switch	OFF (clutch pedal is not depressed)	0V
					ON (clutch pedal is depressed)	Battery voltage
24 (R/W)	Ground	Stop lamp switch 1	Input	—	—	Battery voltage
26 (O/L)	Ground	Stop lamp switch 2	Input	Stop lamp switch	OFF (brake pedal is not depressed)	0V
					ON (brake pedal is depressed)	Battery voltage



# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >


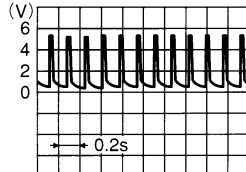

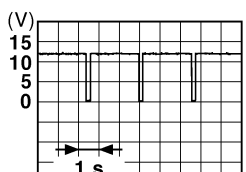
[COUPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
27 (G/W)	Ground	Front door lock as- sembly LH (unlock sensor)	Input	Front door LH	LOCK status	 JPMIA0011GB 11.8V
					UNLOCK status	0V
29 (Y)	Ground	Key slot switch	Input	When Intelligent Key is inserted into key slot		Battery voltage
				When Intelligent Key is not inserted into key slot		0V
30 (V/Y)	Ground	ACC feedback signal	Input	Ignition switch	OFF	0
					ACC or ON	Battery voltage
31 (G)	Ground	Rear window defog- ger feedback signal	Input	Rear window de- fogger switch	OFF	0V
					ON	Battery voltage
32 (R/B)	Ground	Front door RH switch	Input	Front door RH switch	OFF (when front door RH closes)	 JPMIA0011GB 11.8 V
					ON (when front door RH opens)	0V
33 (SB)	Ground	Compressor ON sig- nal	Input	A/C switch	OFF	9V - 12V
					ON	0V
34 <sup>3</sup> (L/R)	Ground	Front door lock as- sembly LH (key cylin- der switch) (unlock)	Input	Front door lock assembly LH (key cylinder switch)	OFF (neutral)	Battery voltage
					ON (unlock)	0V
36 <sup>3</sup> (GR)	Ground	Lock switch signal	Input	Door lock/unlock switch	Lock	Battery voltage
					Unlock	0V
37 (O)	Ground	Trunk lid opener can- cel switch	Input	Trunk lid opener cancel switch	CANCEL	 JPMIA0012GB 1.1V
					ON	0V
38 (GR/ W)	Ground	Rear window defog- ger ON signal	Input	Rear window de- fogger switch	OFF	Battery voltage
					ON	0V
39 <sup>3</sup> (GR/ R)	Ground	Unlock switch signal	Input	Door lock/unlock switch	Unlock	Battery voltage
					Lock	0V

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

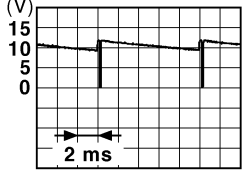
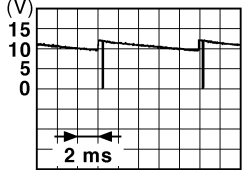

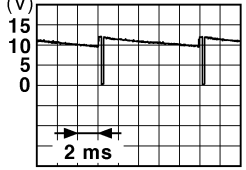
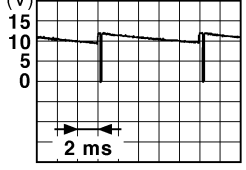
[COUPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
40 <sup>4</sup> (Y/G)	Ground	Power window serial link	Input/ Output	Ignition switch ON		<div> JPMIA0013GB 10.2V</div>
				Ignition switch OFF or ACC		0V
41 (W)	Ground	Engine switch (push switch) illumination	Output	Engine switch (push switch) illumination	ON	5.5V
					OFF	0V
42 (R)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	ON	0V
					OFF	Battery voltage
45 (P)	Ground	Receiver & sensor ground	Input	Ignition switch ON		0V
46 (V/W)	Ground	Receiver & sensor power supply output	Output	Ignition switch	OFF	0V
					ACC or ON	5.0V
47 (G/O)	Ground	Tire pressure receiver signal	Input/ Output	Ignition switch ON	Standby state	<div> OCC3881D</div>
					When receiving the signal from the transmitter	<div> OCC3880D</div>
48 (R/G)	Ground	Selector lever P/N position signal	Input	Selector lever	P or N position	12.0V
					Except P and N positions	0V
49 (L/O)	Ground	Security indicator signal	Output	Security indicator	ON	0V
				Blinking		<div> JPMIA0014GB 11.3V</div>
				OFF	Battery voltage	

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

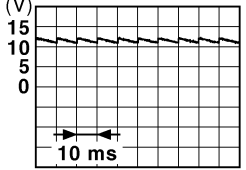
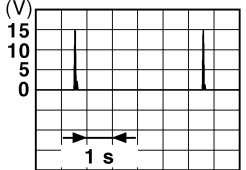
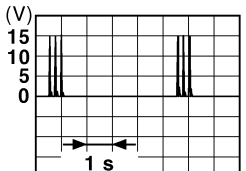
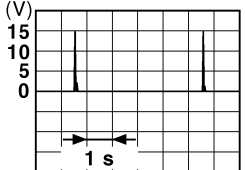
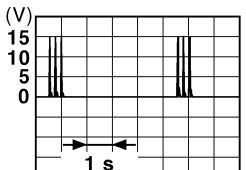
[COUPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
(+)	(-)	Signal name	Input/ Output		
50 (LG/ B)	Ground	Combination switch OUTPUT 5	Input	Combination switch (Wiper intermittent dial 4)	 10.7V
				All switch OFF	
				Lighting switch 1ST	
				Lighting switch high-beam	
				Lighting switch 2ND	
51 (L/W)	Ground	Combination switch OUTPUT 1	Input	Combination switch	 10.7V
				All switch OFF (Wiper intermittent dial 4)	
				Front wiper switch HI (Wiper intermittent dial 4)	
				Any of the conditions below with all switch OFF	
				<ul style="list-style-type: none"> <li>• Wiper intermittent dial 1</li> <li>• Wiper intermittent dial 2</li> <li>• Wiper intermittent dial 3</li> <li>• Wiper intermittent dial 6</li> <li>• Wiper intermittent dial 7</li> </ul>	
52 (G/B)	Ground	Combination switch OUTPUT 2	Input	Combination switch	 10.7V
				All switch OFF (Wiper intermittent dial 4)	
				Front washer switch ON (Wiper intermittent dial 4)	
				Any of the conditions below with all switch OFF	
				<ul style="list-style-type: none"> <li>• Wiper intermittent dial 1</li> <li>• Wiper intermittent dial 5</li> <li>• Wiper intermittent dial 6</li> </ul>	
53 (LG/ R)	Ground	Combination switch OUTPUT 3	Input	Combination switch (Wiper intermittent dial 4)	 10.7V
				All switch OFF	
				Front wiper switch INT	
				Front wiper switch LO	
				Lighting switch AUTO	
54 (G/Y)	Ground	Combination switch OUTPUT 4	Input	Combination switch (Wiper intermittent dial 4)	 10.7V
				All switch OFF	
				Front fog lamp switch ON	
				Lighting switch 2ND	
				Lighting switch flash-to-pass	
55 (BR/ W)	Ground	Front blower monitor	Input	Front blower motor switch	Battery voltage
				ON	
				OFF	0V

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

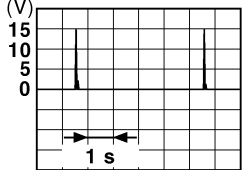
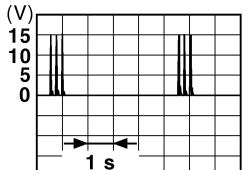
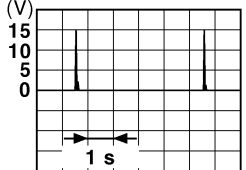
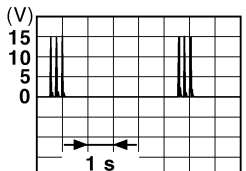
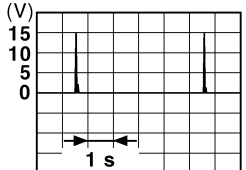
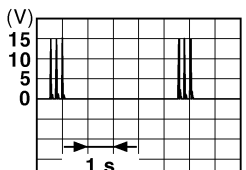
[COUPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
56 <sup>3</sup> (L/B)	Ground	Front door lock as- sembly LH (key cylin- der switch) (lock)	Input	Front door lock as- sembly LH (key cylinder switch)	OFF (neutral)	Battery voltage
					ON (lock)	0V
57 (W)	Ground	Tire pressure warn- ing check switch	Input	—		Battery voltage
58 (SB)	Ground	Front door LH switch	Input	Front door LH switch	OFF (front door LH CLOSE)	 <p>11.8V</p>
					ON (front door LH OPEN)	0V
59 (G/R)	Ground	Rear window defog- ger relay	Output	Rear window de- fogger	Active	Battery voltage
					Not activated	0V
60 (B/R)	Ground	Front console anten- na 2 (-)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	
					When Intelligent Key is not in the passenger compart- ment	
61 (W/R)	Ground	Center console an- tenna 2 (+)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	
					When Intelligent Key is not in the passenger compart- ment	

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[COUPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
(+)	(-)	Signal name	Input/ Output		
62 (B/Y)	Ground	Front outside handle RH antenna (-)	Output	When the front door RH request switch is operat- ed with ignition switch OFF	 <p>JMKIA0062GB</p>
				When Intelligent Key is not in the antenna detection area	 <p>JMKIA0063GB</p>
63 (LG)	Ground	Front outside handle RH antenna (+)	Output	When the front door RH request switch is operat- ed with ignition switch OFF	 <p>JMKIA0062GB</p>
				When Intelligent Key is not in the antenna detection area	 <p>JMKIA0063GB</p>
64 (V)	Ground	Front outside handle LH antenna (-)	Output	When the front door LH request switch is operat- ed with ignition switch OFF	 <p>JMKIA0062GB</p>
				When Intelligent Key is not in the antenna detection area	 <p>JMKIA0063GB</p>

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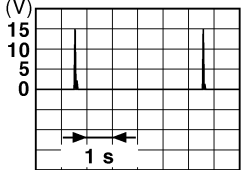
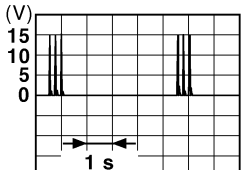
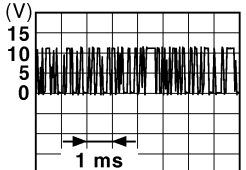
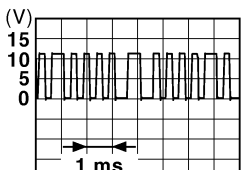
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# BCM (BODY CONTROL MODULE)

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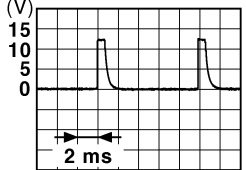
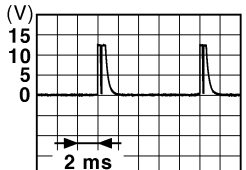

[COUPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
65 (P)	Ground	Front outside handle LH antenna (+)	Output	When the front door LH request switch is operat- ed with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
68 (G/O)	Ground	NATS antenna amp (built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
69 (O)	Ground	NATS antenna amp (built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
70 (R/B)	Ground	Ignition relay-2 con- trol	Output	Ignition switch	OFF or ACC	0V
					ON	Battery voltage
71 (L/O)	Ground	Remote keyless entry receiver signal	Input/ Output	During waiting		 JMKIA0064GB
				When operating either button on Intelligent Key		 JMKIA0065GB

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[COUPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
(+)	(-)	Signal name	Input/ Output		
75 (R/Y)	Ground	Combination switch INPUT 5	Output	Combination switch	<p>All switch OFF (Wiper intermittent dial 4)</p>  <p>1.4V</p>
				Combination switch	<p>Front fog lamp switch ON (Wiper intermittent dial 4)</p>  <p>1.3V</p>
				<p>Any of the conditions below with all switch OFF</p> <ul style="list-style-type: none"> <li>• Wiper intermittent dial 1</li> <li>• Wiper intermittent dial 2</li> <li>• Wiper intermittent dial 6</li> <li>• Wiper intermittent dial 7</li> </ul>	 <p>1.3V</p>

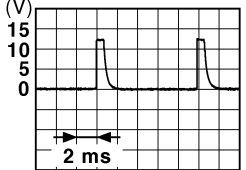
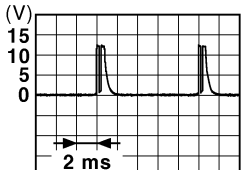

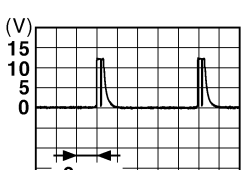
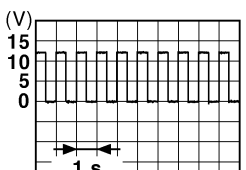
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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

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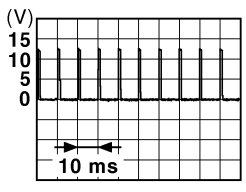
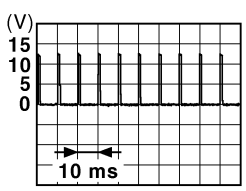
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
76 (R/G)	Ground	Combination switch INPUT 3	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	 1.4V
					Lighting switch high-beam (Wiper intermittent dial 4)	 1.3V
					Lighting switch 2ND (Wiper intermittent dial 4)	 1.3V
					Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3	 1.3V
77 (BR)	Ground	Engine switch (push switch)	Input	Engine switch (push switch)	Pressed	0V
					Not pressed	Battery voltage
78 (P)	Ground	CAN-L	Input/ Output	—	—	—
79 (L)	Ground	CAN-H	Input/ Output	—	—	—
80 (R/L)	Ground	Key slot illumination	Output	Key slot illumina- tion	OFF	0V
					Blinking	 6.5V
					ON	Battery voltage



# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

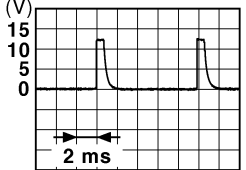

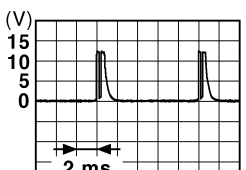
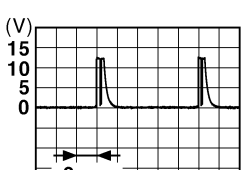
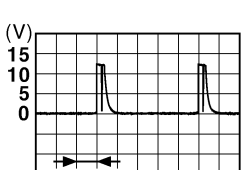
[COUPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
81 (LG)	Ground	ON indicator lamp	Output	Ignition switch	OFF or ACC	Battery voltage
					ON	0V
83 (L)	Ground	ACC relay-1 control	Output	Ignition switch	OFF	0V
					ACC or ON	Battery voltage
84 <sup>5</sup> (Y/R)	Ground	CVT shift selector	Output	—		Battery voltage
85 (L/O)	Ground	Electronic steering column lock condition No. 1	Input	Electronic steer- ing column lock	Lock status	0V
					Unlock status	Battery voltage
86 (G/R)	Ground	Electronic steering column lock condition No. 2	Input	Electronic steer- ing column lock	Lock status	Battery voltage
					Unlock status	0V
87 <sup>5</sup> (G/B)	Ground	Selector lever P posi- tion switch	Input	Selector lever	P position	0V
					Any position other than P	Battery voltage
88 (P/L)	Ground	Front door RH re- quest switch	Input	Front door RH re- quest switch	ON (pressed)	0V
					OFF (not pressed)	 1.0V
89 (B/W)	Ground	Front door LH re- quest switch	Input	Front door LH re- quest switch	ON (pressed)	0V
					OFF (not pressed)	 1.0V
90 (Y)	Ground	Blower fan motor re- lay control	Output	Ignition switch	OFF or ACC	0V
					ON	Battery voltage
91 (L/R)	Ground	Remote keyless entry receiver power sup- ply	Output	Ignition switch OFF		Battery voltage
94 (G/Y)	Ground	Electronic steering column lock power supply	Output	Ignition switch	OFF or ACC	Battery voltage
					ON	0V

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[COUPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
(+)	(-)	Signal name	Input/ Output		
95 (R/W)	Ground	Combination switch INPUT 1	Output	Combination switch (Wiper intermit- tent dial 4)	 <p>1.4V</p>
				Turn signal switch LH	 <p>1.3V</p>
				Turn signal switch RH	 <p>1.3V</p>
				Front wiper switch LO	 <p>1.3V</p>
				Front washer switch ON	 <p>1.3V</p>

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[COUPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
(+)	(-)	Signal name	Input/ Output		
96 (P/B)	Ground	Combination switch INPUT 4	Output	Combination switch	<div> <p>All switch OFF (Wiper intermittent dial 4)</p> <p>JPMIA0041GB</p> <p>1.4V</p> </div>
				Lighting switch AUTO (Wiper intermittent dial 4)	<div> <p>JPMIA0038GB</p> <p>1.3V</p> </div>
				Lighting switch 1ST (Wiper intermittent dial 4)	<div> <p>JPMIA0036GB</p> <p>1.3V</p> </div>
				Any of the conditions below with all switch OFF <ul style="list-style-type: none"> <li>• Wiper intermittent dial 1</li> <li>• Wiper intermittent dial 5</li> <li>• Wiper intermittent dial 6</li> </ul>	<div> <p>JPMIA0039GB</p> <p>1.3V</p> </div>

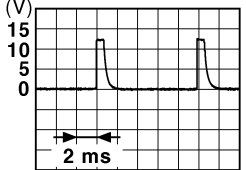

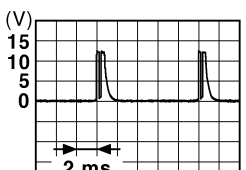
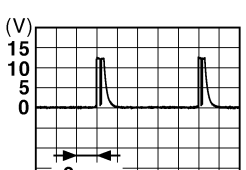
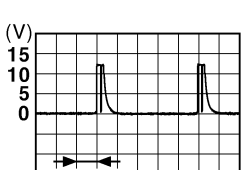
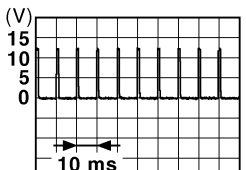
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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

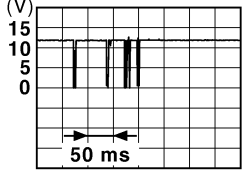
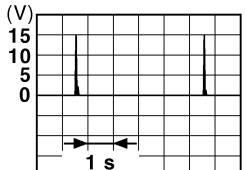
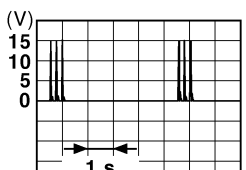
[COUPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
(+)	(-)	Signal name	Input/ Output		
97 (R/B)	Ground	Combination switch INPUT 2	Output	Combination switch (Wiper intermit- tent dial 4)	<p>All switch OFF</p>  <p>JPMIA0041GB</p> <p>1.4V</p>
					<p>Lighting switch flash-to-pass</p>  <p>JPMIA0037GB</p> <p>1.3V</p>
					<p>Lighting switch 2ND</p>  <p>JPMIA0036GB</p> <p>1.3V</p>
					<p>Front wiper switch INT</p>  <p>JPMIA0038GB</p> <p>1.3V</p>
					<p>Front wiper switch HI</p>  <p>JPMIA0040GB</p> <p>1.3V</p>
98 (G/O)	Ground	Hazard switch	Input	Hazard switch	<p>Pressed</p> <p>0 V</p>
					<p>Not pressed</p>  <p>JPMIA0012GB</p> <p>1.1V</p>

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[COUPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
99 (L/Y)	Ground	Electronic steering column lock unit com- munication	Input/ Output	Electronic steer- ing column lock	LOCK status	Battery voltage
					LOCK or UNLOCK	 JMKIA0066GB
					For 15 seconds after UN- LOCK	Battery voltage
					15 seconds or later after UNLOCK	0V
103 (V)	Ground	Trunk lid opening	Output	Trunk lid	Open (trunk lid opener ac- tuator is activated)	Battery voltage
					Close (trunk lid opener ac- tuator is not activated)	0V
110 (V/W)	Ground	Trunk room lamp	Output	Trunk room lamp	ON	0V
					OFF	Battery voltage
114 (B)	Ground	Trunk room antenna 1 (-)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compart- ment	 JMKIA0063GB

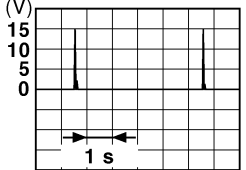
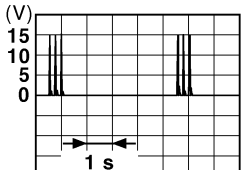
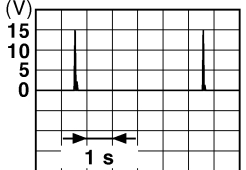
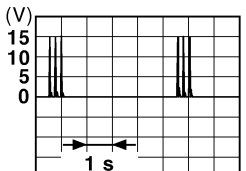
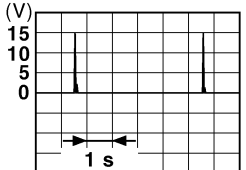
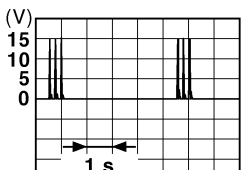
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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

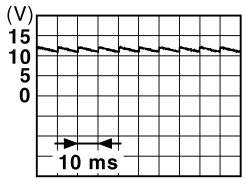
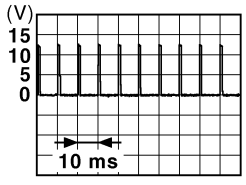
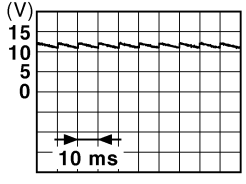
[COUPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
115 (W)	Ground	Trunk room antenna 1 (+)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compart- ment	 JMKIA0063GB
118 (L/O)	Ground	Rear bumper anten- na (-)	Output	When the trunk lid request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
119 (BR/ W)	Ground	Rear bumper anten- na (+)	Output	When the trunk lid request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

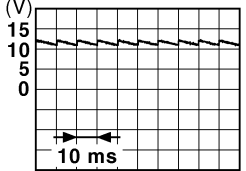
[COUPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
127 (BR/ W)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC	Battery voltage
					ON	0V
130 (Y/G)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (trunk is closed)	 JPMIA0011GB 11.8V
					ON (trunk is open)	0V
132 (R)	Ground	Starter motor relay control	Output	Ignition switch OFF (M/T vehi- cle)	When the clutch pedal is depressed	Battery voltage
					When the clutch pedal is not depressed	0V
				Ignition switch ON (other than M/ T vehicle)	When selector lever is in P or N position and the brake is depressed	Battery voltage
					When selector lever is in P or N position and the brake is not depressed	0V
141 (G/R)	Ground	Trunk request switch	Input	Trunk request switch	ON (pressed)	0V
					OFF (not pressed)	 JPMIA0016GB 1.0V
144 (GR)	Ground	Request switch buzz- er	Output	Request switch buzzer	Sounding	0V
					Not sounding	Battery voltage
147 (L/R)	Ground	Trunk lid opener switch	Input	Trunk lid opener switch	Pressed	0V
					Not pressed	Battery voltage
148 <sup>1</sup> (R/W)	Ground	Rear door RH switch	Input	Rear door RH switch	OFF (when rear door RH closes)	 JPMIA0011GB 11.8V
					ON (when rear door RH opens)	0V

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[COUPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
149 <sup>1</sup> (R/B)	Ground	Rear door LH switch	Input	Rear door LH switch	OFF (when rear door LH closes)	 <p>JFM1A0011GB</p> <p>11.8V</p>
					ON (when rear door LH opens)	0V

1: Sedan only

2: M/T only

3: With LH front window anti-pinch

4: With LH and RH front window anti-pinch.

5: CVT only

6: With auto lights

7: With low tire pressure warning system

8: Coupe only

## Fail Safe

INFOID:000000007630945

Display contents of CONSULT	Fail-safe	Cancellation
B2013: ID DISCORD BCM-S/L	Inhibit engine cranking	Erase DTC
B2014: CHAIN OF S/L-BCM	Inhibit engine cranking	Erase DTC
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI-SCANNING	Inhibit engine cranking	Erase DTC
B2557: VEHICLE SPEED	Inhibit electronic steering column lock	When normal vehicle speed signals have been received from ABS actuator and electric unit (control unit) for 500 ms
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has become consistent <ul style="list-style-type: none"> <li>Starter control relay signal</li> <li>Starter relay status signal</li> </ul>
B2562: LO VOLTAGE	<ul style="list-style-type: none"> <li>Inhibit engine cranking</li> <li>Inhibit electronic steering column lock</li> </ul>	100 ms after the power supply voltage increases to more than 8.8 V
B2601: SHIFT POSITION	Inhibit electronic steering column lock	500 ms after the following signal reception status becomes consistent <ul style="list-style-type: none"> <li>Selector lever P position switch signal</li> <li>P range signal (CAN)</li> </ul>
B2602: SHIFT POSITION	Inhibit electronic steering column lock	5 seconds after the following BCM recognition conditions are fulfilled <ul style="list-style-type: none"> <li>Ignition switch is in the ON position</li> <li>Selector lever P position switch signal: Except P position (battery voltage)</li> <li>Vehicle speed: 4 /h or more</li> </ul>



# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[COUPE]

Display contents of CONSULT	Fail-safe	Cancellation
B2603: SHIFT POSI STATUS	Inhibit electronic steering column lock	500 ms after the following BCM recognition conditions are fulfilled <ul style="list-style-type: none"> <li>Ignition switch is in the ON position</li> <li>Selector lever P position switch signal: Except P position (battery voltage)</li> <li>Selector lever P/N position signal: Except P and N positions (0 V)</li> </ul>
B2604: PNP SW	Inhibit electronic steering column lock	500 ms after any of the following BCM recognition conditions is fulfilled <ul style="list-style-type: none"> <li>Status 1 <ul style="list-style-type: none"> <li>Ignition switch is in the ON position</li> <li>Selector lever P/N position signal: P and N position (battery voltage)</li> <li>P range signal or N range signal (CAN): ON</li> </ul> </li> <li>Status 2 <ul style="list-style-type: none"> <li>Ignition switch is in the ON position</li> <li>Selector lever P/N position signal: Except P and N positions (0 V)</li> <li>P range signal and N range signal (CAN): OFF</li> </ul> </li> </ul>
B2605: PNP SW	Inhibit electronic steering column lock	500 ms after any of the following BCM recognition conditions is fulfilled <ul style="list-style-type: none"> <li>Status 1 <ul style="list-style-type: none"> <li>Ignition switch is in the ON position</li> <li>Power position: IGN</li> <li>Selector lever P/N position signal: Except P and N positions (0 V)</li> <li>Interlock/transmission switch signal (CAN): OFF</li> </ul> </li> <li>Status 2 <ul style="list-style-type: none"> <li>Ignition switch is in the ON position</li> <li>Selector lever P/N position signal: P or N position (battery voltage)</li> <li>transmission switch signal (CAN): ON</li> </ul> </li> </ul>
B2606: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has become consistent <ul style="list-style-type: none"> <li>Electronic steering column lock relay signal (Request signal)</li> <li>Electronic steering column lock relay signal (Condition signal)</li> </ul>
B2607: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has become consistent <ul style="list-style-type: none"> <li>Electronic steering column lock relay signal (Request signal)</li> <li>Electronic steering column lock relay signal (Condition signal)</li> </ul>
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent <ul style="list-style-type: none"> <li>Starter motor relay control signal</li> <li>Starter relay status signal (CAN)</li> </ul>
B2609: S/L STATUS	<ul style="list-style-type: none"> <li>Inhibit engine cranking</li> <li>Inhibit electronic steering column lock</li> </ul>	When the following electronic steering column lock conditions agree <ul style="list-style-type: none"> <li>BCM electronic steering column lock control status</li> <li>Electronic steering column lock condition No. 1 signal status</li> <li>Electronic steering column lock condition No. 2 signal status</li> </ul>
B260A: IGNITION RELAY	Inhibit engine cranking	500 ms after the following conditions are fulfilled <ul style="list-style-type: none"> <li>IGN relay (IPDM E/R) control signal: OFF (Battery voltage)</li> <li>Ignition ON signal (CAN to IPDM E/R): OFF (Request signal)</li> <li>Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)</li> </ul>
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions is fulfilled <ul style="list-style-type: none"> <li>Power position changes to ACC</li> <li>Receives engine status signal (CAN)</li> </ul>
B2612: S/L STATUS	<ul style="list-style-type: none"> <li>Inhibit engine cranking</li> <li>Inhibit electronic steering column lock</li> </ul>	When any of the following conditions is fulfilled <ul style="list-style-type: none"> <li>Electronic steering column lock unit status signal (CAN) is received normally</li> <li>The BCM electronic steering column lock control status matches the electronic steering column lock status recognized by the electronic steering column lock unit status signal (CAN from IPDM E/R)</li> </ul>
B2617: STARTER RELAY CIRC	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[COUPE]

Display contents of CONSULT	Fail-safe	Cancellation
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal
B2619: BCM	Inhibit engine cranking	1 second after the electronic steering column lock unit power supply output control inside BCM becomes normal
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization
B26E1: ENG STATE NO RECIV	Inhibit engine cranking	When any of the following conditions is fulfilled <ul style="list-style-type: none"> <li>• Power position changes to ACC</li> <li>• Receives engine status signal (CAN)</li> </ul>
B26E8: CLUTCH SW	Inhibit engine cranking	When any of the following BCM recognition conditions are fulfilled <ul style="list-style-type: none"> <li>• Status 1 <ul style="list-style-type: none"> <li>- Clutch switch signal (CAN from ECM): ON</li> <li>- Clutch interlock switch signal: OFF (0 V)</li> </ul> </li> <li>• Status 2 <ul style="list-style-type: none"> <li>- Clutch switch signal (CAN from ECM): OFF</li> <li>- Clutch interlock switch signal: OFF (Battery voltage)</li> </ul> </li> </ul>
B26E9: S/L STATUS	<ul style="list-style-type: none"> <li>• Inhibit engine cranking</li> <li>• Inhibit electronic steering column lock</li> </ul>	When BCM transmits the LOCK request signal to the steering lock unit and receives LOCK response signal from steering lock unit, the following conditions are fulfilled <ul style="list-style-type: none"> <li>• Steering condition No 1 signal: LOCK (0V)</li> <li>• Steering condition No 2 signal: LOCK (Battery voltage)</li> </ul>

## DTC Inspection Priority Chart

INFOID:0000000007630946

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

Priority	DTC
1	<ul style="list-style-type: none"> <li>• B2562: LOW VOLTAGE</li> </ul>
2	<ul style="list-style-type: none"> <li>• U1000: CAN COMM CIRCUIT</li> <li>• U1010: CONTROL UNIT (CAN)</li> </ul>
3	<ul style="list-style-type: none"> <li>• B2190: NATS ANTENNA AMP</li> <li>• B2191: DIFFERENCE OF KEY</li> <li>• B2192: ID DISCORD BCM-ECM</li> <li>• B2193: CHAIN OF BCM-ECM</li> <li>• B2195: ANTI SCANNING</li> </ul>

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[COUPE]

Priority	DTC	
4	• B2013: ID DISCORD BCM-S/L	A
	• B2014: CHAIN OF S/L-BCM	
	• B2553: IGNITION RELAY	
	• B2555: STOP LAMP	B
	• B2556: PUSH-BTN IGN SW	
	• B2557: VEHICLE SPEED	
	• B2560: STARTER CONT RELAY	
	• B2601: SHIFT POSITION	C
	• B2602: SHIFT POSITION	
	• B2603: SHIFT POSI STATUS	
	• B2604: PNP SW	
	• B2605: PNP SW	D
	• B2606: S/L RELAY	
	• B2607: S/L RELAY	
	• B2608: STARTER RELAY	
	• B2609: S/L STATUS	E
	• B260A: IGNITION RELAY	
	• B260B: STEERING LOCK UNIT	
	• B260C: STEERING LOCK UNIT	F
	• B260D: STEERING LOCK UNIT	
	• B260F: ENG STATE SIG LOST	
	• B2611: ACC RELAY	
	• B2612: S/L STATUS	G
	• B2614: ACC RELAY CIRC	
	• B2615: BLOWER RELAY CIRC	
	• B2616: IGN RELAY CIRC	
	• B2617: STARTER RELAY CIRC	H
	• B2618: BCM	
	• B2619: BCM	
	• B261A: PUSH-BTN IGN SW	
	• B261E: VEHICLE TYPE	I
	• B26E1: ENG STATE NO RECIV	
	• B26E8: CLUTCH SW	
	• B26E9: S/L STATUS	J
	• B26EA: KEY REGISTRATION	
	• C1729: VHCL SPEED SIG ERR	
	• U0415: VEHICLE SPEED SIG	
5	• C1704: LOW PRESSURE FL	SEC
	• C1705: LOW PRESSURE FR	
	• C1706: LOW PRESSURE RR	
	• C1707: LOW PRESSURE RL	
	• C1708: [NO DATA] FL	L
	• C1709: [NO DATA] FR	
	• C1710: [NO DATA] RR	
	• C1711: [NO DATA] RL	
	• C1712: [CHECKSUM ERR] FL	M
	• C1713: [CHECKSUM ERR] FR	
	• C1714: [CHECKSUM ERR] RR	
	• C1715: [CHECKSUM ERR] RL	
	• C1716: [PRESSDATA ERR] FL	N
	• C1717: [PRESSDATA ERR] FR	
	• C1718: [PRESSDATA ERR] RR	
	• C1719: [PRESSDATA ERR] RL	O
	• C1720: [CODE ERR] FL	
	• C1721: [CODE ERR] FR	
	• C1722: [CODE ERR] RR	
	• C1723: [CODE ERR] RL	P
	• C1724: [BATT VOLT LOW] FL	
	• C1725: [BATT VOLT LOW] FR	
	• C1726: [BATT VOLT LOW] RR	
	• C1727: [BATT VOLT LOW] RL	
	• C1734: CONTROL UNIT	
6	• B2622: INSIDE ANTENNA	
	• B2623: INSIDE ANTENNA	

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[COUPE]

## DTC Index

INFOID:000000007630947

### NOTE:

- Details of time display
- CRNT: Displays when there is a malfunction now or after returning to the normal condition until turning ignition switch OFF → ON again.
- 1 - 39: Displayed if any previous malfunction is present when current condition is normal. It increases like 1 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. The counter remains at 39 even if the number of cycles exceeds it. It is counted from 1 again when turning ignition switch OFF → ON after returning to the normal condition if the malfunction is detected again.

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
No DTC is detected. further testing may be required.	—	—	—	—
U1000: CAN COMM CIRCUIT	—	—	—	<a href="#">BCS-32</a>
U1010: CONTROL UNIT (CAN)	—	—	—	<a href="#">BCS-33</a>
U0415: VEHICLE SPEED SIG	—	—	—	<a href="#">BCS-34</a>
B2013: ID DISCORD BCM-S/L	×	—	—	<a href="#">SEC-36</a> (Coupe), <a href="#">SEC-250</a> (Sedan)
B2014: CHAIN OF S/L-BCM	×	—	—	<a href="#">SEC-37</a> (Coupe), <a href="#">SEC-251</a> (Sedan)
B2190: NATS ANTENNA AMP	×	—	—	<a href="#">SEC-65</a> (Coupe), <a href="#">SEC-281</a> (Sedan)
B2191: DIFFERENCE OF KEY	×	—	—	<a href="#">SEC-69</a> (Coupe), <a href="#">SEC-285</a> (Sedan)
B2192: ID DISCORD BCM-ECM	×	—	—	<a href="#">SEC-70</a> (Coupe), <a href="#">SEC-286</a> (Sedan)
B2193: CHAIN OF BCM-ECM	×	—	—	<a href="#">SEC-71</a> (Coupe), <a href="#">SEC-287</a> (Sedan)
B2195: ANTI-SCANNING	—	—	—	<a href="#">SEC-72</a>
B2553: IGNITION RELAY	—	—	—	<a href="#">PCS-59</a>
B2555: STOP LAMP	—	—	—	<a href="#">SEC-73</a> (Coupe), <a href="#">SEC-289</a> (Sedan)
B2556: PUSH-BTN IGN SW	—	×	—	<a href="#">SEC-78</a> (Coupe), <a href="#">SEC-294</a> (Sedan)
B2557: VEHICLE SPEED	×	×	—	<a href="#">SEC-80</a> (Coupe), <a href="#">SEC-296</a> (Sedan)
B2560: STARTER CONT RELAY	×	×	—	<a href="#">SEC-81</a> (Coupe), <a href="#">SEC-297</a> (Sedan)
B2562: LOW VOLTAGE	—	—	—	<a href="#">BCS-35</a>
B2601: SHIFT POSITION	×	×	—	<a href="#">SEC-82</a> (Coupe), <a href="#">SEC-298</a> (Sedan)
B2602: SHIFT POSITION	×	×	—	<a href="#">SEC-86</a> (Coupe), <a href="#">SEC-302</a> (Sedan)
B2603: SHIFT POSI STATUS	×	×	—	<a href="#">SEC-89</a> (Coupe), <a href="#">SEC-305</a> (Sedan)
B2604: PNP SW	×	×	—	<a href="#">SEC-92</a> (Coupe), <a href="#">SEC-308</a> (Sedan)
B2605: PNP SW	×	×	—	<a href="#">SEC-94</a> (Coupe), <a href="#">SEC-310</a> (Sedan)
B2606: S/L RELAY	×	×	—	<a href="#">SEC-96</a> (Coupe), <a href="#">SEC-312</a> (Sedan)

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[COUPE]

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
B2607: S/L RELAY	×	×	—	<a href="#">SEC-97</a> (Coupe), <a href="#">SEC-313</a> (Sedan)
B2608: STARTER RELAY	×	×	—	<a href="#">SEC-99</a> (Coupe), <a href="#">SEC-315</a> (Sedan)
B2609: S/L STATUS	×	×	—	<a href="#">SEC-101</a> (Coupe), <a href="#">SEC-317</a> (Sedan)
B260A: IGNITION RELAY	×	×	—	<a href="#">PCS-61</a>
B260B: STEERING LOCK UNIT	—	×	—	<a href="#">SEC-106</a> (Coupe), <a href="#">SEC-322</a> (Sedan)
B260C: STEERING LOCK UNIT	—	×	—	<a href="#">SEC-107</a> (Coupe), <a href="#">SEC-323</a> (Sedan)
B260D: STEERING LOCK UNIT	—	×	—	<a href="#">SEC-108</a> (Coupe), <a href="#">SEC-324</a> (Sedan)
B260F: ENG STATE SIG LOST	×	×	—	<a href="#">SEC-109</a> (Coupe), <a href="#">SEC-325</a> (Sedan)
B2611: ACC RELAY	—	—	—	<a href="#">PCS-62</a>
B2612: S/L STATUS	×	×	—	<a href="#">SEC-110</a> (Coupe), <a href="#">SEC-331</a> (Sedan)
B2614: ACC RELAY CIRC	—	×	—	<a href="#">PCS-64</a>
B2615: BLOWER RELAY CIRC	—	×	—	<a href="#">PCS-67</a>
B2616: IGN RELAY CIRC	—	×	—	<a href="#">PCS-70</a>
B2617: STARTER RELAY CIRC	×	×	—	<a href="#">SEC-115</a> (Coupe), <a href="#">SEC-336</a> (Sedan)
B2618: BCM	×	×	—	<a href="#">PCS-73</a>
B2619: BCM	×	×	—	<a href="#">SEC-117</a> (Coupe), <a href="#">SEC-338</a> (Sedan)
B261A: PUSH-BTN IGN SW	—	×	—	<a href="#">SEC-118</a> (Coupe), <a href="#">SEC-339</a> (Sedan)
B261E: VEHICLE TYPE	×	× (Turn ON for 15 seconds)	—	<a href="#">SEC-121</a>
B2622: INSIDE ANTENNA	—	—	—	<a href="#">DLK-282</a>
B2623: INSIDE ANTENNA	—	—	—	<a href="#">DLK-285</a>
B26E1: ENG STATE NO RES	×	×	—	<a href="#">SEC-326</a>
B26E8: CLUTCH SW	×	×	—	<a href="#">SEC-123</a>
B26E9: S/L STATUS	×	× (Turn ON for 15 seconds)	—	<a href="#">SEC-125</a>
B26EA: KEY REGISTRATION	×	× (Turn ON for 15 seconds)	—	<a href="#">SEC-126</a>
C1704: LOW PRESSURE FL	—	—	×	<a href="#">WT-8</a>
C1705: LOW PRESSURE FR	—	—	×	<a href="#">WT-8</a>
C1706: LOW PRESSURE RR	—	—	×	<a href="#">WT-8</a>
C1707: LOW PRESSURE RL	—	—	×	<a href="#">WT-8</a>
C1708: [NO DATA] FL	—	—	×	<a href="#">WT-13</a>
C1709: [NO DATA] FR	—	—	×	<a href="#">WT-13</a>
C1710: [NO DATA] RR	—	—	×	<a href="#">WT-13</a>
C1711: [NO DATA] RL	—	—	×	<a href="#">WT-13</a>
C1712: [CHECKSUM ERR] FL	—	—	×	<a href="#">WT-15</a>

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## BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[COUPE]

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
C1713: [CHECKSUM ERR] FR	—	—	×	<a href="#">WT-15</a>
C1714: [CHECKSUM ERR] RR	—	—	×	<a href="#">WT-15</a>
C1715: [CHECKSUM ERR] RL	—	—	×	<a href="#">WT-15</a>
C1716: [PRESSDATA ERR] FL	—	—	×	<a href="#">WT-17</a>
C1717: [PRESSDATA ERR] FR	—	—	×	<a href="#">WT-17</a>
C1718: [PRESSDATA ERR] RR	—	—	×	<a href="#">WT-17</a>
C1719: [PRESSDATA ERR] RL	—	—	×	<a href="#">WT-17</a>
C1720: [CODE ERR] FL	—	—	×	<a href="#">WT-15</a>
C1721: [CODE ERR] FR	—	—	×	<a href="#">WT-15</a>
C1722: [CODE ERR] RR	—	—	×	<a href="#">WT-15</a>
C1723: [CODE ERR] RL	—	—	×	<a href="#">WT-15</a>
C1724: [BATT VOLT LOW] FL	—	—	×	<a href="#">WT-15</a>
C1725: [BATT VOLT LOW] FR	—	—	×	<a href="#">WT-15</a>
C1726: [BATT VOLT LOW] RR	—	—	×	<a href="#">WT-15</a>
C1727: [BATT VOLT LOW] RL	—	—	×	<a href="#">WT-15</a>
C1729: VHCL SPEED SIG ERR	—	—	×	<a href="#">WT-18</a>
C1734: CONTROL UNIT	—	—	×	<a href="#">WT-19</a>

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

< ECU DIAGNOSIS INFORMATION >

[COUPE]

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

Reference Value

INFOID:000000007630948

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition		Value/Status
RADFAN REQ	Engine idle speed	Changes depending on engine coolant temperature, air conditioner operation status, vehicle speed, etc.	0 - 100 %
AC COMP REQ	Engine running	A/C switch OFF	Off
		A/C switch ON (Compressor is operating)	On
TAIL&CLR REQ	Lighting switch OFF		Off
	Lighting switch 1ST, 2ND, HI or AUTO (Light is illuminated)		On
HL LO REQ	Lighting switch OFF		Off
	Lighting switch 2ND HI or AUTO (Light is illuminated)		On
HL HI REQ	Lighting switch OFF		Off
	Lighting switch HI		On
FR FOG REQ	Lighting switch 2ND or AUTO (Light is illuminated)	Front fog lamp switch OFF	Off
		Front fog lamp switch ON	On
FR WIP REQ	Ignition switch ON	Front wiper switch OFF	STOP
		Front wiper switch INT	1LOW
		Front wiper switch LO	Low
		Front wiper switch HI	Hi
WIP AUTO STOP	Ignition switch ON	Front wiper stop position	STOP P
		Any position other than front wiper stop position	ACT P
WIP PROT	Ignition switch ON	Front wiper operates normally	Off
		Front wiper stops at fail-safe operation	BLOCK
IGN RLY1 -REQ	Ignition switch OFF or ACC		Off
	Ignition switch ON		On
IGN RLY	Ignition switch OFF or ACC		Off
	Ignition switch ON		On
PUSH SW	Release the push-button ignition switch		Off
	Press the push-button ignition switch		On
INTER/NP SW	Ignition switch ON	CVT selector lever in any position other than P or N (CVT models)	Off
		Release clutch pedal (M/T models)	
	Ignition switch ON	CVT selector lever in P or N position (CVT models)	On
		Depress clutch pedal (M/T models)	
ST RLY CONT	Ignition switch ON		Off
	At engine cranking		On
IHBT RLY -REQ	Ignition switch ON		Off
	At engine cranking		On

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

< ECU DIAGNOSIS INFORMATION >

[COUPE]

Monitor Item	Condition		Value/Status
ST/INHI RLY	Ignition switch ON		Off
	At engine cranking		ST → INHI
	The status of starter relay or starter control relay cannot be recognized by the battery voltage malfunction, etc. when the starter relay is ON and the starter control relay is OFF		UNKWN
DETENT SW	Ignition switch ON	<ul style="list-style-type: none"> <li>Press the selector button with CVT selector lever in P position</li> <li>CVT selector lever in any position other than P</li> </ul>	Off
	Release the CVT selector button with CVT selector lever in P position <b>NOTE:</b> The lever is fixed ON for M/T		On
S/L RLY -REQ	None of the conditions below are present		Off
	<ul style="list-style-type: none"> <li>Open the driver door after the ignition switch is turned OFF (for a few seconds)</li> <li>Press the push-button ignition switch when the steering lock is activated</li> <li>Depress the clutch pedal when the steering lock is activated</li> </ul>		On
S/L STATE	Steering lock is activated		LOCK
	Steering lock is deactivated		UNLK
	[DTC B210A] is detected		UNKWN
OIL P SW	Ignition switch OFF, ACC or engine running		Open
	Ignition switch ON		Close
THFT HRN REQ	Not operated		Off
	<ul style="list-style-type: none"> <li>Panic alarm is activated</li> <li>Horn is activated with VEHICLE SECURITY (THEFT WARNING) SYSTEM</li> </ul>		On
HORN CHIRP	Not operated		Off
	Door locking with Intelligent Key (horn chirp mode)		On

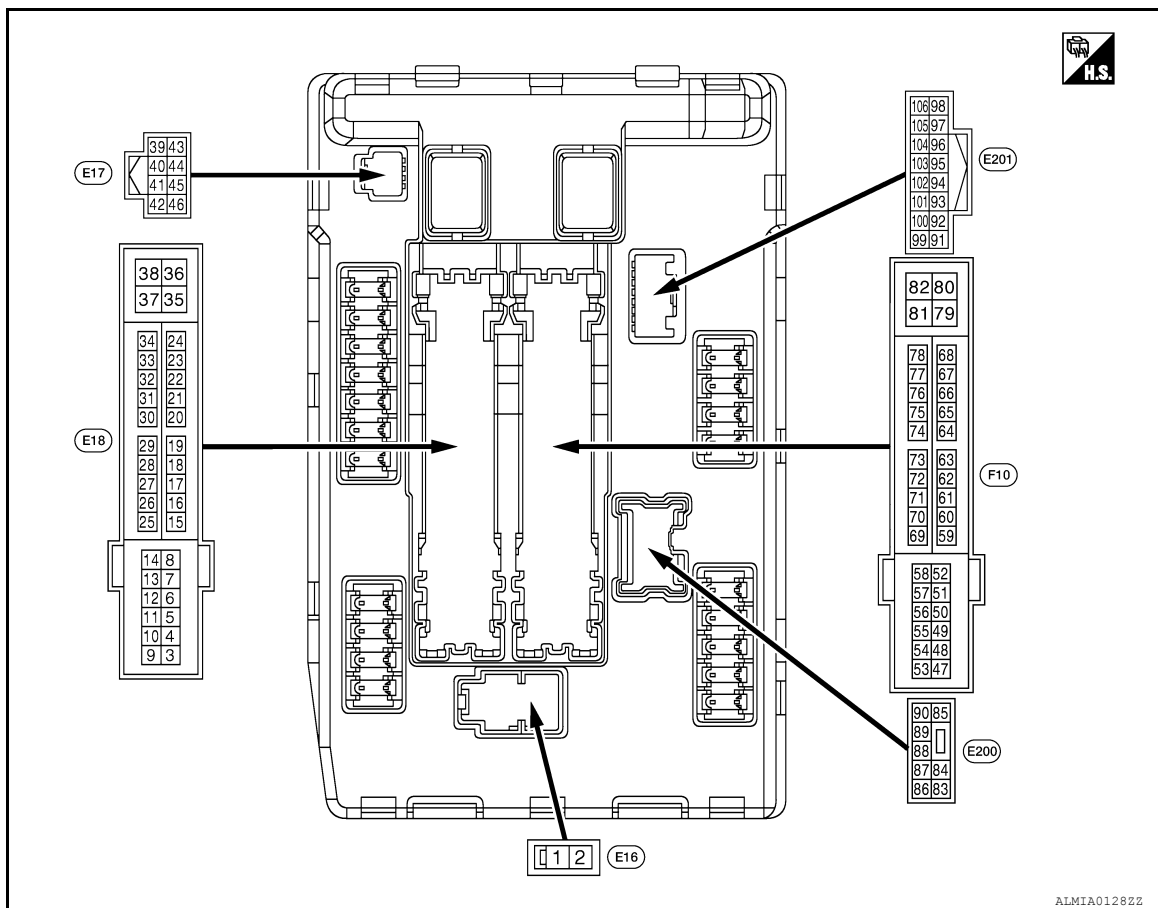


# IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

[COUPE]

## TERMINAL LAYOUT



## PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
1 (R)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (L)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
4 (LG)	Ground	Front wiper LO	Output	Ignition switch ON	Front wiper switch OFF	0 V
					Front wiper switch LO	Battery voltage
5 (Y)	Ground	Front wiper HI	Output	Ignition switch ON	Front wiper switch OFF	0 V
					Front wiper switch HI	Battery voltage
7 (GR)	Ground	Tail, license plate lamps & interior lamps	Output	Ignition switch ON	Lighting switch OFF	0 V
					Lighting switch 1ST	Battery voltage
10 (BR)	Ground	ECM relay power supply	Output	Ignition switch OFF (For a few seconds after turning ignition switch OFF)		0 V
				• Ignition switch ON • Ignition switch OFF (More than a few seconds after turn- ing ignition switch OFF)		Battery voltage

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

< ECU DIAGNOSIS INFORMATION >

[COUPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
11 (O)	Ground	Electronic steering column lock power supply	Output	Ignition switch OFF	A few seconds after open- ing the driver door	Battery voltage
				Ignition switch LOCK	Press the push-button ig- nition switch	Battery voltage
				Ignition switch ACC or ON		0 V
12 (B)	Ground	Ground	—	Ignition switch ON		0 V
13 (SB)	Ground	Fuel pump power supply	Output	Approximately 1 second or more after turning the ignition switch ON		0 V
				<ul style="list-style-type: none"> <li>Approximately 1 second after turning the ignition switch ON</li> <li>Engine running</li> </ul>		Battery voltage
15 (W)	Ground	Ignition relay-1 power sup- ply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
16 (R)	Ground	Front wiper auto stop	Input	Ignition switch ON	Front wiper stop position	0 V
					Any position other than front wiper stop position	Battery voltage
19 (Y)	Ground	Ignition relay-1 power sup- ply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
20 (L)	Ground	Ambient sensor ground	—	Ignition switch ON		0V
21 (LG)	Ground	Ambient sensor	—	Ignition switch ON		5V
22 (W/R)	Ground	Refrigerant pressure sen- sor ground	—	Ignition switch ON		0V
23 (B/R)	Ground	Refrigerant pressure sen- sor	—	<ul style="list-style-type: none"> <li>Ignition switch ON (READY)</li> <li>Both A/C switch and blower motor switch ON (electric compressor oper- ates)</li> </ul>		1.0 - 4.0V
24 (BR/W)	Ground	Refrigerant pressure sen- sor power supply	—	Ignition switch ON		5V
25 (GR)	Ground	Ignition relay-1 power sup- ply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
27 (W)	Ground	Ignition relay monitor	Input	Ignition switch OFF or ACC		Battery voltage
				Ignition switch ON		0 V
28 (SB)	Ground	Push-button ignition switch	Input	Press the push-button ignition switch		0 V
				Release the push-button ignition switch		Battery voltage
30 (R) (with M/T) 30 (BR) (with CVT)	Ground	Starter relay control	Input	CVT mod- els	CVT selector lever in any position other than P or N (ignition switch ON)	0 V
					CVT selector lever P or N (ignition switch ON)	Battery voltage
				M/T mod- els	Release the clutch pedal	0 V
					Depress the clutch pedal	Battery voltage

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

< ECU DIAGNOSIS INFORMATION >

[COUPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
32 (P)	Ground	Electronic steering column lock unit condition-1	Input	Electronic steering column lock is activated		0 V
				Electronic steering column lock is deactivated		Battery voltage
33 (G)	Ground	Electronic steering column lock unit condition-2	Input	Electronic steering column lock is activated		Battery voltage
				Electronic steering column lock is deactivated		0 V
34 (O)	Ground	Cooling fan relay-3 control	Input	Ignition switch OFF or ACC		0 V
				Ignition switch ON		0.7 V
35 (P)	Ground	Cooling fan motor control	Output	Ignition switch OFF or ACC		0 V
				Ignition switch ON		0.7 V
36 (G)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
38 (GR)	Ground	Cooling fan motor control	Output	Ignition switch OFF or ACC		0 V
				Ignition switch ON		0.7 V
39 (P)	—	CAN - L	Input/ Output	—		—
40 (L)	—	CAN - H	Input/ Output	—		—
41 (B)	Ground	Ground	—	Ignition switch ON		0 V
42 (SB)	Ground	Cooling fan relay-2 control	Input	Ignition switch OFF or ACC		0 V
				Ignition switch ON		0.7 V
43 (Y)	Ground	CVT shift selector (Detention switch)	Input	Ignition switch ON	Press the CVT selector button (CVT selector lever P)	Battery voltage
					<ul style="list-style-type: none"> <li>CVT selector lever in any position other than P</li> <li>Release the CVT selector button (CVT selector lever P)</li> </ul>	0 V
44 (W)	Ground	Horn relay control	Input	The horn is deactivated		Battery voltage
				The horn is activated		0 V
45 (GR)	Ground	Anti theft horn relay control	Input	The horn is deactivated		Battery voltage
				The horn is activated		0 V
46 (BR)	Ground	Starter relay control	Input	CVT models	CVT selector lever in any position other than P or N (ignition switch ON)	0 V
					CVT selector lever P or N (ignition switch ON)	Battery voltage
				M/T models	Release the clutch pedal	0 V
					Depress the clutch pedal	Battery voltage
48 (W)	Ground	A/C relay power supply	Output	Engine running	A/C switch OFF	0 V
					A/C switch ON (A/C compressor is operating)	Battery voltage

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

< ECU DIAGNOSIS INFORMATION >

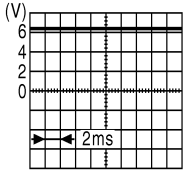
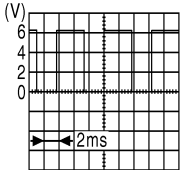
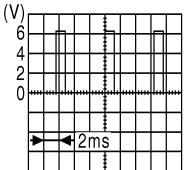
[COUPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
49 (V)	Ground	ECM relay power supply	Output	Ignition switch OFF (For a few seconds after turning ignition switch OFF)		0 V
				• Ignition switch ON • Ignition switch OFF (More than a few seconds after turning ignition switch OFF)		Battery voltage
51 (SB)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
52 (Y)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
53 (V) (with QR25DE) 53 (G) (with VQ35DE)	Ground	ECM relay power supply	Output	Ignition switch OFF (For a few seconds after turning ignition switch OFF)		0 V
				• Ignition switch ON • Ignition switch OFF (More than a few seconds after turning ignition switch OFF)		Battery voltage
54 (GR)	Ground	Throttle control motor relay power supply	Output	Ignition switch OFF (For a few seconds after turning ignition switch OFF)		0 V
				• Ignition switch ON • Ignition switch OFF (More than a few seconds after turning ignition switch OFF)		Battery voltage
55 (LG)	Ground	ECM power supply	Output	Ignition switch OFF		Battery voltage
56 (R)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
57 (O)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
58 (BR) (with CVT)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
69 (SB)	Ground	ECM relay control	Output	Ignition switch OFF (For a few seconds after turning ignition switch OFF)		Battery voltage
				• Ignition switch ON • Ignition switch OFF (More than a few seconds after turning ignition switch OFF)		0 - 1.5 V
70 (G)	Ground	Throttle control motor relay control	Output	Ignition switch ON → OFF		0 - 1.0 V ↓ Battery voltage ↓ 0 V
				Ignition switch ON		0 - 1.0 V
72 (W)	Ground	Transmission range switch signal	Input	Ignition switch ON	CVT selector lever in P or N position	Battery voltage
					CVT selector lever in any position other than P or N position	0 V

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

< ECU DIAGNOSIS INFORMATION >

[COUPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
74 (L)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
75 (LG)	Ground	Oil pressure switch	Input	Ignition switch ON	Engine stopped	0 V
					Engine running	Battery voltage
76 (Y)	Ground	Power generation com- mand signal	Output	Ignition switch ON		 <p>JPMIA0001GB</p> <p>6.3 V</p>
				40% is set on "Active test", "ALTERNATOR DUTY" of "ENGINE"		 <p>JPMIA0002GB</p> <p>3.8 V</p>
				80% is set on "Active test", "ALTERNATOR DUTY" of "ENGINE"		 <p>JPMIA0003GB</p> <p>1.4 V</p>
77 (B/R)	Ground	Fuel pump relay control	Output	<ul style="list-style-type: none"> <li>Approximately 1 second after turning the ignition switch ON</li> <li>Engine running</li> </ul>		0 - 1.0 V
				Approximately 1 second or more after turning the ignition switch ON		Battery voltage
80 (R)	Ground	Starter motor	Output	At engine cranking		Battery voltage
83 (R/Y)	Ground	Headlamp LO (RH)	Output	Ignition switch ON	Lighting switch OFF	0 V
					Lighting switch 2ND	Battery voltage
84 (L)	Ground	Headlamp LO (LH)	Output	Ignition switch ON	Lighting switch OFF	0 V
					Lighting switch 2ND	Battery voltage
86 (W/R)	Ground	Front fog lamp (RH) (If equipped)	Output	Lighting switch 2ND	Front fog lamp switch ON	Battery voltage
					Front fog lamp switch OFF	0 V
87 (L/Y)	Ground	Front fog lamp (LH) (If equipped)	Output	Lighting switch 2ND	Front fog lamp switch ON	Battery voltage
					Front fog lamp switch OFF	0 V
88 (R/W)	Ground	Washer pump power supply	Output	Ignition switch ON		Battery voltage

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

< ECU DIAGNOSIS INFORMATION >

[COUPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
89 (L/W)	Ground	Headlamp HI (RH)	Output	Ignition switch ON	• Lighting switch HI • lighting switch PASS	Battery voltage
					Lighting switch OFF	0 V
90 (G)	Ground	Headlamp HI (LH)	Output	Ignition switch ON	• Lighting switch HI • Lighting switch PASS	Battery voltage
					Lighting switch OFF	0 V
91 (LG/R)	Ground	Parking lamp (RH)	Output	Ignition switch ON	Lighting switch 1ST	Battery voltage
					Lighting switch OFF	0 V
92 (LG/B)	Ground	Parking lamp (LH)	Output	Ignition switch ON	Lighting switch 1ST	Battery voltage
					Lighting switch OFF	0 V
99 (BR/W)	Ground	Ambient sensor ground	—	Ignition switch ON		0V
100 (SB)	Ground	Ambient sensor	—	Ignition switch ON		5V
101 (O/L)	Ground	Refrigerant pressure sensor ground	—	Ignition switch ON		0V
102 (R/B)	Ground	Refrigerant pressure sensor	—	• Ignition switch ON (READY) • Both A/C switch and blower motor switch ON (electric compressor operates)		1.0 - 4.0V
103 (P)	Ground	Refrigerant pressure sensor power supply	—	Ignition switch ON		5V

## Fail Safe

INFOID:000000007630949

## CAN COMMUNICATION CONTROL

When CAN communication with ECM and BCM is impossible, IPDM E/R performs fail-safe control. After CAN communication recovers normally, it also returns to normal control.

If No CAN Communication Is Available With ECM

Control part	Fail-safe in operation
Cooling fan	<ul style="list-style-type: none"> <li>• Signals cooling fans ON when the ignition switch is turned ON</li> <li>• Signals cooling fans OFF when the ignition switch is turned OFF</li> </ul>
A/C compressor	A/C relay OFF
Generator	Outputs the power generation command signal (PWM signal) 0%

If No CAN Communication Is Available With BCM

Control part	Fail-safe in operation
Headlamp	<ul style="list-style-type: none"> <li>• Turns ON the headlamp low relay when the ignition switch is turned ON</li> <li>• Turns OFF the headlamp low relay when the ignition switch is turned OFF</li> <li>• Headlamp high relay OFF</li> </ul>
<ul style="list-style-type: none"> <li>• Parking lamps</li> <li>• License plate lamps</li> <li>• Illumination</li> <li>• Tail lamps</li> </ul>	<ul style="list-style-type: none"> <li>• Turns ON the tail lamp relay when the ignition switch is turned ON</li> <li>• Turns OFF the tail lamp relay when the ignition switch is turned OFF</li> </ul>
Front wiper	<ul style="list-style-type: none"> <li>• The status just before activation of fail-safe control is maintained until the ignition switch is turned OFF while the front wiper is operating at LO or HI speed.</li> <li>• The wiper is operated at LO speed until the ignition switch is turned OFF if the fail-safe control is activated while the front wiper is set in the INT mode and the front wiper motor is operating.</li> </ul>

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

< ECU DIAGNOSIS INFORMATION >

[COUPE]

Control part	Fail-safe in operation
Front fog lamps (if equipped)	Front fog lamp relay OFF
Horn	Horn OFF
Ignition relay	The status just before activation of fail-safe is maintained.
Starter motor	Starter control relay OFF
Electronic steering column lock unit	Steering lock relay OFF

## IGNITION RELAY MALFUNCTION DETECTION FUNCTION

- IPDM E/R monitors the voltage at the contact circuit and excitation coil circuit of the ignition relay inside it.
- IPDM E/R judges the ignition relay error if the voltage differs between the contact circuit and the excitation coil circuit.
- If the ignition relay cannot turn OFF due to contact seizure, it activates the tail lamp relay for 10 minutes to alert the user to the ignition relay malfunction when the ignition switch is turned OFF.

DTC	Ignition switch	Ignition relay	Tail lamp relay
—	ON	ON	—
—	OFF	OFF	—
B2098: IGN RELAY ON	OFF	ON	ON (10 minutes)
B2099: IGN RELAY OFF	ON	OFF	—

### NOTE:

The tail lamp turns OFF when the ignition switch is turned ON.

## FRONT WIPER CONTROL

IPDM E/R detects front wiper stop position by a front wiper auto stop signal.

When a front wiper auto stop signal is in the conditions listed below, IPDM E/R stops power supply to wiper after repeating a front wiper 10 second activation and 20 second stop five times.

Ignition switch	Front wiper switch	Auto stop signal
ON	OFF	Front wiper stop position signal cannot be input 10 seconds.
	ON	The signal does not change for 10 seconds.

### NOTE:

This operation status can be confirmed on the IPDM E/R “Data Monitor” that displays “BLOCK” for the item “WIP PROT” while the wiper is stopped.

## STARTER MOTOR PROTECTION FUNCTION

IPDM E/R turns OFF the starter control relay to protect the starter motor when the starter control relay remains active for 90 seconds.

## DTC Index

INFOID:0000000007630950

CONSULT display	Fail-safe	TIME <sup>NOTE</sup>		Refer to
No DTC is detected. further testing may be required.	—	—	—	—
U1000: CAN COMM CIRCUIT	×	CRNT	1 – 39	<a href="#">PCS-17</a>
B2098: IGN RELAY ON	×	CRNT	1 – 39	<a href="#">PCS-18</a>
B2099: IGN RELAY OFF	—	CRNT	1 – 39	<a href="#">PCS-19</a>
B2108: STRG LCK RELAY ON	—	CRNT	1 – 39	<a href="#">SEC-255</a>
B2109: STRG LCK RELAY OFF	—	CRNT	1 – 39	<a href="#">SEC-256</a>
B210A: STRG LCK STATE SW	—	CRNT	1 – 39	<a href="#">SEC-257</a>
B210B: START CONT RLY ON	—	CRNT	1 – 39	<a href="#">SEC-262</a>
B210C: START CONT RLY OFF	—	CRNT	1 – 39	<a href="#">SEC-263</a>

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

< ECU DIAGNOSIS INFORMATION >

[COUPE]

CONSULT display	Fail-safe	TIME <sup>NOTE</sup>		Refer to
B210D: STARTER RELAY ON	—	CRNT	1 – 39	<a href="#">SEC-264</a>
B210E: STARTER RELAY OFF	—	CRNT	1 – 39	<a href="#">SEC-266</a>
B210F: INTRLCK/TRANSMISSION RANGE SW ON	—	CRNT	1 – 39	<a href="#">SEC-269</a>
B2110: INTRLCK/TRANSMISSION RANGE SW OFF	—	CRNT	1 – 39	<a href="#">SEC-275</a>

## NOTE:

The details of TIME display are as follows.

- CRNT: The malfunctions that are detected now
- 1 - 39: The number is indicated when it is normal at present and a malfunction was detected in the past. It increases like 0 → 1 → 2 ... 38 → 39 after returning to the normal condition whenever IGN OFF → ON. It is fixed to 39 until the self-diagnosis results are erased if it is over 39. It returns to 0 when a malfunction is detected again in the process.



# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

[COUPE]

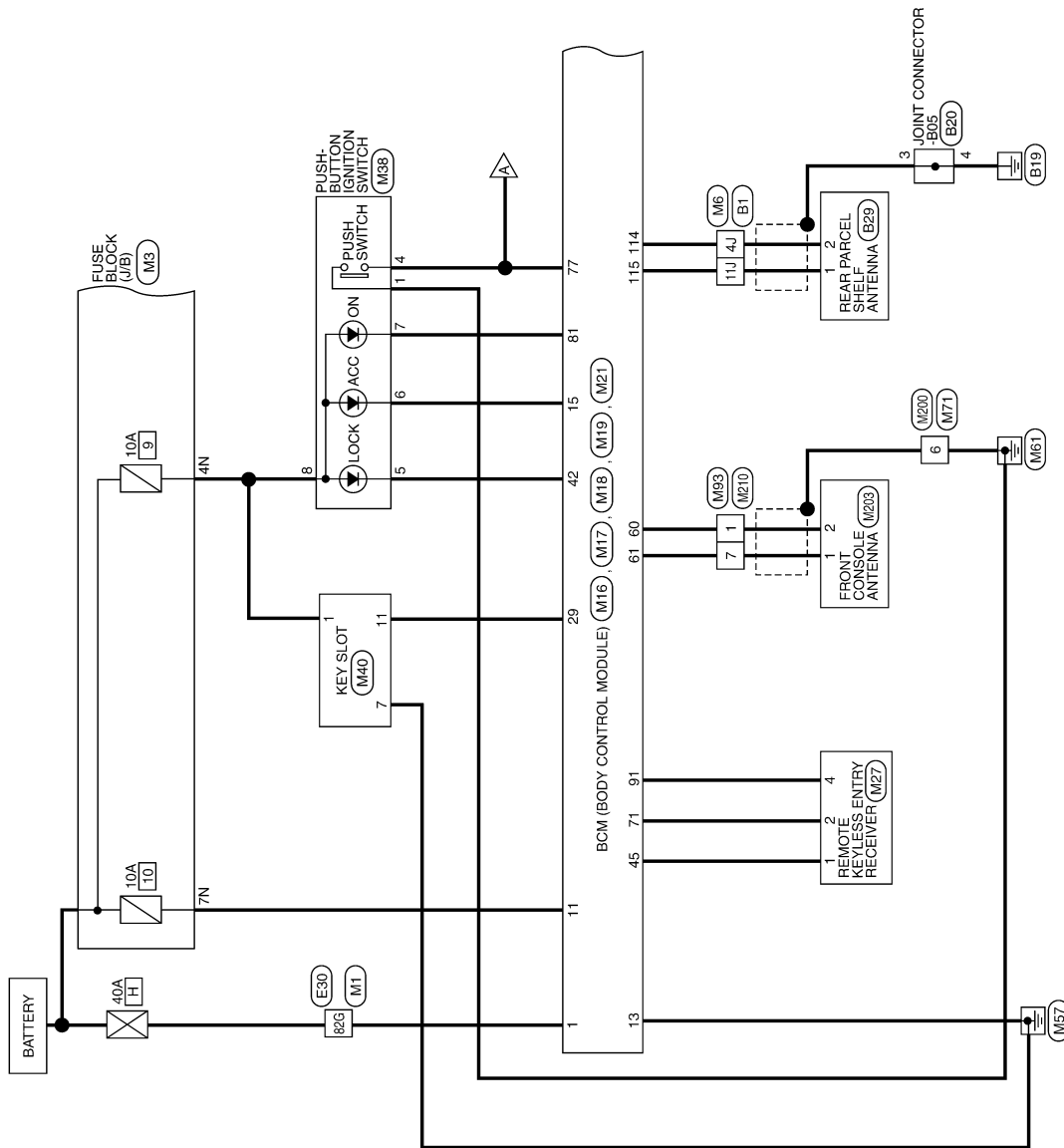
## WIRING DIAGRAM

### INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

#### Wiring Diagram

INFOID:000000007422506

#### INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

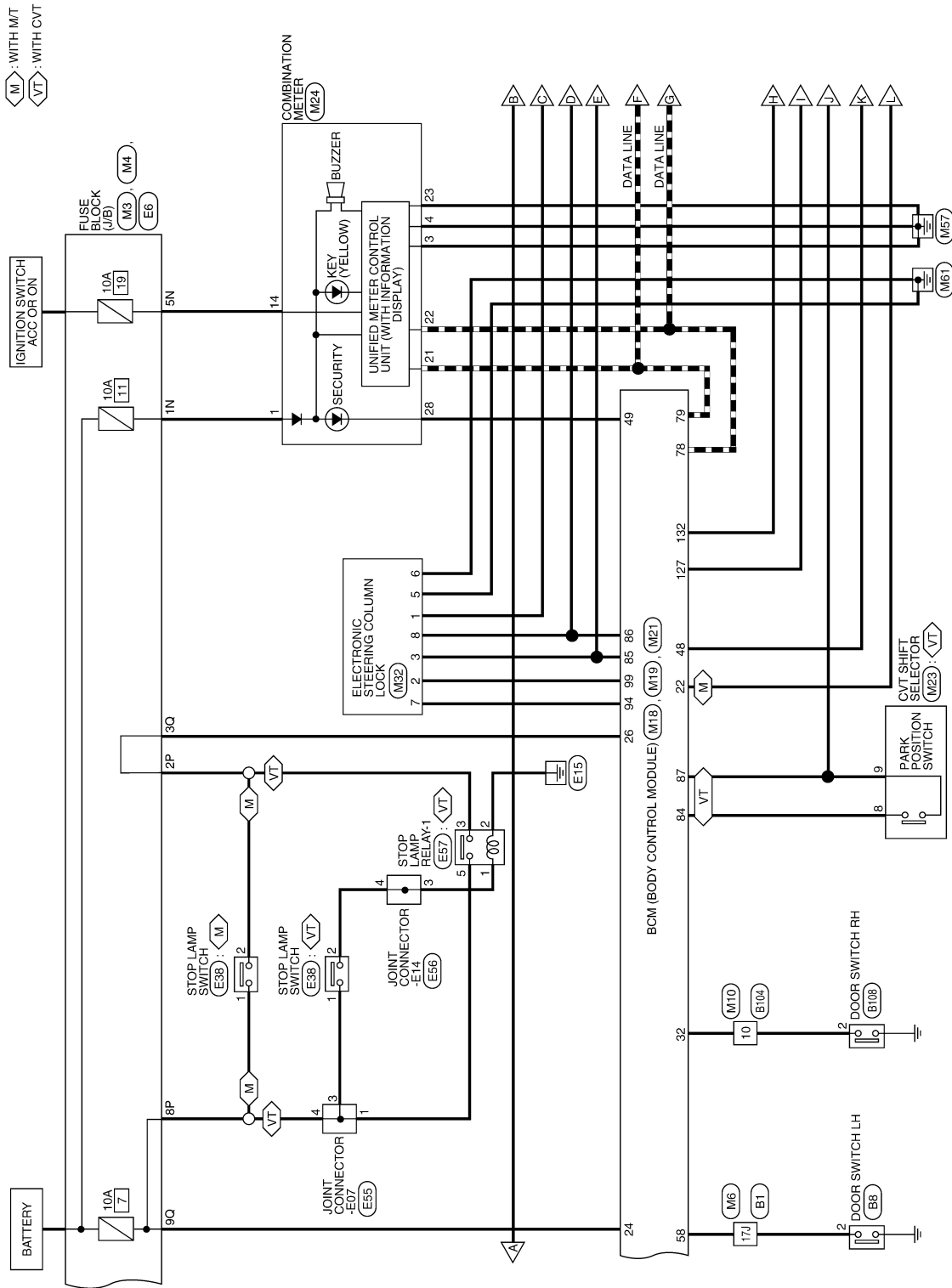


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# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

[COUPE]



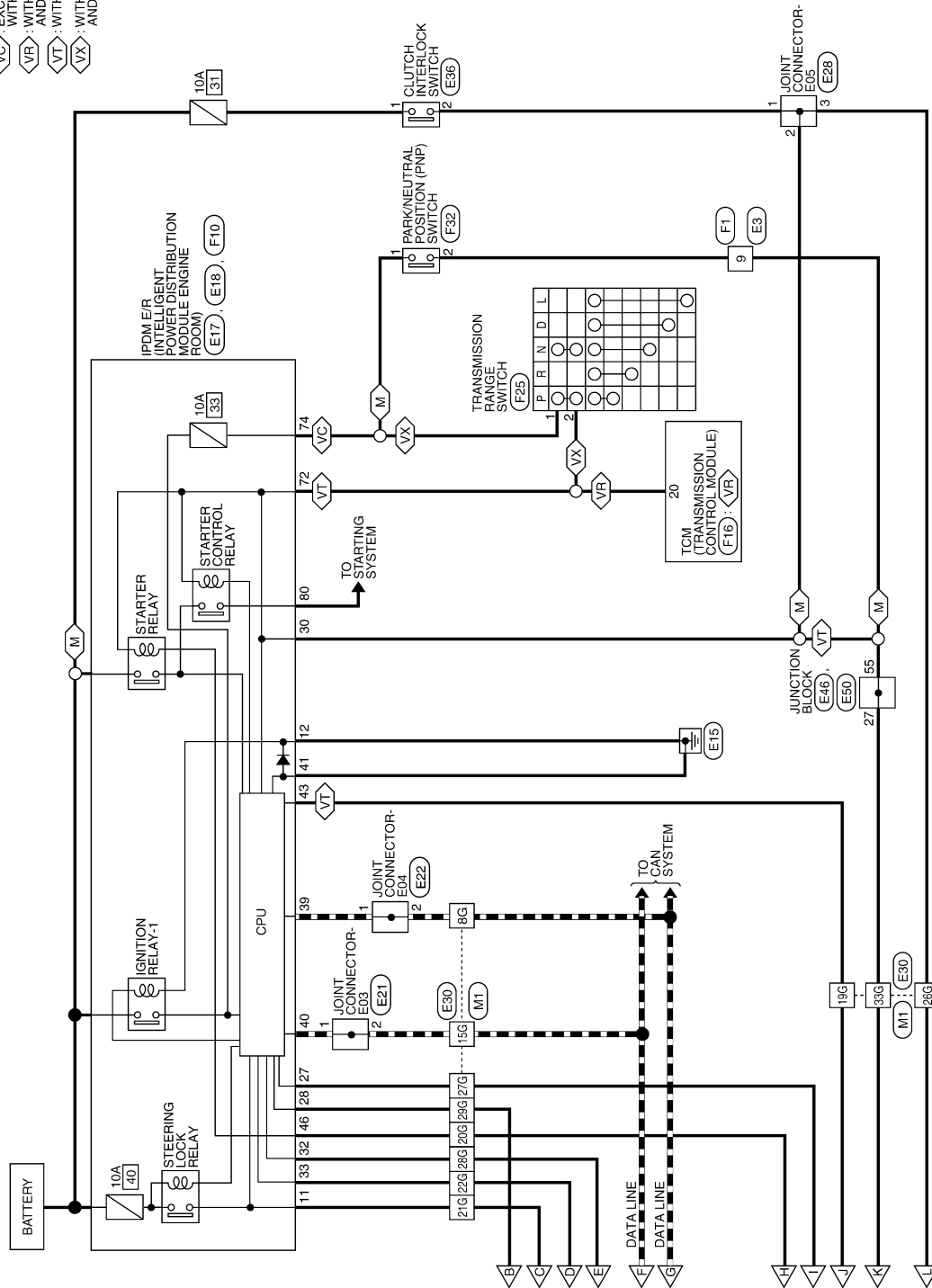
ABKWA1485GB

# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

[COUPE]

- (M) : WITH I/M
- (VC) : EXCEPT VQ35DE
- (VR) : WITH VQ35DE AND CVT
- (VT) : WITH CVT
- (VX) : WITH QR25DE AND CVT



ABKWA1486GB

A  
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I  
J  
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M  
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O  
P

SEC

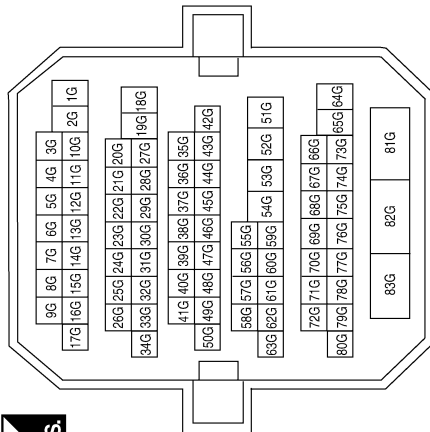
# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

[COUPE]

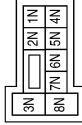
## INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION CONNECTORS

Connector No.	M1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



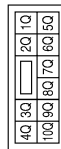
Terminal No.	Color of Wire	Signal Name
8G	P	-
15G	L	-
19G	G/B	-
20G	R	-
21G	P/L	-
22G	G/R	-
26G	R/Y	-
27G	BR/W	-
28G	L/O	-
29G	BR	-
33G	R/G	-
51G	L	-
52G	P	-
82G	W/B	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1N	W/L	-
4N	G/Y	-
5N	V/Y	-
7N	Y/R	-

Connector No.	M4
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3Q	O/L	-
9Q	R/W	-

# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

[COUPE]

Connector No.	M10
Connector Name	WIRE TO WIRE
Connector Color	BROWN

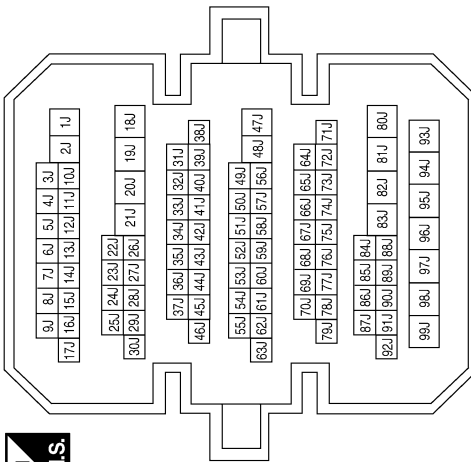


5	4	3	2	1
12	11	10	9	8
7	6			

Terminal No.	Color of Wire	Signal Name
10	R/B	—

Terminal No.	Color of Wire	Signal Name
4J	B	—
11J	W	—
17J	SB	—

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Connector No.	M17
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE



4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19					

Terminal No.	Color of Wire	Signal Name
11	Y/R	BAT_BCM_FUSE
13	B	GND1
15	Y/L	ACC_LED

Connector No.	M16
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



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

Terminal No.	Color of Wire	Signal Name
1	W/B	BAT_POWER_F/L

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A  
B  
C  
D  
E  
F  
G  
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I  
J  
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M  
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P

SEC

# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

[COUPE]

Connector No.	M21
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GRAY



131	130	29	128	27	26	125	24	23	22	121	19	18	17	116	115	114	113	112	
151	150	149	148	147	146	145	144	143	142	141	140	139	138	137	136	135	134	133	132

Terminal No.	Color of Wire	Signal Name
114	B	TRUNK_ANT_1_B
115	W	TRUNK_ANT_1_A
127	BRW	IGN_USM_CONT1
132	R	ST_CONT_USM

Connector No.	M19
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61	60
99	98	97	96	95	94	93	92	91	90	89	88	87	86	85	84	83	82	81	80

Terminal No.	Color of Wire	Signal Name
60	B/R	ROOM_ANT_2_B
61	W/R	ROOM_ANT_2_A
71	L/O	RF1_TUNER_SIGNAL
77	BR	ENG_START_SW
78	P	CAN-L
79	L	CAN-H
81	LG	IGN_ON_LED
84	Y/R	AT_DEVICE_OUT
85	L/O	S/L_CONDITION_1
86	G/R	S/L_CONDITION_2
87	G/B	SHIFT_P
91	L/R	RF1_POWER_SUPPLY
94	G/Y	S/L_POWER_SUPPLY_12V
99	L/Y	S/L_K-LINE

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GREEN



39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20
59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40

Terminal No.	Color of Wire	Signal Name
22	R/Y	CLUTCH_SW
24	R/W	STOP_LAMP_LOW_SW
26	O/L	STOP_LAMP_HIGH_SW
29	Y	FOB_IN_SW
32	R/B	AS_DOOR_SW
42	R	S/L_LOCK_LED
45	P	GND_RF2_A/L
48	R/G	SHIFT_N/P
49	L/O	IMMO_LED
58	SB	DR_DOOR_SW

Terminal No.	Color of Wire	Signal Name
8	Y/R	DETENT_KEY_SW
9	G/B	DETENT_KEY_SW

Connector No.	M23
Connector Name	CVT SHIFT SELECTOR
Connector Color	WHITE

1	3	<div></div>		7	9
2	4	5	6	8	10



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# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

[COUPE]

Connector No.	M32
Connector Name	ELECTRONIC STEERING COLUMN LOCK
Connector Color	WHITE



1	2	3	4	5
8	7	6	5	4

Terminal No.	Color of Wire	Signal Name
1	P/L	S/L_12V_MECHANICAL (V1)
2	L/Y	S/L_COM
3	L/O	S/L_CONDITION_1
5	B	GND
6	B	GND
7	G/Y	S/L_12V_CPU (V2)
8	G/R	S/L_CONDITION_2

Connector No.	M27
Connector Name	REMOTE KEYLESS ENTRY RECEIVER
Connector Color	BLACK



1	2	3	4
---	---	---	---

Terminal No.	Color of Wire	Signal Name
1	P	GND
2	L/O	SIGNAL
4	L/R	12V

Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
1	W/L	BAT
3	B	GND (POWER)
4	B	GND (ILL)
14	V/Y	ACC
21	L	CAN-H
22	P	CAN-L
23	B	GND (CIRCUIT)
28	L/O	SECURITY

Connector No.	M71
Connector Name	WIRE TO WIRE
Connector Color	WHITE



1	2	3	4	5
6	7	8	9	10
11	12			

Connector No.	M40
Connector Name	KEY SLOT
Connector Color	WHITE



1	2	3	4	5	6
7	8	9	10	11	12

Terminal No.	Color of Wire	Signal Name
1	G/Y	B+
7	B	GND
11	Y	CARD_SW_1

Connector No.	M38
Connector Name	PUSH-BUTTON IGNITION SWITCH
Connector Color	BROWN



1	2	3
4	5	6
7	8	

Terminal No.	Color of Wire	Signal Name
1	B	GND
4	BR	START_SW
5	R	LOCK
6	Y/L	ACC
7	LG	ON
8	G/Y	B+

ABKIA2394GB

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M  
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P

SEC

# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

[COUPE]

Connector No.	M203
Connector Name	FRONT CONSOLE ANTENNA
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	W/R	ANT+
2	B/R	ANT-

Connector No.	M200
Connector Name	WIRE TO WIRE
Connector Color	WHITE



5	4			3	2	1
12	11	10	9	8	7	6

Terminal No.	Color of Wire	Signal Name
6	B	-

Connector No.	M93
Connector Name	WIRE TO WIRE
Connector Color	WHITE



1	2	3	4	5	6
7	8	9	10	11	12

Terminal No.	Color of Wire	Signal Name
1	B/R	-
7	W/R	-

Connector No.	E6
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



7P	6P	5P	4P	<div></div>	3P	2P	1P	
16P	15P	14P	13P	12P	11P	10P	9P	8P

Connector No.	E3
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
2P	LG	- (WITH M/T)
2P	Y	- (WITH CVT)
8P	R	-

Connector No.	M210
Connector Name	WIRE TO WIRE
Connector Color	WHITE



6	5	4	3	2	1
12	11	10	9	8	7

Terminal No.	Color of Wire	Signal Name
1	B/R	-
7	W/R	-

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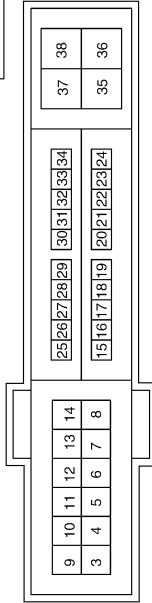
# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

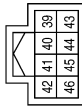
[COUPE]

Terminal No.	Color of Wire	Signal Name
11	O	ESCL
12	B	GND (POWER)
27	W	IGN_SIGNAL
28	SB	PUSH_START_SW
30	R	CLUTCH_I/L_SW (WITH M/T)
30	BR	ECM (WITH CVT)
32	P	SL_CONDITION_1
33	G	SL_CONDITION_2

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

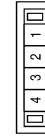


Connector No.	E17
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
39	P	CAN-L
40	L	CAN-H
41	B	GND (SIGNAL)
43	Y	RANGE SW
46	BR	START CONT

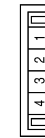
Connector No.	E28
Connector Name	JOINT CONNECTOR-E05
Connector Color	WHITE



Connector No.	E22
Connector Name	JOINT CONNECTOR-E04
Connector Color	WHITE



Connector No.	E21
Connector Name	JOINT CONNECTOR-E03
Connector Color	WHITE



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

Terminal No.	1
Color of Wire	P
Signal Name	-

Terminal No.	2
Color of Wire	L
Signal Name	-

AAKIA0610GB

# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

[COUPE]

Connector No.	E36
Connector Name	CLUTCH INTERLOCK SWITCH
Connector Color	BROWN

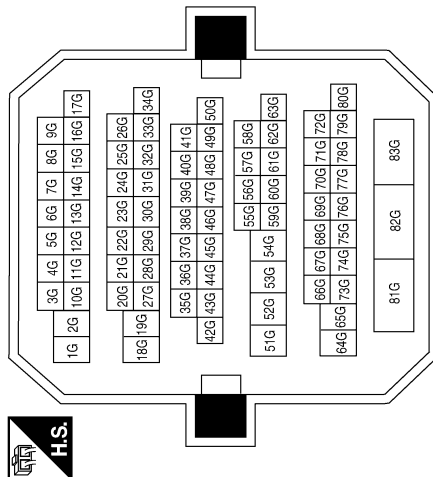


2	1
---	---

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

Terminal No.	Color of Wire	Signal Name
8G	P	-
15G	L	-
19G	Y	-
20G	BR	-
21G	O	-
22G	G	-
26G	R	-
27G	W	-
28G	P	-
29G	BR	-
33G	BR	-
51G	L	-
52G	P	-
82G	LG	-

Connector No.	E30
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Connector No.	E46
Connector Name	JUNCTION BLOCK
Connector Color	WHITE



31	30	29	28	27	26	25
40	39	38	37	36	35	34
33	32	31	30	29	28	27

Connector No.	E38
Connector Name	STOP LAMP SWITCH (WITH M/T)
Connector Color	BLACK



2	1
---	---

Terminal No.	Color of Wire	Signal Name
27	BR	-

Connector No.	E38
Connector Name	STOP LAMP SWITCH (WITH CVT)
Connector Color	WHITE



3	4	1	2
---	---	---	---

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

AAKIA0611GB

# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

[COUPE]

Connector No.	E56
Connector Name	JOINT CONNECTOR-E14
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	LG	-
4	LG	-

Connector No.	E55
Connector Name	JOINT CONNECTOR-E07
Connector Color	WHITE



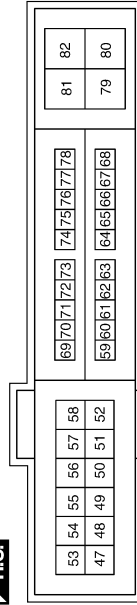
Terminal No.	Color of Wire	Signal Name
1	W	-
3	R	-
4	R	-

Connector No.	E50
Connector Name	JUNCTION BLOCK
Connector Color	WHITE



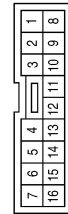
Terminal No.	Color of Wire	Signal Name
55	BR	-

Connector No.	F10
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
72	W	NPSW
74	L	START IG EGI
80	R	STARTER MOTOR

Connector No.	F1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
9	W	-

Connector No.	E57
Connector Name	STOP LAMP RELAY-1
Connector Color	BLUE



Terminal No.	Color of Wire	Signal Name
1	LG	-
2	B	-
3	Y	-
5	W	-

AAKIA0612GB

# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

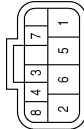
[COUPE]

Connector No.	F32
Connector Name	PARK/NEUTRAL POSITION (PNP) SWITCH
Connector Color	BLACK



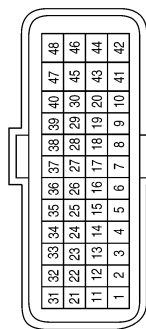
Terminal No.	Color of Wire	Signal Name
1	L	-
2	W	-

Connector No.	F25
Connector Name	TRANSMISSION RANGE SWITCH
Connector Color	BLACK



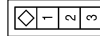
Terminal No.	Color of Wire	Signal Name
1	L	IGN P N
2	W	P N OUTPUT

Connector No.	F16
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
20	W	ST_RLY

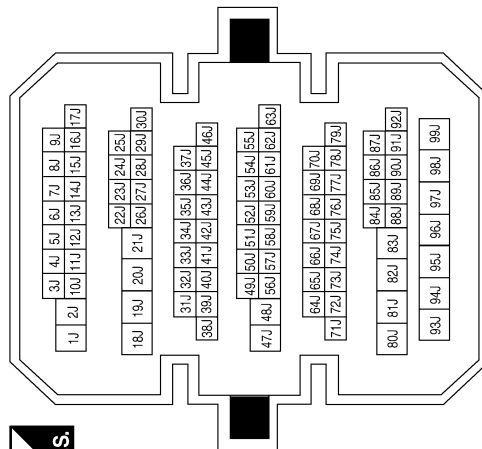
Connector No.	B8
Connector Name	DOOR SWITCH LH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	SB	DOOR SW (DR)

Terminal No.	Color of Wire	Signal Name
4J	B	-
11J	W	-
17J	SB	-

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



AAKIA0613GB

# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

[COUPE]

Connector No.	B104
Connector Name	WIRE TO WIRE
Connector Color	BROWN



1	2	3	4	5
6	7	8	9	10
11	12			

Terminal No.	10
Color of Wire	GR
Signal Name	-

Connector No.	B29
Connector Name	REAR PARCEL SHELF ANTENNA
Connector Color	GRAY



Terminal No.	1	2
Color of Wire	W	B
Signal Name	ANT+	ANT-

Connector No.	B20
Connector Name	JOINT CONNECTOR-B05
Connector Color	GRAY



1	2	3	4
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Terminal No.	3	4
Color of Wire	B	B
Signal Name	-	-

Connector No.	B108
Connector Name	DOOR SWITCH RH
Connector Color	WHITE



1	2	3
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Terminal No.	2
Color of Wire	GR
Signal Name	DOOR SW (AS)

AAKIA0614GB

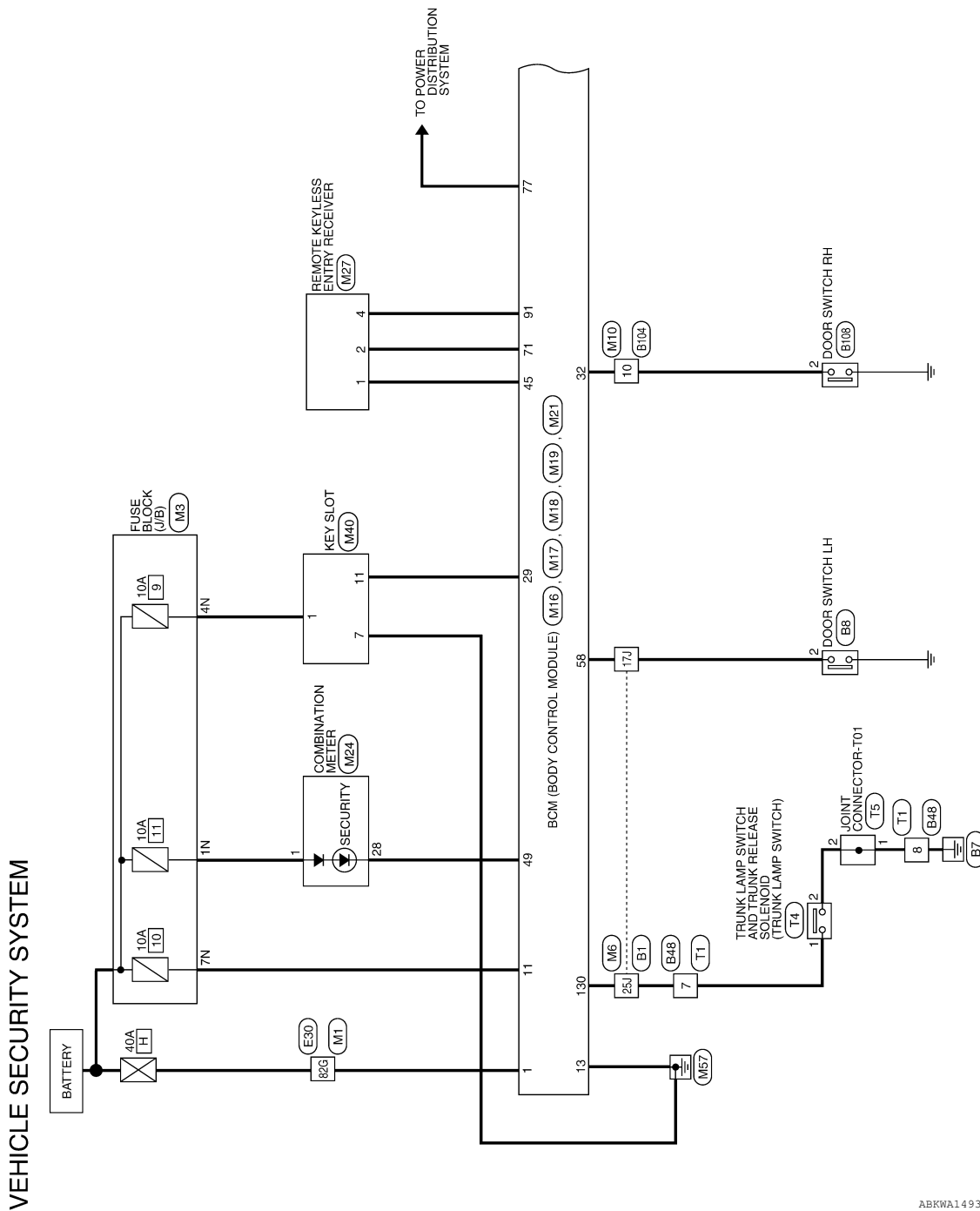
A  
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SEC

## VEHICLE SECURITY SYSTEM

### Wiring Diagram

INFOID:000000007422507

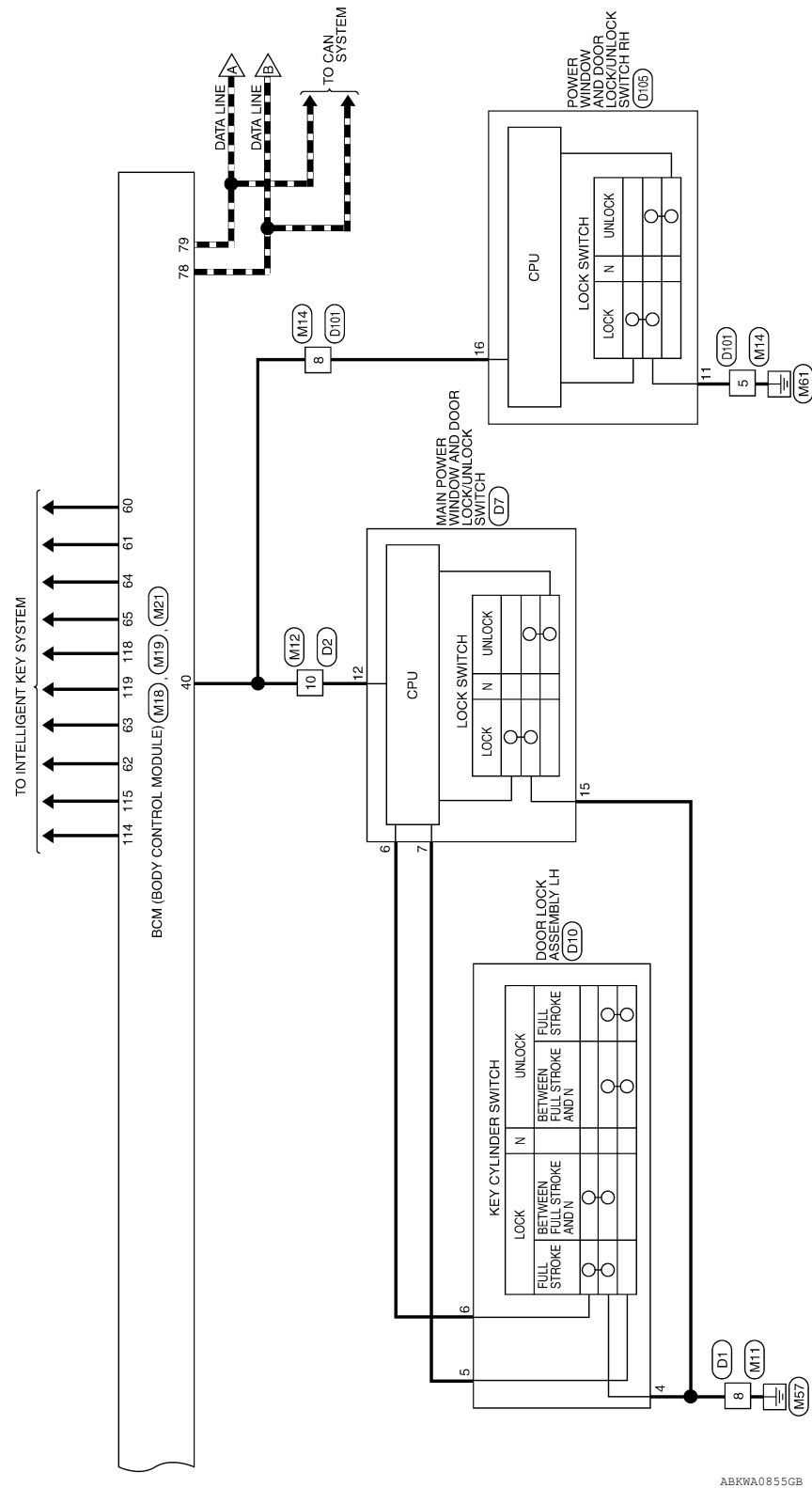


ABKWA1493GB

# VEHICLE SECURITY SYSTEM

< WIRING DIAGRAM >

[COUPE]



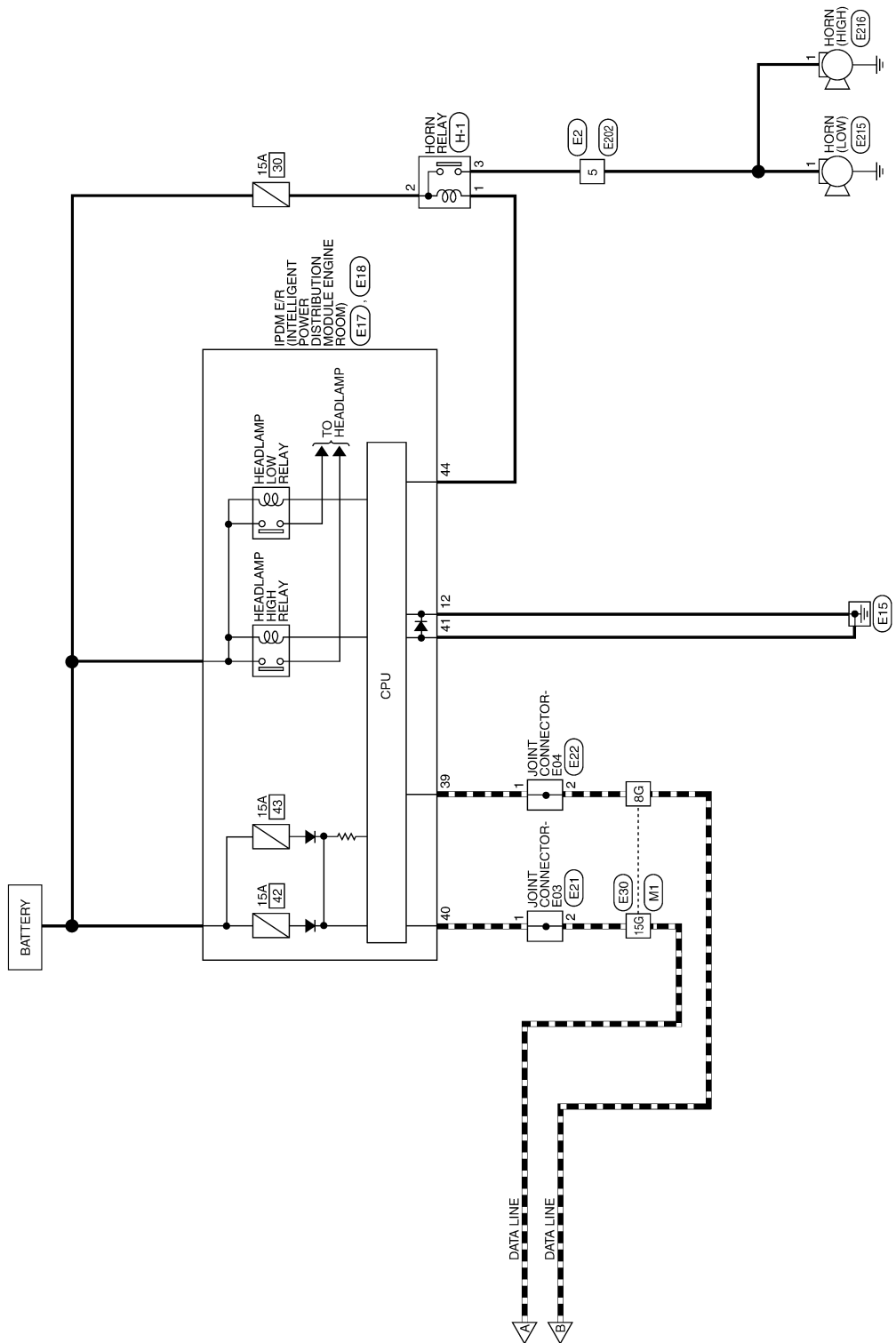
A  
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SEC

# VEHICLE SECURITY SYSTEM

[COUPE]

< WIRING DIAGRAM >

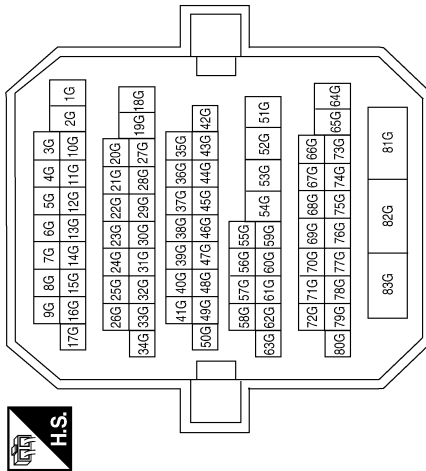


ABKWA0856GB

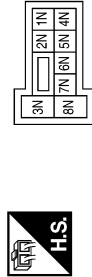


## VEHICLE SECURITY SYSTEM CONNECTORS

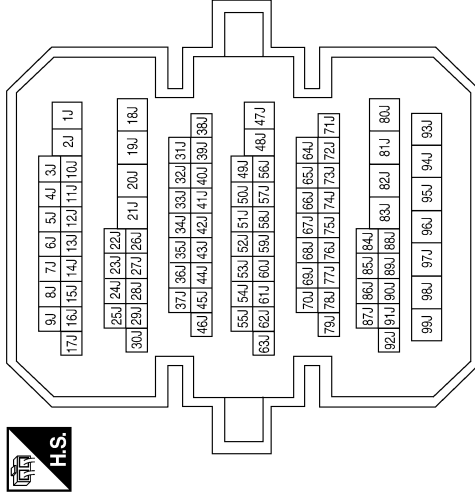
Connector No.	M1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE

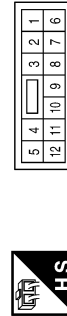


Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Color	WHITE

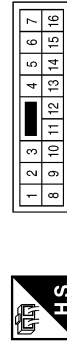


Terminal No.	Color of Wire	Signal Name
17J	SB	-
25J	Y/G	-

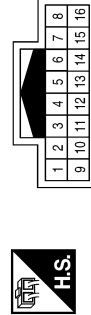
Connector No.	M10
Connector Name	WIRE TO WIRE
Connector Color	BROWN



Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Connector No.	M12
Connector Name	WIRE TO WIRE
Connector Color	WHITE



ABKIA2401GB

# VEHICLE SECURITY SYSTEM

< WIRING DIAGRAM >

[COUPE]

Connector No.	M17
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE

4	5	6	7	8	9	10		
11	12	13	14	15	16	17	18	19



Terminal No.	Color of Wire	Signal Name
11	Y/R	BAT_BCM_FUSE
13	B	GND1

Connector No.	M16
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK

1	2
---	---



Terminal No.	Color of Wire	Signal Name
1	W/B	BAT_POWER_F/L

Connector No.	M14
Connector Name	WIRE TO WIRE
Connector Color	WHITE

1	2			3	4
5	6	7	8	9	10



Terminal No.	Color of Wire	Signal Name
5	B	-
8	Y/G	-

Terminal No.	Color of Wire	Signal Name
78	P	CAN-L
79	L	CAN-H
91	L/R	RF1_POWER_SUPPLY

Connector No.	M19
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



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

Terminal No.	Color of Wire	Signal Name
60	B/R	ROOM_ANT_2_B
61	W/R	ROOM_ANT_2_A
62	B/Y	AS_DOOR_ANT_B
63	LG	AS_DOOR_ANT_A
64	V	DR_DOOR_ANT_B
65	P	DR_DOOR_ANT_A
71	L/O	RF1_TUNER_SIGNAL

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GREEN



39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20
59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40

Terminal No.	Color of Wire	Signal Name
29	Y	FOB_IN_SW_1
32	R/B	AS_DOOR_SW
40	Y/G	PW_K-LINE
45	P	GND_RF2_A/L
49	L/O	IMMO_LED
58	SB	DR_DOOR_SW

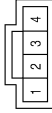
ABKIA2402GB

# VEHICLE SECURITY SYSTEM

< WIRING DIAGRAM >

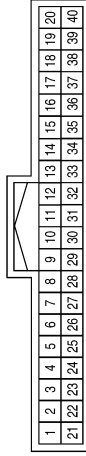
[COUPE]

Connector No.	M27
Connector Name	REMOTE KEYLESS ENTRY RECEIVER
Connector Color	BLACK



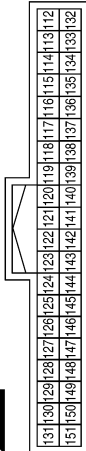
Terminal No.	Color of Wire	Signal Name
1	P	GND
2	L/O	SIGNAL
4	L/R	12V

Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE



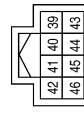
Terminal No.	Color of Wire	Signal Name
1	W/L	BAT
28	L/O	SECURITY

Connector No.	M21
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GRAY



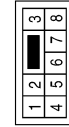
Terminal No.	Color of Wire	Signal Name
114	B	TRUNK_ANT_1_B
115	W	TRUNK_ANT_1_A
118	L/O	BACK_DOOR_ANT_B
119	BR/W	BACK_DOOR_ANT_A
130	Y/G	TRUNK_SW

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



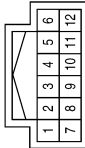
Terminal No.	Color of Wire	Signal Name
39	P	CAN-L
40	L	CAN-H
41	B	GND (SIGNAL)
44	W	HORN_RLY

Connector No.	E2
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5	O	-

Connector No.	M40
Connector Name	KEY SLOT
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	G/Y	B+
7	B	GND
11	Y	CARD SW 1

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SEC

# VEHICLE SECURITY SYSTEM

[COUPE]

< WIRING DIAGRAM >

Connector No.	E22
Connector Name	JOINT CONNECTOR-E04
Connector Color	WHITE



4	3	2	1
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Connector No.	E21
Connector Name	JOINT CONNECTOR-E03
Connector Color	WHITE

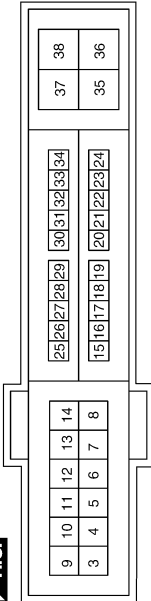


4	3	2	1
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Terminal No.	Color of Wire	Signal Name
1	P	—
2	P	—

Terminal No.	Color of Wire	Signal Name
1	L	—
2	L	—

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



Terminal No.	Color of Wire	Signal Name
12	B	GND (POWER)

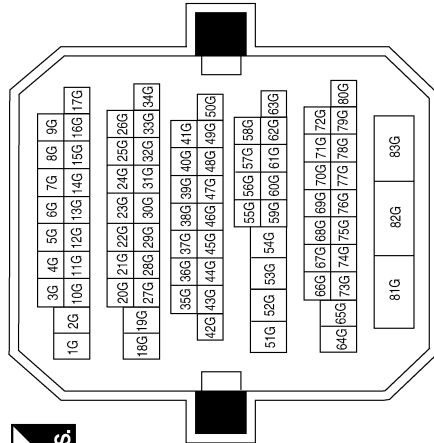
Connector No.	E202
Connector Name	WIRE TO WIRE
Connector Color	WHITE



3	2	1
8	7	6
5	4	

Terminal No.	Color of Wire	Signal Name
8G	P	—
15G	L	—
82G	LG	—

Connector No.	E30
Connector Name	WIRE TO WIRE
Connector Color	WHITE

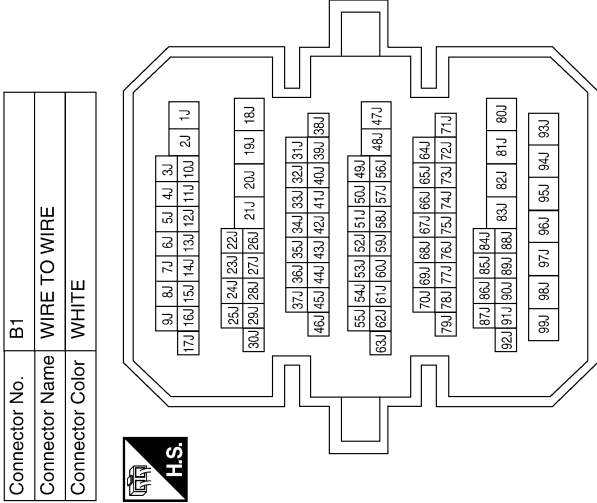


ABK1A2404GB

VEHICLE SECURITY SYSTEM

< WIRING DIAGRAM >

[COUPE]



Terminal No.	Color of Wire	Signal Name
17J	SB	-
22J	BR	-
25J	W	-

Connector No.	E216
Connector Name	HORN (HIGH)
Connector Color	BLACK



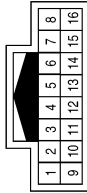
Terminal No.	Color of Wire	Signal Name
1	G	-

Connector No.	E215
Connector Name	HORN (LOW)
Connector Color	BLACK

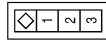


Terminal No.	Color of Wire	Signal Name
1	G	-

Connector No.	B48
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Connector No.	B8
Connector Name	DOOR SWITCH LH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	SB	DOOR SW (DR)

ABKIA2405GB

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SEC

# VEHICLE SECURITY SYSTEM

< WIRING DIAGRAM >

[COUPE]

Connector No.	T1
Connector Name	WIRE TO WIRE
Connector Color	WHITE

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



Terminal No.	Color of Wire	Signal Name
7	W	—
8	B/Y	—

Connector No.	B108
Connector Name	DOOR SWITCH RH
Connector Color	WHITE

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



Terminal No.	Color of Wire	Signal Name
2	GR	DOOR SW (AS)

Connector No.	B104
Connector Name	WIRE TO WIRE
Connector Color	BROWN

1	2	3	4	5
6	7	8	9	10
11	12			



Terminal No.	Color of Wire	Signal Name
10	GR	—

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Color	WHITE

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



Terminal No.	Color of Wire	Signal Name
8	B	—

Connector No.	T5
Connector Name	JOINT CONNECTOR-T01
Connector Color	WHITE

4	3	2	1
---	---	---	---



Terminal No.	Color of Wire	Signal Name
1	B/Y	—
2	B/Y	—

Connector No.	T4
Connector Name	TRUNK LAMP SWITCH AND TRUNK RELEASE SOLENOID
Connector Color	WHITE

2	1
4	3



Terminal No.	Color of Wire	Signal Name
1	W	—
2	B/Y	—

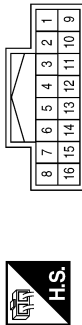
AAKIA0621GB

# VEHICLE SECURITY SYSTEM

< WIRING DIAGRAM >

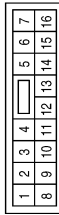
[COUPE]

Connector No.	D2
Connector Name	WIRE TO WIRE
Connector Color	WHITE



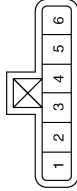
Terminal No.	Color of Wire	Signal Name
10	BR	-

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



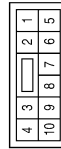
Terminal No.	Color of Wire	Signal Name
6	L	LOCK
7	R	UNLOCK
12	BR	COM
15	B	GND

Connector No.	D10
Connector Name	DOOR LOCK ASSEMBLY LH
Connector Color	GRAY



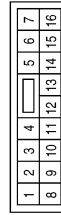
Terminal No.	Color of Wire	Signal Name
4	B	GND
5	R	DOOR_KEY/C_UNLOCK_SW
6	L	DOOR_KEY/C_LOCK_SW

Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Color	WHITE



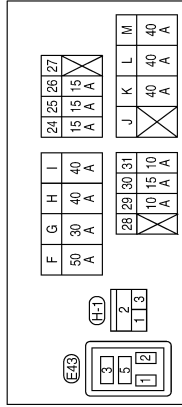
Terminal No.	Color of Wire	Signal Name
5	B	-
8	R	-

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



Terminal No.	Color of Wire	Signal Name
11	B	GND
16	R	COM

Connector No.	H-1
Connector Name	FUSE AND FUSIBLE LINK BOX (HORN RELAY)
Connector Color	-



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

ABKIA3241GB

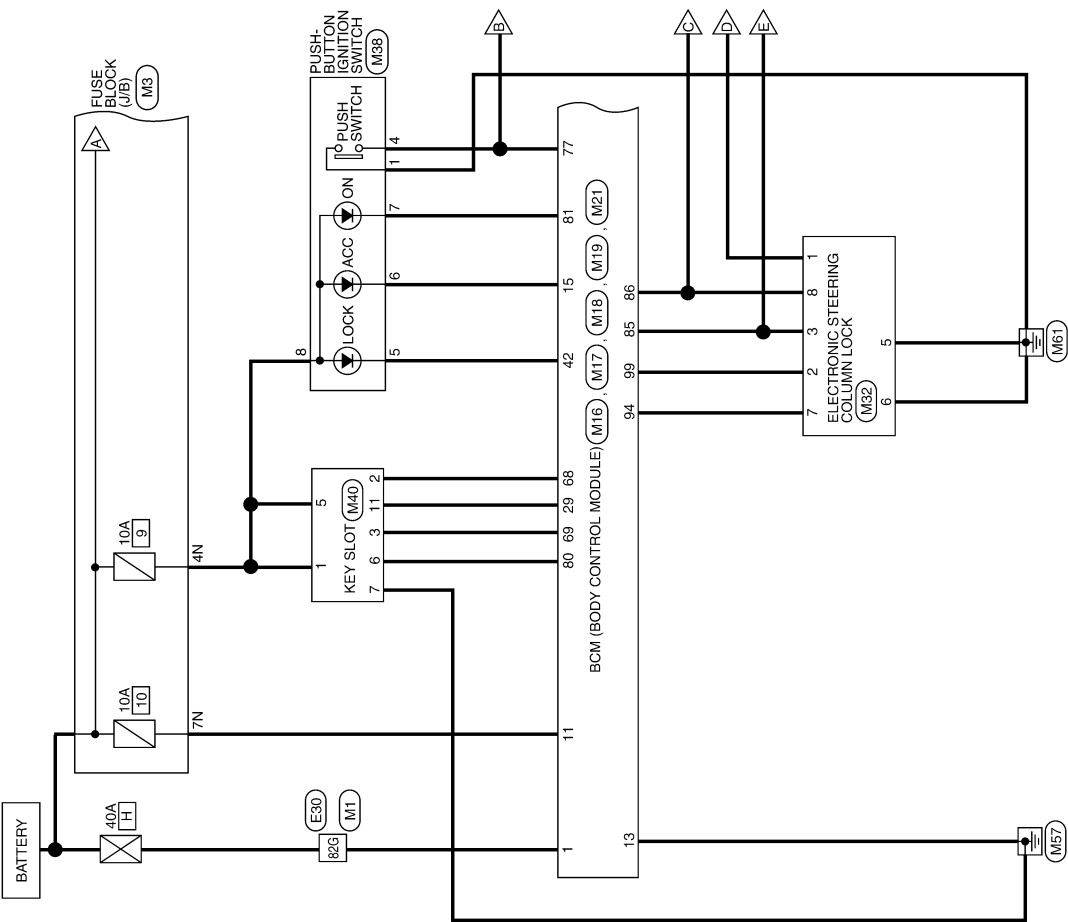
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SEC

NVIS

Wiring Diagram

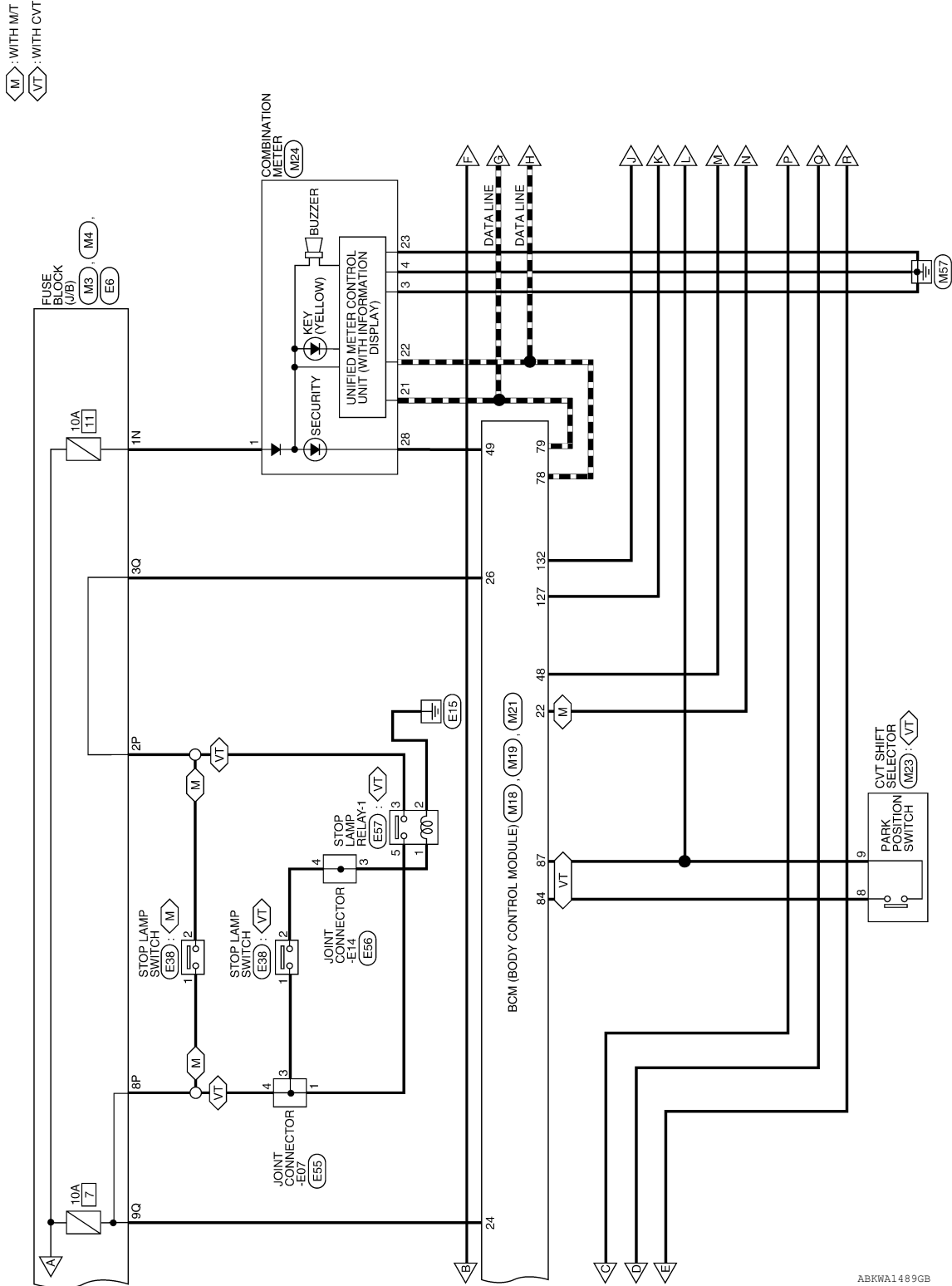
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NVIS

ABKWA0857GB

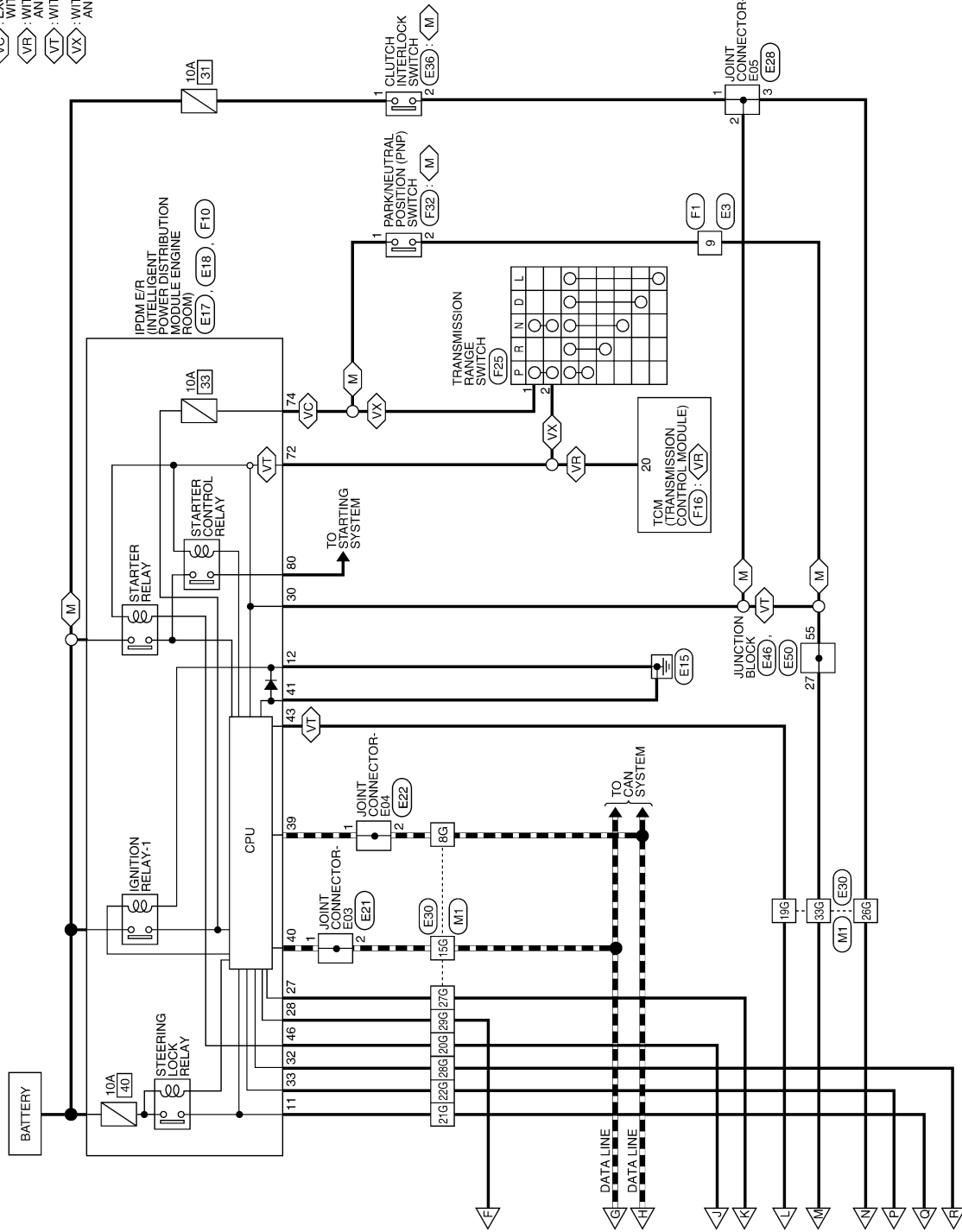




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SEC

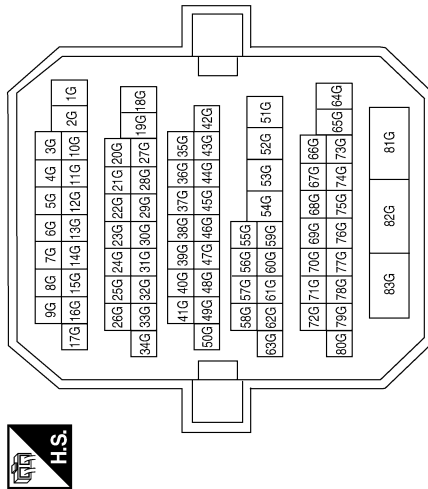
- M : WITH M/T  
 VC : EXCEPT VQ35DE  
 WITH CVT  
 VR : WITH VQ35DE  
 AND CVT  
 VT : WITH CVT  
 VX : WITH VQ35DE  
 AND CVT



ABKWA1490GB

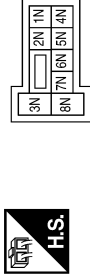
NVIS CONNECTORS

Connector No.	M1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



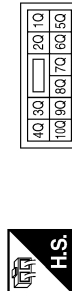
Terminal No.	Color of Wire	Signal Name
8G	P	-
15G	L	-
19G	G/B	-
20G	R	-
21G	P/L	-
22G	G/R	-
26G	R/Y	-
27G	BR/W	-
28G	L/O	-
29G	BR	-
33G	R/G	-
82G	W/B	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1N	W/L	-
4N	G/Y	-
7N	Y/R	-

Connector No.	M4
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3Q	O/L	-
9Q	R/W	-

Connector No.	M16
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	W/B	BAT_POWER_F/L

Connector No.	M17
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
11	Y/R	BAT_BCM_FUSE
13	B	GND1
15	Y/L	ACC_LED

ABKIA2408GB

Terminal No.	Color of Wire	Signal Name
77	BR	ENG_START_SW
78	P	CAN-L
79	L	CAN-H
80	R/L	FOB_SLOT_ILLUMINATION
81	LG	IGN_ON_LED
84	Y/R	AT_DEVICE_OUT
85	L/O	S/L_CONDITION_1
86	G/R	S/L_CONDITION_2
87	G/B	SHIFT_P
94	G/Y	S/L POWER SUPPLY_12V
99	L/Y	S/L_K-LINE

Connector No.	M19
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61	60
59	58	97	96	95	94	93	92	91	90	89	88	87	86	85	84	83	82	81	80

Terminal No.	Color of Wire	Signal Name
68	G/O	FOB_READER_CLOCK
69	O	FOB_READER_DATA

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GREEN



39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20
59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40

Terminal No.	Color of Wire	Signal Name
22	R/Y	CLUTCH_SW
24	R/W	STOP_LAMP_LOW_SW
26	O/L	STOP_LAMP_HIGH_SW
29	Y	FOB_IN_SW_1
42	R	S/L_LOCK_LED
48	R/G	SHIFT_N/P
49	L/O	IMMO_LED

Connector No.	M23
Connector Name	CVT SHIFT SELECTOR
Connector Color	WHITE



1	3	7	9		
2	4	5	6	8	10

Terminal No.	Color of Wire	Signal Name
8	Y/R	DETENT_KEY_SW
9	G/B	DETENT_KEY_SW

Connector No.	M21
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GRAY

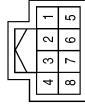


131	130	29	28	127	26	125	124	23	22	121	120	119	118	117	116	115	114	113	112
151	150	149	148	147	146	145	144	143	142	141	140	139	138	137	136	135	134	133	132

Terminal No.	Color of Wire	Signal Name
127	BRW	IGN_USM_CONT1
132	R	ST_CONT_USM

ABKIA2409GB

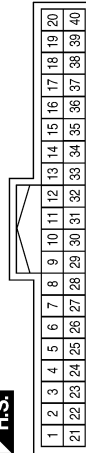
Connector No.	M32
Connector Name	ELECTRONIC STEERING COLUMN LOCK
Connector Color	WHITE



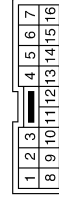
Terminal No.	Color of Wire	Signal Name
1	P/L	S/L_12V_MECHANICAL (V1)
2	L/Y	S/L_COM
3	L/O	S/L_CONDITION_1
5	B	GND
6	B	GND
7	G/Y	S/L_12V_CPU (V2)
8	G/R	S/L_CONDITION_2

Terminal No.	Color of Wire	Signal Name
1	W/L	BAT
3	B	GND (POWER)
4	B	GND (ILL)
21	L	CAN-H
22	P	CAN-L
23	B	GND (CIRCUIT)
28	L/O	SECURITY

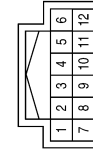
Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE



Connector No.	E3
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Connector No.	M40
Connector Name	KEY SLOT
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
9	BR	-

Terminal No.	Color of Wire	Signal Name
1	G/Y	B+
2	G/O	CLOCK
3	O	DATA
5	G/Y	LIGHT_BAT+
6	R/L	LIGHT_A
7	B	GND
11	Y	CARD_SW_1

Connector No.	M38
Connector Name	PUSH-BUTTON IGNITION SWITCH
Connector Color	BROWN



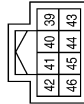
Terminal No.	Color of Wire	Signal Name
1	B	GND
4	BR	START_SW
5	R	LOCK
6	Y/L	ACC
7	LG	ON
8	G/Y	B+

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SEC

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



Terminal No.	Color of Wire	Signal Name
39	P	CAN-L
40	L	CAN-H
41	B	GND (SIGNAL)
43	Y	RANGE SW
46	BR	START CONT

Connector No.	E6
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2P	LG	– (WITH M/T)
2P	Y	– (WITH CVT)
8P	R	–

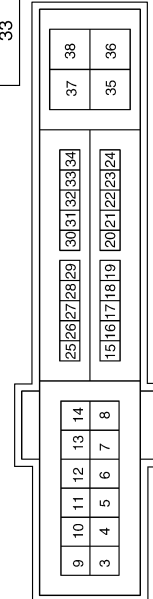
Connector No.	E21
Connector Name	JOINT CONNECTOR-E03
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	L	–
2	L	–

Terminal No.	Color of Wire	Signal Name
11	O	ESCL
12	B	GND (POWER)
27	W	IGN_SIGNAL
28	SB	PUSH_START_SW
30	R	CLUTCH_I/L_SW (WITH M/T)
30	BR	ECM (WITH CVT)
32	P	SL_CONDITION_1
33	G	SL_CONDITION_2

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



AAKIA0616GB

Connector No.	E22
Connector Name	JOINT CONNECTOR-E04
Connector Color	WHITE



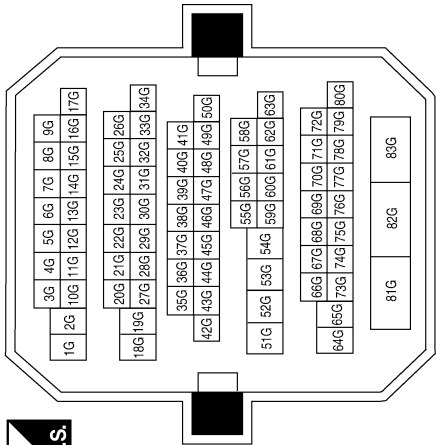
Terminal No.	Color of Wire	Signal Name
1	P	-
2	P	-

Connector No.	E28
Connector Name	JOINT CONNECTOR-E05
Connector Color	WHITE



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

Connector No.	E30
Connector Name	WIRE TO WIRE
Connector Color	WHITE



AAKIA0617GB

Terminal No.	Color of Wire	Signal Name
8G	P	-
15G	L	-
19G	Y	-
20G	BR	-
21G	O	-
22G	G	-
26G	R	-
27G	W	-
28G	P	-
29G	SB	-
33G	BR	-
82G	LG	-

Connector No.	E36
Connector Name	CLUTCH INTERLOCK SWITCH
Connector Color	BROWN



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

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< WIRING DIAGRAM >

Connector No.	E46
Connector Name	JUNCTION BLOCK
Connector Color	WHITE



31	30	29	28	27	26	25
40	39	38	37	36	35	34
33	32					

Terminal No.	Color of Wire	Signal Name
27	BR	—

Connector No.	E38
Connector Name	STOP LAMP SWITCH (WITH M/T)
Connector Color	BLACK



2	1
---	---

Terminal No.	Color of Wire	Signal Name
1	R	—
2	LG	—

Connector No.	E38
Connector Name	STOP LAMP SWITCH (WITH C/V)
Connector Color	WHITE



3	4
1	2

Terminal No.	Color of Wire	Signal Name
1	R	—
2	LG	—

Connector No.	E56
Connector Name	JOINT CONNECTOR-E14
Connector Color	WHITE



4	3	2	1
---	---	---	---

Terminal No.	Color of Wire	Signal Name
3	LG	—
4	LG	—

Connector No.	E55
Connector Name	JOINT CONNECTOR-E07
Connector Color	WHITE



4	3	2	1
---	---	---	---

Terminal No.	Color of Wire	Signal Name
1	W	—
3	R	—
4	R	—

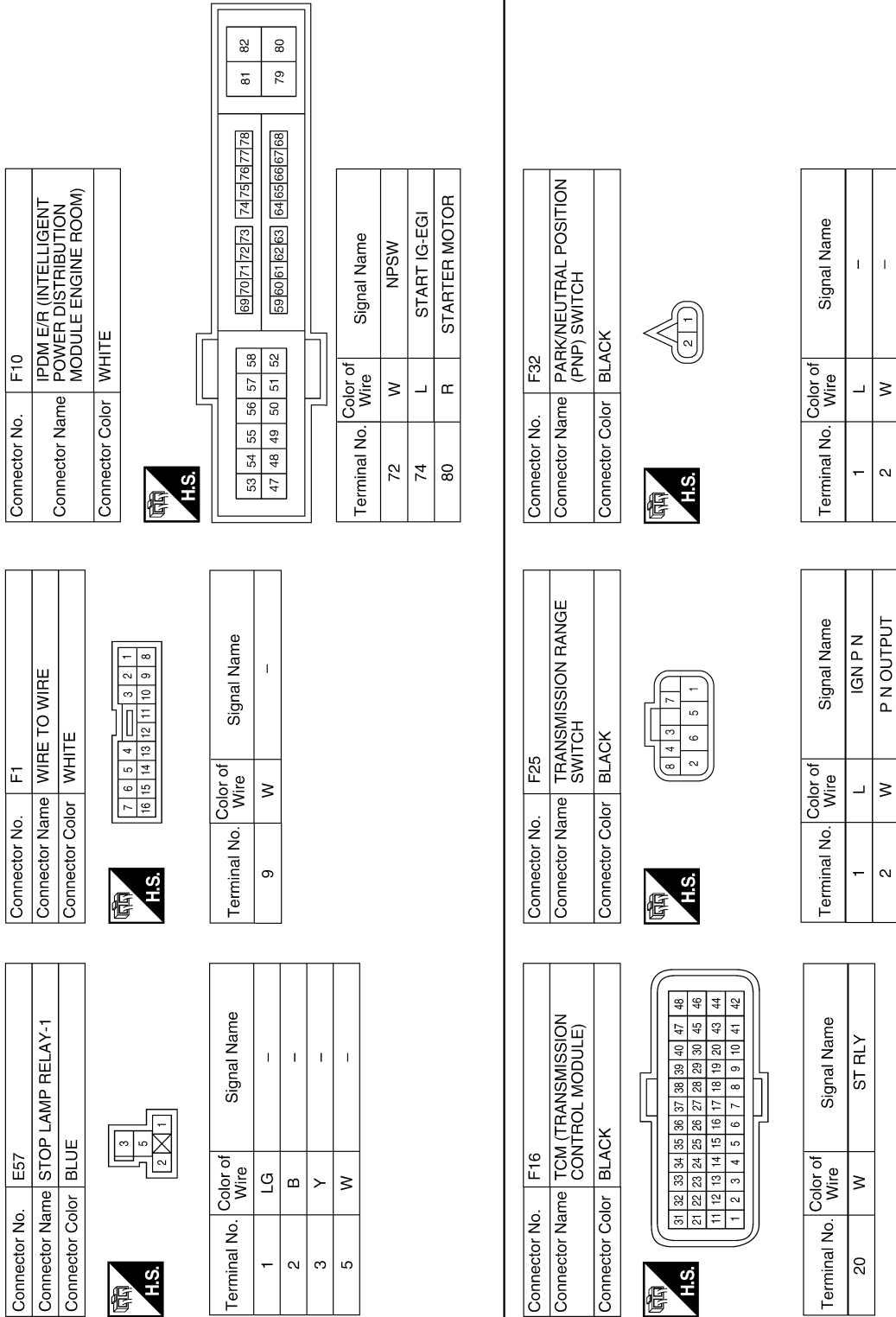
Connector No.	E50
Connector Name	JUNCTION BLOCK
Connector Color	WHITE



56	55
----	----

Terminal No.	Color of Wire	Signal Name
55	BR	—





AAKIA0619GB

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SEC

## SYMPTOM DIAGNOSIS

## INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION SYMPTOMS

## Symptom Table

INFOID:000000007422509

Engine cannot be started with all Intelligent Keys.

**CAUTION:**

- Follow Trouble Diagnosis Flowchart referring to “[SEC-8. "Work Flow"](#)”. Determine malfunctioning condition before performing this diagnosis.
- Check that vehicle is under the condition shown in “Conditions of vehicle” before starting diagnosis.
- Check systems shown in the “Diagnosis/service procedure” column in this order.

## CONDITIONS OF VEHICLE (OPERATING CONDITIONS)

- Engine start function is ON when setting on CONSULT.
- Use Intelligent Key with registered Intelligent Key ID.
- One or more of Intelligent Keys with registered Intelligent Key ID is in the passenger compartment.

Diagnosis/service procedure		Reference page
1. Check power supply and ground circuit	BCM	<a href="#">BCS-36</a>
	IPDM E/R	<a href="#">PCS-20</a>
2. Check push button ignition switch		<a href="#">SEC-78</a>
3. Check Intermittent Incident		<a href="#">GI-42</a>

# VEHICLE SECURITY SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[COUPE]

## VEHICLE SECURITY SYSTEM SYMPTOMS

### Symptom Table

INFOID:000000007422510

Procedure			Diagnostic procedure	Refer to page
Symptom				
1	Vehicle security system cannot be set by ....	Door switch	Check door switch	<a href="#">DLK-65</a>
		Trunk	Check trunk room lamp switch	<a href="#">DLK-90</a>
		Door outside key	Check key cylinder switch	<a href="#">DLK-76</a>
		Intelligent Key	Check Intelligent Key.	<a href="#">DLK-119</a>
		—	Check Intermittent Incident	<a href="#">GI-42</a>
	Security indicator does not turn ON.		Check vehicle security indicator	<a href="#">SEC-141</a>
			Check Intermittent Incident	<a href="#">GI-42</a>
2	* Vehicle security system does not sound alarm when ....	Any door is opened.	Check door switch	<a href="#">DLK-65</a>
			Check Intermittent Incident	<a href="#">GI-42</a>
3	Vehicle security alarm does not activate.	Horn alarm	Check horn	<a href="#">SEC-137</a>
			Check Intermittent Incident	<a href="#">GI-42</a>
		Head lamp alarm	Check head lamp alarm	<a href="#">SEC-139</a>
			Check Intermittent Incident	<a href="#">GI-42</a>
4	Vehicle security system cannot be canceled by ....	Door outside key	Check key cylinder switch	<a href="#">DLK-76</a>
			Check Intermittent Incident	<a href="#">GI-42</a>
		Intelligent Key	Check Intelligent Key	<a href="#">DLK-119</a>
			Check Intermittent Incident	<a href="#">GI-42</a>

\*: Check the system is in the armed phase.

SEC

# NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS SYMPTOMS

< SYMPTOM DIAGNOSIS >

[COUPE]

## NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS SYMPTOMS

### Symptom Table

INFOID:000000007422511

Security indicator does not turn ON or flash.

#### CAUTION:

- Follow Trouble Diagnosis Flowchart referring to “[SEC-8, "Work Flow"](#)”. Determine malfunctioning condition before performing this diagnosis.
- Check that vehicle is under the condition shown in “Conditions of vehicle” before starting diagnosis.
- Check systems shown in the “Action” column in this order.

#### CONDITIONS OF VEHICLE (OPERATING CONDITIONS)

- Intelligent Key is not inserted into key slot.
- Engine switch is not depressed.

Action	Reference page
1. Check vehicle security indicator	<a href="#">SEC-141</a>
2. Check Intermittent Incident	<a href="#">GI-42</a>

## PRECAUTION

### PRECAUTIONS

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

INFOID:000000007422512

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

#### **WARNING:**

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

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

#### **WARNING:**

- When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

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

INFOID:000000007422513

#### **NOTE:**

- Before removing and installing any control units, first turn the push-button ignition switch to the LOCK position, 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.

This vehicle is equipped with a push-button ignition switch and a 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 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. Carry the Intelligent Key or insert it to the key slot and turn the push-button ignition switch to ACC position. (At this time, the steering lock will be released.)
3. Disconnect both battery cables. The steering lock will remain released with both battery cables disconnected and the steering wheel can be turned.
4. Perform the necessary repair operation.

## PRECAUTIONS

< PRECAUTION >

[COUPE]

5. When the repair work is completed, re-connect both battery cables. With the brake pedal released, turn the push-button ignition switch from ACC position to ON position, then to LOCK position. (The steering wheel will lock when the push-button ignition switch is turned to LOCK position.)
6. Perform self-diagnosis check of all control units using CONSULT.

### Precaution for Work

INFOID:000000007422514

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

# PREPARATION

< PREPARATION >

[COUPE]

## PREPARATION

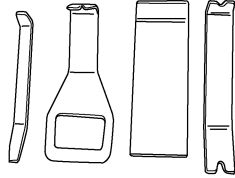
### PREPARATION

#### Special Service Tools

INFOID:000000007422515

The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

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



AWJIA0483ZZ

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SEC

## REMOVAL AND INSTALLATION

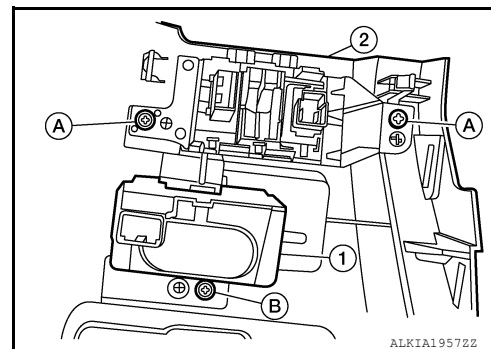
### KEY SLOT

#### Removal and Installation

INFOID:000000007422516

#### REMOVAL

1. Remove the instrument lower panel LH. Refer to [JP-18, "Removal and Installation"](#).
2. Remove the switch assembly screws (A), remove the key slot screw (B), and then remove key slot (1) from instrument lower panel LH (2).



#### INSTALLATION

Installation is in the reverse order of removal.



# PUSH BUTTON IGNITION SWITCH

< REMOVAL AND INSTALLATION >

[COUPE]

## PUSH BUTTON IGNITION SWITCH

### Removal and Installation

INFOID:000000007422517

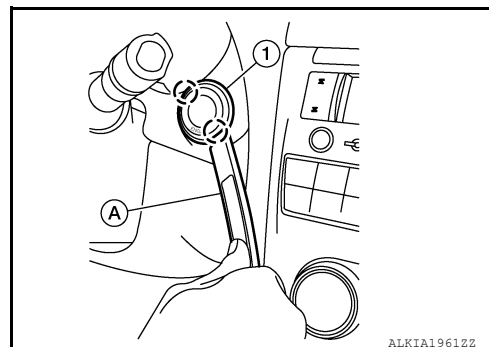
#### REMOVAL

1. Remove the push button ignition switch (1) from cluster lid A using suitable tool (A).

- Pawl

**Tool number : — (J-46534)**

2. Disconnect the electrical harness connector and remove the push button ignition switch.



#### INSTALLATION

Installation is in the reverse order of removal.

A  
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SEC

# DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[SEDAN]

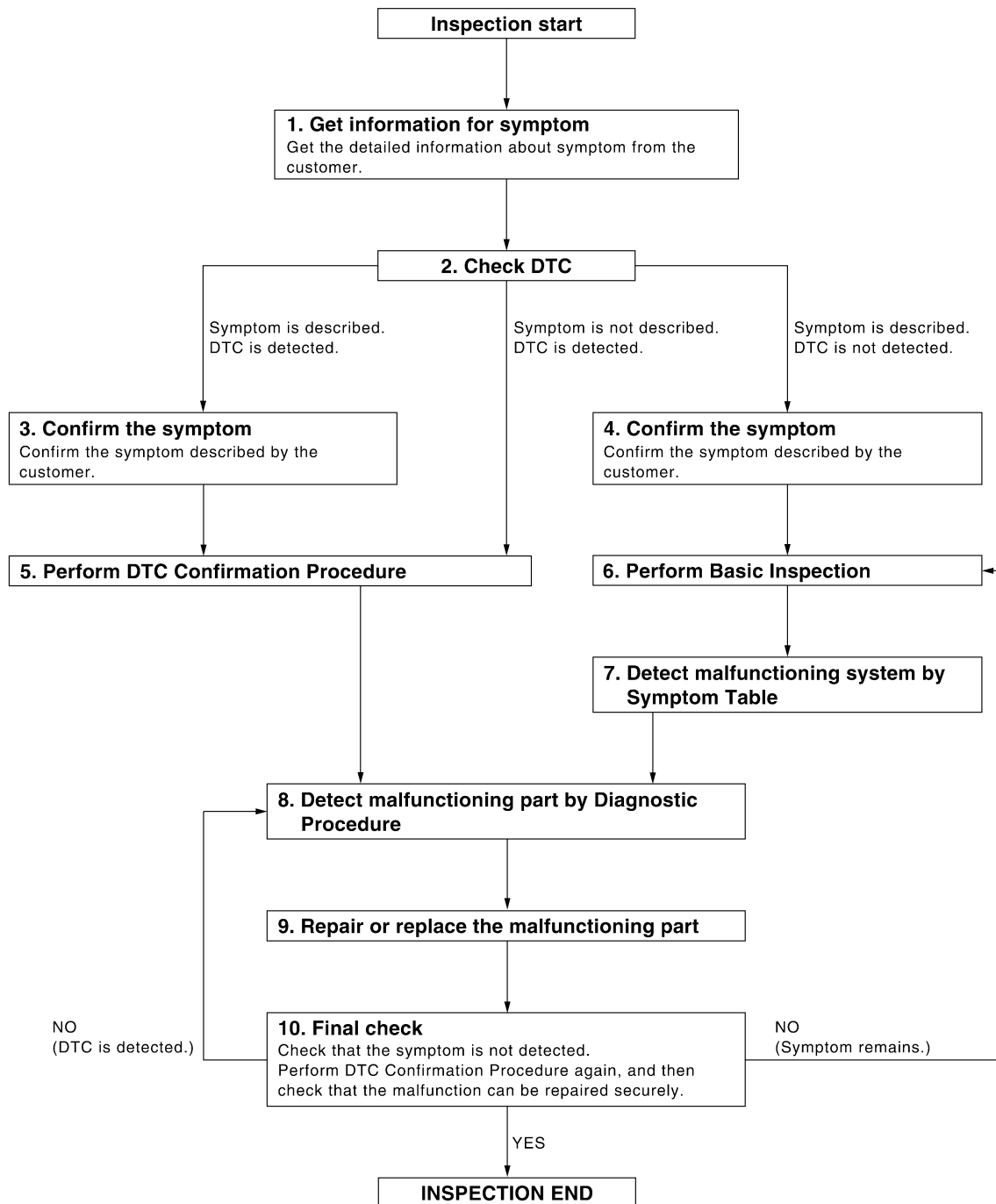
## BASIC INSPECTION

### DIAGNOSIS AND REPAIR WORKFLOW

#### Work Flow

INFOID:000000007422518

#### OVERALL SEQUENCE



ALKIA0246GB

#### DETAILED FLOW

# DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[SEDAN]

## 1.GET INFORMATION FOR SYMPTOM

Get the detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurred).

>> GO TO 2.

## 2.CHECK DTC WITH BCM AND IPDM E/R

1. Check "Self Diagnostic Result" with CONSULT.
2. Perform the following procedure if DTC is displayed.
  - Record DTC and freeze frame data (Print them out with 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.

Is any symptom described and any DTC detected?

Symptom is described, DTC is displayed>>GO TO 3.  
Symptom is described, DTC is not displayed>>GO TO 4.  
Symptom is not described, DTC is displayed>>GO TO 5.

## 3.CONFIRM THE SYMPTOM

Confirm the symptom described by the customer.  
Connect CONSULT to the vehicle in "Data Monitor" mode and check real time diagnosis results.  
Verify relationship between the symptom and the condition when the symptom is detected.

>> GO TO 5.

## 4.CONFIRM THE SYMPTOM

Confirm the symptom described by the customer.  
Connect CONSULT to the vehicle in "Data Monitor" mode and check real time diagnosis results.  
Verify relationship 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 displayed DTC, and then check that DTC is detected again.  
At this time, always keep CONSULT connected to the vehicle, and check diagnostic results in real time.  
If two or more DTCs are detected, refer to [BCS-65, "DTC Inspection Priority Chart"](#) and determine trouble diagnosis order.

### NOTE:

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

Is DTC detected?

YES >> GO TO 8.  
NO >> Refer to [GI-42, "Intermittent Incident"](#).

## 6.PERFORM BASIC INSPECTION

Perform [PCS-48, "Pre-Inspection for Multi-System Diagnostic"](#).

Inspection End>>GO TO 7.

## 7.DETECT MALFUNCTIONING SYSTEM BY SYMPTOM TABLE

Detect malfunctioning system according to following symptom tables based on the confirmed symptom in step 4, and determine the trouble diagnosis order based on possible causes and symptoms.

- Intelligent Key system/engine start function: [SEC-437, "Symptom Table"](#).
- Vehicle security system: [SEC-438, "Symptom Table"](#).

## DIAGNOSIS AND REPAIR WORKFLOW

[SEDAN]

< BASIC INSPECTION >

- Nissan vehicle immobilizer system-NATS: [SEC-439. "Symptom Table"](#).

>> GO TO 8.

### 8.DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE

---

Inspect according to Diagnostic Procedure of the system.

**NOTE:**

The Diagnostic Procedure described based on open circuit inspection. A short circuit inspection is also required for the circuit check in the Diagnostic Procedure.

Is malfunctioning part detected?

YES >> GO TO 9.

NO >> Check voltage of related BCM terminals using CONSULT.

### 9.REPAIR OR REPLACE THE MALFUNCTIONING PART

---

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

>> GO TO 10.

### 10.FINAL CHECK

---

When DTC was detected in step 2, perform DTC Confirmation Procedure or Component Function Check again, and then check that the malfunction have been fully repaired.

When symptom was described from the customer, refer to confirmed symptom in step 3 or 4, and check that the symptom is not detected.

Is the inspection result normal?

NO (DTC is detected)>>GO TO 8.

NO (Symptom remains)>>GO TO 6.

YES >> Inspection End.

## PRE-INSPECTION FOR DIAGNOSTIC

## Pre-Inspection for Multi-System Diagnostic

INFOID:000000007422519

The engine start function, door lock function, power distribution system and NATS-IVIS/NVIS are closely related to each other. Narrow down the system in question by performing this inspection to identify which system is malfunctioning. For example, the vehicle security system can operate only when the door lock and power distribution system are operating normally.

## 1.CHECK DOOR LOCK OPERATION

Check the door lock for normal operation with the Intelligent Key and door request switch. Successful door lock operation with the Intelligent Key and request switch indicates that the remote keyless entry receiver and inside key antenna required for engine start are functioning normally.

Can the door be locked with the Intelligent Key and door request switch?

YES >> GO TO 2.

NO >> Refer to [DLK-423, "Symptom Table"](#).

## 2.CHECK ENGINE STARTING

Check that the engine starts when the Intelligent Key is inserted into the key slot.

Does the engine start?

YES >> GO TO 3.

NO >> Refer to [SEC-437, "Symptom Table"](#).

## 3.CHECK STEERING LOCK OPERATION

Check that the steering locks when operating the door switch after switching the power supply from ON position (or ACC position) to LOCK position.

If the door switch is malfunctioning, BCM cannot lock the steering. If BCM does not detect DTC, electronic steering column lock is normal.

Does steering lock?

YES >> GO TO 4.

NO >> Refer to [DLK-289, "Component Function Check"](#).

## 4.CHECK POWER SUPPLY INDICATOR SWITCHING

Press push-button ignition switch and check that the position indicator switches from LOCK, through ACC to ON when steering is locked.

Is each position indicator illuminating?

YES >> GO TO 5.

NO >> Refer to [PCS-79, "Component Function Check"](#).

## 5.CHECK VEHICLE SECURITY SYSTEM

Refer to [SEC-225, "Vehicle Security Operation Check"](#).

Are the inspection results normal?

YES >> Inspection End.

NO >> Repair vehicle security system as necessary.

## Vehicle Security Operation Check

INFOID:000000007422520

## 1.INSPECTION START

Turn ignition switch "OFF" and pull out Intelligent Key from key slot.

**NOTE:**

Before starting operation check, open front windows.

>> GO TO 2.

## 2.CHECK SECURITY INDICATOR LAMP

1. Lock doors using Intelligent Key or mechanical key.
2. Check that security indicator lamp illuminates for 30 seconds.

## PRE-INSPECTION FOR DIAGNOSTIC

[SEDAN]

### < BASIC INSPECTION >

#### Does security indicator lamp illuminate?

YES >> GO TO 3.

NO >> Perform diagnosis and repair. Refer to [SEC-359, "Component Function Check"](#).

### 3. CHECK ALARM FUNCTION

1. After 30 seconds, security indicator lamp will start to blink.
2. Open any door or hood before unlocking with Intelligent Key or mechanical key, or open trunk lid without Intelligent Key or mechanical key.

#### Does alarm function properly?

YES >> GO TO 4.

NO >> Check the following.

- The vehicle security system does not phase in alarm mode. Refer to [SEC-438, "Symptom Table"](#).
- Alarm (horn, headlamp and hazard lamp) do not operate. Refer to [SEC-438, "Symptom Table"](#).

### 4. CHECK ALARM CANCEL OPERATION

Unlock any door or open trunk lid using Intelligent Key or mechanical key.

#### Does alarm (horn, headlamp and hazard lamp) stop?

YES >> Inspection End.

NO >> Check door lock function. Refer to [DLK-244, "INTELLIGENT KEY : System Description"](#).

## INSPECTION AND ADJUSTMENT

### ECM RE-COMMUNICATING FUNCTION

#### ECM RE-COMMUNICATING FUNCTION : Description

INFOID:000000007422521

Performing following procedure can automatically perform re-communication of ECM and BCM, but only when the ECM has been replaced with a new one (\*1).

\*1: New one means an ECM which has never been energized on-board.

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

#### NOTE:

- When registering new Key IDs or replacing the ECM that is not brand new, refer to CONSULT Immobilizer mode and follow the on-screen instructions.
- If multiple keys are attached to the key holder, separate them before work.
- Distinguish keys with unregistered key ID from those with registered ID.

#### ECM RE-COMMUNICATING FUNCTION : Special Repair Requirement

INFOID:000000007422522

#### 1.PERFORM ECM RE-COMMUNICATING FUNCTION

1. Install ECM.
2. Insert the registered Intelligent Key (\*2), turn ignition switch to "ON".  
\*2: To perform this step, use the key that has been used before performing ECM replacement.
3. Maintain ignition switch in "ON" position for at least 5 seconds.
4. Turn ignition switch to "OFF".
5. Start engine.

#### Can engine be started?

YES >> Procedure is completed.

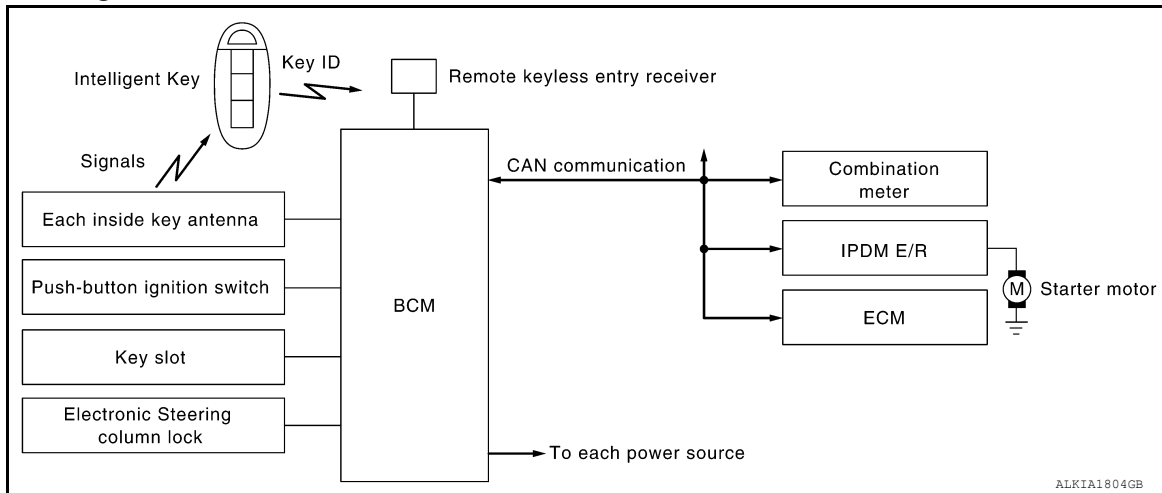
NO >> Initialize control unit. Refer to CONSULT Immobilizer mode and follow the on-screen instructions.

SEC

## SYSTEM DESCRIPTION

### INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

#### System Diagram



#### System Description

INFOID:000000007422524

#### INPUT/OUTPUT SIGNAL CHART

Switch	Input signal to BCM	BCM function	Actuator
Push-button ignition switch	Push switch	Engine start function	<ul style="list-style-type: none"> <li>Steering lock relay</li> <li>Electronic steering column lock</li> <li>Starter relay (IPDM E/R)</li> <li>Starter control relay (IPDM E/R)</li> <li>Starter motor</li> <li>KEY warning lamp</li> </ul>
CVT shift selector (CVT models)	P range		
Transmission range switch (CVT models)	N, P range		
Clutch interlock switch (M/T models)	Clutch ON/OFF		
Stop lamp switch	Brake ON/OFF		
Each inside key antenna	Request signal		
Remote keyless entry receiver	Key ID		
Each door switch	Door open/close		
ECM	Engine status signal		

#### SYSTEM DESCRIPTION

- The engine start function of Intelligent Key system is a system that makes it possible to start and stop the engine without removing the key. It verifies the electronic ID using two-way communications when pressing the push-button ignition switch while carrying the Intelligent Key, which operates based on the results of electronic ID verification for Intelligent Key using two-way communications between the Intelligent Key and the vehicle.

##### NOTE:

The driver should carry the Intelligent Key at all times.

- Intelligent Key has 2 IDs [for Intelligent Key and for NVIS (NATS)]. It can perform the door lock/unlock operation and the push-button ignition switch operation when the registered Intelligent Key is carried.
- When the Intelligent Key battery is discharged, it can be used as emergency back-up by inserting the Intelligent Key to the key slot. At that time, perform the NVIS (NATS) ID verification. If it is used when the Intelligent Key is carried, perform the Intelligent Key ID verification.
- If the ID is successfully verified, and when push-button ignition switch is pressed, steering lock will be released and initiating the engine will be possible.
- If the door lock/unlock operation is performed when the Intelligent Key battery is discharged, all doors lock/unlock can be performed by operating the driver door key cylinder using the mechanical key set in the Intelligent Key.



# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

[SEDAN]

## < SYSTEM DESCRIPTION >

- Intelligent Key can be registered up to 4 keys (Including the standard Intelligent Key) on request from the owner.

### NOTE:

- Refer to [SEC-228. "System Description"](#) for any functions other than engine start function of Intelligent Key system.

## PRECAUTIONS FOR INTELLIGENT KEY SYSTEM

- In the Intelligent Key system of model L32, the transponder [the chip for NVIS (NATS) ID verification] is integrated into the Intelligent Key. (For the conventional models, it is integrated into the mechanical key.) Therefore, the mechanical key cannot perform the ID verification, and thus it cannot start the engine. Instead, the NVIS (NATS) ID verification can be performed by inserting the Intelligent Key into the key slot, and then it can start the engine.**

## OPERATION WHEN INTELLIGENT KEY IS CARRIED

- When the push-button ignition switch is pressed and brake pedal is depressed, the BCM signals the inside key antenna and transmits the request signal to the Intelligent Key.
- The Intelligent Key sends the request signal and transmits the Intelligent Key ID signal to the BCM via the remote keyless entry receiver.
- The BCM receives the Intelligent Key ID signal and verifies it with the registered ID.
- BCM transmits the steering lock unlock signal to electronic steering column lock and IPDM E/R if the verification results are OK.
- IPDM E/R turns the steering lock relay ON and supplies power to the electronic steering column lock.
- Release of the steering lock.
- BCM transmits the power supply stop signal to IPDM E/R when it confirms that the steering lock is in the unlock condition.
- IPDM E/R turns the steering lock relay OFF and stops power supply to the electronic steering column lock.
- BCM turns ACC relay ON and transmits the ignition power supply ON signal to IPDM E/R.
- IPDM E/R turns the ignition relay ON and starts the ignition power supply.
- BCM confirms that the shift position is P or N (CVT models).
- BCM transmits the starter request signal via CAN communication to IPDM E/R and turns the starter relay in IPDM E/R ON if BCM judges that the engine start condition is satisfied.
- IPDM E/R turns the starter control relay ON when receiving the starter request signal.
- Battery power is supplied through the starter relay and the starter control relay to operate the starter motor and to start the cranking.

### CAUTION:

**If a malfunction is detected in the Intelligent Key system, the "KEY" warning lamp in the combination meter illuminates. At that time, the engine cannot be started.**

- When BCM received feedback signal from ECM acknowledging the engine has been initiated, the BCM transmits a stop signal to IPDM E/R and stops the cranking by turning OFF the starter motor relay. (If the engine initiating has failed, the cranking will stop automatically within 5 seconds.)

### CAUTION:

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

\*: For the engine start condition, refer to "PUSH-BUTTON IGNITION SWITCH OPERATION PROCEDURE".

## OPERATION RANGE

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

## OPERATION WHEN KEY SLOT IS USED

When the Intelligent Key battery is discharged, it performs the NVIS (NATS) ID verification between the integrated transponder and BCM by inserting the Intelligent Key into the key slot, and then the engine can be started.

For details relating to starting the engine using key slot, refer to [SEC-238. "System Description"](#).

## BATTERY SAVER SYSTEM

# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

[SEDAN]

## < SYSTEM DESCRIPTION >

When all the following conditions are met for 60 minutes, the battery saver system will cut off the power supply to prevent battery discharge.

- The ignition switch is in the ACC position
- All doors are closed
- CVT selector lever is in the P position
- No Intelligent Key failures (Intelligent Key warning indicator is not ON)

Reset Condition of Battery Saver System

### CVT models

In order to prevent the battery from discharging, the battery saver system will cut off the power supply when all doors are closed, the selector lever is on P position and the ignition switch is left on ACC position for 1 hour. If any of the following conditions are met the battery saver system is released and the steering will change automatically to lock position from OFF position.

- Opening any door
- Operating with request switch on door lock
- Operating with Intelligent Key on door lock

Press push-button ignition switch and ignition switch will change to ACC position from OFF position.

### M/T models

If any of the conditions above is met the battery saver system is released but the steering will not lock. In this case, the steering operation OFF to LOCK is prohibited.

## STEERING LOCK OPERATION

Steering is locked by electronic steering column lock when ignition switch is in the OFF position, CVT selector lever is in the P position and any of the following conditions are met.

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

## PUSH-BUTTON IGNITION SWITCH OPERATION PROCEDURE

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

### NOTE:

- When an Intelligent Key is within the detection area of inside key antenna or when it is inserted to the key slot, it is equivalent to the operations below.
- When starting the engine, the BCM monitors under the engine start conditions,
  - Brake pedal operating condition (CVT models)
  - CVT selector lever position (CVT models)
  - Clutch pedal operating condition (M/T models)
  - Vehicle speed
  - Steering lock condition
  - Engine status
- Unless each start condition is fulfilled, the engine will not respond regardless of how many times the engine switch is pressed. At that time, illumination repeats the position in the order of LOCK→ACC→ON→OFF.

Power supply position	Engine start/stop condition		Push-button ignition switch operation frequency
	Brake pedal (CVT) /clutch pedal (M/T)	CVT selector lever position	
LOCK → ACC	Not depressed	Any position	1
LOCK → ACC → ON	Not depressed	Any position	2
LOCK → ACC → ON → OFF	Not depressed	Any position	3
LOCK → START ACC → START ON → START (Engine start)	Depressed	P or N position (*1)	1 [If the switch is pressed once, the engine starts from any power supply position (LOCK, ACC, and ON)]
Engine is running → OFF (Engine stop)	—	Any position Vehicle speed < 4 km/h (2 MPH)	1

# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< SYSTEM DESCRIPTION >

[SEDAN]

Power supply position	Engine start/stop condition		Push-button ignition switch operation frequency
	Brake pedal (CVT) /clutch pedal (M/T)	CVT selector lever position	
Engine is running → ACC (Engine stop)	—	Any position other than P (*2)	1
Engine stall return operation while driving	—	P position	1

\*1: When the CVT selector lever position is N position, the engine start condition is different according to the vehicle speed.

- At vehicle speed of 4 km/h (2 MPH) or less, the engine can start only when the brake pedal is depressed.
- At vehicle speed of 4 km/h (2 MPH) or more, the engine can start even if the brake pedal is not depressed. (It is the same as “Engine stall return operation while driving”.)

\*2: When the CVT selector lever position is in any position other than P position and when the vehicle speed is 5 km/h (3 MPH) or more, the engine stop condition is different.

- Press and hold the push-button ignition switch for 2 seconds or more. (When the push-button ignition switch is pressed for too short a time, the operation may be invalid, so properly press and hold to prevent an incorrect operation.)
- Press the push-button ignition switch 3 times or more within 1.5 seconds. (Emergency stop operation)

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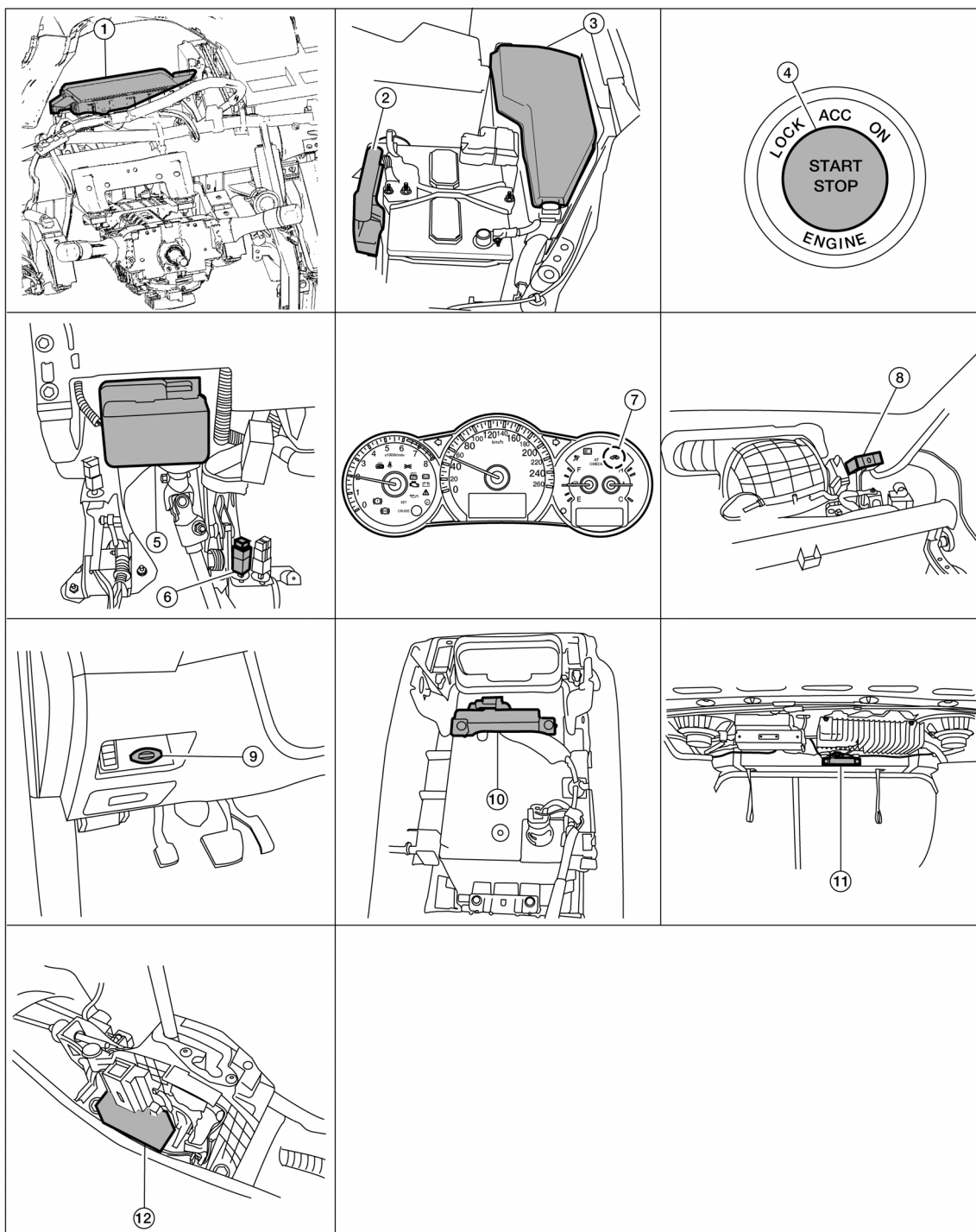
# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< SYSTEM DESCRIPTION >

[SEDAN]

## Component Parts Location

INFOID:000000007422525



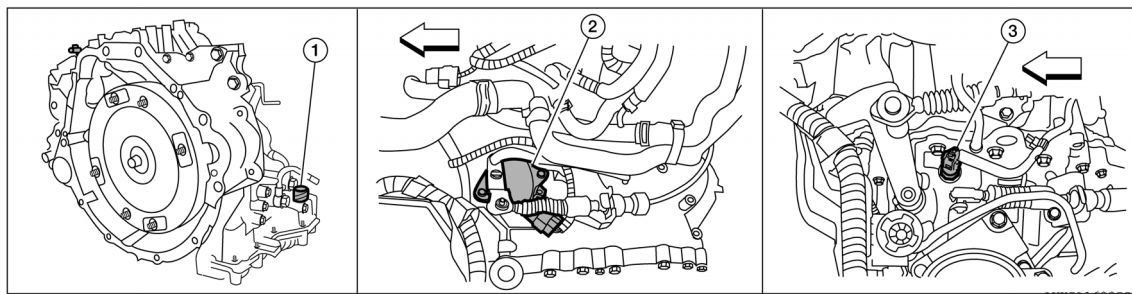
AWKIA16362Z

- |   |   |   |
|---|---|---|
| 1. Body control module M16, M17, M18, M18, M21 (view with instrument panel removed) | 2. ECM E10  | 3. IPDM E/R E17, E18, F10   |
| 4. Push-button ignition switch M38  | 5. Electronic steering column lock (steering column) M32                  | 6. Stop lamp switch E38 (view with lower driver instrument panel removed) |
| 7. Security indicator lamp  | 8. Remote keyless entry receiver M27 (view with instrument panel removed) | 9. Key slot M40   |
| 10. Front console antenna M203 (bottom view of console)                             | 11. Rear parcel shelf antenna B29   | 12. CVT shift selector (park position switch) M23                         |

# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< SYSTEM DESCRIPTION >

[SEDAN]



1. Transmission range switch connector F16 (switch inside trans) (CVT/VQ)
2. Transmission range switch F25 (CVT/QR)
3. Park neutral position switch F32 (M/T)

## Component Description

INFOID:000000007422526

Component	Reference
BCM	<a href="#">SEC-338</a>
Electronic steering column lock	<a href="#">SEC-322</a>
Push-button ignition switch	<a href="#">SEC-294</a>
Door switch	<a href="#">DLK-289</a>
CVT shift selector (park position switch)	<a href="#">SEC-298</a>
Inside key antenna	<a href="#">DLK-282</a>
Remote keyless entry receiver	<a href="#">DLK-349</a>
Stop lamp switch	<a href="#">SEC-289</a>
Transmission range switch	<a href="#">SEC-308</a>
Clutch switch	<a href="#">SEC-269</a>
Steering lock relay	<a href="#">SEC-256</a>
Starter relay	<a href="#">SEC-264</a>
Starter control relay	<a href="#">SEC-262</a>
Security indicator	<a href="#">SEC-359</a>
Key warning lamp	<a href="#">SEC-358</a>

# NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

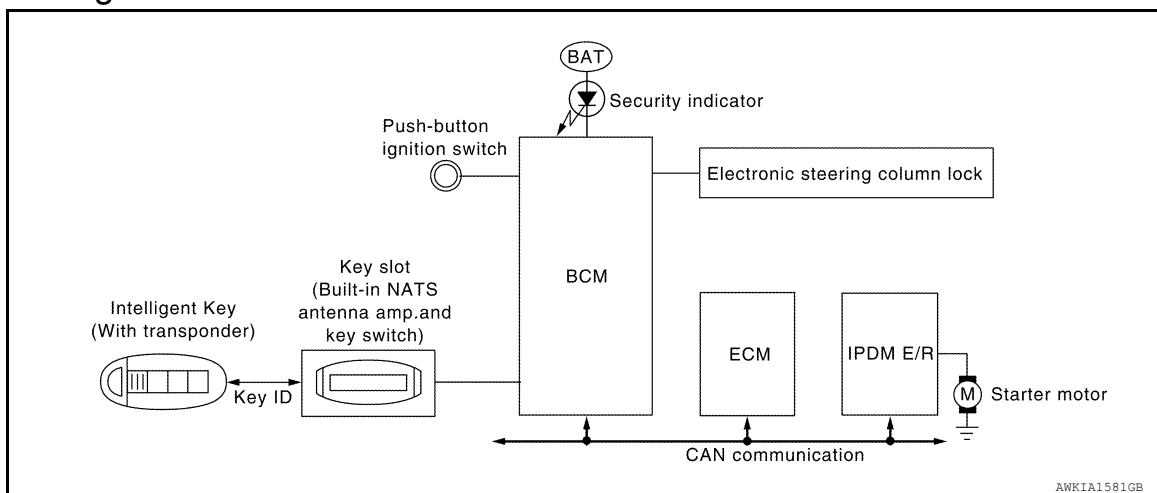
< SYSTEM DESCRIPTION >

[SEDAN]

## NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

### System Diagram

INFOID:000000007422527



### System Description

INFOID:000000007422528

### INPUT/OUTPUT SIGNAL CHART

Switch	Input signal to BCM	BCM function	Actuator
Push-button ignition switch	Push switch	NVIS (NATS)	<ul style="list-style-type: none"> <li>Steering lock relay</li> <li>Electronic steering column lock</li> <li>Starter relay (IPDM E/R)</li> <li>Starter control relay (IPDM E/R)</li> <li>Starter motor</li> <li>KEY warning lamp</li> <li>Security indicator lamp</li> </ul>
CVT shift selector (CVT models)	P range		
Transmission range switch (CVT models)	N, P range		
Clutch interlock switch (M/T models)	Clutch ON/OFF		
Stop lamp switch	Brake ON/OFF		
Key slot	Key ID		
Each door switch	Door open/close		
ECM	Engine status signal		

### SYSTEM DESCRIPTION

- The NVIS (NATS) is an anti-theft system by registering an Intelligent Key ID in to the vehicle and prevents the engine being started by an unregistered Intelligent Key. It has a higher protection against auto thefts that duplicate mechanical key.
- It performs the ID verification when starting the engine in the same way as the Intelligent Key system. But, it performs the NVIS (NATS) ID verification when inserting the Intelligent Key and performs the Intelligent Key ID verification when carrying the Intelligent Key.
- The Intelligent Key system of L32 is not the same as the conventional models. The mechanical key integrated in the Intelligent Key cannot start the engine. When the Intelligent Key battery is discharged, the NVIS (NATS) ID verification memorized to the transponder integrated with Intelligent Key is performed by inserting the Intelligent Key into the key slot. If the verification results are OK, the engine start operation can be performed by the push-button ignition switch operation.
- Locate the security indicator and apply the anti-theft system equipment sticker, forewarn that the NVIS (NATS) is onboard with the model.
- The security indicator always blinks when the Intelligent Key is removed from the key slot and when the power supply position is in LOCK position.
- Intelligent Key can be registered up to 4 keys (Including the standard ignition key) on request from the owner.
- The specified registration is required when replacing ECM, BCM or Intelligent Key. The registrations procedure for NVIS (NATS) and registration procedure for Intelligent Key when installing the BCM, refer to CONSULT Immobilizer mode and follow the on-screen instructions.

# NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

## < SYSTEM DESCRIPTION >

[SEDAN]

- Possible symptom of NVIS (NATS) malfunction is "Engine cannot start". In L32, the engine can be started with the Intelligent Key system and NVIS (NATS). Identify the possible causes according to "Work Flow", Refer to [SEC-222, "Work Flow"](#).
- If ECM other than Genuine NISSAN is installed, the engine cannot be started. For ECM replacement procedure, refer to [SEC-227, "ECM RE-COMMUNICATING FUNCTION : Special Repair Requirement"](#).

## PRECAUTIONS FOR KEY REGISTRATION

- The key registration is a procedure that erases the current NVIS (NATS) ID once, and then re-registers a new ID operation. Therefore the registered Intelligent Key is necessary for this procedure. Before starting the registration operation collect all registered Intelligent Keys from the customer
- When registering the Intelligent Key, performs only one procedure to register simultaneously both ID (NVIS "NATS" ID registration and Intelligent Key ID registration).  
The NVIS (NATS) ID registration is the procedure that registers the ID stored into the transponder (integrated in Intelligent Key) to BCM.  
The Intelligent Key ID registration is the procedure that registers the ID to BCM.
- When performing the Intelligent Key system registration only, the engine cannot be started by inserting the key into the key slot. When performing the NVIS (NATS) registration only, the engine cannot be started by the operation when carrying the key. The registrations of both systems should be performed.

## SECURITY INDICATOR

- Warns that the vehicle is equipped with NVIS (NATS).
- The security indicator always blinks when the Intelligent Key is removed from the key slot and when the ignition switch is in LOCK position.

### NOTE:

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

SEC

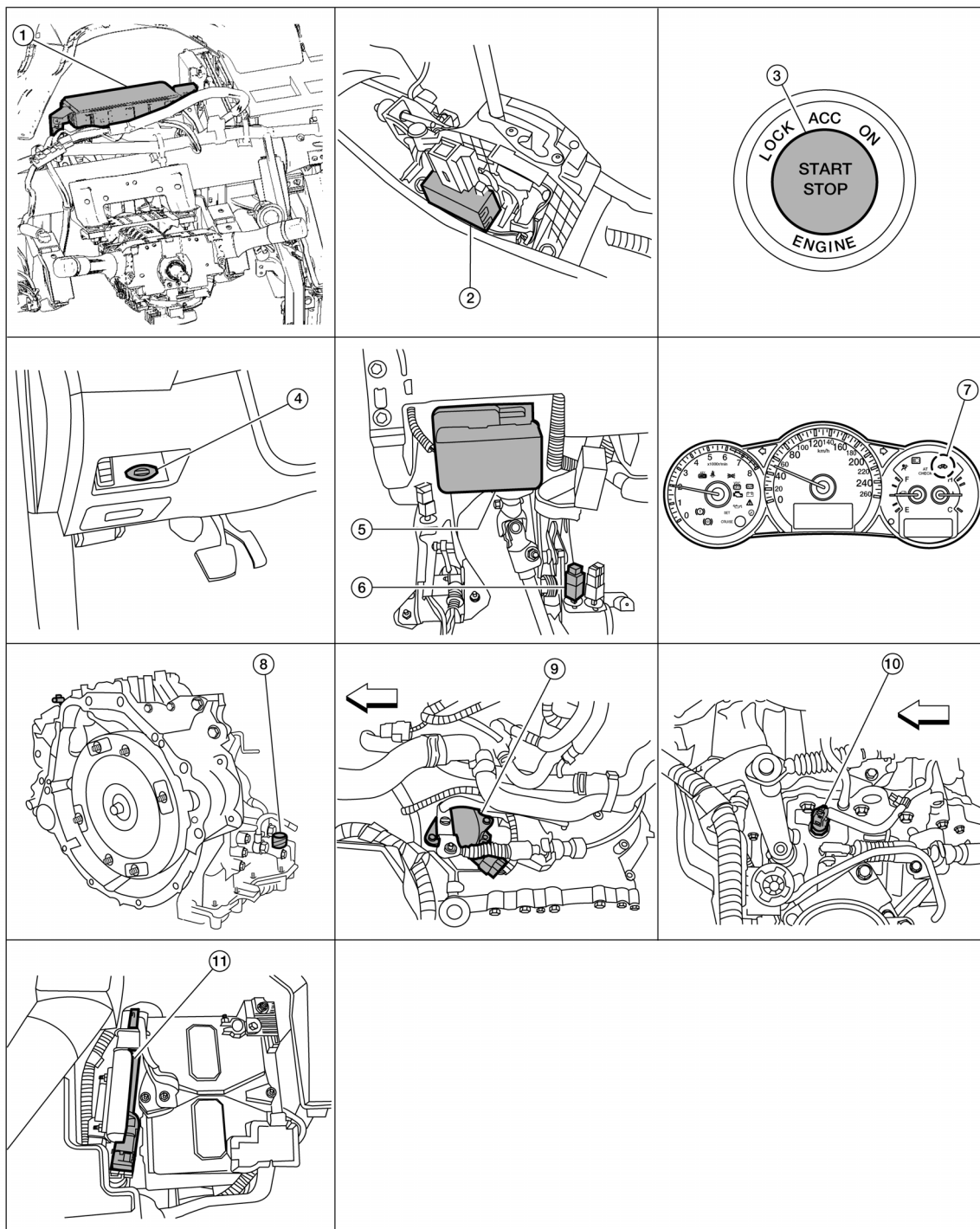
# NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

< SYSTEM DESCRIPTION >

[SEDAN]

## Component Parts Location

INFOID:000000007422529



AWK1A16282Z

1. Body control module M16, M17, M18, M19, M21 (view with instrument panel removed)
2. CVT shift selector (park position switch) M23 (with CVT)
3. Push-button ignition switch M38
4. Key slot M40
5. Electronic steering column lock M32 (steering column)
6. Stop lamp switch E38 (view with lower LH instrument panel removed)



# NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

< SYSTEM DESCRIPTION >

[SEDAN]

- |   |  |  |
|---|--|--|
| 7. Security indicator lamp                      | 8. Transmission range switch connector (TCM connector) F16 (with CVT/VQ) | 9. Transmission range switch F25 (with CVT/QR) |
| 10. Park neutral position switch F32 (with M/T) | 11. ECM E10  | ← : Front                                      |

## Component Description

INFOID:000000007422530

Component	Reference
BCM	<a href="#">SEC-338</a>
Electronic steering column lock	<a href="#">SEC-322</a>
Push-button ignition switch	<a href="#">SEC-339</a>
Door switch	<a href="#">DLK-289</a>
CVT shift selector (park position switch)	<a href="#">SEC-298</a>
Inside key antenna	<a href="#">DLK-282</a>
Remote keyless entry receiver	<a href="#">DLK-349</a>
Stop lamp switch	<a href="#">SEC-289</a>
Transmission range switch	<a href="#">SEC-308</a>
Clutch switch	<a href="#">SEC-269</a>
Steering lock relay	<a href="#">SEC-255</a>
Starter relay	<a href="#">SEC-315</a>
Starter control relay	<a href="#">SEC-297</a>
Security indicator	<a href="#">SEC-359</a>
Key warning lamp	<a href="#">SEC-358</a>

SEC

# VEHICLE SECURITY SYSTEM

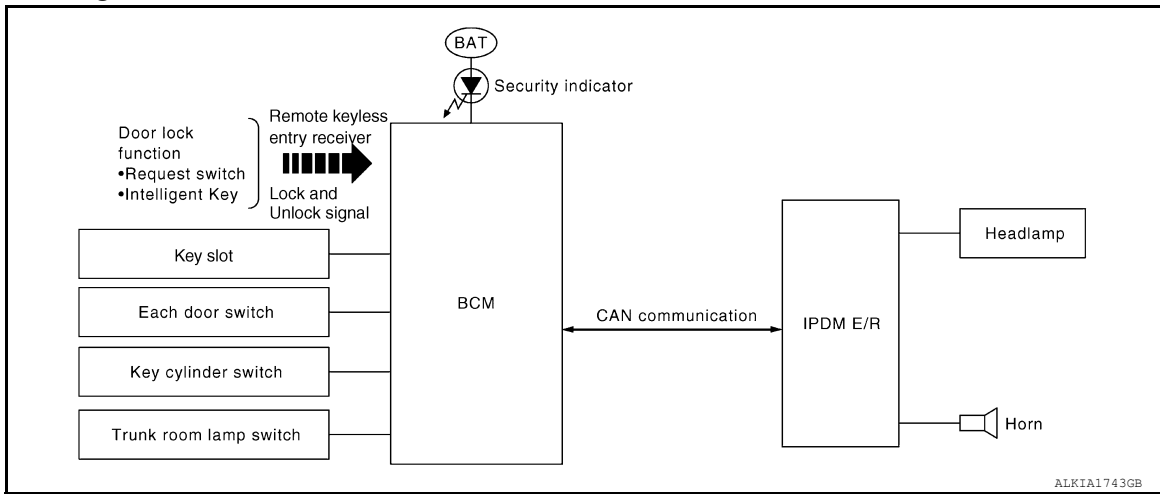
< SYSTEM DESCRIPTION >

[SEDAN]

## VEHICLE SECURITY SYSTEM

### System Diagram

INFOID:000000007422531



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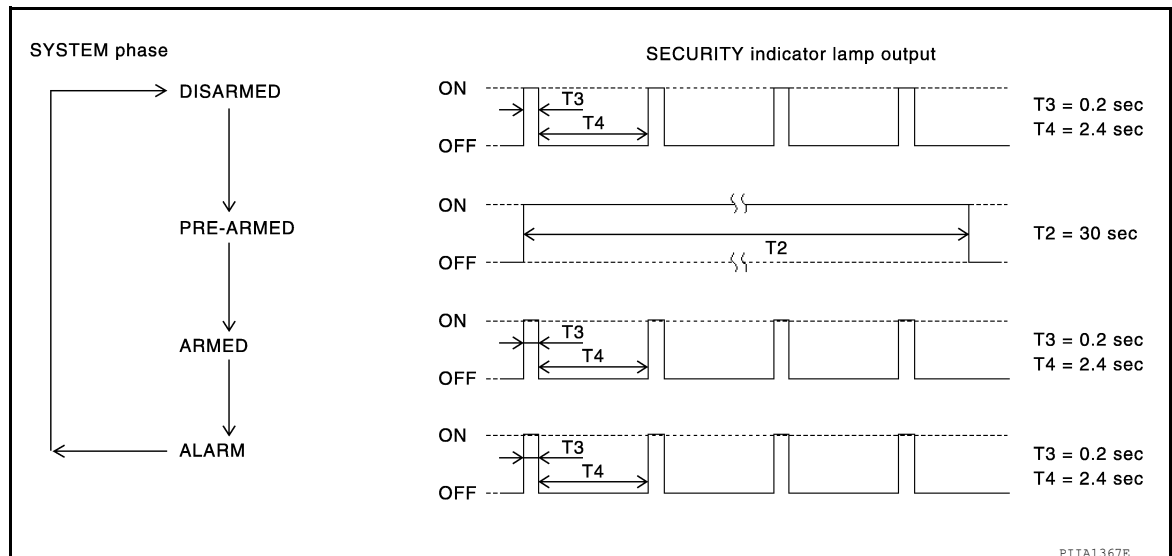
### System Description

INFOID:000000007422532

### INPUT/OUTPUT SIGNAL CHART

Switch	Input signal to BCM	BCM system	Actuator
All door switch	Open or close	Vehicle security system	<ul style="list-style-type: none"><li>• IPDM E/R</li><li>• Head lamp</li><li>• Horn</li><li>• Security indicator lamp</li></ul>
Trunk room lamp switch			
Door key cylinder switch	Lock or unlock		
Door lock and unlock switch			
Door request switch			
Intelligent Key	Lock or unlock		
	Panic alarm		
Key Slot	Intelligent Key sensing		

### OPERATION FLOW



PIIA1367E

### SETTING THE VEHICLE SECURITY SYSTEM

Initial Condition

- Ignition switch is in OFF position.

# VEHICLE SECURITY SYSTEM

## < SYSTEM DESCRIPTION >

[SEDAN]

### Disarmed Phase

- When doors or trunk is open, the vehicle security system is set in the disarmed phase on the assumption that the owner is inside or near the vehicle.
- When the vehicle security system is in the disarmed phase, the security indicator lamp blinks every 2.4 seconds.

### Pre-armed Phase and Armed Phase

When the following operation 1 or 2 is performed, the vehicle security system turns into the “pre-armed” phase. (The security indicator lamp illuminates.)

1. BCM receives LOCK signal from front door key cylinder switch or Intelligent Key, after trunk and all doors are closed.
2. Trunk and all doors are closed after front doors are locked by key or door lock and unlock switch. The security indicator lamp illuminates for 30 seconds. Then, the system automatically shifts into the “armed” phase.

### CANCELING THE SET VEHICLE SECURITY SYSTEM

When one of the following operations is performed, the armed phase is canceled.

1. Unlock the doors with the key or Intelligent Key.
2. Turn ignition switch “ON” or “ACC” position.

### CANCELING THE ALARM OPERATION OF THE VEHICLE SECURITY SYSTEM

When unlocking the door with the key or Intelligent Key the alarm operation is canceled.

### ACTIVATING THE ALARM OPERATION OF THE VEHICLE SECURITY SYSTEM

Check that the system is in the armed phase. (The security indicator lamp blinks every 2.4 seconds.)

When the following operation 1 or 2 is performed, the system sounds the horns and flashes the headlamps for about 50 seconds.

1. Trunk or any door is opened during armed phase.
2. Disconnecting and connecting the battery connector before canceling armed phase.

### PANIC ALARM OPERATION

Intelligent Key system will not operate horn and headlamps if the ignition switch is in the ACC or ON position. When the Intelligent Key system is triggered, ground is supplied intermittently to both headlamp relay and horn relay.

When headlamp relay and horn relay are energized, then power is supplied to headlamps (LH and RH) and horns (HIGH and LOW).

The headlamp flashes and the horn sounds intermittently.

The alarm automatically turns off after 50 seconds or when BCM receives any signal from Intelligent Key.

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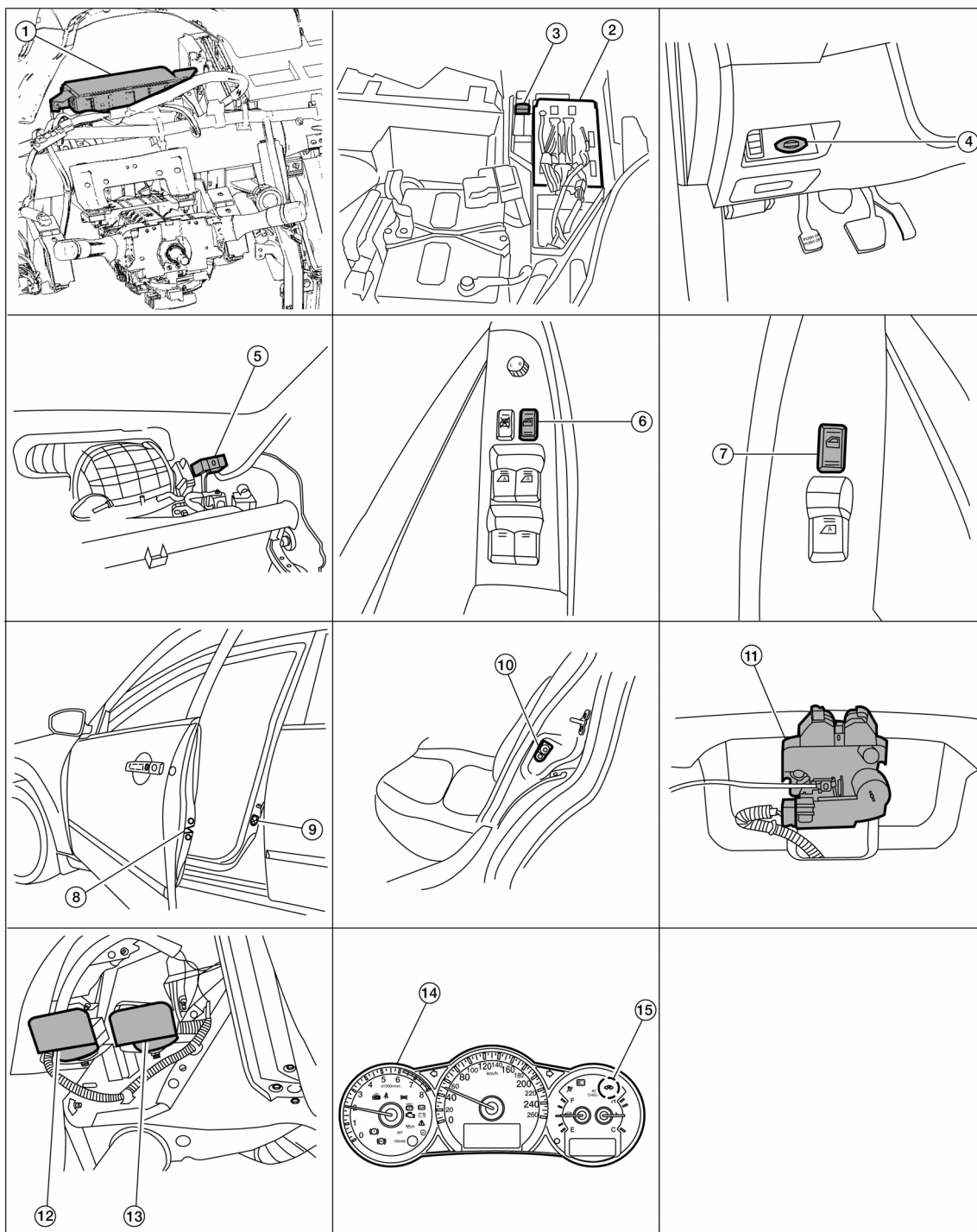
# VEHICLE SECURITY SYSTEM

[SEDAN]

< SYSTEM DESCRIPTION >

## Component Parts Location

INFOID:000000007422533



AWKIA16372Z

- |  |  |   |
|--|--|---|
| 1. Body control module M16, M17, M18, M19, M21<br>(view with instrument panel removed) | 2. IPDM E/R E17, E18   | 3. Horn relay H-1   |
| 4. Key slot M40  | 5. Remote keyless entry receiver M27<br>(view with instrument panel removed) | 6. Main power window and door lock/<br>unlock switch D7, D8 |
| 7. Power window and door lock/unlock<br>switch RH D105                                 | 8. Front door lock assembly LH (key cyl-<br>inder switch) D10                | 9. Front door switch LH B8<br>RH B108                       |

# VEHICLE SECURITY SYSTEM

[SEDAN]

## < SYSTEM DESCRIPTION >

10. Rear door switch LH B18  
RH B116

11. Trunk lamp switch and trunk release  
solenoid B28

12. Horn (low) E215  
(view with front fender protector LH  
removed)
13. Horn (high) E216

14. Combination meter M24

15. Security indicator lamp

## Component Description

INFOID:000000007422534

Component	Reference
BCM	<a href="#">SEC-238</a>
Horn relay	<a href="#">SEC-355</a>
Security indicator	<a href="#">SEC-359</a>
Door switch	<a href="#">DLK-289</a>
Door lock actuator	<a href="#">DLK-333</a>
Trunk lid lock assembly	<a href="#">DLK-339</a>
Door key cylinder switch	<a href="#">DLK-306</a>
Door lock and unlock switch	<a href="#">DLK-293</a>

SEC

# DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[SEDAN]

## DIAGNOSIS SYSTEM (BCM)

### COMMON ITEM

#### COMMON ITEM : Diagnosis Description

INFOID:000000007630865

#### BCM CONSULT FUNCTION

CONSULT performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
WORK SUPPORT	Changes the setting for each system function.
SELF-DIAG RESULTS	Displays the diagnosis results judged by BCM.
CAN DIAG SUPPORT MNTR	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	This function is not used even though it is displayed.

#### 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.

System	Sub system selection item	Diagnosis mode		
		WORK SUPPORT	DATA MONITOR	ACTIVE TEST
Door lock	DOOR LOCK	×	×	×
Rear window defogger	REAR DEFOGGER		×	×
Warning chime	BUZZER		×	×
Interior room lamp timer	INT LAMP		×	×
Remote keyless entry system	MULTI REMOTE ENT		×	
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER	×	×	×
Air conditioner	AIR CONDITONER		×	
Intelligent Key system	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
BCM	BCM	×		
Immobilizer	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	
Trunk open	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×
TPMS	AIR PRESSURE MONITOR	×	×	×

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

INFOID:000000007630866

#### ECU IDENTIFICATION

Displays the BCM part No.

#### SELF-DIAG RESULT

Refer to [SEC-386, "DTC Index"](#).

# DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[SEDAN]

## INTELLIGENT KEY

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

INFOID:000000007630867

#### WORK SUPPORT

Monitor item	Description
CONFIRM KEY FOB ID	It can be checked whether Intelligent Key ID code is registered or not in this mode.
AUTO LOCK SET	Auto door lock time can be changed in this mode. <ul style="list-style-type: none"><li>• MODE1: 1 minute</li><li>• MODE2: 5 minutes</li><li>• MODE3: 30 seconds</li><li>• MODE4: 2 minutes</li></ul>
LOCK/UNLOCK BY I-KEY	Door lock/unlock function by door request switch mode can be changed to operate (ON) or not operate (OFF) in this mode.
ENGINE START BY I-KEY	Engine start function mode can be changed to operate (ON) or not operate (OFF) with this mode.
TRUNK/GLASS HATCH OPEN	Buzzer reminder function mode by trunk request switch can be changed to operate (ON) or not operate (OFF) with this mode.
PANIC ALARM SET	Panic alarm button pressing time on Intelligent Key remote control button can be selected from the following with this mode. <ul style="list-style-type: none"><li>• MODE1: 0.5 sec.</li><li>• MODE2: Non-operation</li><li>• MODE3: 1.5 sec.</li></ul>
PW DOWN SET	Unlock button pressing time on Intelligent Key button can be selected from the following with this mode. <ul style="list-style-type: none"><li>• MODE1: 3 sec.</li><li>• MODE2: Non-operation</li><li>• MODE3: 5 sec.</li></ul>
TRUNK OPEN DELAY	Trunk button pressing time on Intelligent Key button can be selected from the following with this mode. <ul style="list-style-type: none"><li>• MODE1: 0.5 sec.</li><li>• MODE2: 1.5 sec.</li><li>• MODE3: OFF: No delay</li></ul>
LO- BATT OF KEY FOB WARN	Intelligent Key low battery warning mode can be changed to operate (ON) or not operate (OFF) with this mode.
ANTI KEY LOCK IN FUNCTI	Key reminder function mode can be changed to operate (ON) or not operate (OFF) with this mode.
HAZARD ANSWER BACK	Hazard reminder function mode can be selected from the following with this mode. <ul style="list-style-type: none"><li>• LOCK ONLY: Door lock operation only</li><li>• UNLOCK ONLY: Door unlock operation only</li><li>• LOCK/UNLOCK: Lock/unlock operation</li><li>• OFF: Non-operation</li></ul>
ANS BACK I-KEY LOCK	Buzzer reminder function (lock operation) mode by door request switch (driver side and passenger side) can be selected from the following with this mode. <ul style="list-style-type: none"><li>• Horn chirp: Sound horn</li><li>• Buzzer: Sound Intelligent Key warning buzzer</li><li>• OFF: Non-operation</li></ul>
ANS BACK I-KEY UNLOCK	Buzzer reminder function (unlock operation) mode by door request switch can be changed to operate (ON) or not operate (OFF) with this mode.
SHORT CRANKING OUTPUT	Starter motor can be forcibly activated.
INSIDE ANT DIAGNOSIS	This function allows inside key antenna self-diagnosis.
HORN WITH KEYLESS LOCK	Horn reminder function mode by Intelligent Key button can be changed to operate (ON) or not operate (OFF) with this mode.

#### SELF-DIAG RESULT

Refer to [SEC-386, "DTC Index"](#).

# DIAGNOSIS SYSTEM (BCM)

[SEDAN]

< SYSTEM DESCRIPTION >

## DATA MONITOR

Monitor Item	Condition
REQ SW-DR	Indicates [ON/OFF] condition of door request switch (driver side).
REQ SW-AS	Indicates [ON/OFF] condition of door request switch (passenger side).
REQ SW-BD/TR	Indicates [ON/OFF] condition of trunk opener request switch.
PUSH SW	Indicates [ON/OFF] condition of push button ignition switch.
CLUTCH SW	Indicates [ON/OFF] condition of clutch switch.
IGN RLY2 -F/B	Indicates [ON/OFF] condition of ignition relay 2.
ACC RLY-F/B	Indicates [ON/OFF] condition of accessory relay-1.
BRAKE SW 1	Indicates [ON/OFF] condition of brake switch.
BRAKE SW 2	Indicates [ON/OFF] condition of brake switch.
DETE/CANCL SW	Indicates [ON/OFF] condition of P position.
SFT PN/N SW	Indicates [ON/OFF] condition of P or N position.
S/L -LOCK	Indicates [ON/OFF] condition of steering lock (LOCK).
S/L -UNLOCK	Indicates [ON/OFF] condition of steering lock (UNLOCK).
S/L RELAY-F/B	Indicates [ON/OFF] condition of ignition switch.
UNLK SEN-DR	Indicates [ON/OFF] condition of driver door UNLOCK status.
PUSH SW -IPDM	Indicates [ON/OFF] condition of push button ignition switch.
IGN RLY1 -F/B	Indicates [ON/OFF] condition of ignition relay 1.
DETE SW -IPDM	Indicates [ON/OFF] condition of P position.
SFT PN -IPDM	Indicates [ON/OFF] condition of P or N position.
SFT P -MET	Indicates [ON/OFF] condition of P position.
SFT N -MET	Indicates [ON/OFF] condition of N position.
ENGINE STATE	Indicates [STOP/STALL/CRANK/RUN] condition of engine states.
S/L LOCK-IPDM	Indicates [ON/OFF] condition of steering lock (LOCK) request.
S/L UNLOCK-IPDM	Indicates [ON/OFF] condition of steering lock (UNLOCK) request.
S/L RELAY-REQ	Indicates [ON/OFF] condition of steering lock relay.
VEH SPEED 1	Display the vehicle speed signal received from combination meter by numerical value [Km/h].
VEH SPEED 2	Display the vehicle speed signal received from ABS or VDC or CVT by numerical value [Km/h].
DOOR STAT-DR	Indicates [LOCK/READY/UNLK] condition of driver side door status.
DOOR STAT-AS	Indicates [LOCK/READY/UNLK] condition of passenger side door status.
ID OK FLAG	Indicates [SET/RESET] condition of key ID.
PRMT ENG STRT	Indicates [SET/RESET] condition of engine start possibility.
KEY SW -SLOT	Indicates [ON/OFF] condition of key slot.
RKE OPE COUN1	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing.
TRNK/HAT MNTR	Indicates [ON/OFF] condition of trunk lid.
RKE-LOCK	Indicates [ON/OFF] condition of LOCK signal from Intelligent Key.
RKE-UNLOCK	Indicates [ON/OFF] condition of UNLOCK signal from Intelligent Key.
RKE-TR/BD	Indicates [ON/OFF] condition of TRUNK OPEN signal from Intelligent Key.
RKE-PANIC	Indicates [ON/OFF] condition of PANIC button of Intelligent Key.
RKE-P/W OPEN	Indicates [ON/OFF] condition of P/W DOWN signal from Intelligent Key.
RKE-MODE CHG	Indicates [ON/OFF] condition of MODE CHANGE signal from Intelligent Key.
PRMT RKE STRT	Indicates [ON/OFF] condition of ENGINE START signal from Intelligent Key.



# DIAGNOSIS SYSTEM (BCM)

## < SYSTEM DESCRIPTION >

[SEDAN]

Monitor Item	Condition
RKE OPE COUN2	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing.
REVERSE SW	Indicates [ON/OFF] condition of R position.

## ACTIVE TEST

Test item	Description
BATTERY SAVER	This test is able to check interior room lamp operation. The interior room lamp is activated after "ON" on CONSULT screen is touched.
PW REMOTO DOWN SET	This test is able to check power window down operation. The power window down is activated after "ON" on CONSULT screen is touched.
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation. The Intelligent Key warning buzzer is activated after "ON" on CONSULT screen is touched.
INSIDE BUZZER	This test is able to check warning chime in combination meter operation. <ul style="list-style-type: none"> <li>Take away warning chime sounds when "TAKE OUT" on CONSULT screen is touched.</li> <li>Key warning chime sounds when "KEY" on CONSULT screen is touched.</li> <li>OFF position warning chime sounds when "KNOB" on CONSULT screen is touched.</li> </ul>
INDICATOR	This test is able to check warning lamp operation. <ul style="list-style-type: none"> <li>"KEY" Warning lamp illuminates when "KEY ON" on CONSULT screen is touched.</li> <li>"KEY" Warning lamp blinks when "KEY IND" on CONSULT screen is touched.</li> </ul>
INT LAMP	This test is able to check interior room lamp operation. The interior room lamp is activated after "ON" on CONSULT screen is touched.
LCD	This test is able to check meter display information <ul style="list-style-type: none"> <li>Engine start information displays when "BP N" on CONSULT screen is touched.</li> <li>Engine start information displays when "BP I" on CONSULT screen is touched.</li> <li>Key ID warning displays when "ID NG" on CONSULT screen is touched.</li> <li>P position warning displays when "SFT P" on CONSULT screen is touched.</li> <li>Intelligent Key insert information displays when "INSRT" on CONSULT screen is touched.</li> <li>Intelligent Key low battery warning displays when "BATT" on CONSULT screen is touched.</li> <li>Take away through window warning displays when "NO KY" on CONSULT screen is touched.</li> <li>Take away warning display when "OUTKEY" on CONSULT screen is touched.</li> <li>OFF position warning display when "LK WN" on CONSULT screen is touched.</li> </ul>
FLASHER	This test is able to check hazard warning lamp operation. The hazard warning lamps are activated after "LH/RH/OFF" on CONSULT screen is touched.
HORN	This test is able to check horn operation. The horn is activated after "ON" on CONSULT screen is touched.
P RANGE	This test is able to check CVT shift selector power supply CVT shift selector power is supplied when "ON" on CONSULT screen is touched.
ENGINE SW ILLUMI	This test is able to check push-ignition switch illumination operation. Push-ignition switch illumination illuminates when "ON" on CONSULT screen is touched.
LOCK INDICATOR	This test is able to check LOCK indicator in push-ignition switch operation. LOCK indicator in push-ignition switch illuminates when "ON" on CONSULT screen is touched.
ACC INDICATOR	This test is able to check ACC indicator in push-ignition switch operation. ACC indicator in push-ignition switch illuminates when "ON" on CONSULT screen is touched.
IGNITION ON IND	This test is able to check ON indicator in push-ignition switch operation. ON indicator in push-ignition switch illuminates when "ON" on CONSULT screen is touched.
KEY SLOT ILLUMI	This test is able to check key slot illumination operation. Key slot illumination blinks when "ON" on CONSULT screen is touched.
TRUNK/BACK DOOR	This test is able to check trunk opener actuator open operation. This actuator opens when "OPEN" on CONSULT screen is touched.

## THEFT ALM

# DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[SEDAN]

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

INFOID:0000000007630868

### WORK SUPPORT

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

### DATA MONITOR

Monitored Item	Description
REQ SW -DR	Indicates [ON/OFF] condition of front door request switch (driver side).
REQ SW -AS	Indicates [ON/OFF] condition of front door request switch (passenger side).
REQ SW -BD/TR	Indicates [ON/OFF] condition of trunk request switch.
PUSH SW	Indicates [ON/OFF] condition of push-button ignition switch
UNLK SEN -DR	Indicates [ON/OFF] condition of driver door UNLOCK status.
KEY SW -SLOT	Indicates [ON/OFF] condition of key slot.
DOOR SW-DR	Indicates [ON/OFF] condition of front door switch LH.
DOOR SW-AS	Indicates [ON/OFF] condition of front door switch RH.
DOOR SW-RR	Indicates [ON/OFF] condition of rear door switch RH.
DOOR SW-RL	Indicates [ON/OFF] condition of rear door switch LH.
CDL LOCK SW	Indicates [ON/OFF] condition of lock signal from door lock/unlock switch LH and RH.
CDL UNLOCK SW	Indicates [ON/OFF] condition of unlock signal from door lock/unlock switch LH and RH.
KEY CYL LK-SW	Indicates [ON/OFF] condition of lock signal from front door key cylinder switch.
KEY CYL UN-SW	Indicates [ON/OFF] condition of unlock signal from front door key cylinder switch.
TR/BD OPEN SW	Indicates [ON/OFF] condition of trunk opener switch.
TRNK/HAT MNTR	Indicates [ON/OFF] condition of trunk lid.
RKE-LOCK	Indicates [ON/OFF] condition of LOCK signal from Intelligent Key.
RKE-UNLOCK	Indicates [ON/OFF] condition of UNLOCK signal from Intelligent Key.
RKE-TR/BD	Indicates [ON/OFF] condition of TRUNK OPEN signal from Intelligent Key.

### ACTIVE TEST

Test item	Operation	Description
THEFT IND		This test is able to check security indicator lamp operation. The lamp will be turned on when "ON" on CONSULT screen is touched.
VEHICLE SECURITY HORN		This test is able to check vehicle security horn operation. The horns will be activated for 0.5 seconds after "ON" on CONSULT screen is touched.
HEAD LAMP(HI)		This test is able to check vehicle security lamp operation. The headlamps will be activated for 0.5 seconds after "ON" on CONSULT screen is touched.
FLASHER	RH	Outputs the voltage to blink the right side turn signal lamps.
	LH	Outputs the voltage to blink the left side turn signal lamps.
	Off	Stops the voltage to turn the turn signal lamps OFF.

### IMMU

## IMMU : CONSULT Function (BCM - IMMU)

INFOID:0000000007630869

### DATA MONITOR

## DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[SEDAN]

Monitor item	Content
CONFIRM ID ALL	Indicates [YET] at all time. Switch to [DONE] when a registered Intelligent Key is inserted into the key slot.
CONFIRM ID4	
CONFIRM ID3	
CONFIRM ID2	
CONFIRM ID1	
TP 4	Indicates the number of ID which has been registered.
TP 3	
TP 2	
TP 1	
PUSH SW	Indicates [ON/OFF] condition of push-button ignition switch.
KEY SW -SLOT	Indicates [ON/OFF] condition of key slot.

### ACTIVE TEST

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

SEC

## DTC/CIRCUIT DIAGNOSIS

### U1000 CAN COMM CIRCUIT

#### Description

INFOID:000000007422540

Refer to [LAN-6, "System Description"](#).

#### DTC Logic

INFOID:000000007422541

#### DTC DETECTION LOGIC

CONSULT display description	DTC Detection Condition	Possible cause
CAN COMM CIRCUIT [U1000]	When BCM cannot communicate CAN communication signal continuously for 2 seconds or more	In CAN communication system, any item (or items) of the following listed below is malfunctioning. <ul style="list-style-type: none"> <li>• Transmission</li> <li>• Receiving (ECM)</li> <li>• Receiving (VDC/TCS/ABS)</li> <li>• Receiving (METER/M&amp;A)</li> <li>• Receiving (TCM)</li> <li>• Receiving (IPDM E/R)</li> </ul>

#### Diagnosis Procedure

INFOID:000000007422542

#### 1.PERFORM SELF DIAGNOSTIC

1. Turn ignition switch ON and wait for 2 second or more.
2. Check "Self Diagnostic Result".

Is "CAN COMM CIRCUIT" displayed?

- YES >> Refer to [LAN-7, "CAN Communication Control Circuit"](#).
- NO >> Refer to [GI-42, "Intermittent Incident"](#).

## U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

### U1010 CONTROL UNIT (CAN)

#### DTC Logic

INFOID:000000007422543

#### DTC DETECTION LOGIC

CONSULT display description	DTC Detection Condition	Possible cause
CAN COMM CIRCUIT [U1010]	BCM detected internal CAN communication circuit malfunction.	BCM

#### Diagnosis Procedure

INFOID:000000007422544

#### 1. REPLACE BCM

When DTC U1010 is detected, replace BCM.

>> Replace BCM. Refer to [BCS-92, "Removal and Installation"](#).

SEC

## B2013 ID DISCORD, IMMU-STRG

## Description

INFOID:000000007422545

BCM performs the ID verification with the electronic steering column lock and releases the steering lock if both BCM and electronic steering column lock ID are same. BCM starts the communication with the electronic steering column lock when Intelligent Key is carried into the passenger compartment and the push-button ignition switch is pressed.

## DTC Logic

INFOID:000000007422546

## DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2013	ID DISCORD, IMMU-STRG	The ID verification results between BCM and steering control unit are NG. The registration is necessary.	<ul style="list-style-type: none"> <li>Electronic steering column lock</li> </ul>

## DTC CONFIRMATION PROCEDURE

## 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Lock steering.
2. Press the push-button ignition switch
3. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

- YES >> Go to [SEC-250, "Diagnosis Procedure"](#).  
 NO >> Inspection End.

## Diagnosis Procedure

INFOID:000000007422547

## 1.PERFORM INITIALIZATION

Perform initialization with CONSULT. Re-register all Intelligent Keys.  
 For initialization and registration of Intelligent Key. Refer to CONSULT Immobilizer mode and follow the on-screen instructions.

Can the system be initialized and can steering lock be released with re-registered Intelligent Key?

- YES >> Electronic steering column lock was unregistered.  
 NO >> Replace electronic steering column lock.

# B2014 CHAIN OF STRG-IMMU

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

## B2014 CHAIN OF STRG-IMMU

### Description

INFOID:000000007422548

BCM performs the ID verification with the electronic steering column lock to release the steering. BCM starts the communication with the electronic steering column lock when Intelligent Key is carried into the passenger compartment and the push-button ignition switch is pressed.

### DTC Logic

INFOID:000000007422549

### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2014	CHAIN OF STRG-IMMU	Inactive communication between electronic steering column lock and BCM	<ul style="list-style-type: none"><li>• Harness or connectors (electronic steering column lock circuit is open or shorted)</li><li>• Electronic steering column lock</li><li>• BCM</li></ul>

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Lock steering.
2. Press the push-button ignition switch.
3. Check "Self diagnostic result" with CONSULT.

#### Is DTC detected?

- YES >> Go to [SEC-251, "Diagnosis Procedure"](#).  
NO >> Inspection End.

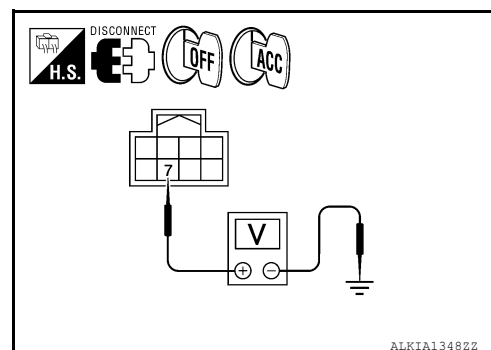
### Diagnosis Procedure

INFOID:000000007422550

Regarding Wiring Diagram information, refer to [SEC-399, "Wiring Diagram"](#).

#### 1.CHECK ELECTRONIC STEERING COLUMN LOCK POWER SUPPLY

1. Turn ignition switch OFF.
2. Disconnect electronic steering column lock harness connector.
3. Check voltage between electronic steering column lock harness connector and ground while turning ignition switch from OFF to ACC.



Electronic steering column lock		Ground	Ignition switch position	Voltage [V]
Connector	Terminal			
M32	7	Ground	OFF → ACC	Battery voltage
			OFF or ON	0

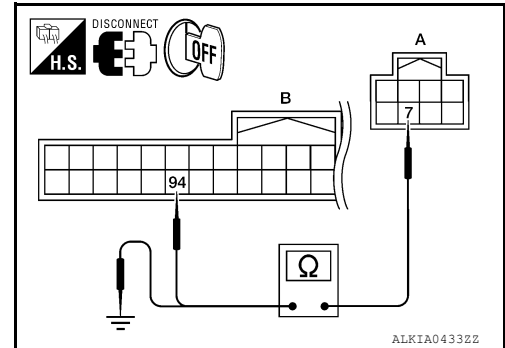
#### Is the inspection normal?

## < DTC/CIRCUIT DIAGNOSIS >

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

### 2.CHECK ELECTRONIC STEERING COLUMN LOCK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM harness connector.
3. Check continuity between electronic steering column lock harness connector M32 (A) terminal 7 and BCM harness connector M19 (B) terminal 94.



Electronic steering column lock		BCM		Continuity
Connector	Terminal	connector	Terminal	
A: M32	7	B: M19	94	Yes

4. Check continuity between electronic steering column lock harness connector M32 (A) terminal 7 and ground.

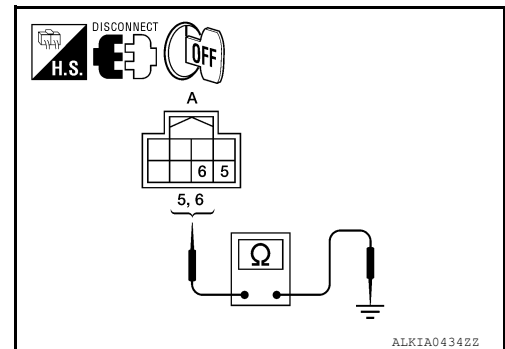
Electronic steering column lock		Ground	Continuity
Connector	Terminal		
A: M32	7	Ground	No

Is the inspection normal?

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

### 3.CHECK ELECTRONIC STEERING COLUMN LOCK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between electronic steering column lock and ground.



Electronic steering column lock		Ground	Continuity
Connector	Terminal		
M32	5	Ground	Yes
	6		

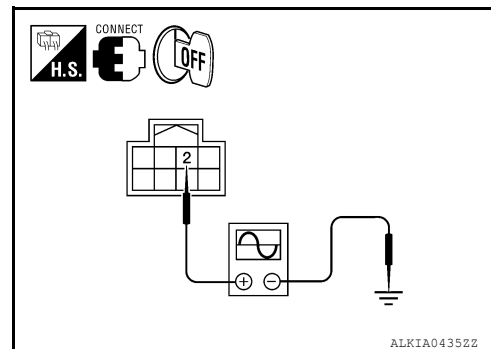
Is the inspection normal?

YES >> GO TO 4.  
NO >> Repair harness or connector.



## 4. CHECK ELECTRONIC STEERING COLUMN LOCK COMMUNICATION SIGNAL

1. Connect electronic steering column lock harness connector.
2. Using an oscilloscope, read voltage signal between electronic steering column lock harness connector and ground.



Electronic steering column lock		Ground	Electronic steering column lock condition	Value
Connector	Terminal			
M32	2	Ground	Lock	Battery voltage
			Lock or unlock	
			For 15 seconds after unlock	Battery voltage
			15 seconds or later after unlock.	0 V

**Steering is locked**

**: Opening the door when ignition switch is ON to OFF.**

**Steering is unlocked**

**: Ignition switch is OFF to ACC.**

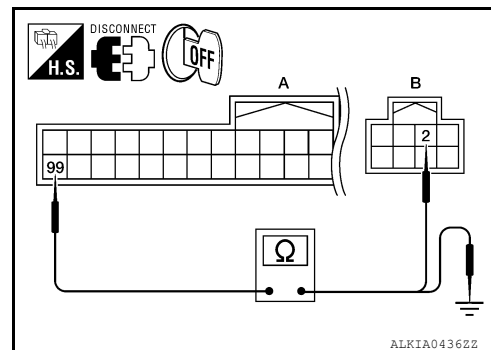
Is the inspection normal?

YES >> Replace electronic steering column lock.

NO >> GO TO 5.

## 5. CHECK ELECTRONIC STEERING COLUMN LOCK COMMUNICATION CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM harness connector.
3. Check continuity between BCM harness connector M19 (A) terminal 99 and electronic steering column lock harness connector M32 (B) terminal 2.



## B2014 CHAIN OF STRG-IMMU

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

BCM		Electronic steering column lock		Continuity
Connector	Terminal	connector	Terminal	
A: M19	99	B: M32	2	Yes

4. Check continuity between BCM harness connector M19 (A) terminal 99 and ground.

BCM		Ground	Continuity
Connector	Terminal		
A: M19	99	Ground	No

Is the inspection normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

### 6.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End.

# B2108 STEERING LOCK RELAY

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

## B2108 STEERING LOCK RELAY

### Description

INFOID:000000007422551

The steering lock relay ON signal is transmitted to IPDM E/R by BCM via CAN communication. IPDM E/R turns the steering lock relay ON and transmits the release of the steering to BCM.

### DTC Logic

INFOID:000000007422552

### DTC DETECTION LOGIC

#### NOTE:

- If DTC B2108 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-248, "DTC Logic"](#).
- If DTC B2108 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-249, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2108	STRG LCK RELAY ON	IPDM E/R detects that the relay is stuck at ON position for about 1 second even if the IPDM E/R receives steering lock relay ON/OFF signal from BCM.	<ul style="list-style-type: none"><li>• IPDM E/R</li></ul>

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Press the push-button ignition switch under the following conditions and wait for at least 1 second.
  - CVT selector lever is in the P position
  - Do not depress the brake pedal.
2. Check "Self diagnostic result" with CONSULT.

#### Is DTC detected?

- YES >> Go to [SEC-255, "Diagnosis Procedure"](#).  
NO >> Inspection End

### Diagnosis Procedure

INFOID:000000007422553

#### 1.CHECK FUSE

1. Turn ignition switch OFF.
2. Check 10A fuse (No. 40, located in IPDM E/R).

#### Is the inspection normal?

- YES >> Replace IPDM E/R. Refer to [PCS-45, "Removal and Installation"](#).  
NO >> Check the following.
  - Harness for open or short between IPDM E/R and battery
  - Fuse

## B2109 STEERING LOCK RELAY

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

### B2109 STEERING LOCK RELAY

#### Description

INFOID:000000007422554

The steering lock relay ON signal is transmitted to IPDM E/R by BCM via CAN communication. IPDM E/R turns the steering lock relay ON and transmits the release of the steering to BCM.

#### DTC Logic

INFOID:000000007422555

#### DTC DETECTION LOGIC

##### NOTE:

- If DTC B2109 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-248, "DTC Logic"](#).
- If DTC B2109 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-249, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2109	STRG LCK RELAY OFF	IPDM E/R detects that the relay is stuck at OFF position for about 1 second even if the IPDM E/R receives steering lock relay ON/OFF signal from BCM.	<ul style="list-style-type: none"><li>• Harness or connector (power supply circuit)</li><li>• IPDM E/R</li><li>• Battery</li></ul>

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Press the push-button ignition switch under the following conditions and wait for at least 1 second.
  - CVT selector lever is in the P or N position
  - Do not depress the brake pedal
2. Check "Self diagnostic result" with CONSULT.

##### Is DTC detected?

YES >> Go to [SEC-256, "Diagnosis Procedure"](#).

NO >> Inspection End

#### Diagnosis Procedure

INFOID:000000007422556

##### 1.CHECK POWER SUPPLY CIRCUIT

Check IPDM E/R power supply circuit. Refer to [PCS-20, "Diagnosis Procedure"](#).

##### Is the inspection normal?

YES >> GO TO 2.

NO >> Repair the malfunctioning parts

##### 2.CHECK FUSE

1. Turn ignition switch OFF.
2. Check 10A fuse (No. 40, located in IPDM E/R).

##### Is the inspection normal?

YES >> Replace IPDM E/R. Refer to [PCS-45, "Removal and Installation"](#).

NO >> Check the following.

- Harness for open or short between IPDM E/R and battery
- Fuse

# B210A STEERING LOCK CONDITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

## B210A STEERING LOCK CONDITION SWITCH

### Description

INFOID:000000007422557

There are 2 switches in the steering unit. IPDM E/R compares those 2 switches conditions to judge the present steering status and transmit the result to BCM via CAN communication.

### DTC Logic

INFOID:000000007422558

#### DTC DETECTION LOGIC

##### NOTE:

- If DTC B210A is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-248, "DTC Logic"](#).
- If DTC B210A is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-249, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B210A	STRG LCK STATE SW	BCM detects the mismatch between the following for 1 second <ul style="list-style-type: none"><li>• Steering lock or unlock</li><li>• Feedback of steering lock status from IPDM E/R (CAN)</li></ul>	<ul style="list-style-type: none"><li>• Harness or connectors [electronic steering column lock circuit (BCM side) is open or shorted]</li><li>• Harness or connectors [electronic steering column lock circuit (IPDM E/R side) is open or shorted.]</li><li>• Electronic steering column lock</li><li>• IPDM E/R</li></ul>

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Press the push-button ignition switch under the following conditions and wait for at least 1 second.
  - CVT selector lever is in the P or N position
  - Do not depress the brake pedal
2. Check "Self diagnostic result" with CONSULT.

##### Is DTC detected?

- YES >> Go to [SEC-257, "Diagnosis Procedure"](#).  
NO >> Inspection End.

### Diagnosis Procedure

INFOID:000000007422559

Regarding Wiring Diagram information, refer to [SEC-399, "Wiring Diagram"](#).

##### 1.INSPECTION START

Check the case in which DTC is detected.

- Case1: It is detected after ignition switch is changed from ON to OFF and door switch is pressed
- Case2: It is detected after ignition switch is changed from ON to OFF

##### In which case is DTC detected?

- Case1 >> GO TO 2.  
Case2 >> GO TO 7.

##### 2.CHECK BCM OUTPUT SIGNAL

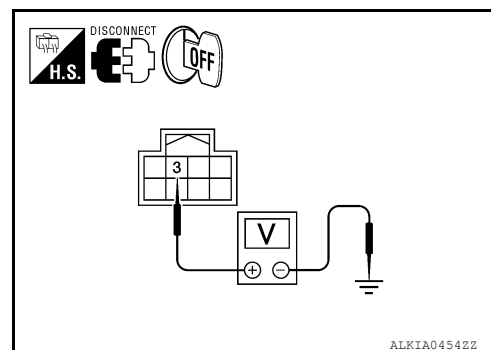
1. Turn ignition switch OFF.
2. Disconnect electronic steering column lock harness connector and IPDM E/R harness connector.

## B210A STEERING LOCK CONDITION SWITCH

### < DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

3. Check voltage between electronic steering column lock harness connector and ground.



Electronic steering column lock		Ground	Voltage [V]
Connector	Terminal		
M32	3	Ground	Battery voltage

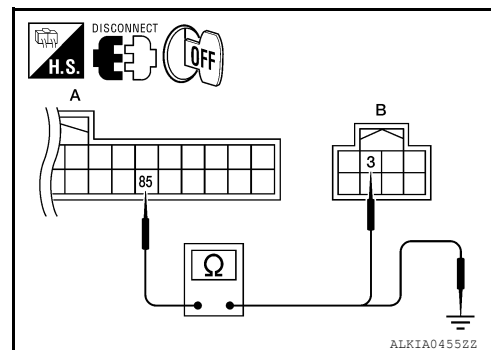
Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

### 3.CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-I

1. Disconnect BCM harness connector.
2. Check continuity between BCM harness connector M19 (A) terminal 85 and electronic steering column lock harness connector M32 (B) terminal 3.



BCM		Electronic steering column lock		Continuity
Connector	Terminal	Connector	Terminal	
A: M19	85	B: M32	3	Yes

3. Check continuity between BCM harness connector M19 (A) terminal 85 and ground.

BCM		Ground	Continuity
Connector	Terminal		
A: M19	85	Ground	No

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

### 4.CHECK IPDM E/R OUTPUT SIGNAL

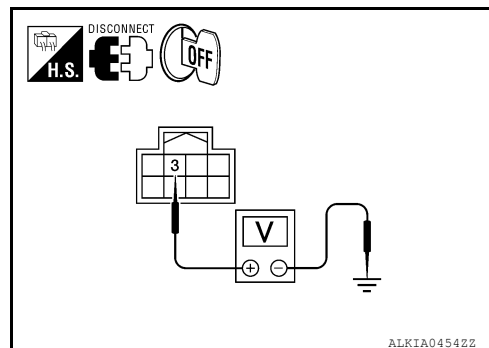
1. Connect IPDM E/R harness connector.
2. Disconnect BCM harness connector.

# B210A STEERING LOCK CONDITION SWITCH

[SEDAN]

## < DTC/CIRCUIT DIAGNOSIS >

- Check voltage between electronic steering column lock harness connector and ground.



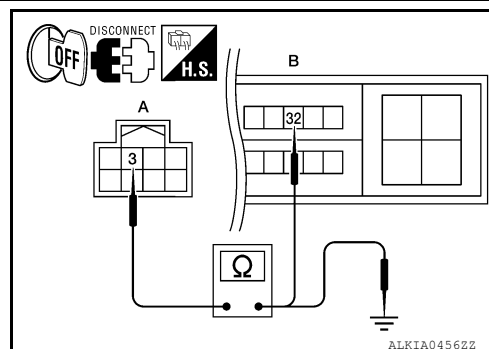
Electronic steering column lock		Ground	Voltage [V]
Connector	Terminal		
M32	3	Ground	Battery voltage

Is the inspection result normal?

- YES >> Replace electronic steering column lock.  
 NO >> GO TO 5.

## 5.CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-II

- Check continuity between electronic steering column lock harness connector M32 (A) terminal 3 and IPDM E/R harness connector E18 (B) terminal 32.



Electronic steering column lock		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: M32	3	B: E18	32	Yes

- Check continuity between electronic steering column lock harness connector M32 (A) terminal 3 and ground.

Electronic steering column lock		Ground	Continuity
Connector	Terminal		
A: M32	3	Ground	No

Is the inspection result normal?

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

## 6.CHECK INTERMITTENT INCIDENT

Refer to [GI-42. "Intermittent Incident"](#).

>> Inspection End.

## 7.CHECK BCM OUTPUT SIGNAL

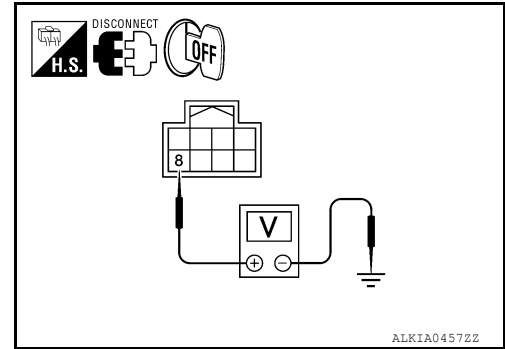
- Turn ignition switch OFF.
- Disconnect electronic steering column lock harness connector and IPDM E/R harness connector.

## B210A STEERING LOCK CONDITION SWITCH

[SEDAN]

### < DTC/CIRCUIT DIAGNOSIS >

3. Check voltage between electronic steering column lock harness connector and ground.



Electronic steering column lock		Ground	Voltage [V]
Connector	Terminal		
M32	8	Ground	Battery voltage

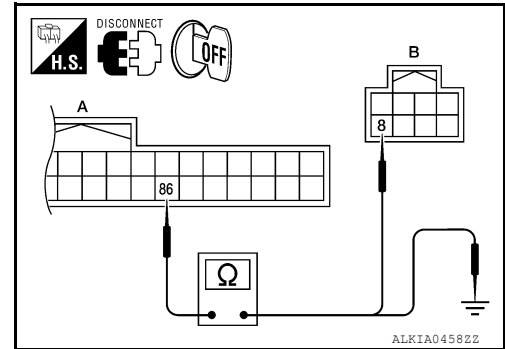
Is the inspection result normal?

YES >> GO TO 9.

NO >> GO TO 8.

### 8.CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-I

1. Disconnect BCM harness connector M122.
2. Check continuity between BCM harness connector M19 (A) terminal 86 and electronic steering column lock harness connector M32 (B) terminal 8.



BCM		Electronic steering column lock		Continuity
Connector	Terminal	Connector	Terminal	
A: M19	86	B: M32	8	Yes

3. Check continuity between BCM harness connector M19 (A) terminal 86 and ground.

BCM		Ground	Continuity
Connector	Terminal		
A: M19	86	Ground	No

Is the inspection result normal?

YES >> GO TO 11.

NO >> Repair harness or connector.

### 9.CHECK IPDM E/R OUTPUT SIGNAL

1. Connect IPDM E/R harness connector.
2. Disconnect BCM harness connector.

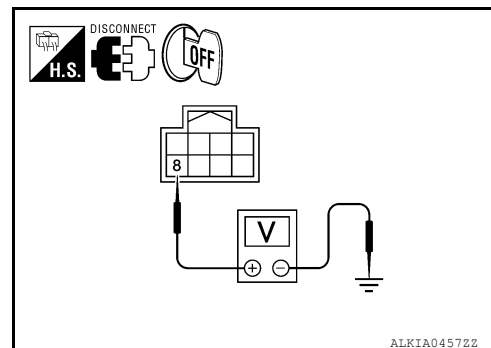


# B210A STEERING LOCK CONDITION SWITCH

[SEDAN]

## < DTC/CIRCUIT DIAGNOSIS >

- Check voltage between electronic steering column lock harness connector and ground.



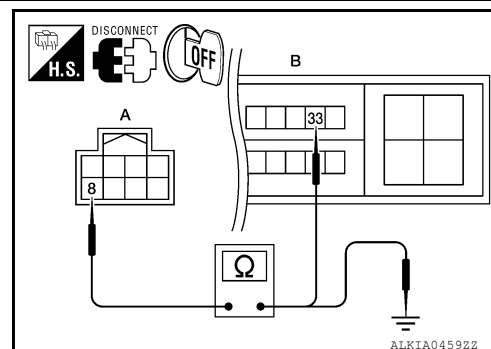
Electronic steering column lock		Ground	Voltage [V]
Connector	Terminal		
M32	8	Ground	Battery voltage

Is the inspection result normal?

- YES >> Replace electronic steering column lock.  
 NO >> GO TO 10.

## 10.CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-II

- Check continuity between electronic steering column lock harness connector M32 (A) terminal 8 and IPDM E/R harness connector E18 (B) terminal 33.



Electronic steering column lock		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: M32	8	B: E18	33	Yes

- Check continuity between electronic steering column lock harness connector and ground.

Electronic steering column lock		Ground	Continuity
Connector	Terminal		
A: M32	8	Ground	No

Is the inspection result normal?

- YES >> GO TO 11.  
 NO >> Repair harness or connector.

## 11.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End.

## B210B STARTER CONTROL RELAY

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

### B210B STARTER CONTROL RELAY

#### Description

INFOID:000000007422560

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

#### DTC Logic

INFOID:000000007422561

#### DTC DETECTION LOGIC

##### NOTE:

- If DTC B210B is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-248, "DTC Logic"](#).
- If DTC B210B is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-249, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B210B	START CONT RLY ON	IPDM E/R detects that the relay is stuck at ON position even if the followings condition are met for about 1 second. <ul style="list-style-type: none"><li>• Starter control relay ON/OFF signal from BCM</li><li>• Clutch interlock or shift transmission range switch input signal</li></ul>	<ul style="list-style-type: none"><li>• IPDM E/R</li></ul>

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn the power supply position to start under the following conditions and wait for at least 1 second.
  - CVT selector lever is in the P or N position.
  - Depress the brake pedal
2. Check "Self diagnostic result" with CONSULT.

##### Is DTC detected?

- YES >> Go to [SEC-262, "Diagnosis Procedure"](#).  
NO >> Inspection End.

#### Diagnosis Procedure

INFOID:000000007422562

##### 1.INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**  
See [PCS-29, "DTC Index"](#).

##### Is the DTC B210B displayed again?

- YES >> Replace IPDM E/R. Refer [PCS-45, "Removal and Installation"](#).  
NO >> Inspection End.

# B210C STARTER CONTROL RELAY

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

## B210C STARTER CONTROL RELAY

### Description

INFOID:000000007422563

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

### DTC Logic

INFOID:000000007422564

### DTC DETECTION LOGIC

#### NOTE:

- If DTC B210C is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-248, "DTC Logic"](#).
- If DTC B210C is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-249, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B210C	START CONT RLY OFF	IPDM E/R detects that the relay is stuck at ON position even if the followings condition are met for about 1 second. <ul style="list-style-type: none"><li>• Starter control relay ON/OFF signal from BCM</li><li>• Clutch interlock or shift transmission range switch input signal</li></ul>	<ul style="list-style-type: none"><li>• IPDM E/R</li></ul>

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn the power supply position to start under the following conditions and wait for at least 1 second.
  - CVT selector lever is in the P or N position.
  - Depress the brake pedal
2. Check "Self diagnostic result" with CONSULT.

#### Is DTC detected?

- YES >> Go to [SEC-263, "Diagnosis Procedure"](#).  
NO >> Inspection End.

### Diagnosis Procedure

INFOID:000000007422565

#### 1.INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**  
See [PCS-29, "DTC Index"](#).

#### Is the DTC B210C displayed again?

- YES >> Replace IPDM E/R. Refer to [PCS-45, "Removal and Installation"](#).  
NO >> Inspection End.

## B210D STARTER RELAY

## Description

INFOID:000000007422566

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

## DTC Logic

INFOID:000000007422567

## DTC DETECTION LOGIC

**NOTE:**

- If DTC B210D is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-248, "DTC Logic"](#).
- If DTC B210D is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-249, "DTC Logic"](#).
- If DTC B210D is displayed with DTC B2617, first perform the trouble diagnosis for DTC B2617. Refer to [SEC-336, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B210D	STARTER RELAY ON	IPDM E/R detects that the relay is stuck at ON position even if the followings condition are met for about 1 second. <ul style="list-style-type: none"> <li>• Starter control relay ON/OFF signal from BCM</li> <li>• Clutch interlock or shift transmission range switch input</li> </ul>	<ul style="list-style-type: none"> <li>• IPDM E/R</li> </ul>

## DTC CONFIRMATION PROCEDURE

**1. PERFORM DTC CONFIRMATION PROCEDURE**

1. Ignition switch ON under the following conditions and wait for at least 1 second.
  - CVT selector lever is P or N position
  - Do not depress the brake pedal
2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

- YES >> Go to [SEC-264, "Diagnosis Procedure"](#).  
 NO >> Inspection End.

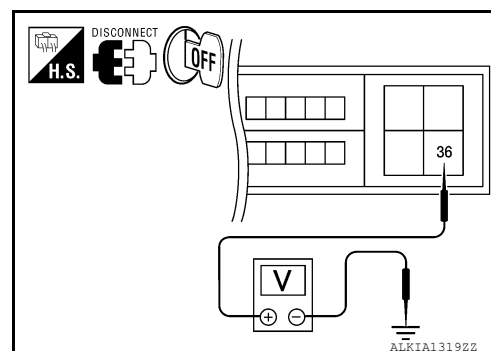
## Diagnosis Procedure

INFOID:000000007422568

Regarding Wiring Diagram information, refer to [PCS-128, "Wiring Diagram - Sedan"](#).

**1. CHECK STARTER RELAY POWER SUPPLY CIRCUIT**

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



B210D STARTER RELAY

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

IPDM E/R		Ground	Voltage (V)
Connector	Terminal		
E18	36	Ground	Battery voltage

Is the inspection result normal?

- YES >> Replace IPDM E/R. Refer to [PCS-45, "Removal and Installation"](#).
- NO >> Check harness for open or short between IPDM E/R and battery.

A

B

C

D

E

F

G

H

I

J

L

M

N

O

P

SEC

## B210E STARTER RELAY

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

### B210E STARTER RELAY

#### Description

INFOID:000000007422569

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

#### DTC Logic

INFOID:000000007422570

#### DTC DETECTION LOGIC

##### NOTE:

- If DTC B210E is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-248, "DTC Logic"](#).
- If DTC B210E is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-249, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B210E	STARTER RELAY OFF	IPDM E/R detects that the relay is stuck at ON position even if the followings condition are met for about 1 second. <ul style="list-style-type: none"><li>• Starter control relay ON/OFF signal from BCM</li><li>• Clutch interlock or shift transmission range switch input</li></ul>	<ul style="list-style-type: none"><li>• IPDM E/R</li></ul>

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions and wait for at least 1 second.
  - CVT selector lever is in the P or N position
  - Do not depress the brake pedal
2. Check "Self diagnostic result" with CONSULT.

##### Is DTC detected?

- YES >> Go to [SEC-266, "Diagnosis Procedure"](#).  
NO >> Inspection End.

#### Diagnosis Procedure

INFOID:000000007422571

Regarding Wiring Diagram information, refer to [SEC-427, "Wiring Diagram"](#).

##### 1.INSPECTION START

Check which type of transmission the vehicle is equipped with.

##### Which type of transmission

- CVT >> GO TO 2.  
M/T >> GO TO 3.

##### 2.CHECK STARTER RELAY OUTPUT SIGNAL/CVT MODELS

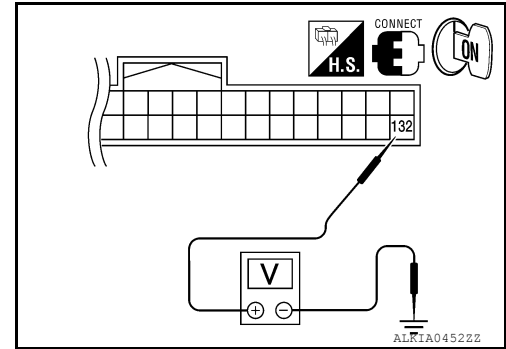
1. Turn ignition switch OFF.
2. Disconnect BCM harness connector.

## B210E STARTER RELAY

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

3. Check voltage between BCM harness connector and ground.



BCM connector		Ground	Condition			Voltage (V)
Connector	Terminal		Ignition switch	Brake pedal	CVT selector lever	
M21	132	Ground	ON	Depressed	P or N	Battery voltage
					Other than above	0

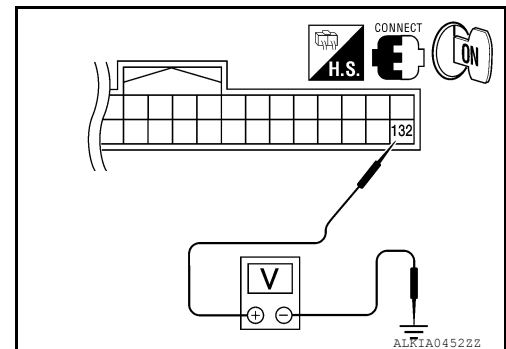
Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

### 3.CHECK STARTER RELAY OUTPUT SIGNAL / M/T MODELS

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



BCM connector		Ground	Condition		Voltage (V)
Connector	Terminal		Ignition switch	Clutch pedal	
M21	132	Ground	OFF	Not depressed	0
				Depressed	Battery voltage

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

### 4.CHECK STARTER RELAY OUTPUT SIGNAL CIRCUIT

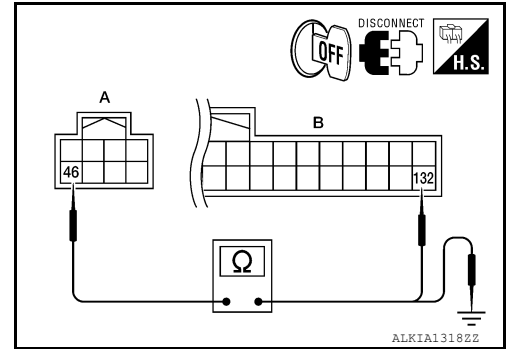
1. Disconnect IPDM E/R harness connector.

## B210E STARTER RELAY

[SEDAN]

### < DTC/CIRCUIT DIAGNOSIS >

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



IPDM E/R		BCM		Continuity
Connector	Terminal	Connector	Terminal	
A: E17	46	B: M21	132	Yes

- Check continuity between BCM harness connector and ground.

IPDM E/R		Ground	Continuity
Connector	Terminal		
A: E17	46	Ground	No

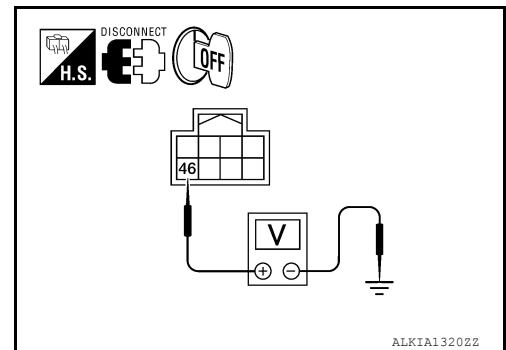
Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-45, "Removal and Installation"](#).

NO >> Repair harness connector.

### 5.CHECK STARTER RELAY POWER SUPPLY CIRCUIT

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



IPDM E/R		Ground	Voltage (V)
Connector	Terminal		
E17	46	Ground	Battery voltage

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-45, "Removal and Installation"](#).

NO >> Check harness for open or short between IPDM E/R and battery.



# B210F TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

## B210F TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

### Description

INFOID:000000007422572

IPDM E/R confirms the shift position with the following signals.

- Transmission range switch (CVT models)
- Clutch interlock switch (M/T models)
- Shift position signal from BCM (CAN)

### DTC Logic

INFOID:000000007422573

#### DTC DETECTION LOGIC

##### NOTE:

- If DTC B210F is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-248, "DTC Logic"](#)
- If DTC B210F is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-248, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B210F	INTER LOCK/TRANSMISSION RANGE SW ON	IPDM E/R detects a mismatch between the signals below for 1 second or more. <ul style="list-style-type: none"><li>• Clutch interlock input signal (M/T models)</li><li>• Shift transmission range switch input signal (CVT models)</li><li>• Shift position signal from BCM (CAN)</li></ul>	<ul style="list-style-type: none"><li>• Harness or connectors [Transmission range switch circuit is open or shorted (CVT models)] or (Clutch interlock switch circuit is open or shorted.)</li><li>• Clutch interlock switch (M/T models)</li><li>• Transmission range switch (CVT models)</li></ul>

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions and wait for at least 1 second.
  - CVT selector lever is in the P or N position
  - Do not depress the brake pedal
2. Check "Self diagnostic result" with CONSULT.

##### Is DTC detected?

- YES >> Go to [SEC-269, "Diagnosis Procedure"](#).  
NO >> Inspection End.

### Diagnosis Procedure

INFOID:000000007422574

Regarding Wiring Diagram information, refer to [SEC-427, "Wiring Diagram"](#).

##### 1.INSPECTION START

Check which type of transmission the vehicle is equipped with.

##### Which type of transmission

- CVT >> GO TO 2.  
M/T >> GO TO 5.

##### 2.CHECK DTC WITH BCM

Refer to [BCS-67, "DTC Index"](#).

##### Is the inspection result normal?

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

##### 3.CHECK TRANSMISSION RANGE SWITCH INPUT SIGNAL

# B210F TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

[SEDAN]

## < DTC/CIRCUIT DIAGNOSIS >

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

IPDM E/R		Ground	Condition		Voltage (V)
Connector	Terminal				
E18	30	Ground	CVT selector lever	P or N	0
				Other than above	Battery voltage

### Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-45. "Removal and Installation"](#).

NO >> GO TO 4 (VQ35DE).

NO >> GO TO 10 (QR25DE).

## 4.CHECK TRANSMISSION RANGE SWITCH CIRCUIT

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

TCM		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
F16	20	E18	72	Yes

4. Check continuity between TCM harness connector and ground.

TCM		Ground	Continuity
Connector	Terminal		
F16	20	Ground	No

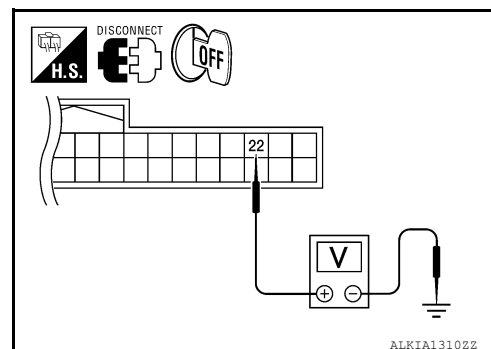
### Is the inspection result normal?

YES >> GO TO 13.

NO >> Repair harness or connector.

## 5.CHECK CLUTCH INTERLOCK SWITCH INPUT SIGNAL (BCM)

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



BCM		Ground	Condition		Voltage (V)
Connector	Terminal				
M18	22	Ground	Clutch pedal	Not depressed	0
				Depressed	Battery voltage

### Is the inspection result normal?

# B210F TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

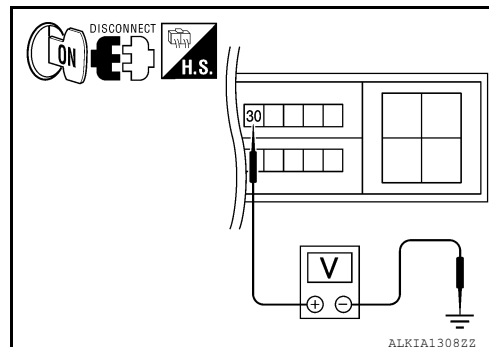
< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

- YES >> GO TO 6.  
NO >> GO TO 11.

## 6.CHECK CLUTCH INTERLOCK SWITCH INPUT SIGNAL

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



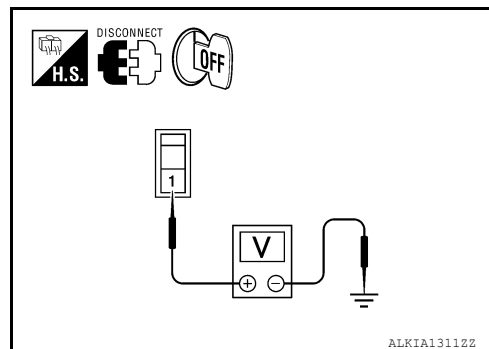
IPDM E/R		Ground	Condition		Voltage (V)
Connector	Terminal				
E18	30	Ground	Clutch pedal	Not depressed	0
				Depressed	Battery voltage

Is the inspection result normal?

- YES >> Replace the IPDM E/R. Refer to [PCS-45. "Removal and Installation"](#).  
NO >> GO TO 7.

## 7.CHECK CLUTCH INTERLOCK SWITCH POWER SUPPLY

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



Clutch interlock switch		Ground	Voltage (V)
Connector	Terminal		
E36	1	Ground	Battery voltage

Is the inspection result normal?

- YES >> GO TO 8.  
NO >> Check harness for open or short between clutch interlock switch and fuse.

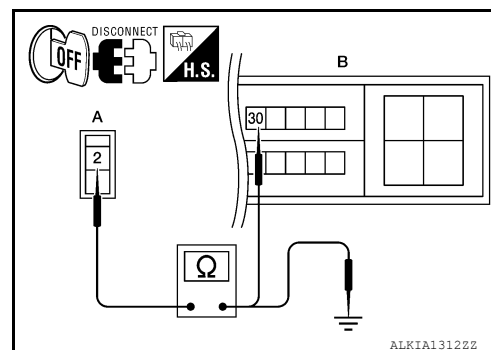
## 8.CHECK CLUTCH INTERLOCK SWITCH CIRCUIT

# B210F TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

1. Check continuity between IPDM E/R harness connector and clutch interlock switch harness connector.



Clutch interlock switch		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: E36	2	B: E18	30	Yes

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

Clutch interlock switch		Ground	Continuity
Connector	Terminal		
A: E36	2	Ground	No

Is the inspection result normal?

YES >> GO TO 9.

NO >> Repair harness or connector.

## 9.CHECK CLUTCH INTERLOCK SWITCH

Refer to [SEC-273. "Component Inspection"](#).

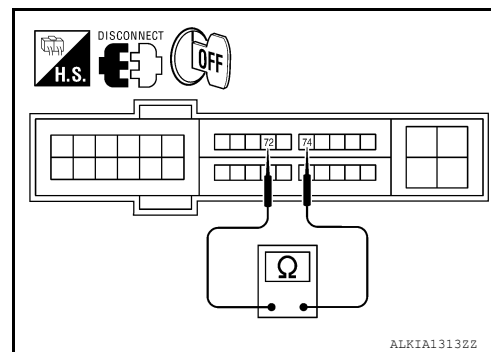
Is the inspection result normal?

YES >> Replace the IPDM E/R. Refer to [PCS-45. "Removal and Installation"](#).

NO >> Replace clutch interlock switch.

## 10.CHECK TRANSMISSION RANGE SWITCH CIRCUIT FOR CONTINUITY

1. Turn ignition switch OFF.
2. Check continuity between IPDM E/R harness connector terminals 72 and 74.



IPDM E/R			Condition	Continuity	
Connector	Terminals				
F10	72	74	Transmission range switch position	P or N	Yes
				Other	No

Is the inspection result normal?

YES >> GO TO 11.

NO >> GO TO 12.

## 11.CHECK TRANSMISSION RANGE SWITCH CIRCUIT FOR SHORT

# B210F TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

[SEDAN]

## < DTC/CIRCUIT DIAGNOSIS >

Check continuity between IPDM E/R harness connector terminals 72, 74 and ground.

IPDM E/R		Ground	Continuity
Connector	Terminal		
F10	72	Ground	No
	74		

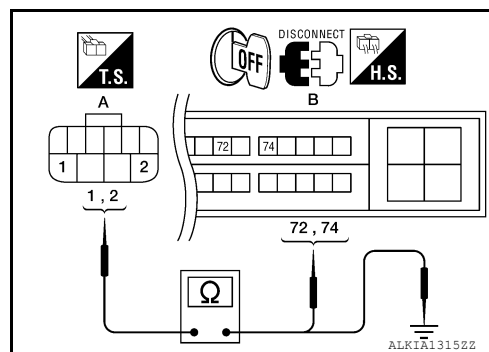
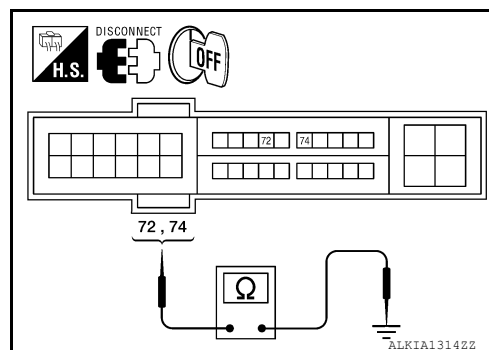
Is the inspection result normal?

YES >> Replace the IPDM E/R. Refer to [PCS-45, "Removal and Installation"](#).

NO >> Repair or replace harness.

## 12.CHECK TRANSMISSION RANGE SWITCH INPUT SIGNAL CIRCUIT

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



Transmission range switch		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: F25	1	B: F10	74	Yes
	2		72	

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

Transmission range switch		Ground	Continuity
Connector	Terminal		
A: F25	1	Ground	No
	2		

Is the inspection result normal?

YES >> Replace transmission range switch.

NO >> Repair harness or connector.

## 13.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End.

## Component Inspection

INFOID:000000007422575

## 1.CHECK CLUTCH INTERLOCK SWITCH

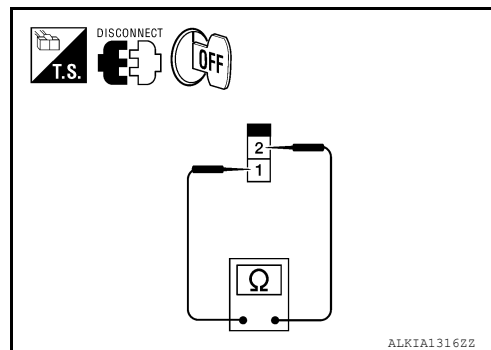
1. Turn ignition switch OFF.
2. Disconnect clutch interlock switch harness connector.

## B210F TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

3. Check continuity between clutch interlock switch under the following conditions.



Clutch interlock switch		Condition		Continuity
Terminal				
1	2	Clutch pedal	Not depressed	No
			Depressed	Yes

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace clutch interlock switch.

# B2110 TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

## B2110 TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

### Description

INFOID:000000007422576

IPDM E/R confirms the shift position with the following signals.

- Transmission range switch (CVT models)
- Clutch inter lock switch (M/T models)
- Shift position signal from BCM (CAN)

### DTC Logic

INFOID:000000007422577

#### DTC DETECTION LOGIC

##### NOTE:

- If DTC B2110 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-248, "DTC Logic"](#).
- If DTC B2110 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-249, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2110	INTER LOCK/ TRANSMISSION RANGE SW	IPDM E/R detects mismatch between the signals below for 1 second or more. <ul style="list-style-type: none"><li>• Clutch interlock input signal (M/T models)</li><li>• Shift NP switch input signal (CVT models)</li></ul>	<ul style="list-style-type: none"><li>• Harness or connectors [Transmission range switch circuit is open or shorted (CVT models)] or (Clutch interlock switch circuit is open or shorted.)</li><li>• Clutch inter lock switch (M/T models)</li><li>• Transmission range switch (CVT models)</li></ul>

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn the ignition switch ON under the following conditions and wait for at least 1 second.
  - CVT selector lever is in the P or N position
  - Do not depress the brake pedal
2. Check "Self diagnostic result" with CONSULT.

##### Is DTC detected?

- YES >> Go to [SEC-275, "Diagnosis Procedure"](#).  
NO >> Inspection End.

### Diagnosis Procedure

INFOID:000000007422578

Regarding Wiring Diagram information, refer to [SEC-427, "Wiring Diagram"](#).

##### 1.INSPECTION START

Check which type of transmission the vehicle is equipped with.

##### Which type of transmission

- CVT >> GO TO 2.  
M/T >> GO TO 5.

##### 2.CHECK DTC WITH BCM

Refer to [BCS-67, "DTC Index"](#).

##### Is the inspection result normal?

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

##### 3.CHECK TRANSMISSION RANGE SWITCH INPUT SIGNAL

# B2110 TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

[SEDAN]

## < DTC/CIRCUIT DIAGNOSIS >

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

IPDM E/R		Ground	Condition		Voltage (V)
Connector	Terminal				
E18	30	Ground	CVT selector lever	P or N	0
				Other than above	Battery voltage

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-45. "Removal and Installation"](#).

NO >> GO TO 4 (VQ35DE).

NO >> GO TO 10 (QR25DE).

## 4.CHECK TRANSMISSION RANGE SWITCH CIRCUIT

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

TCM		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
F16	20	E18	72	Yes

4. Check continuity between TCM harness connector and ground.

TCM		Ground	Continuity
Connector	Terminal		
F16	20	Ground	No

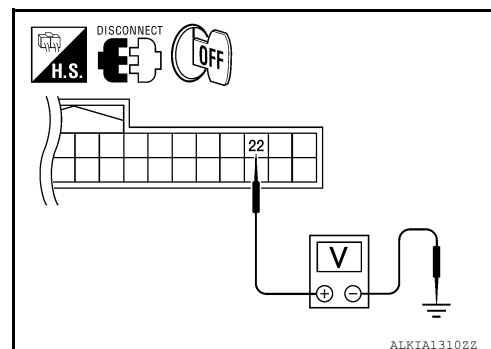
Is the inspection result normal?

YES >> GO TO 13.

NO >> Repair harness or connector.

## 5.CHECK CLUTCH INTERLOCK SWITCH INPUT SIGNAL (BCM)

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



BCM		Ground	Condition		Voltage (V)
Connector	Terminal				
M18	22	Ground	Clutch pedal	Not depressed	0
				Depressed	Battery voltage

Is the inspection result normal?



# B2110 TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

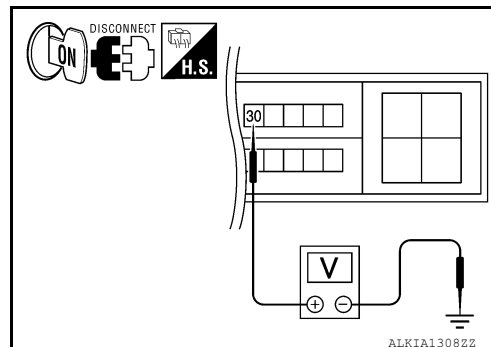
[SEDAN]

## < DTC/CIRCUIT DIAGNOSIS >

- YES >> GO TO 6.  
NO >> GO TO 11.

### 6.CHECK CLUTCH INTERLOCK SWITCH INPUT SIGNAL

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



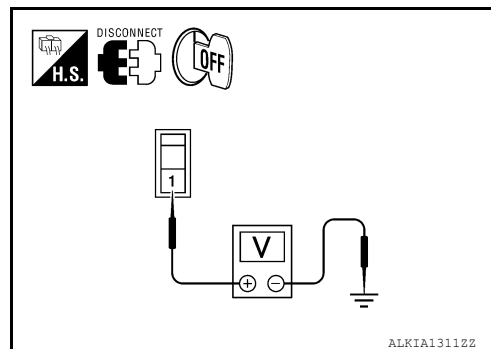
IPDM E/R		Ground	Condition		Voltage (V)
Connector	Terminal				
E18	30	Ground	Clutch pedal	Not depressed	0
				Depressed	Battery voltage

Is the inspection result normal?

- YES >> Replace the IPDM E/R. Refer to [PCS-45, "Removal and Installation"](#).  
NO >> GO TO 7.

### 7.CHECK CLUTCH INTERLOCK SWITCH POWER SUPPLY

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



Clutch interlock switch		Ground	Voltage (V)
Connector	Terminal		
E36	1	Ground	Battery voltage

Is the inspection result normal?

- YES >> GO TO 8.  
NO >> Check harness for open or short between clutch interlock switch and fuse.

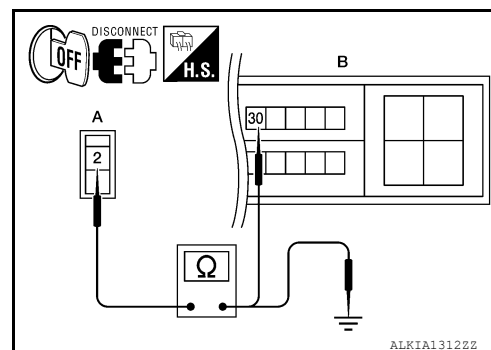
### 8.CHECK CLUTCH INTERLOCK SWITCH CIRCUIT

# B2110 TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

1. Check continuity between IPDM E/R harness connector and clutch interlock switch harness connector.



Clutch interlock switch		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: E36	2	B: E18	30	Yes

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

Clutch interlock switch		Ground	Continuity
Connector	Terminal		
A: E36	2	Ground	No

Is the inspection result normal?

YES >> GO TO 9.

NO >> Repair harness or connector.

## 9.CHECK CLUTCH INTERLOCK SWITCH

Refer to [SEC-279. "Component Inspection"](#).

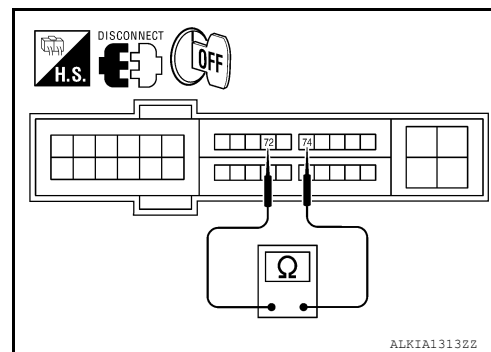
Is the inspection result normal?

YES >> Replace the IPDM E/R. Refer to [PCS-45. "Removal and Installation"](#).

NO >> Replace clutch interlock switch.

## 10.CHECK TRANSMISSION RANGE SWITCH CIRCUIT FOR CONTINUITY

1. Turn ignition switch OFF.
2. Check continuity between IPDM E/R harness connector terminals 72 and 74.



IPDM E/R			Condition	Continuity	
Connector	Terminals				
F10	72	74	Transmission range switch position	P or N	Yes
				Other	No

Is the inspection result normal?

YES >> GO TO 11.

NO >> GO TO 12.

## 11.CHECK TRANSMISSION RANGE SWITCH CIRCUIT FOR SHORT

# B2110 TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

[SEDAN]

## < DTC/CIRCUIT DIAGNOSIS >

Check continuity between IPDM E/R harness connector terminals 72, 74 and ground.

IPDM E/R		Ground	Continuity
Connector	Terminal		
F10	72	Ground	No
	74		

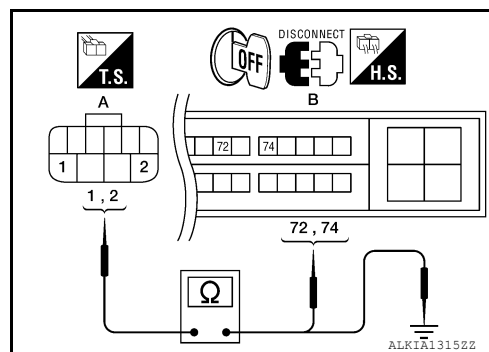
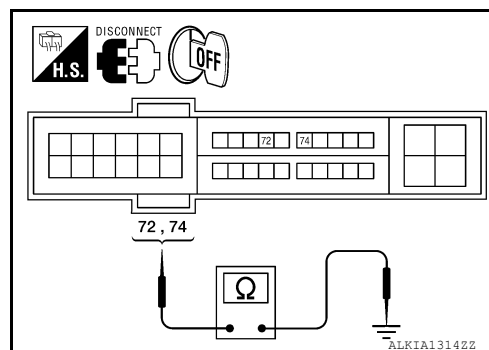
Is the inspection result normal?

YES >> Replace the IPDM E/R. Refer to [PCS-45, "Removal and Installation"](#).

NO >> Repair or replace harness.

## 12.CHECK TRANSMISSION RANGE SWITCH INPUT SIGNAL CIRCUIT

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



Transmission range switch		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: F25	1	B: F10	74	Yes
	2		72	

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

Transmission range switch		Ground	Continuity
Connector	Terminal		
A: F25	1	Ground	No
	2		

Is the inspection result normal?

YES >> Replace transmission range switch.

NO >> Repair harness or connector.

## 13.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End.

## Component Inspection

INFOID:000000007422579

## 1.CHECK CLUTCH INTERLOCK SWITCH

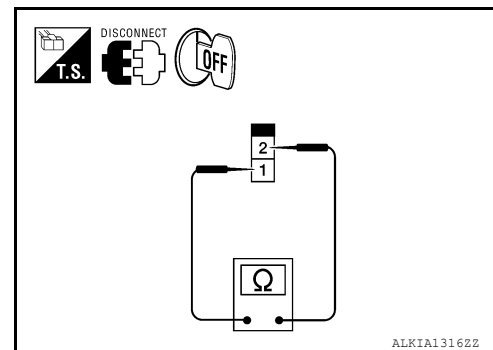
1. Turn ignition switch OFF.
2. Disconnect clutch interlock switch harness connector.

## B2110 TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

3. Check continuity between clutch interlock switch under the following conditions.



Clutch interlock switch		Condition		Continuity
Terminal				
1	2	Clutch pedal	Not depressed	No
			Depressed	Yes

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace clutch interlock switch.

# B2190, P1610 NATS ANTENNA AMP

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

## B2190, P1610 NATS ANTENNA AMP

### Description

INFOID:000000007422580

Performs ID verification through BCM and Intelligent Key when push-button ignition switch is pressed.  
Prohibits the release of steering lock or start of engine when an unregistered ID of Intelligent Key is used.

### DTC Logic

INFOID:000000007422581

### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2190	NATS ANTENNA AMP	Inactive communication between key slot and BCM.	<ul style="list-style-type: none"><li>• Harness or connectors (The key slot circuit is open or shorted)</li><li>• Key slot</li><li>• BCM</li></ul>
P1610			

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Insert Intelligent Key into the key slot.
2. Check "Self diagnostic result" with CONSULT.

##### Is DTC detected?

YES >> Go to [SEC-281, "Diagnosis Procedure"](#).  
NO >> GO TO 2.

#### 2.PERFORM DTC CONFIRMATION PROCEDURE

1. Press the push-button ignition switch.
2. Check "Self diagnostic result" with CONSULT.

##### Is DTC detected?

YES >> Go to [SEC-281, "Diagnosis Procedure"](#).  
NO >> Inspection End.

### Diagnosis Procedure

INFOID:000000007422582

SEC

Regarding Wiring Diagram information, refer to [SEC-427, "Wiring Diagram"](#).

#### 1. INSPECTION START

Check the case in which DTC is detected.

- Case1: It is detected when Intelligent Key is inserted into key slot.
- Case2: It is detected after Intelligent Key is inserted into key slot and push-button ignition switch is pressed.

##### In which case is DTC detected?

Case1. >> GO TO 2.  
Case2. >> GO TO 4.

#### 2.CHECK KEY SLOT INPUT SIGNAL

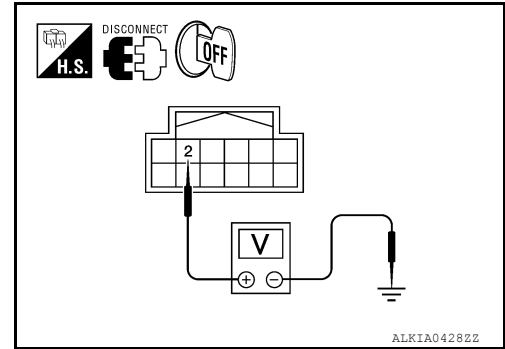
1. Turn ignition switch OFF.
2. Disconnect key slot harness connector.

## B2190, P1610 NATS ANTENNA AMP

[SEDAN]

### < DTC/CIRCUIT DIAGNOSIS >

3. Check voltage between key slot harness connector and ground.



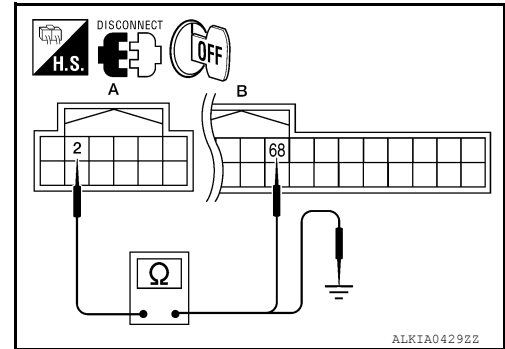
Key slot		Ground	Voltage [V] (approx.)
Connector	Terminal		
M40	2	Ground	Battery voltage

#### Is the inspection result normal?

- YES >> Replace key slot. Refer to [SEC-443, "Removal and Installation"](#).  
NO >> GO TO 3.

### 3.CHECK KEY SLOT CIRCUIT

1. Disconnect BCM harness connector.  
2. Check continuity between key slot harness connector M40 (A) terminal 2 and BCM harness connector M19 (B) terminal 68.



Key slot		BCM		Continuity
Connector	Terminal	Connector	Terminal	
A: M40	2	B: M19	68	Yes

3. Check continuity between key slot harness connector M40 (A) terminal 2 and ground.

Key slot		Ground	Continuity
Connector	Terminal		
A: M40	2	Ground	No

#### Is the inspection result normal?

- YES >> GO TO 8.  
NO >> Repair harness or connector.

### 4.CHECK PUSH-BUTTON IGNITION SWITCH OPERATION

Press push-button ignition switch and check if it turns ON.

#### Does ignition switch turn to ON?

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

### 5.CHECK KEY SLOT COMMUNICATION SIGNAL

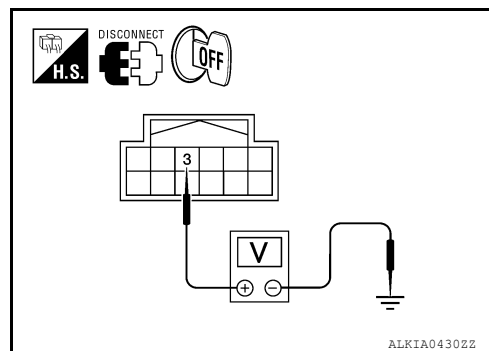
1. Turn ignition switch OFF.

# B2190, P1610 NATS ANTENNA AMP

[SEDAN]

## < DTC/CIRCUIT DIAGNOSIS >

2. Disconnect key slot harness connector.
3. Check voltage between key slot harness connector and ground.



Key slot		Ground	Continuity
Connector	Terminal		
M40	3	Ground	Yes

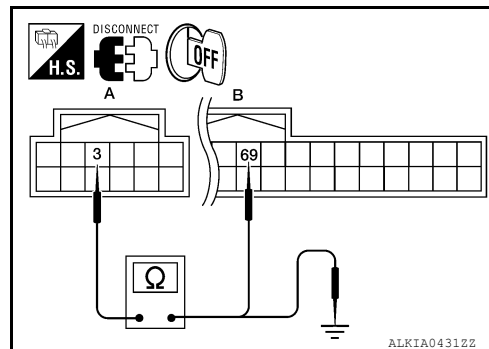
### Is the inspection result normal?

YES >> Replace key slot. Refer to [SEC-443, "Removal and Installation"](#).

NO >> GO TO 6.

## 6.CHECK KEY SLOT COMMUNICATION SIGNAL CIRCUIT

1. Disconnect BCM harness connector.
2. Check continuity between key slot harness connector M40 (A) terminal 3 and BCM harness connector M19 (B) terminal 69.



Key slot		BCM		Continuity
Connector	Terminal	Connector	Terminal	
A: M40	3	B: M19	69	Yes

3. Check continuity between key slot harness connector M40 (A) terminal 3 and ground.

Key slot		Ground	Continuity
Connector	Terminal		
A: M40	3	Ground	No

### Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair harness or connector.

## 7.CHECK KEY SLOT GROUND CIRCUIT

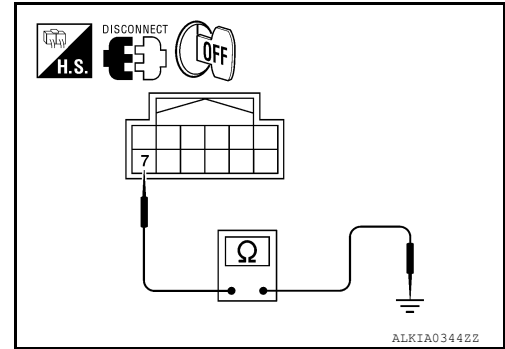
1. Turn ignition switch OFF.
2. Disconnect key slot harness connector.

## B2190, P1610 NATS ANTENNA AMP

[SEDAN]

### < DTC/CIRCUIT DIAGNOSIS >

3. Check continuity between key slot harness connector and ground.



Key slot		Ground	Continuity
Connector	Terminal		
M40	7	Ground	Yes

Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair harness or connector.

### 8.CHECK INTERMITTENT INCIDENT

Refer to [GI-42. "Intermittent Incident"](#).

>> Inspection End.



## B2191, P1615 DIFFERENCE OF KEY

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

### B2191, P1615 DIFFERENCE OF KEY

#### Description

INFOID:000000007422583

Performs ID verification through BCM and Intelligent Key when push-button ignition switch is pressed. Prohibits the release of steering lock or start of engine when an unregistered ID of Intelligent Key is used.

#### DTC Logic

INFOID:000000007422584

#### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2191 P1615	DIFFERENCE OF KEY	The ID verification results between BCM and Intelligent Key are NG. The registration is necessary.	• Intelligent Key

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Insert the Intelligent Key in the key slot. Press the push-button ignition switch.
2. Check "Self diagnostic result" with CONSULT.

##### Is DTC detected?

- YES >> Go to [SEC-285. "Diagnosis Procedure"](#).  
NO >> Inspection End.

#### Diagnosis Procedure

INFOID:000000007422585

##### 1.PERFORM INITIALIZATION

Perform initialization with CONSULT. Re-register all Intelligent Keys. For initialization and registration of Intelligent Key. Refer to CONSULT Immobilizer mode and follow the on-screen instructions.

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

- YES >> Intelligent Key was unregistered.  
NO >> BCM is malfunctioning.  
• Replace BCM. Refer to [BCS-92. "Removal and Installation"](#).  
• Perform initialization again

SEC

## B2192, P1611 ID DISCORD, IMMU-ECM

## Description

INFOID:000000007422586

BCM performs the ID verification with ECM that allows the engine to start. Start the engine if the ID is OK. ECM prevents the engine from starting if the ID is not registered. BCM starts the communication with ECM if ignition switch is turned ON.

## DTC Logic

INFOID:000000007422587

## DTC DETECTION LOGIC

**NOTE:**

- If DTC B2192 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-248, "DTC Logic"](#).
- If DTC B2192 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-249, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2192 P1611	ID DISCORD, IMMU-ECM	The ID verification results between BCM and ECM are NG. The registration is necessary.	<ul style="list-style-type: none"> <li>• BCM</li> <li>• ECM</li> </ul>

## DTC CONFIRMATION PROCEDURE

**1.PERFORM DTC CONFIRMATION PROCEDURE**

1. Turn ignition switch ON under the following conditions.
  - CVT selector lever is in the P or N position
  - Do not depress the brake pedal
2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

- YES >> Go to [SEC-286, "Diagnosis Procedure"](#).  
 NO >> Inspection End.

## Diagnosis Procedure

INFOID:000000007422588

**1.PERFORM INITIALIZATION**

Perform initialization with CONSULT. Re-register all Intelligent Keys.  
 For initialization and registration of Intelligent Key. Refer to CONSULT Immobilizer mode and follow the on-screen instructions.

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

- YES >> ID was unregistered.  
 NO >> BCM is malfunctioning.
  - Replace BCM. Refer to [BCS-92, "Removal and Installation"](#).
  - Perform initialization again
  - Replace ECM

## B2193, P1612 CHAIN OF ECM-IMMU

## Description

INFOID:000000007422589

BCM performs the ID verification with ECM that allows the engine to start. Start the engine if the ID is OK. ECM prevents the engine from starting if the ID is not registered. BCM starts the communication with ECM if ignition switch is turned ON.

## DTC Logic

INFOID:000000007422590

## DTC DETECTION LOGIC

**NOTE:**

- If DTC B2193 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-248, "DTC Logic"](#).
- If DTC B2193 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-249, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2193	CHAIN OF ECM-IMMU	Inactive communication between ECM and BCM	<ul style="list-style-type: none"> <li>• Harness or connectors (The CAN communication line is open or shorted)</li> <li>• BCM</li> <li>• ECM</li> </ul>
P1612			

## DTC CONFIRMATION PROCEDURE

**1.PERFORM DTC CONFIRMATION PROCEDURE**

1. Turn ignition switch ON under the following conditions.
  - CVT selector lever is in the P or N position.
  - Do not depress brake pedal.
2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

- YES >> Go to [SEC-287, "Diagnosis Procedure"](#).  
 NO >> Inspection End.

## Diagnosis Procedure

INFOID:000000007422591

**1.REPLACE BCM**

1. Replace BCM.
2. Perform initialization with CONSULT.  
 For initialization, refer to CONSULT Immobilizer mode and follow the on-screen instructions.

Does the engine start?

- YES >> BCM is malfunctioning.
- Replace BCM. Refer to [BCS-92, "Removal and Installation"](#).
  - Perform initialization again.
- NO >> ECM is malfunctioning.
- Replace ECM.
  - Perform ECM re-communicating function.

## B2195 ANTI-SCANNING

## Description

INFOID:000000007422592

When ignition switch is turned ON, BCM performs ID verification with ECM. If ID verification that is out of the specified specification is detected, BCM prohibits further ID verification and engine cranking.

## DTC Logic

INFOID:000000007422593

## DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2195	ANTI-SCANNING	ID verification between BCM and ECM that is out of the specified specification is detected	ID verification request out of the specified specification

## DTC CONFIRMATION PROCEDURE

## 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions.

- CVT shift selector lever is in the P or N position
- Do not depress brake pedal
- Check "Self-diagnostic result" using CONSULT.

Is DTC detected?

- YES >> Refer to [SEC-288, "Diagnosis Procedure"](#).  
 NO >> Inspection End.

## Diagnosis Procedure

INFOID:000000007422594

## 1.CHECK SELF-DIAGNOSTIC RESULT-1

1. Perform "Self-diagnostic result" of BCM using CONSULT.
2. Erase DTC.
3. Perform DTC Confirmation Procedure. Refer to [SEC-288, "DTC Logic"](#).

Is DTC B2195 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 >> Replace BCM. Refer to [BCS-92, "Removal and Installation"](#).

## 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. Perform "Self-diagnostic result" of BCM using CONSULT.
3. Erase DTC.
4. Perform DTC Confirmation Procedure. Refer to [SEC-288, "DTC Logic"](#).

Is DTC B2195 detected?

- YES >> Replace BCM. Refer to [BCS-92, "Removal and Installation"](#).  
 NO >> Inspection End

# B2555 STOP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

## B2555 STOP LAMP

### Description

INFOID:000000007422595

BCM detects the stop lamp status and confirms the stop lamp switch ON/OFF status. BCM confirms the engine start condition according to the stop lamp switch ON/OFF status.

### DTC Logic

INFOID:000000007422596

### DTC DETECTION LOGIC

DTC	CONSULT	DTC detecting condition	Possible cause
B2555	STOP LAMP	BCM makes a comparison between the upper voltage and lower voltage of stop lamp switch. The BCM then judges from their values to detect the malfunctioning circuit.	<ul style="list-style-type: none"><li>Fuse</li><li>Stop lamp switch</li><li>Stop lamp relay-1 (with CVT)</li><li>Harness or connectors</li></ul>

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

- Depress the brake pedal and wait for at least 1 second.
- Check "Self diagnostic result" with CONSULT.

#### Is DTC detected?

YES >> Refer to [SEC-289, "Diagnosis Procedure \(With CVT\)"](#) or [SEC-291, "Diagnosis Procedure \(With M/T\)"](#).

NO >> Inspection End.

### Diagnosis Procedure (With CVT)

INFOID:000000007422597

Regarding Wiring Diagram information, refer to [SEC-399, "Wiring Diagram"](#).

#### 1.CHECK FUSE

- Check 10A fuse [No.7, located in fuse block (J/B)].

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace the blown fuse after repairing the shorted circuit.

#### 2.CHECK STOP LAMP SWITCH INPUT SIGNAL

- Turn ignition switch OFF.
- Disconnect BCM harness connector.
- Check voltage between BCM harness connector M18 terminal 26 and ground.

BCM		Ground	Stop lamp switch position	Voltage [V]
Connector	Terminal			
M18	26	Ground	Depressed	Battery voltage
			Released	0

#### Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-92, "Removal and Installation"](#).

NO >> GO TO 3.

#### 3.CHECK STOP LAMP SWITCH POWER SUPPLY CIRCUIT

- Check voltage between stop lamp harness connector E38 terminal 2 and ground.

## B2555 STOP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

Stop lamp switch		Ground	Stop lamp switch position	Voltage [V]
Connector	Terminal			
E38	2	Ground	Depressed	Battery voltage
			Released	0

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 9.

### 4.CHECK STOP LAMP RELAY-1 SIGNAL CIRCUIT

1. Check voltage between stop lamp relay-1 harness connector E57 terminal 1 and ground.

Stop lamp relay-1		Ground	Stop lamp switch position	Voltage [V]
Connector	Terminal			
E57	1	Ground	Depressed	Battery voltage
			Released	0

Is the inspection result normal?

YES >> GO TO 5.

NO >> Check harness for open or short between stop lamp relay-1 connector and stop lamp switch.  
Repair or replace necessary parts.

### 5.CHECK STOP LAMP RELAY-1 POWER SUPPLY

1. Check voltage between stop lamp relay-1 harness connector E57 terminal 5 and ground.

Stop lamp relay-1		Ground	Voltage
Connector	Terminal		
E57	5	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 6.

NO >> Check pin terminals and connection of stop lamp relay-1 harness connector and harness for abnormal conditions. Repair or replace necessary parts.

### 6.CHECK STOP LAMP RELAY-1 GROUND CIRCUIT

1. Disconnect stop lamp relay-1 E57 connector.
2. Check continuity between stop lamp relay-1 harness connector E57 terminal 2 and ground.

Stop lamp relay-1		Ground	Continuity
Connector	Terminal		
E57	2	Ground	Yes

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair harness or connector.

### 7.CHECK STOP LAMP RELAY-1 OUTPUT CIRCUIT

1. Connect stop lamp relay-1 E57 connector.
2. Check voltage between stop lamp relay-1 harness connector E57 terminal 3 and ground.

Stop lamp relay-1		Ground	Stop lamp switch position	Voltage [V]
Connector	Terminal			
E57	3	Ground	Depressed	Battery voltage
			Released	0

## B2555 STOP LAMP

[SEDAN]

### < DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 8.

NO >> GO TO 10.

### 8.CHECK STOP LAMP SWITCH CIRCUIT

1. Check continuity between stop lamp relay-1 harness connector E57 terminal 3 and BCM harness connector M18 terminal 26.

Stop lamp relay-1		BCM		Continuity
Connector	Terminal	Connector	Terminal	
E57	3	M18	26	Yes

2. Check continuity between stop lamp relay-1 harness connector E57 terminal 3 and ground.

Stop lamp relay-1		Ground	Continuity
Connector	Terminal		
E57	3	Ground	No

Is the inspection result normal?

YES >> GO TO 11.

NO >> Repair harness or connector.

### 9.CHECK STOP LAMP SWITCH

Refer to [SEC-292, "Component Inspection"](#).

Is the inspection result normal?

YES >> Repair or replace harness between stop lamp switch and fuse block J/B.

NO >> Replace stop lamp switch.

### 10.CHECK STOP LAMP RELAY-1

Refer to [SEC-292, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 11.

NO >> Replace stop lamp relay-1.

### 11.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End.

### Diagnosis Procedure (With M/T)

INFOID:000000007422598

Regarding Wiring Diagram information, refer to [SEC-399, "Wiring Diagram"](#).

### 1.CHECK STOP LAMP SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect BCM harness connector.

## B2555 STOP LAMP

[SEDAN]

### < DTC/CIRCUIT DIAGNOSIS >

3. Check voltage between BCM harness connector and ground.

BCM		Ground	Stop lamp switch position	Voltage [V]
Connector	Terminal			
M18	26	Ground	Depressed	Battery voltage
			Released	0

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-92, "Removal and Installation"](#)

NO >> GO TO 2

### 2. CHECK STOP LAMP SWITCH POWER SUPPLY CIRCUIT

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

Stop lamp switch		Ground	Voltage [V]
Connector	Terminal		
E38	1	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 3

NO >> Check harness for open or short between stop lamp switch and fuse.

### 3. CHECK STOP LAMP SWITCH CIRCUIT

1. Check continuity between stop lamp switch harness connector E38 terminal 2 and BCM harness connector M18 terminal 26.

Stop lamp switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
E38	2	M18	26	Yes

2. Check continuity between stop lamp switch harness connector E38 terminal 2 and ground.

Stop lamp switch		Ground	Continuity
Connector	Terminal		
E38	2	Ground	No

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair harness or connector.

### 4. CHECK STOP LAMP SWITCH

Refer to [SEC-292, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 5

NO >> Replace stop lamp switch.

### 5. CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End.

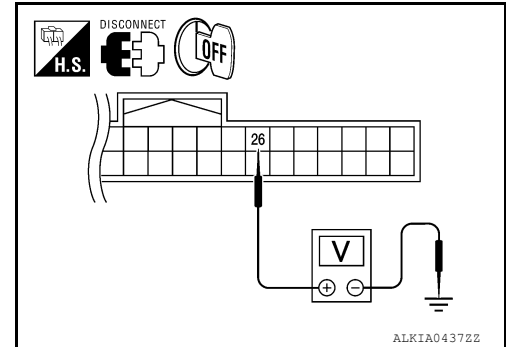
## Component Inspection

### STOP LAMP SWITCH

Revision: February 2013

SEC-292

2012 Altima GCC



INFOID:0000000007422599



## B2555 STOP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

### 1. CHECK STOP LAMP SWITCH

1. Turn ignition switch OFF.
2. Disconnect stop lamp switch harness connector E38.
3. Check continuity between stop lamp switch terminals 1 and 2 under the following conditions.

Stop lamp switch		Condition		Continuity
Terminal				
1	2	Brake pedal	Released	No
			Depressed	Yes

Is the inspection result normal?

- YES >> Inspection End.  
NO >> Replace stop lamp switch.

### STOP LAMP RELAY-1

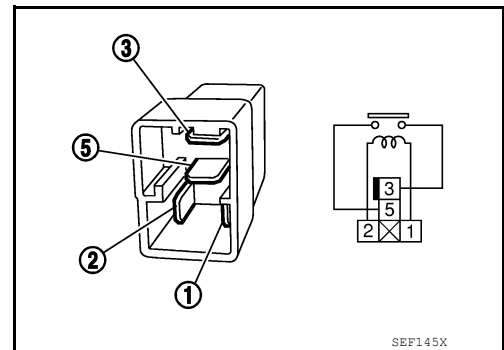
#### 1. CHECK STOP LAMP RELAY-1

Check continuity between stop lamp relay-1 terminals 3 and 5.

Condition	Continuity
Apply battery voltage between terminals 1 and 2	Yes
No voltage supplied	No

Is the inspection result normal?

- YES >> Inspection End.  
NO >> Replace stop lamp relay-1.



SEC

# B2556 PUSH-BUTTON IGNITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

## B2556 PUSH-BUTTON IGNITION SWITCH

### Description

INFOID:000000007422600

The switch that changes the power supply position. BCM maintains the power supply position status. BCM changes the power supply position with the operation of the push-button ignition switch.

### DTC Logic

INFOID:000000007422601

### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2556	PUSH-BUTTON IGNITION SWITCH	BCM detects the push-button ignition switch stuck to ON for 100 seconds or more	<ul style="list-style-type: none"><li>• Harness or connectors (Push-button ignition switch circuit is shorted.)</li><li>• Push-button ignition switch</li></ul>

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine and wait for at least 100 seconds.
2. Check "Self diagnostic result" with CONSULT.

#### Is DTC detected?

- YES >> Go to [SEC-294, "Diagnosis Procedure"](#).  
NO >> Inspection End.

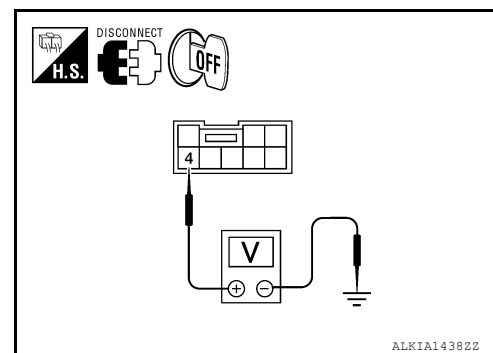
### Diagnosis Procedure

INFOID:000000007422602

Regarding Wiring Diagram information, refer to [SEC-427, "Wiring Diagram"](#).

#### 1.CHECK PUSH-BUTTON IGNITION SWITCH INPUT SIGNAL

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



Push-button ignition switch		Ground	Voltage [V]
Connector	Terminal		
M38	4	Ground	Battery voltage

#### Is the inspection normal?

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

#### 2.CHECK PUSH-BUTTON IGNITION SWITCH

Refer to [SEC-339, "Diagnosis Procedure"](#).

## B2556 PUSH-BUTTON IGNITION SWITCH

[SEDAN]

### < DTC/CIRCUIT DIAGNOSIS >

#### Is the inspection normal?

YES >> GO TO 3.

NO >> Replace push-button ignition switch. Refer to [SEC-444. "Removal and Installation"](#).

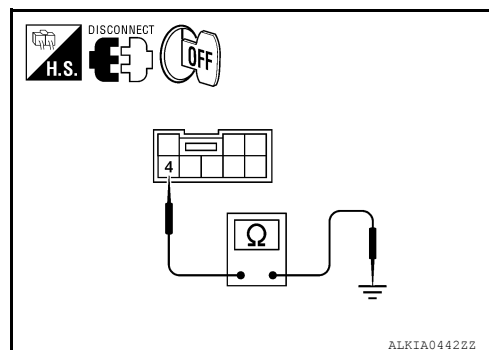
### 3.CHECK INTERMITTENT INCIDENT

Refer to [GI-42. "Intermittent Incident"](#).

>> Inspection End.

### 4.CHECK PUSH-BUTTON IGNITION SWITCH CIRCUIT FOR SHORT

1. Disconnect BCM harness connector and IPDM E/R harness connector.
2. Check continuity between push-button ignition switch harness connector and ground.



Push-button ignition switch		Ground	Continuity
Connector	Terminal		
M38	4	Ground	No

#### Is the inspection normal?

YES >> Replace BCM. Refer to [BCS-92. "Removal and Installation"](#).

NO >> Repair harness or connector.

## Component Inspection

INFOID:000000007422603

### 1.CHECK PUSH-BUTTON IGNITION SWITCH

1. Turn ignition switch OFF.
2. Disconnect push-button ignition switch harness connector.
3. Check continuity between push-button ignition switch terminals under the following conditions.

Push-button ignition switch		Condition	Continuity
Terminal			
1	4	Pressed	Yes
		Not pressed	No

#### Is the inspection result normal?

YES >> Inspection End.

NO >> Replace push-button ignition switch. Refer to [SEC-444. "Removal and Installation"](#).

## B2557 VEHICLE SPEED

## Description

INFOID:000000007422604

BCM receives the 2 vehicle speed signals via CAN communication. 1 signal is transmitted by the “unified meter” Another signal is transmitted by “ABS actuator and electric unit (control unit)”. BCM compares both signals to detect the vehicle speed.

## DTC Logic

INFOID:000000007422605

## DTC DETECTION LOGIC

**NOTE:**

- If DTC B2557 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-248, "DTC Logic"](#).
- If DTC B2557 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-249, "DTC Logic"](#).

DTC	Self-diagnosis name	DTC detecting condition	Possible causes
B2557	VEHICLE SPEED	BCM detects the following difference between the vehicle speed from “unified meter” and the one from “ABS actuator and electric unit” for 10 seconds continuously <ul style="list-style-type: none"> <li>• One is 10km/h or more and the other is 4km/h or less.</li> </ul>	<ul style="list-style-type: none"> <li>• Wheel sensor</li> <li>• Unified meter</li> <li>• ABS actuator and electric unit (control unit)</li> </ul>

## DTC CONFIRMATION PROCEDURE

**1.PERFORM DTC CONFIRMATION PROCEDURE**

1. Drive the vehicle at the vehicle speed of 10 km/h or more and wait for at least 10 seconds.
2. Check “Self diagnostic result” with CONSULT.

Is DTC detected?

- YES >> Go to [SEC-296, "Diagnosis Procedure"](#).  
 NO >> Inspection End.

## Diagnosis Procedure

INFOID:000000007422606

**1.CHECK DTC WITH “ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)”**

Check “Self diagnostic result” with CONSULT. Refer to [BRC-45, "DTC No. Index"](#) (ABS), [BRC-115, "DTC No. Index"](#) (TCS/ABS) or [BRC-220, "DTC No. Index"](#) (VDC/TCS/ABS).

Is the inspection result normal?

- YES >> GO TO 2.  
 NO >> Repair or replace.

**2.CHECK COMBINATION METER.**

Check combination meter. Refer to [MWI-4, "Work Flow"](#).

>> Inspection End.

## B2560 STARTER CONTROL RELAY

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

### B2560 STARTER CONTROL RELAY

#### Description

INFOID:000000007422607

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

#### DTC Logic

INFOID:000000007422608

#### DTC DETECTION LOGIC

##### NOTE:

- If DTC B2560 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-248, "DTC Logic"](#).
- If DTC B2560 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-249, "DTC Logic"](#).

DTC	Self-diagnosis name	DTC detecting condition	Possible causes
B2560	STARTER CONTROL RELAY	BCM detects a mismatch between the OFF request of starter control relay to IPDM E/R and the feedback. (The feedback is ON instead of OFF.)	• IPDM E/R

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions and wait for at least 2 seconds.
  - CVT selector lever is in the P position
  - Depress the brake pedal
2. Check "Self diagnostic result" with CONSULT.

##### Is DTC detected?

- YES >> Go to [SEC-297, "Diagnosis Procedure"](#).  
NO >> Inspection End.

#### Diagnosis Procedure

INFOID:000000007422609

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

Check "Self diagnostic result" with CONSULT. Refer to [PCS-29, "DTC Index"](#).

##### Is the inspection result normal?

- YES >> GO TO 2.  
NO >> Repair or replace.

##### 2.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End.

**B2601 SHIFT POSITION****Description**

INFOID:000000007422610

BCM confirms the shift position with the following 2 signals.

- CVT selector lever
- P position signal from IPDM E/R (CAN)

**DTC Logic**

INFOID:000000007422611

**DTC DETECTION LOGIC****NOTE:**

- If DTC B2601 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-248, "DTC Logic"](#).
- If DTC B2601 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-249, "DTC Logic"](#).
- If DTC B2601 is displayed with DTC B2605, first perform the trouble diagnosis for DTC B2605. Refer to [SEC-310, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2601	SHIFT POSITION	BCM detects when a difference between the shift P input signal and the shift position signal received from IPDM E/R via CAN communication continues for 2 seconds or more	<ul style="list-style-type: none"><li>• Harness or connectors (CVT shift selector circuit is open or shorted.)</li><li>• CVT shift selector (park position switch)</li></ul>

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

1. Turn ignition switch ON under the following conditions, and wait for at least 2 seconds.
  - CVT selector lever is in the P position.
  - Do not depress the brake pedal.
2. Check "Self diagnostic result" with CONSULT.
3. Turn ignition switch ON under the following conditions, and wait for at least 2 seconds.
  - CVT selector lever is in other than P position.
  - Do not depress the brake pedal.
4. Check "Self diagnostic result" with CONSULT.

**Is DTC detected?**

- YES >> Go to [SEC-298, "Diagnosis Procedure"](#).  
NO >> Inspection End.

**Diagnosis Procedure**

INFOID:000000007422612

Regarding Wiring Diagram information, refer to [SEC-427, "Wiring Diagram"](#).

**1. CHECK CVT SHIFT SELECTOR POWER SUPPLY**

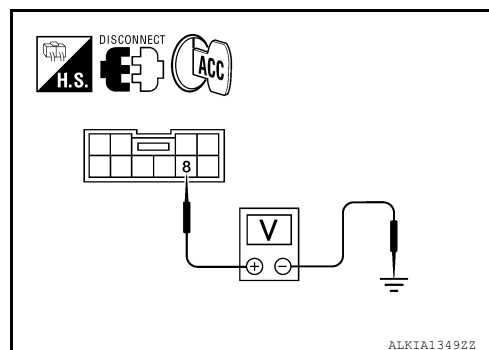
1. Turn ignition switch to ACC.
2. Disconnect CVT shift selector (park position switch) harness connector.

## B2601 SHIFT POSITION

[SEDAN]

### < DTC/CIRCUIT DIAGNOSIS >

- Check voltage between CVT shift selector (park position switch) harness connector and ground.



CVT shift selector (park position switch)		Ground	Voltage [V]
Connector	Terminal		
M23	8	Ground	Battery voltage

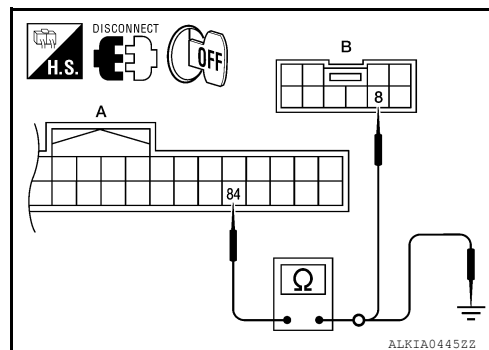
Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

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

- Disconnect BCM harness connector.
- Check continuity between BCM harness connector M19 (A) terminal 84 and CVT shift selector (park position switch) harness connector M23 (B) terminal 8.



BCM		CVT shift selector (park position switch)		Continuity
Connector	Terminal	Connector	Terminal	
A: M19	84	B: M23	8	Yes

- Check continuity between BCM harness connector M19 (A) terminal 84 and ground.

BCM		Ground	Continuity
Connector	Terminal		
A: M19	84	Ground	No

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-92. "Removal and Installation"](#).

NO >> Repair harness or connector.

### 3.CHECK CVT SHIFT SELECTOR CIRCUIT (BCM)

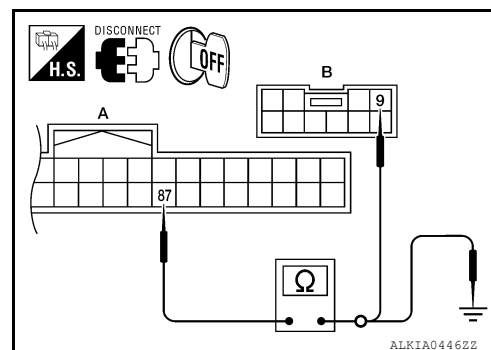
- Disconnect BCM harness connector and IPDM E/R harness connector.

## B2601 SHIFT POSITION

[SEDAN]

### < DTC/CIRCUIT DIAGNOSIS >

- Check continuity between BCM harness connector M19 (A) terminal 87 and CVT shift selector (park position switch) harness connector M23 (B) terminal 9.



BCM		CVT shift selector (park position switch)		Continuity
Connector	Terminal	Connector	Terminal	
A: M19	87	B: M23	9	Yes

- Check continuity between BCM harness connector M19 (A) terminal 87 and ground.

BCM		Ground	Continuity
Connector	Terminal		
A: M19	87	Ground	No

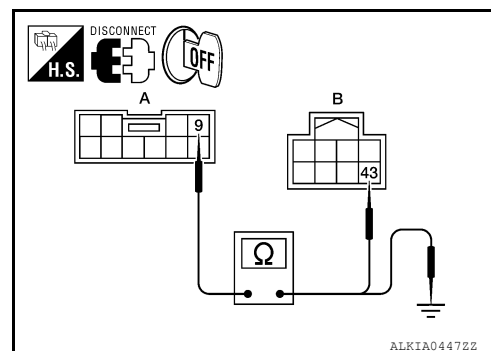
Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair harness or connector.

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

- Disconnect BCM harness connector.
- Check continuity between CVT shift selector (park position switch) harness connector M23 (A) terminal 9 and IPDM E/R harness connector E17 (B) terminal 43.



CVT shift selector (park position switch)		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: M23	9	B: E17	43	Yes

- Check continuity between CVT shift selector (park position switch) harness connector M23 (A) terminal 9 and ground.

CVT shift selector (park position switch)		Ground	Continuity
Connector	Terminal		
A: M23	9	Ground	No

Is the inspection result normal?

YES >> GO TO 5.



# B2601 SHIFT POSITION

[SEDAN]

## < DTC/CIRCUIT DIAGNOSIS >

NO >> Repair harness or connector.

### 5.CHECK CVT SHIFT SELECTOR

Refer to [SEC-301, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace CVT shift selector. Refer to [TM-239, "Removal and Installation"](#) (RE0F09B), or [TM-404, "Removal and Installation"](#) (RE0F10A).

### 6.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

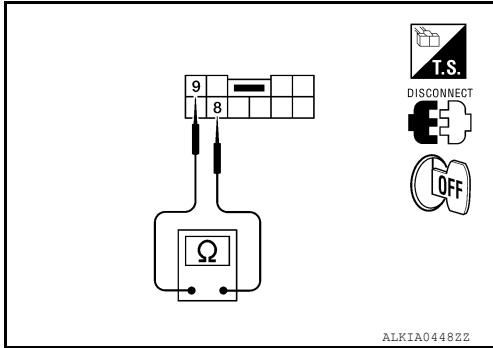
>> Inspection End.

## Component Inspection

INFOID:000000007422613

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

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



CVT shift selector (park position switch)		Condition		Continuity
Terminal				
8	9	CVT selector lever	P position	No
			Other than above	Yes

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace CVT shift selector. Refer to [TM-239, "Removal and Installation"](#) (RE0F09B), or [TM-404, "Removal and Installation"](#) (RE0F10A).

## B2602 SHIFT POSITION

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

### B2602 SHIFT POSITION

#### Description

INFOID:000000007422614

BCM confirms the shift position with the following 2 signals.

- CVT selector lever
- Speed signal from meter

#### DTC Logic

INFOID:000000007422615

#### DTC DETECTION LOGIC

##### NOTE:

- If DTC B2602 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-248, "DTC Logic"](#).
- If DTC B2602 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-249, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2602	SHIFT POSITION	BCM detects the following status for 10 seconds. <ul style="list-style-type: none"><li>• Shift position is in P position</li><li>• Vehicle speed is 4km/h (2 MPH) or more</li><li>• Ignition switch is in the ON position</li></ul>	<ul style="list-style-type: none"><li>• Harness or connectors (CVT drive circuit is open or shorted)</li><li>• CVT shift selector (park position switch)</li><li>• Combination meter</li></ul>

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine under the following conditions and wait for at least 10 seconds.
  - CVT selector lever is in the P or N position
  - Depress the brake pedal.
2. Drive the vehicle for at least 10 seconds at a speed greater than 4 km/h (2 MPH).
3. Check "Self diagnostic result" with CONSULT.

##### Is DTC detected?

- YES >> Go to [SEC-302, "Diagnosis Procedure"](#).  
NO >> Inspection End.

#### Diagnosis Procedure

INFOID:000000007422616

Regarding Wiring Diagram information, refer to [SEC-427, "Wiring Diagram"](#).

##### 1.CHECK DTC WITH "COMBINATION METER"

Check "Self diagnostic result" with CONSULT. Refer to [MWI-47, "DTC Index"](#).

##### Is the inspection result normal?

- YES >> GO TO 2.  
NO >> Repair or replace.

##### 2.CHECK CVT SHIFT SELECTOR POWER SUPPLY

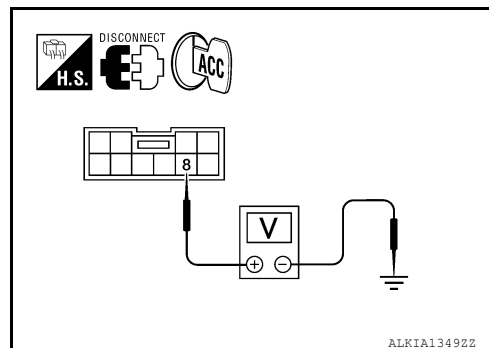
1. Turn ignition switch to ACC.
2. Disconnect CVT shift selector (park position switch) harness connector.

## B2602 SHIFT POSITION

### < DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

- Check voltage between CVT shift selector (park position switch) harness connector and ground.



CVT shift selector (park position switch)		Ground	Voltage [V]
Connector	Terminal		
M23	8	Ground	Battery voltage

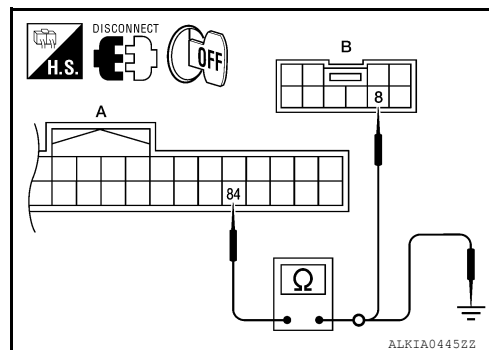
Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

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

- Disconnect BCM harness connector.
- Check continuity between BCM harness connector M19 (A) terminal 84 and CVT shift selector (park position switch) harness connector M23 (B) terminal 8.



BCM		CVT shift selector (park position switch)		Continuity
Connector	Terminal	Connector	Terminal	
A: M19	84	B: M23	8	Yes

- Check continuity between BCM harness connector M19 (A) terminal 84 and ground.

BCM		Ground	Continuity
Connector	Terminal		
A: M19	84	Ground	No

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-92. "Removal and Installation"](#).

NO >> Repair harness or connector.

### 4.CHECK CVT SHIFT SELECTOR CIRCUIT

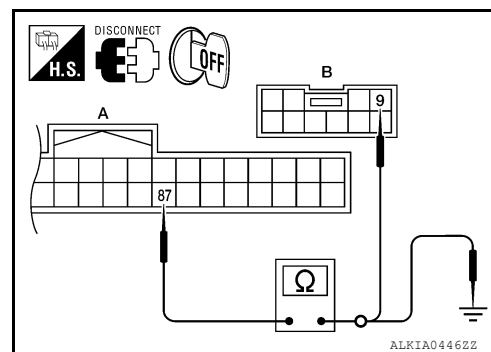
- Disconnect BCM harness connector.

## B2602 SHIFT POSITION

[SEDAN]

### < DTC/CIRCUIT DIAGNOSIS >

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



BCM		CVT shift selector (park position switch)		Continuity
Connector	Terminal	Connector	Terminal	
A: M19	87	B: M23	9	Yes

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

BCM		Ground	Continuity
Connector	Terminal		
A: M19	87	Ground	No

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair harness or connector.

### 5.CHECK CVT SHIFT SELECTOR

Refer to [SEC-301, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace CVT shift selector. Refer to [TM-239, "Removal and Installation"](#) (RE0F09B), or [TM-404, "Removal and Installation"](#) (RE0F10A).

### 6.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End.

# B2603 SHIFT POSITION STATUS

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

## B2603 SHIFT POSITION STATUS

### Description

INFOID:000000007422617

BCM confirms the shift position with the following 2 signals.

- CVT selector lever
- P/N position switch

### DTC Logic

INFOID:000000007422618

### DTC DETECTION LOGIC

#### NOTE:

- If DTC B2603 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-248, "DTC Logic"](#).
- If DTC B2603 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-249, "DTC Logic"](#).

DTC	Self-diagnosis name	DTC detecting condition	Possible causes
B2603	SHIFT POSITION STATUS	BCM detects the followings status for 500 ms or more when shift is in P position and, ignition switch is in ON position. <ul style="list-style-type: none"><li>• Transmission range switch: approx. 0V</li><li>• CVT shift selector (park position switch): approx 0V</li></ul>	<ul style="list-style-type: none"><li>• Harness or connector (CVT shift selector circuit is open or shorted.)</li><li>• Harness or connectors [Transmission range switch circuit is open or shorted.]</li><li>• CVT shift selector (park position switch)</li><li>• Transmission range switch</li></ul>

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine under the following conditions and wait for at least 1 second.
  - CVT selector lever is in the P position.
  - Do not depress the brake pedal.
2. Shift to N and wait for at least 1 second.
3. Shift to any gear other than P or N and wait for at least 1 second.
4. Check "Self diagnostic result" with CONSULT.

#### Is DTC detected?

- YES >> Go to [SEC-305, "Diagnosis Procedure"](#).
- NO >> Inspection End.

### Diagnosis Procedure

INFOID:000000007422619

Regarding Wiring Diagram information, refer to [SEC-399, "Wiring Diagram"](#).

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

Check "Self diagnostic result" with CONSULT. Refer to [PCS-29, "DTC Index"](#).

#### Is the inspection result normal?

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

#### 2.CHECK TRANSMISSION RANGE SWITCH CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect TCM harness connector and BCM harness connector.
3. Check continuity between TCM harness connector terminal and BCM harness connector M18 terminal 48.

# B2603 SHIFT POSITION STATUS

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

TCM		BCM		Continuity
Connector	Terminal	Connector	Terminal	
F16 (VQ35DE)	20	M18	48	Yes
F25 (QR25DE)	2			

4. Check continuity between TCM harness connector terminal and ground.

TCM		Ground	Continuity
Connector	Terminal		
F16 (VQ35DE)	20	Ground	No
F25 (QR25DE)	2		

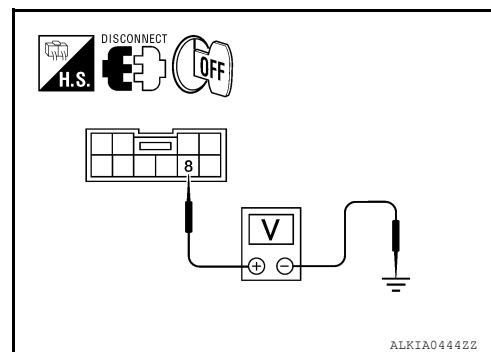
Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

## 3. CHECK CVT SHIFT SELECTOR POWER SUPPLY

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



CVT shift selector (park position switch)		Ground	Voltage [V]
Connector	Terminal		
M23	8	Ground	Battery voltage

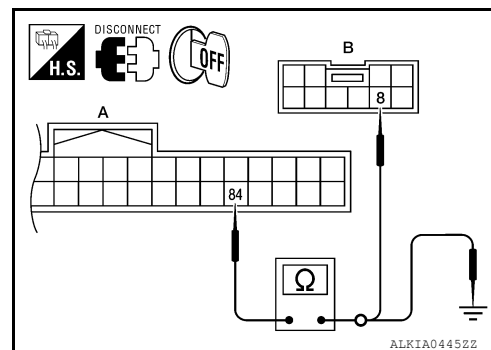
Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

## 4. CHECK CVT SHIFT SELECTOR POWER SUPPLY CIRCUIT

- Disconnect BCM harness connector.
- Check continuity between BCM harness connector M19 (A) terminal 84 and CVT shift selector (park position switch) harness connector M23 (B) terminal 8.



## B2603 SHIFT POSITION STATUS

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

BCM		CVT shift selector (park position switch)		Continuity
Connector	Terminal	Connector	Terminal	
A: M19	84	B: M23	8	Yes

3. Check continuity between BCM harness connector M19 (A) terminal 84 and ground.

BCM		Ground	Continuity
Connector	Terminal		
A: M19	84	Ground	No

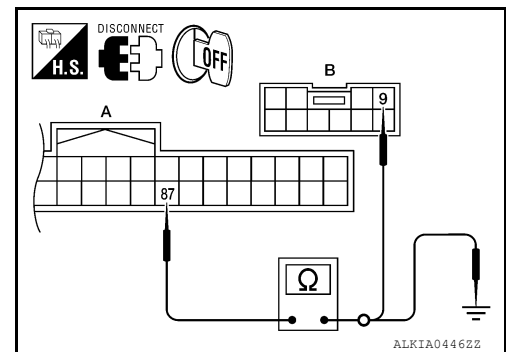
Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-92, "Removal and Installation"](#).

NO >> Repair harness or connector.

### 5.CHECK CVT SHIFT SELECTOR CIRCUIT

1. Disconnect BCM harness connector.
2. Check continuity between BCM harness connector M19 (A) terminal 87 and CVT shift selector (park position switch) harness connector M23 (B) terminal 9.



BCM		CVT shift selector (park position switch)		Continuity
Connector	Terminal	Connector	Terminal	
A: M19	87	B: M23	9	Yes

3. Check continuity between BCM harness connector M19 (A) terminal 87 and ground.

BCM		Ground	Continuity
Connector	Terminal		
A: M19	87	Ground	No

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

### 6.CHECK CVT SHIFT SELECTOR

Refer to [SEC-301, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 7.

NO >> Replace CVT shift selector. Refer to [TM-239, "Removal and Installation"](#) (RE0F09B), or [TM-404, "Removal and Installation"](#) (RE0F10A).

### 7.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End.

## B2604 PNP SWITCH

## Description

INFOID:000000007422620

BCM confirms the shift position with the following 4 signals.

- CVT selector lever
- P/N position switch
- P position signal from IPDM E/R (CAN)
- P position signal from TCM (CAN)

## DTC Logic

INFOID:000000007422621

## DTC DETECTION LOGIC

**NOTE:**

- If DTC B2604 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-248, "DTC Logic"](#).
- If DTC B2604 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-249, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2604	PNP SWITCH	BCM detects the following status for 500 ms or more when the ignition switch is in the ON position. <ul style="list-style-type: none"> <li>• P/N switch indicates vehicle is in P or N shift position. Signal from TCM indicates vehicle is in forward or reverse gear.</li> <li>• P/N switch indicates vehicle is in forward or reverse gear. Signal from TCM indicates vehicle is in P or N.</li> </ul>	<ul style="list-style-type: none"> <li>• Harness or connectors [The transmission range switch circuit is open or shorted.]</li> <li>• Transmission range switch</li> <li>• TCM</li> </ul>

## DTC CONFIRMATION PROCEDURE

**1.PERFORM DTC CONFIRMATION PROCEDURE**

1. Start the engine under the following conditions and wait for at least 1 seconds.
  - CVT selector lever is in the P position
  - Do not depress the brake pedal
2. Use CVT selector lever to select each gear one at a time. Wait at each gear for at least 1 second.
3. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

- YES >> Go to [SEC-308, "Diagnosis Procedure"](#).  
 NO >> Inspection End.

## Diagnosis Procedure

INFOID:000000007422622

Regarding Wiring Diagram information, refer to [SEC-399, "Wiring Diagram"](#).

**1.CHECK DTC WITH TCM**

Check "Self diagnostic result" with CONSULT. Refer to [TM-196, "DTC Index"](#) (RE0F09B) or [TM-359, "DTC Index"](#) (RE0F10A).

Is the inspection result normal?

- YES >> GO TO 2.  
 NO >> Repair or replace.

**2.CHECK TRANSMISSION RANGE SWITCH CIRCUIT**

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



## B2604 PNP SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

TCM		BCM		Continuity
Connector	Terminal	Connector	Terminal	
F16 (VQ35DE)	20	M18	48	Yes
F25 (QR25DE)	2			

4. Check continuity between TCM harness connector and ground.

TCM		Ground	Continuity
Connector	Terminal		
F16 (VQ35DE)	20	Ground	No
F25 (QR25DE)	2		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

### 3.CHECK INTERMITTENT INCIDENT

Refer to [GI-42. "Intermittent Incident"](#).

>> Inspection End.

SEC

## B2605 PNP SWITCH

## Description

INFOID:000000007422623

BCM confirms the shift position with the following 4 signals.

- CVT selector lever
- P/N position switch
- P position signal from IPDM E/R (CAN)
- P position signal from TCM (CAN)

## DTC Logic

INFOID:000000007422624

## DTC DETECTION LOGIC

**NOTE:**

- If DTC B2605 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-248, "DTC Logic"](#).
- If DTC B2605 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-249, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2605	PNP SWITCH	BCM detects the following status for 500 ms or more when the ignition switch is in ON position <ul style="list-style-type: none"> <li>• N position input signal exists. Shift position signal from IPDM E/R does not exist.</li> <li>• N position input signal does not exist. Shift position signal from IPDM E/R exists.</li> </ul>	<ul style="list-style-type: none"> <li>• Harness or connectors [The transmission range switch circuit is open or shorted.]</li> <li>• Transmission range switch</li> <li>• IPDM E/R</li> </ul>

## DTC CONFIRMATION PROCEDURE

**1. PERFORM DTC CONFIRMATION PROCEDURE**

1. Turn ignition switch ON under the following conditions and wait for at least 1 seconds.
  - CVT selector lever is in the P or N position
  - Do not depress the brake pedal.
2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to [SEC-310, "Diagnosis Procedure"](#).

NO >> Inspection End.

## Diagnosis Procedure

INFOID:000000007422625

Regarding Wiring Diagram information, refer to [SEC-399, "Wiring Diagram"](#).

**1. CHECK DTC WITH IPDM E/R**

Check "Self diagnostic result" with CONSULT. Refer to [PCS-29, "DTC Index"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace.

**2. CHECK TRANSMISSION RANGE SWITCH CIRCUIT**

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

## B2605 PNP SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

TCM		BCM		Continuity
Connector	Terminal	Connector	Terminal	
F16 (VQ35DE)	20	M18	48	Yes
F25 (QR25DE)	2			

4. Check continuity between TCM harness connector and ground.

TCM		Ground	Continuity
Connector	Terminal		
F16 (VQ35DE)	20	Ground	No
F25 (QR25DE)	2		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

### 3.CHECK INTERMITTENT INCIDENT

Refer to [GI-42. "Intermittent Incident"](#).

>> Inspection End.

SEC

## B2606 STEERING LOCK RELAY

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

### B2606 STEERING LOCK RELAY

#### Description

INFOID:000000007422626

The steering lock relay ON signal is transmitted to IPDM E/R by BCM via CAN communication. IPDM E/R turns the steering lock relay ON and transmits the release of the steering to BCM.

#### DTC Logic

INFOID:000000007422627

#### DTC DETECTION LOGIC

##### NOTE:

- If DTC B2606 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-248, "DTC Logic"](#).
- If DTC B2606 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-249, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2606	STEERING LOCK RELAY	BCM detects that there is a mismatch between the following statuses. <ul style="list-style-type: none"><li>• Electronic steering column lock ON signal transmitted by IPDM E/R</li><li>• The electronic steering column lock status feedback</li></ul>	<ul style="list-style-type: none"><li>• Steering lock relay (in IPDM E/R)</li></ul>

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Press the push-button ignition switch under the following conditions.
  - CVT selector lever is in the P or N position.
  - Do not depress the brake pedal.
2. Steering is locked.
3. Check "Self diagnostic result" with CONSULT.

##### Is DTC detected?

YES >> Go to [SEC-312, "Diagnosis Procedure"](#).

NO >> Inspection End.

#### Diagnosis Procedure

INFOID:000000007422628

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

Check "Self diagnostic result" with CONSULT. Refer to [PCS-29, "DTC Index"](#).

##### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace.

##### 2.INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End.

## B2607 STEERING LOCK RELAY

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

### B2607 STEERING LOCK RELAY

#### Description

INFOID:000000007422629

BCM requests to IPDM E/R to supply power to electronic steering column lock. IPDM E/R sends status of electronic steering column lock back to BCM.

#### DTC Logic

INFOID:000000007422630

#### DTC DETECTION LOGIC

##### NOTE:

- If DTC B2607 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-248, "DTC Logic"](#).
- If DTC B2607 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-249, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2607	STEERING LOCK RELAY	BCM detects that there is a difference between the following statuses. <ul style="list-style-type: none"><li>• BCM request for electronic steering column lock power supply (ON/OFF)</li><li>• IPDM E/R status of electronic steering column lock power supply (ON/OFF)</li></ul>	<ul style="list-style-type: none"><li>• Harness or connectors (electronic steering column lock power supply circuit is open or shorted)</li><li>• Steering lock relay (in IPDM E/R)</li></ul>

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Press the push-button ignition switch under the following conditions.
  - CVT selector lever is in the P position
  - Do not depress brake pedal
2. Steering lock is locked.
3. Check "Self diagnostic result" with CONSULT.

##### Is DTC detected?

YES >> Go to [SEC-313, "Diagnosis Procedure"](#).

NO >> Inspection End.

#### Diagnosis Procedure

INFOID:000000007422631

Regarding Wiring Diagram information, refer to [SEC-399, "Wiring Diagram"](#).

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

Check "Self diagnostic result" with CONSULT. Refer to [PCS-29, "DTC Index"](#).

##### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace malfunctioning parts.

##### 2.CHECK ELECTRONIC STEERING COLUMN LOCK POWER SUPPLY CIRCUIT

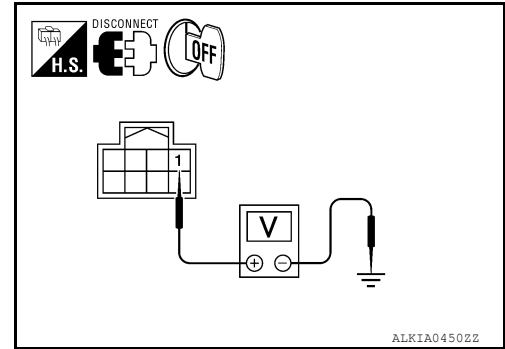
1. Turn ignition switch OFF.
2. Disconnect electronic steering column lock harness connector.

## B2607 STEERING LOCK RELAY

[SEDAN]

### < DTC/CIRCUIT DIAGNOSIS >

- Check voltage between electronic steering column lock and ground under the following conditions.



Electronic steering column lock		Ground	Condition	Voltage (V)
Connector	Terminal			
M32	1	Ground	Press push-button ignition switch when steering lock is in lock condition.	Battery voltage

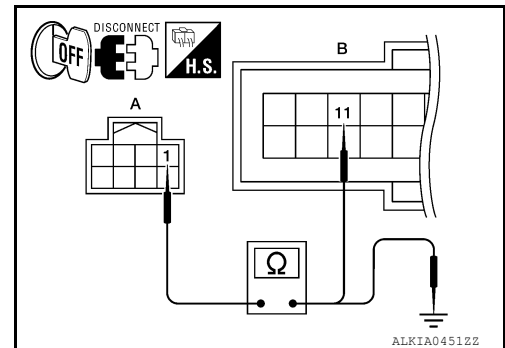
Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

### 3.CHECK ELECTRONIC STEERING COLUMN LOCK POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- Disconnect IPDM E/R harness connector.
- Check continuity between electronic steering column lock and IPDM E/R harness connector.



Electronic steering column lock		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: M32	1	B: E18	11	Yes

- Check continuity between electronic steering column lock and ground.

Electronic steering column lock		Ground	Continuity
Connector	Terminal		
A: M32	1	Ground	No

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-45, "Removal and Installation"](#).

NO >> Repair harness or connector.

### 4.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End.

# B2608 STARTER RELAY

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

## B2608 STARTER RELAY

### Description

INFOID:000000007422632

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

### DTC Logic

INFOID:000000007422633

#### DTC DETECTION LOGIC

##### NOTE:

- If DTC B2608 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-248. "DTC Logic"](#).
- If DTC B2608 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-249. "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2608	STARTER RELAY	BCM receives starter relay ON signal (CAN) from IPDM E/R even if BCM turns the starter relay OFF	<ul style="list-style-type: none"><li>• Harness or connectors (starter relay circuit is open or shorted.)</li><li>• IPDM E/R</li></ul>

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Press the push-button ignition switch under the following conditions.
  - CVT selector lever is in the P or N position.
  - Depress the brake pedal.
2. Check "Self diagnostic result" with CONSULT.

##### Is DTC detected?

- YES >> Go to [SEC-315. "Diagnosis Procedure"](#).  
NO >> Inspection End.

### Diagnosis Procedure

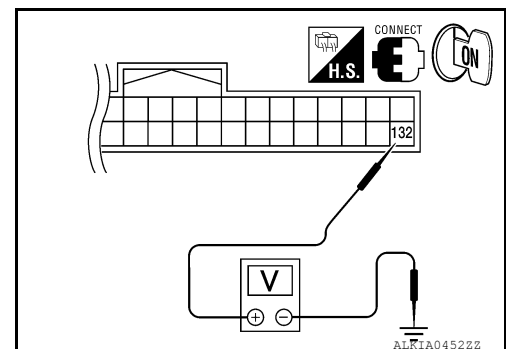
INFOID:000000007422634

SEC

Regarding Wiring Diagram information, refer to [SEC-399. "Wiring Diagram"](#).

##### 1.CHECK STARTER RELAY

1. Turn ignition switch ON.
2. Check voltage between BCM harness connector and ground under the following condition.



## B2608 STARTER RELAY

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

BCM		Ground	Condition		Voltage (V)
Connector	Terminal				
M21	132	Ground	CVT selector lever	N or P position	Battery voltage
				Other than above	0
			Clutch pedal	Not depressed	0
				Depressed	Battery voltage

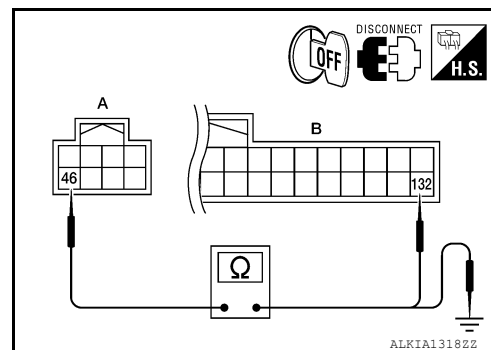
Is the measurement value within the specification?

YES >> GO TO 3.

NO >> GO TO 2.

### 2.CHECK STARTER RELAY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM harness connector M21 and IPDM E/R harness connector E17.
3. Check continuity between IPDM E/R harness connector and BCM harness connector.



IPDM E/R		BCM		Continuity
Connector	Terminal	Connector	Terminal	
A: E17	46	B: M21	132	Yes

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
A: E17	46	Ground	No

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-45, "Removal and Installation"](#).

NO >> Repair harness or connector.

### 3.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End.



# B2609 STEERING STATUS

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

## B2609 STEERING STATUS

### Description

INFOID:000000007422635

There are 2 switches in the electronic steering column lock (steering lock/unlock switch 1 and 2). BCM compares those two switches conditions to judge the present steering status.

### DTC Logic

INFOID:000000007422636

### DTC DETECTION LOGIC

#### NOTE:

- If DTC B2609 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-248, "DTC Logic"](#).
- If DTC B2609 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-249, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2609	STEERING STATUS	BCM detects the malfunction of electronic steering column lock switches for 1 second.	<ul style="list-style-type: none"><li>• Harness or connectors [electronic steering column lock circuit (BCM side) is open or shorted]</li><li>• Harness or connectors [electronic steering column lock circuit (IPDM E/R side) is open or shorted.]</li><li>• Electronic steering column lock</li><li>• IPDM E/R</li></ul>

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE 1

1. Press the push-button ignition switch under the following conditions and wait for at least 1 second.
  - CVT selector lever is in the P position.
  - Do not depress brake pedal
  - Steering is locked
2. Check "Self diagnostic result" with CONSULT.

#### Is DTC detected?

- YES >> Go to [SEC-317, "Diagnosis Procedure"](#).  
NO >> GO TO 2.

#### 2.PERFORM DTC CONFIRMATION PROCEDURE 2

1. Turn ignition switch ON.
2. Turn ignition switch OFF.
3. Press door switch.
4. Check "Self diagnostic result" with CONSULT.

#### Is DTC detected?

- YES >> Go to [SEC-317, "Diagnosis Procedure"](#).  
NO >> Inspection End.

### Diagnosis Procedure

INFOID:000000007422637

Regarding Wiring Diagram information, refer to [SEC-399, "Wiring Diagram"](#).

#### 1.INSPECTION START

Check the case in which DTC is detected.

- Case1: It is detected after ignition switch is changed from ON to OFF and door switch is pressed
- Case2: It is detected after ignition switch is changed from ON to OFF

# B2609 STEERING STATUS

[SEDAN]

## < DTC/CIRCUIT DIAGNOSIS >

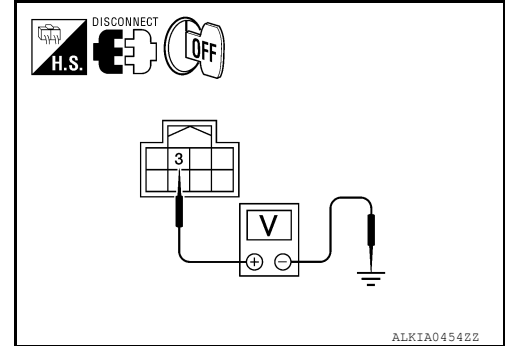
### In which case is DTC detected?

Case1 >> GO TO 2.

Case2 >> GO TO 7.

## 2.CHECK BCM OUTPUT SIGNAL

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



Electronic steering column lock		Ground	Voltage [V]
Connector	Terminal		
M32	3	Ground	Battery voltage

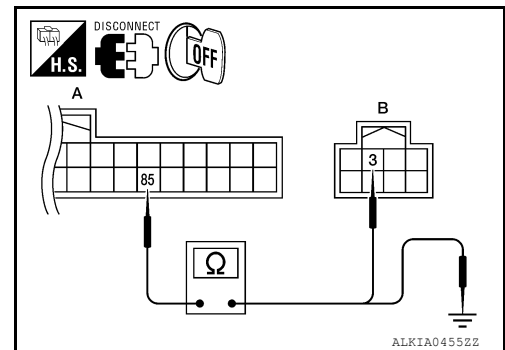
### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

## 3.CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-I

1. Disconnect BCM harness connector.
2. Check continuity between BCM harness connector M19 (A) terminal 85 and electronic steering column lock harness connector M32 (B) terminal 3.



BCM		Electronic steering column lock		Continuity
Connector	Terminal	Connector	Terminal	
A: M19	85	B: M32	3	Yes

3. Check continuity between BCM harness connector M19 (A) terminal 85 and ground.

BCM		Ground	Continuity
Connector	Terminal		
A: M19	85	Ground	No

### Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

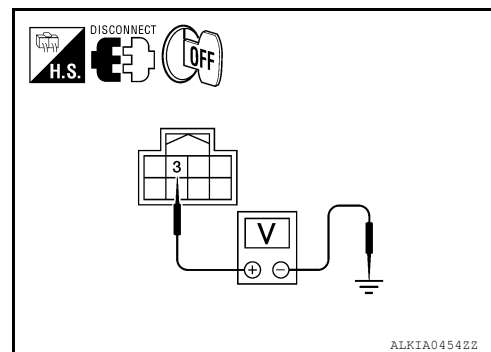
## 4.CHECK IPDM E/R OUTPUT SIGNAL

# B2609 STEERING STATUS

[SEDAN]

## < DTC/CIRCUIT DIAGNOSIS >

1. Connect IPDM E/R harness connector.
2. Disconnect BCM harness connector.
3. Check voltage between electronic steering column lock harness connector and ground.



Electronic steering column lock		Ground	Voltage [V]
Connector	Terminal		
M32	3	Ground	Battery voltage

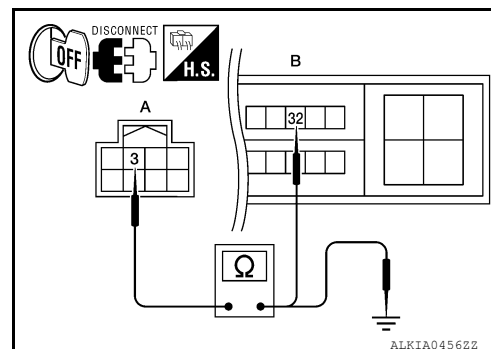
Is the inspection result normal?

YES >> Replace electronic steering column lock.

NO >> GO TO 5.

## 5.CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-II

1. Check continuity between electronic steering column lock harness connector M32 (A) terminal 3 and IPDM E/R harness connector E18 (B) terminal 32.



Electronic steering column lock		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: M32	3	B: E18	32	Yes

2. Check continuity between electronic steering column lock harness connector M32 (A) terminal 3 and ground.

Electronic steering column lock		Ground	Continuity
Connector	Terminal		
A: M32	3	Ground	No

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

## 6.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End.

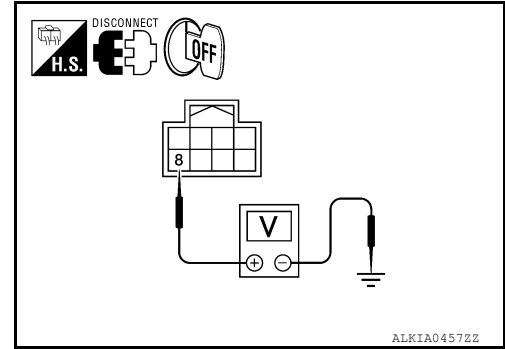
## 7.CHECK BCM OUTPUT SIGNAL

# B2609 STEERING STATUS

[SEDAN]

## < DTC/CIRCUIT DIAGNOSIS >

1. Turn ignition switch OFF.
2. Disconnect electronic steering column lock harness connector and IPDM E/R harness connector E5.
3. Check voltage between electronic steering column lock harness connector and ground.



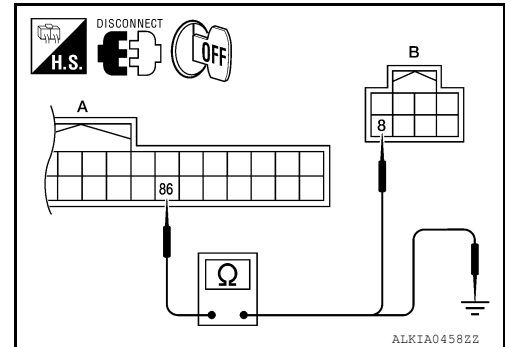
Electronic steering column lock		Ground	Voltage [V]
Connector	Terminal		
M32	8	Ground	Battery voltage

Is the inspection result normal?

- YES >> GO TO 9.  
NO >> GO TO 8.

## 8.CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-I

1. Disconnect BCM harness connector M19.
2. Check continuity between BCM harness connector M19 (A) terminal 86 and electronic steering column lock harness connector M32 (B) terminal 8.



BCM		Electronic steering column lock		Continuity
Connector	Terminal	Connector	Terminal	
A: M19	86	B: M32	8	Yes

3. Check continuity between BCM harness connector M19 (A) terminal 86 and ground.

BCM		Ground	Continuity
Connector	Terminal		
A: M19	86	Ground	No

Is the inspection result normal?

- YES >> GO TO 11.  
NO >> Repair harness or connector.

## 9.CHECK IPDM E/R OUTPUT SIGNAL

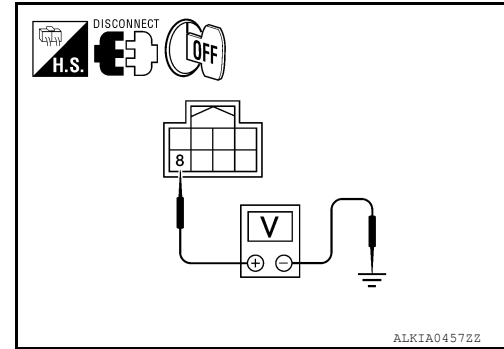
1. Connect IPDM E/R harness connector.
2. Disconnect BCM harness connector M19.

## B2609 STEERING STATUS

### < DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

3. Check voltage between electronic steering column lock harness connector and ground.



Electronic steering column lock		Ground	Voltage [V]
Connector	Terminal		
M32	8	Ground	Battery voltage

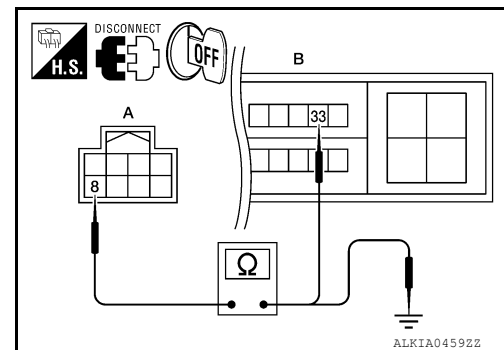
Is the inspection result normal?

YES >> Replace electronic steering column lock.

NO >> GO TO 10.

### 10. CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-II

1. Check continuity between electronic steering column lock harness connector M32 (A) terminal 8 and IPDM E/R harness connector E18 (B) terminal 33.



Electronic steering column lock		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: M32	8	B: E18	33	Yes

2. Check continuity between electronic steering column lock harness connector and ground.

Electronic steering column lock		Ground	Continuity
Connector	Terminal		
A: M32	8	Ground	No

Is the inspection result normal?

YES >> GO TO 11.

NO >> Repair harness or connector.

### 11. CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End.

# B260B ELECTRONIC STEERING COLUMN LOCK

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

## B260B ELECTRONIC STEERING COLUMN LOCK

### Description

INFOID:000000007422638

The electronic steering column lock performs the check by itself according to the steering status.

### DTC Logic

INFOID:000000007422639

### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B260B	ELECTRONIC STEERING COLUMN LOCK	BCM detects malfunctioning of electronic steering column lock before steering unlocking.	• Electronic steering column lock

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Press the push-button ignition switch, when steering is locked.
2. Check "Self diagnostic result" with CONSULT.

#### Is DTC detected?

- YES >> Go to [SEC-322, "Diagnosis Procedure"](#).  
NO >> Inspection End.

### Diagnosis Procedure

INFOID:000000007422640

#### 1.INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**  
See [SEC-322, "DTC Logic"](#).

#### Is the DTC B260B displayed again?

- YES >> Replace electronic steering column lock.  
NO >> Inspection End.

# B260C ELECTRONIC STEERING COLUMN LOCK

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

## B260C ELECTRONIC STEERING COLUMN LOCK

### Description

INFOID:000000007422641

The electronic steering column lock performs the check by itself according to the steering status.

### DTC Logic

INFOID:000000007422642

### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B260C	ELECTRONIC STEERING COLUMN LOCK	BCM detects malfunctioning of electronic steering column lock before steering locking.	• Electronic steering column lock

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Turn ignition switch OFF.
3. Press door switch.
4. Check "Self diagnostic result" with CONSULT.

#### Is DTC detected?

- YES >> Go to [SEC-323, "Diagnosis Procedure"](#).  
NO >> Inspection End.

### Diagnosis Procedure

INFOID:000000007422643

#### 1.INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**  
See [SEC-323, "DTC Logic"](#).

#### Is the DTC B260C displayed again?

- YES >> Replace electronic steering column lock.  
NO >> Inspection End.

# B260D ELECTRONIC STEERING COLUMN LOCK

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

## B260D ELECTRONIC STEERING COLUMN LOCK

### Description

INFOID:000000007422644

The electronic steering column lock performs the check by itself according to the steering lock status (before lock, after lock and unlock).

### DTC Logic

INFOID:000000007422645

### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B260D	ELECTRONIC STEERING COLUMN LOCK	BCM detects malfunctioning of electronic steering column lock after steering locking.	• Electronic steering column lock

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Turn ignition switch OFF.
3. Press door switch.
4. Check "Self diagnostic result" with CONSULT.

#### Is DTC detected?

- YES >> Go to [SEC-324, "Diagnosis Procedure"](#).  
NO >> Inspection End.

### Diagnosis Procedure

INFOID:000000007422646

#### 1.INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**  
See [SEC-324, "DTC Logic"](#).

#### Is the DTC B260D displayed again?

- YES >> Replace electronic steering column lock.  
NO >> Inspection End.



# B260F ENGINE STATUS

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

## B260F ENGINE STATUS

### Description

INFOID:000000007422647

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

### DTC Logic

INFOID:000000007422648

### DTC DETECTION LOGIC

#### NOTE:

- If DTC B260F is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-248, "DTC Logic"](#).
- If DTC B260F is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-249, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B260F	INTERRUPTION OF ENGINE STATUS SIGNAL	BCM is not yet received the engine status signal from ECM when ignition switch is in ON position	• ECM

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions.
  - CVT selector lever is in the P position.
  - Do not depress the brake pedal.
2. Check "Self diagnostic result" with CONSULT.

#### Is DTC detected?

- YES >> Go to [SEC-325, "Diagnosis Procedure"](#).  
NO >> Inspection End.

### Diagnosis Procedure

INFOID:000000007422649

#### 1.INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**  
See [SEC-325, "DTC Logic"](#).

#### Is the DTC B260F displayed again?

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

#### 2.REPLACE ECM

1. Replace ECM.
2. Go to [EC-330, "BASIC INSPECTION : Special Repair Requirement"](#) (VQ35DE), [EC-15, "BASIC INSPECTION : Special Repair Requirement"](#) (QR25DE).

>> Inspection End.

## B26E1 NO RECEPTION OF ENGINE STATUS SIGNAL

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

### B26E1 NO RECEPTION OF ENGINE STATUS SIGNAL

#### Description

INFOID:000000007422650

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

#### DTC Logic

INFOID:000000007422651

#### DTC DETECTION LOGIC

##### NOTE:

- If DTC B26E1 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-248, "DTC Logic"](#).
- If DTC B26E1 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-249, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B260F	NO RECEPTION OF ENGINE STATUS SIGNAL	BCM does not receive the engine status signal from ECM when ignition switch is in the ON position	• ECM

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions.
  - CVT selector lever is in the P or N position.
  - Do not depress the brake pedal.
2. Check "Self diagnostic result" with CONSULT.

##### Is DTC detected?

- YES >> Go to [SEC-326, "Diagnosis Procedure"](#).  
NO >> Inspection End.

#### Diagnosis Procedure

INFOID:000000007422652

##### 1.INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**  
See [SEC-326, "DTC Logic"](#).

##### Is the DTC B26E1 displayed again?

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

##### 2.REPLACE ECM

1. Replace ECM.
2. Go to [EC-330, "BASIC INSPECTION : Special Repair Requirement"](#) (VQ35DE), [EC-15, "BASIC INSPECTION : Special Repair Requirement"](#) (QR25DE).

>> Inspection End.

# B26E8 CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

## B26E8 CLUTCH INTERLOCK SWITCH

### Description

INFOID:000000007422653

When clutch interlock switch turns ON, BCM detects that clutch pedal is being depressed and permits to start the engine.

### DTC Logic

INFOID:000000007422654

#### NOTE:

If DTC B26E8 is displayed with DTC B210F, first perform the trouble diagnosis for DTC B210F. Refer to [SEC-327, "DTC Logic"](#).

### DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detection condition	Possible cause
B26E8	CLUTCH INTERLOCK SWITCH	Detects that ASCD cancel switch is in the ON position for 2 seconds or more while ignition switch and clutch interlock switch are ON.	<ul style="list-style-type: none"><li>Clutch interlock switch</li><li>Harness or connector (Clutch interlock switch circuit open or shorted)</li></ul>

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON under the following condition.
  - Shift lever is in the neutral position.
  - Depress clutch pedal.
- Check "Self-diagnostic result" using CONSULT.

#### Is DTC detected?

- YES >> Go to [SEC-327, "Diagnosis Procedure"](#).  
NO >> Inspection End

### Diagnosis Procedure

INFOID:000000007422655

Regarding Wiring Diagram information, refer to [SEC-399, "Wiring Diagram"](#).

SEC

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

- Turn ignition switch OFF.
- Disconnect clutch interlock switch connector.
- Check voltage between clutch interlock switch harness connector and ground.

(+) Clutch interlock switch		(-)	Voltage (V) (Approx.)
Connector	Terminal		
E36	1	Ground	Battery voltage

#### Is the inspection result normal?

- YES >> GO TO 2.  
NO-1 >> Check 10 A fuse [No. 31, located in the fuse and fusible link box]  
NO-2 >> Check harness for open or short between clutch interlock switch and fuse.

#### 2.CHECK CLUTCH INTERLOCK SWITCH SIGNAL

- Connect clutch interlock switch connector.
- Disconnect BCM connector.
- Check voltage between BCM harness connector and ground.

## B26E8 CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

(+)		(-)	Condition		Voltage (V) (Approx.)
BCM					
Connector	Terminal				
M18	22	Ground	Clutch pedal	Depressed	Battery voltage
				Released	0

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-92, "Removal and Installation"](#).

NO >> GO TO 3.

### 3.CHECK CLUTCH INTERLOCK SWITCH SIGNAL CIRCUIT

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

Clutch interlock switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
E36	2	M18	22	Yes

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

Clutch interlock switch		Ground	Continuity
Connector	Terminal		
E36	2		No

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

### 4.CHECK CLUTCH INTERLOCK SWITCH

Refer to [SEC-328, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace clutch interlock switch. Refer to [CL-9, "Exploded View"](#).

### 5.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End

## Component Inspection

INFOID:0000000007422656

### 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	Yes
			Released	No

Is the inspection result normal?

YES >> Inspection End

NO >> Replace clutch interlock switch. Refer to [CL-9, "Exploded View"](#).

## B26E9 STEERING STATUS

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

### B26E9 STEERING STATUS

#### Description

INFOID:000000007422657

There are 2 switches in the electronic steering column lock (steering lock/unlock switch 1 and 2). BCM compares the 2 switch conditions to judge the present steering status.

#### DTC Logic

INFOID:000000007422658

#### DTC DETECTION LOGIC

##### NOTE:

If DTC B26E9 is displayed with DTC B2609, first perform the trouble diagnosis for DTC B2609. Refer to [SEC-329, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B26E9	S/L STATUS	BCM requests lock to Electronic steering column lock, then electronic steering column lock transmits a recognition signal to BCM, but electronic steering column lock remains unlocked.	Electronic steering column lock

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Turn ignition switch OFF.
3. Press driver side door switch and wait 1 second or more.
4. Turn ignition switch ON.
5. Check "Self-diagnostic result" using CONSULT.

##### Is DTC detected?

- YES >> Refer to [SEC-329, "Diagnosis Procedure"](#).  
NO >> Inspection End

#### Diagnosis Procedure

INFOID:000000007422659

##### 1.INSPECTION START

1. Turn ignition switch ON.
2. Check "Self-diagnostic result" using CONSULT.
3. Touch "ERASE".
4. Perform DTC Confirmation Procedure.  
Refer to [SEC-329, "DTC Logic"](#).

##### Is the DTC B26E9 displayed again?

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

##### 2.REPLACE ELECTRONIC STEERING COLUMN LOCK

1. Replace electronic steering column lock.
2. Perform DTC confirmation procedure. Refer to [SEC-329, "DTC Logic"](#).

##### Is the DTC B26E9 displayed again?

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

##### 3.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End

**B26EA KEY REGISTRATION****Description**

INFOID:000000007422660

When the registered Intelligent Key is carried, the door lock/unlock operation and the push-button ignition switch operation become possible.

**DTC Logic**

INFOID:000000007422661

**DTC DETECTION LOGIC**

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B26EA	KEY REGISTRATION	Intelligent Key is not registered successfully.	<ul style="list-style-type: none"> <li>• Improper registration operation</li> <li>• Intelligent Key</li> <li>• BCM</li> </ul>

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

1. Perform initialization using CONSULT. Reregister all Intelligent Keys.  
For initialization and registration of Intelligent Key, refer to CONSULT Immobilizer mode and follow the on-screen instructions.
2. Check "Self-diagnostic result" using CONSULT.

**Is DTC detected?**

- YES >> Go to [SEC-330, "Diagnosis Procedure"](#).  
NO >> Inspection End

**Diagnosis Procedure**

INFOID:000000007422662

**1.PERFORM INITIALIZATION**

1. Perform initialization using CONSULT. Reregister all Intelligent Keys.  
For initialization and registration of Intelligent Key, refer to CONSULT Immobilizer mode and follow the on-screen instructions.
2. Check "Self-diagnostic result" using CONSULT.

**Is DTC detected?**

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

**2.REPLACE INTELLIGENT KEY**

1. Replace Intelligent Key. Reregister all Intelligent Keys.
2. Perform initialization using CONSULT. For initialization, refer to CONSULT Immobilizer mode and follow the on-screen instructions.
3. Check "Self-diagnostic result" using CONSULT.

**Is DTC detected?**

- YES >> Replace BCM. Refer to [BCS-92, "Removal and Installation"](#).  
NO >> Inspection End

# B2612 STEERING STATUS

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

## B2612 STEERING STATUS

### Description

INFOID:000000007422663

There are 2 switches in the steering unit. IPDM E/R compares those 2 switches conditions to judge the present steering status and transmit the result to BCM via CAN communication.

### DTC Logic

INFOID:000000007422664

### DTC DETECTION LOGIC

#### NOTE:

- If DTC B2612 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-248, "DTC Logic"](#).
- If DTC B2612 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-249, "DTC Logic"](#).

DTC	Self-diagnosis name	DTC detecting condition	Possible causes
B2612	STEERING STATUS	BCM detects the mismatch between the following status for 1 second <ul style="list-style-type: none"><li>• Steering lock or unlock</li><li>• Feedback of steering lock status from IPDM E/R (CAN)</li></ul>	<ul style="list-style-type: none"><li>• Harness or connectors [electronic steering column lock circuit (BCM side) is open or shorted]</li><li>• Harness or connectors [electronic steering column lock circuit (IPDM E/R side) is open or shorted.]</li><li>• Electronic steering column lock</li><li>• IPDM E/R</li></ul>

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE 1

1. Press the push-button ignition switch under the following conditions and wait for at least 1 second.
  - CVT selector lever is in the P or N position.
  - Do not depress brake pedal.
  - Steering is locked.
2. Check "Self diagnostic result" with CONSULT.

#### Is DTC detected?

- YES >> Go to [SEC-331, "Diagnosis Procedure"](#).  
NO >> GO TO 2.

#### 2.PERFORM DTC CONFIRMATION PROCEDURE 2

1. Turn ignition switch ON.
2. Turn ignition switch OFF.
3. Press door switch.
4. Check "Self diagnostic result" with CONSULT.

#### Is DTC detected?

- YES >> Go to [SEC-331, "Diagnosis Procedure"](#).  
NO >> Inspection End.

### Diagnosis Procedure

INFOID:000000007422665

Regarding Wiring Diagram information, refer to [SEC-399, "Wiring Diagram"](#).

#### 1.INSPECTION START

Check the case in which DTC is detected.

- Case1: It is detected after ignition switch is changed from ON to OFF and door switch is pressed.
- Case2: It is detected after ignition switch is changed from ON to OFF

#### In which case is DTC detected?

# B2612 STEERING STATUS

[SEDAN]

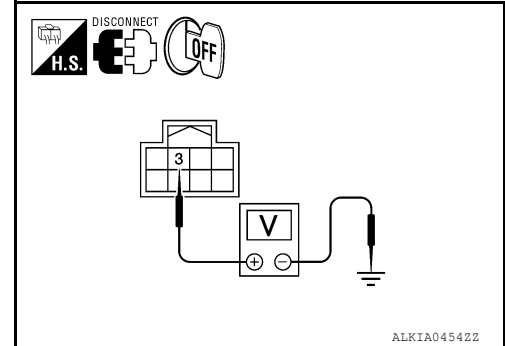
## < DTC/CIRCUIT DIAGNOSIS >

Case1 >> GO TO 2.

Case2 >> GO TO 7.

### 2.CHECK BCM OUTPUT SIGNAL

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



Electronic steering column lock		Ground	Voltage [V]
Connector	Terminal		
M32	3	Ground	Battery voltage

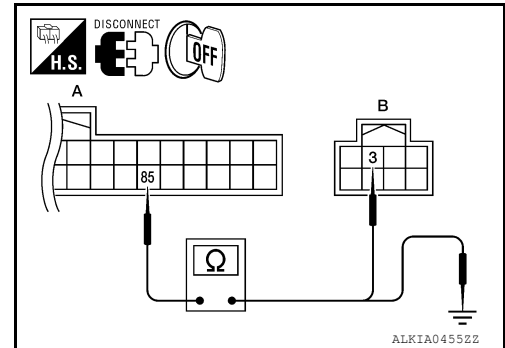
Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

### 3.CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-I

1. Disconnect BCM harness connector.
2. Check continuity between BCM harness connector M19 (A) terminal 85 and electronic steering column lock harness connector M32 (B) terminal 3.



BCM		Electronic steering column lock		Continuity
Connector	Terminal	Connector	Terminal	
A: M19	85	B: M32	3	Yes

3. Check continuity between BCM harness connector M19 (A) terminal 85 and ground.

BCM		Ground	Continuity
Connector	Terminal		
A: M19	85	Ground	No

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

### 4.CHECK IPDM E/R OUTPUT SIGNAL

1. Connect IPDM E/R harness connector.
2. Disconnect BCM harness connector.

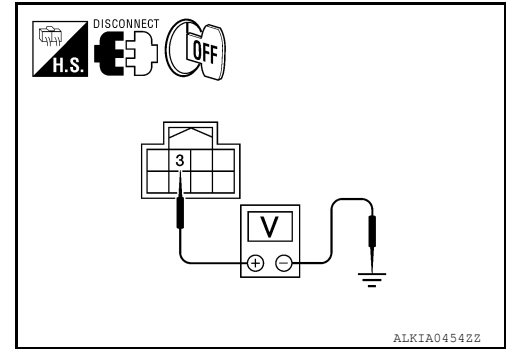


# B2612 STEERING STATUS

[SEDAN]

## < DTC/CIRCUIT DIAGNOSIS >

- Check voltage between electronic steering column lock harness connector and ground.



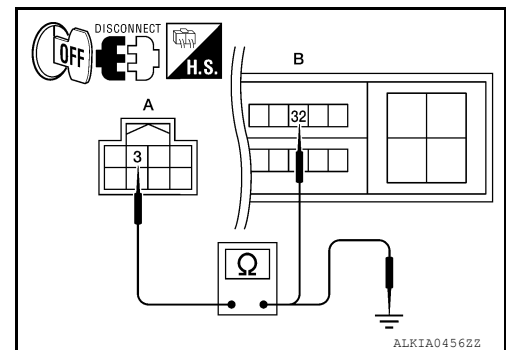
Electronic steering column lock		Ground	Voltage [V]
Connector	Terminal		
M32	3	Ground	Battery voltage

Is the inspection result normal?

- YES >> Replace electronic steering column lock.  
 NO >> GO TO 5.

## 5.CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-II

- Check continuity between electronic steering column lock harness connector M32 (A) terminal 3 and IPDM E/R harness connector E18 (B) terminal 32.



Electronic steering column lock		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: M32	3	B: E18	32	Yes

- Check continuity between electronic steering column lock harness connector M32 (A) terminal 3 and ground.

Electronic steering column lock		Ground	Continuity
Connector	Terminal		
A: M32	3	Ground	No

Is the inspection result normal?

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

## 6.CHECK INTERMITTENT INCIDENT

Refer to [GI-42. "Intermittent Incident"](#).

>> Inspection End.

## 7.CHECK BCM OUTPUT SIGNAL

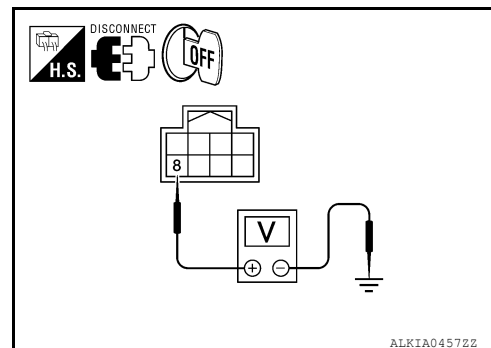
- Turn ignition switch OFF.
- Disconnect electronic steering column lock harness connector and IPDM E/R harness connector.

## B2612 STEERING STATUS

[SEDAN]

### < DTC/CIRCUIT DIAGNOSIS >

- Check voltage between electronic steering column lock harness connector and ground.



Electronic steering column lock		Ground	Voltage [V]
Connector	Terminal		
M32	8	Ground	Battery voltage

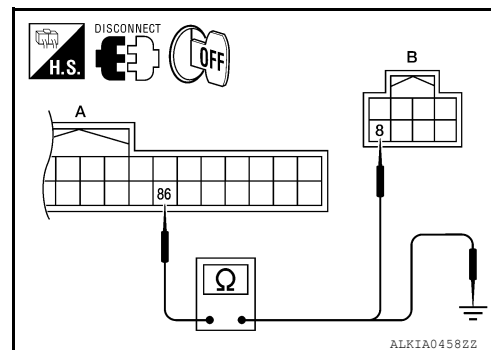
Is the inspection result normal?

YES >> GO TO 9.

NO >> GO TO 8.

### 8.CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-I

- Disconnect BCM harness connector.
- Check continuity between BCM harness connector M19 (A) terminal 86 and electronic steering column lock harness connector M32 (B) terminal 8.



BCM		Electronic steering column lock		Continuity
Connector	Terminal	Connector	Terminal	
A: M19	86	B: M32	8	Yes

- Check continuity between BCM harness connector M19 (A) terminal 86 and ground.

BCM		Ground	Continuity
Connector	Terminal		
A: M19	86	Ground	No

Is the inspection result normal?

YES >> GO TO 11.

NO >> Repair harness or connector.

### 9.CHECK IPDM E/R OUTPUT SIGNAL

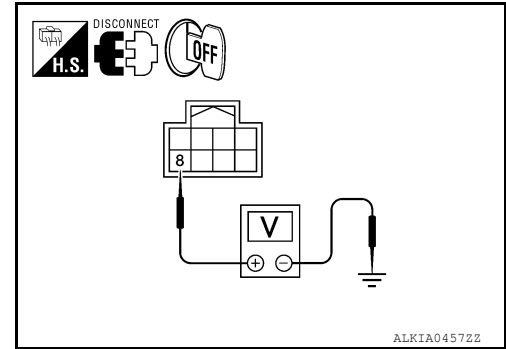
- Connect IPDM E/R harness connector.
- Disconnect BCM harness connector.

## B2612 STEERING STATUS

[SEDAN]

### < DTC/CIRCUIT DIAGNOSIS >

3. Check voltage between electronic steering column lock harness connector and ground.



Electronic steering column lock		Ground	Voltage [V]
Connector	Terminal		
M32	8	Ground	Battery voltage

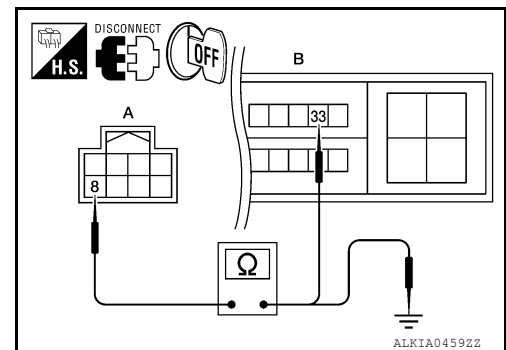
Is the inspection result normal?

YES >> Replace electronic steering column lock.

NO >> GO TO 10.

### 10.CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-II

1. Check continuity between electronic steering column lock harness connector M32 (A) terminal 8 and IPDM E/R harness connector E18 (B) terminal 33.



Electronic steering column lock		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: M32	8	B: E18	33	Yes

2. Check continuity between electronic steering column lock harness connector and ground.

Electronic steering column lock		Ground	Continuity
Connector	Terminal		
A: M32	8	Ground	No

Is the inspection result normal?

YES >> GO TO 11.

NO >> Repair harness or connector.

### 11.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End.

# B2617 STARTER RELAY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

## B2617 STARTER RELAY CIRCUIT

### Description

INFOID:000000007422666

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

### DTC Logic

INFOID:000000007422667

#### DTC DETECTION LOGIC

##### NOTE:

- If DTC B2617 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-248, "DTC Logic"](#).
- If DTC B2617 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-249, "DTC Logic"](#).
- If DTC B2617 is displayed with DTC B2611, first perform the trouble diagnosis for DTC B2611. Refer to [PCS-62, "DTC Logic"](#).
- If DTC B2617 is displayed with DTC B210E, first perform the trouble diagnosis for DTC B210E. Refer to [SEC-336, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2617	STARTER RELAY CIRCUIT	<ul style="list-style-type: none"><li>• An immediate operation of starter relay is requested by BCM, but there is no response for more than 1 second</li><li>• BCM is not commanding starter relay activation, but BCM detects starter relay output is active</li></ul>	<ul style="list-style-type: none"><li>• Harness or connectors (Starter relay circuit is open or shorted.)</li><li>• IPDM E/R</li></ul>

#### DTC CONFIRMATION PROCEDURE

##### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions and wait for at least 1 second.
  - CVT selector lever is in the P position.
  - Do not depress the brake pedal.
2. Check "Self diagnostic result" with CONSULT.

##### Is DTC detected?

- YES >> Go to [SEC-336, "Diagnosis Procedure"](#).  
NO >> Inspection End

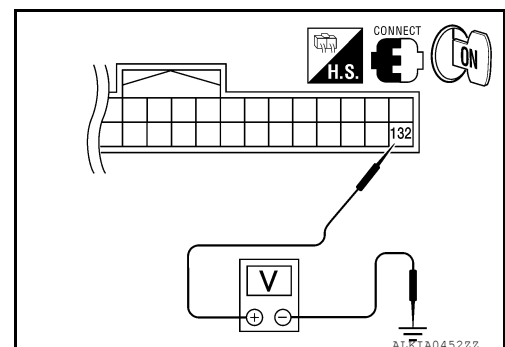
### Diagnosis Procedure

INFOID:000000007422668

Regarding Wiring Diagram information, refer to [SEC-399, "Wiring Diagram"](#).

##### 1.CHECK STARTER RELAY

1. Turn ignition switch ON.
2. Check voltage between BCM harness connector and ground under the following condition.



## B2617 STARTER RELAY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

BCM		Ground	Transmission type	Condition	Voltage (V)
Connector	Terminal				
M21	132	Ground	CVT: Select lever in Park	Ignition switch cranking or request to start	Battery voltage
				Other than above	0
			M/T: Clutch pedal depressed	Ignition switch cranking or request to start	Battery voltage
				Other than above	0

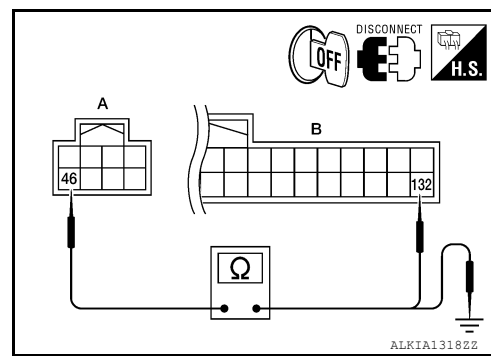
Is the measurement value within the specification.

YES >> GO TO 3.

NO >> GO TO 2.

### 2.CHECK STARTER RELAY CIRCUIT

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



IPDM E/R		BCM		Continuity
Connector	Terminal	Connector	Terminal	
A: E17	46	B: M21	132	Yes

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
A: E17	46	Ground	No

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-92, "Removal and Installation"](#).

NO >> Repair harness or connector.

### 3.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End.

## B2619 BCM

## Description

INFOID:000000007422669

BCM requests IPDM E/R to supply power to electronic steering column lock. After receiving the power, the electronic steering column lock transmits an ON signal to BCM.

## DTC Logic

INFOID:000000007422670

## DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2619	BCM	BCM detects a mismatch between the power supplied to the electronic steering column lock and the feedback for one second or more.	• BCM

## DTC CONFIRMATION PROCEDURE

## 1. PERFORM DTC CONFIRMATION PROCEDURE

1. Press the push-button ignition switch under the following conditions and wait for at least 1 second.
  - CVT selector lever is in the P position
  - Do not depress brake pedal
2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

- YES >> Go to [SEC-338, "Diagnosis Procedure"](#).  
 NO >> Inspection End.

## Diagnosis Procedure

INFOID:000000007422671

## 1. INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**  
See [SEC-338, "DTC Logic"](#).

Is the DTC B2619 displayed again?

- YES >> Replace BCM. Refer to [BCS-92, "Removal and Installation"](#).  
 NO >> Inspection End

# B261A PUSH-BUTTON IGNITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

## B261A PUSH-BUTTON IGNITION SWITCH

### Description

INFOID:000000007422672

IPDM E/R transmits the push-button ignition switch status via CAN communication to BCM. BCM receives push-button ignition switch status by hardwire input. BCM compares the 2 signals for mismatch.

### DTC Logic

INFOID:000000007422673

### DTC DETECTION LOGIC

#### NOTE:

- If DTC B261A is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-248, "DTC Logic"](#).
- If DTC B261A is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-249, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B261A	PUSH-BUTTON IGNITION SWITCH	BCM detects the mismatch between the following for 1 second or more <ul style="list-style-type: none"><li>• Push-button ignition switch status</li><li>• Push-button ignition switch status from IPDM E/R (CAN)</li></ul>	<ul style="list-style-type: none"><li>• Harness or connectors (Push-button ignition switch circuit is open or shorted)</li><li>• Between BCM and push-button ignition switch</li><li>• Between IPDM E/R and push-button ignition switch</li></ul>

### DTC CONFIRMATION PROCEDURE

#### 1.PERFORM DTC CONFIRMATION PROCEDURE

1. Press the push-button ignition switch under the following conditions and wait for at least 1 second.
  - CVT selector lever is in the P position
  - Do not depress brake pedal.
2. Check "Self diagnostic result" with CONSULT.

#### Is DTC detected?

- YES >> Go to [SEC-339, "Diagnosis Procedure"](#).  
NO >> Inspection End

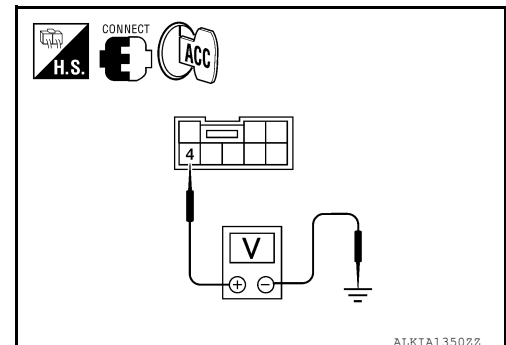
### Diagnosis Procedure

INFOID:000000007422674

Regarding Wiring Diagram information, refer to [SEC-427, "Wiring Diagram"](#).

#### 1.CHECK PUSH-BUTTON IGNITION SWITCH OUTPUT SIGNAL 1

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



## B261A PUSH-BUTTON IGNITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

Push-button ignition switch		Ground	Voltage (V)
Connector	Terminal		
M38	4	Ground	Battery voltage

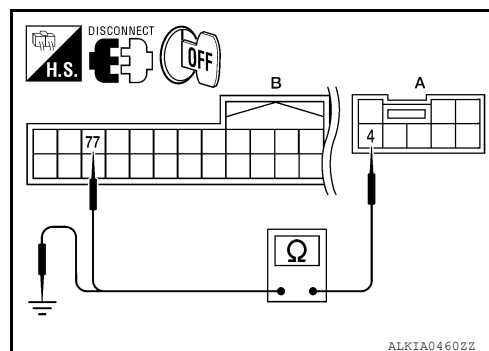
Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

### 2.CHECK PUSH-BUTTON IGNITION SWITCH CIRCUIT

1. Disconnect BCM harness connector.
2. Check continuity between push-button ignition switch harness connector M38 (A) terminal 4 and BCM harness connector M19 (B) terminal 77.



Push-button ignition switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
A: M38	4	B: M19	77	Yes

3. Check continuity between push-button ignition switch harness connector M38 (A) terminal 4 and ground.

Push-button ignition switch		Ground	Continuity
Connector	Terminal		
A: M38	4	Ground	No

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

### 3.CHECK PUSH-BUTTON IGNITION SWITCH CIRCUIT FOR SHORT

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

Push-button ignition switch		Ground	Continuity
Connector	Terminal		
M38	4	Ground	No

Is the inspection result normal?

YES >> Replace BCM.

NO >> Repair harness or connector.

### 4.CHECK PUSH-BUTTON IGNITION SWITCH

Refer to [SEC-340, "Component Inspection"](#).

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace push-button ignition switch.

### Component Inspection

INFOID:000000007630895

### 1.CHECK PUSH-BUTTON IGNITION SWITCH

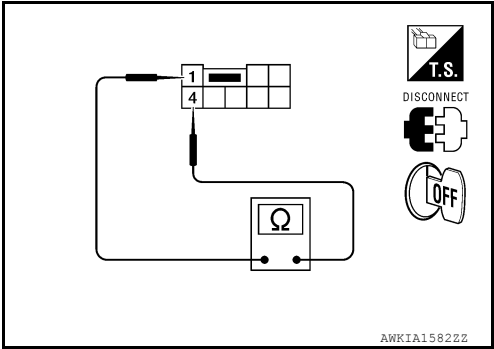


B261A PUSH-BUTTON IGNITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

- 1. Turn ignition switch OFF.
- 2. Disconnect push-button ignition switch harness connector.
- 3. Check continuity between push-button ignition switch terminals under the following conditions.



Push-button ignition switch		Condition	Continuity
Terminal			
1	4	Pressed	Yes
		Not pressed	No

Is the inspection result normal?

- YES >> Inspection End.
- NO >> Replace push-button ignition switch. Refer to [SEC-444, "Removal and Installation"](#).

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

SEC

## B261E VEHICLE TYPE

## Description

INFOID:000000007422675

There are two types of vehicles.

- HEV
- Conventional

## DTC Logic

INFOID:000000007422676

## DTC DETECTION LOGIC

**NOTE:**

- If DTC B261E is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-248, "DTC Logic"](#).
- If DTC B261E is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-249, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B261E	VEHICLE TYPE	Difference of BCM configuration.	BCM

## DTC CONFIRMATION PROCEDURE

**1. PERFORM DTC CONFIRMATION PROCEDURE**

1. Turn ignition switch ON under the following conditions.

- CVT shift selector lever is in the P or N position
- Do not depress brake pedal
- Check "Self-diagnostic result" using CONSULT.

Is DTC detected?

- YES >> Go to [SEC-342, "Diagnosis Procedure"](#).  
 NO >> Inspection End

## Diagnosis Procedure

INFOID:000000007422677

**1. INSPECTION START**

1. Turn ignition switch ON.
2. Check "Self-diagnostic result" using CONSULT.
3. Touch "ERASE".
4. Perform DTC Confirmation Procedure.  
See [SEC-342, "DTC Logic"](#).

Is the 1st trip DTC B261E displayed again?

- YES >> Replace BCM. Refer to [BCS-92, "Removal and Installation"](#).  
 NO >> Inspection End

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

## POWER SUPPLY AND GROUND CIRCUIT

### BCM

#### BCM : Diagnosis Procedure

INFOID:000000007630907

Regarding Wiring Diagram information, refer to [BCS-70. "Wiring Diagram - Coupe"](#) or [BCS-79. "Wiring Diagram - Sedan"](#).

#### 1. CHECK FUSE AND FUSIBLE LINK

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

Terminal No.	Signal name	Fuse and fusible link No.
1	Battery power supply	H
11		10

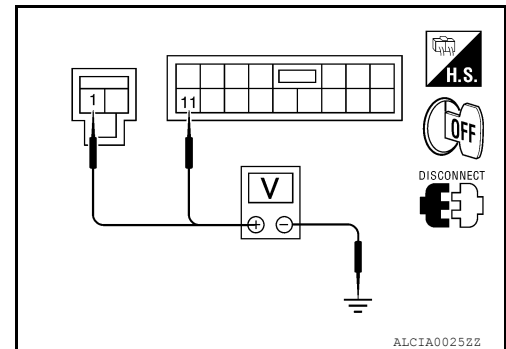
Is the fuse or fusible link blown?

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

#### 2. CHECK POWER SUPPLY CIRCUIT

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

Terminals			Voltage (Approx.)
(+)		(-)	
BCM		Ground	
Connector	Terminal		
M16	1		
M17	11		
			Battery voltage



Is the measurement normal?

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

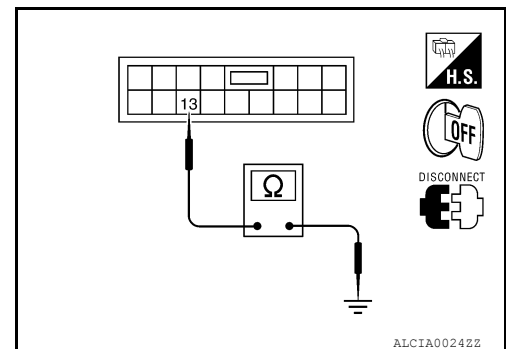
#### 3. CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M17	13		
			Yes

Does continuity exist?

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



#### BCM : Special Repair Requirement

INFOID:000000007630908

#### 1. REQUIRED WORK WHEN REPLACING BCM

Initialize control unit. Refer to [BCS-3. "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT \(BCM\) : Work Procedure"](#).

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

>> Work End.

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

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

INFOID:000000007630909

Regarding Wiring Diagram information, refer to [PCS-31, "Wiring Diagram - Coupe"](#) or [PCS-37, "Wiring Diagram - Sedan"](#).

## 1. CHECK FUSES AND FUSIBLE LINK

Check that the following IPDM E/R fuses or fusible link are not blown.

Terminal No.	Signal name	Fuses and fusible link No.
1, 2	Battery power supply	B, D
—		42
		43

Is the fuse blown?

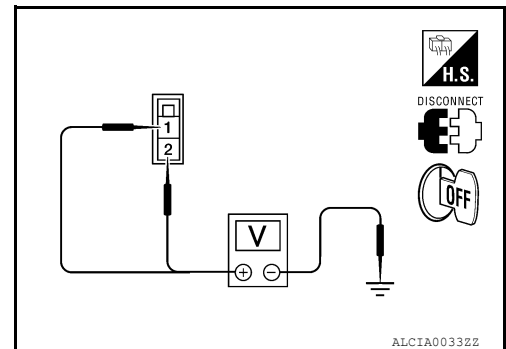
YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

NO >> GO TO 2

## 2. CHECK POWER SUPPLY CIRCUIT

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

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



Is the measurement value normal?

YES >> GO TO 3

NO >> Repair harness or connector.

## 3. CHECK GROUND CIRCUIT

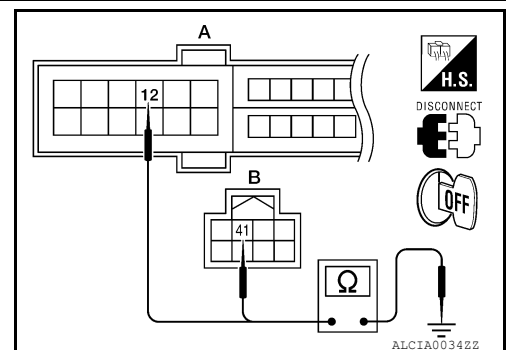
Check continuity between IPDM E/R harness connectors and ground.

IPDM E/R		Ground	Continuity
Connector	Terminal		
A: E18	12		Yes
B: E17	41		

Does continuity exist?

YES >> Inspection End.

NO >> Repair harness or connector.



## KEY SLOT

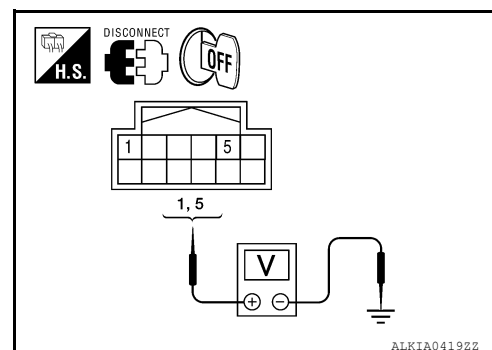
## Diagnosis Procedure

INFOID:000000007422681

Regarding Wiring Diagram information, refer to [SEC-427, "Wiring Diagram"](#).

**1.CHECK KEY SLOT POWER SUPPLY CIRCUIT**

1. Turn ignition switch OFF.
2. Disconnect key slot connector.
3. Check voltage between slot connector and ground.



Key slot		Ground	Voltage (V) (Approx.)
Connector	Terminal		
M40	1	Ground	Battery voltage
	5		

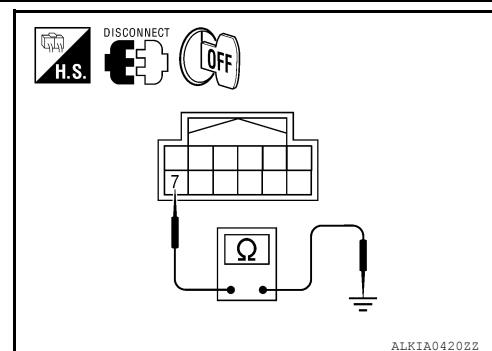
Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace key slot power supply circuit.

**2.CHECK KEY SLOT GROUND CIRCUIT**

Check continuity between key slot connector and ground.



Key slot		Ground	Continuity
Connector	Terminal		
M40	7	Ground	Yes

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace key slot ground circuit.

**3.CHECK INTERMITTENT INCIDENT**

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End

# KEY SLOT ILLUMINATION

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

## KEY SLOT ILLUMINATION

### Description

INFOID:000000007422682

Blinks when Intelligent Key insertion is required.

### Component Function Check

INFOID:000000007422683

### 1.CHECK FUNCTION

#### With CONSULT

Check key slot illumination ("KEY SLOT ILLUMI") Active Test mode.

Is the inspection result normal?

YES >> Key slot function is OK.

NO >> Refer to [SEC-347. "Diagnosis Procedure"](#).

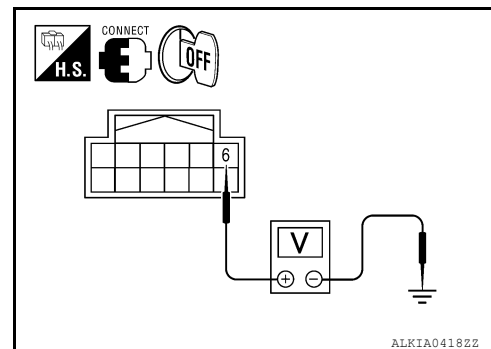
### Diagnosis Procedure

INFOID:000000007422684

Regarding Wiring Diagram information, refer to [SEC-413. "Wiring Diagram"](#).

### 1.CHECK KEY SLOT ILLUMINATION OUTPUT SIGNAL

Check voltage between key slot connector and ground.



SEC

Terminals			Condition	Key slot illumination	Voltage (V) (Approx.)
(+)		(−)			
Key slot connector	Terminal				
M40	6	Ground	Intelligent Key inserted	OFF	Battery voltage
			Intelligent Key removed	ON	0

Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 2.

### 2.CHECK KEY SLOT POWER SUPPLY CIRCUIT

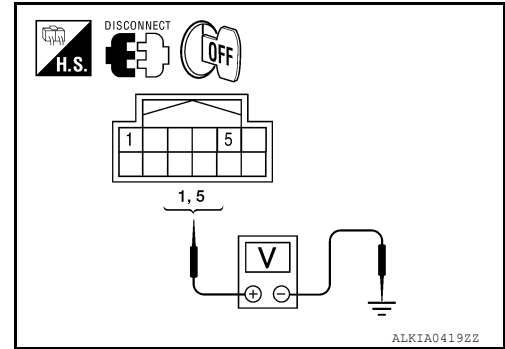
1. Turn ignition switch OFF.
2. Disconnect key slot connector.

# KEY SLOT ILLUMINATION

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

3. Check voltage between slot connector and ground.



Terminals		Voltage (V) (Approx.)
(+)	(-)	
Key slot connector	Terminal	
M40	1	Battery voltage
	5	
	Ground	

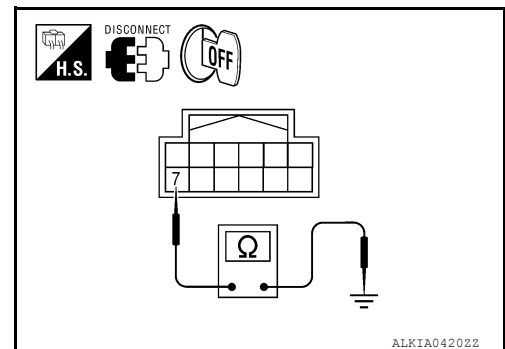
Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace key slot power supply circuit.

## 3.CHECK KEY SLOT GROUND CIRCUIT

Check continuity between key slot connector and ground.



Key slot connector	Terminal	Ground	Continuity
M40	7		Yes

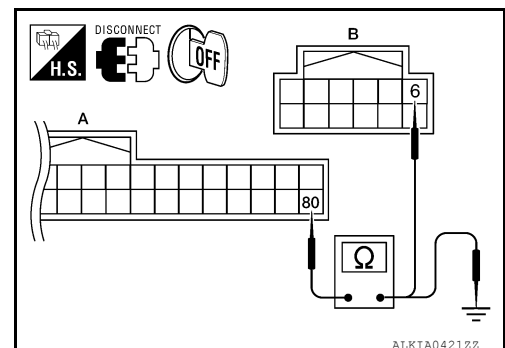
Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace key slot ground circuit.

## 4.CHECK KEY SLOT CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM and key slot connector.
3. Check continuity between BCM connector and key slot connector.





# KEY SLOT ILLUMINATION

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

BCM connector	Terminal	Key slot connector	Terminal	Continuity
A: M19	80	B: M40	6	Yes

4. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
A: M19	80		No

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness between BCM and key slot.

## 5.CHECK KEY SLOT

Refer to [SEC-347, "Description"](#).

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace key slot. Refer to [SEC-443, "Removal and Installation"](#).

## 6.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End.

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SEC

# KEY CYLINDER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

## KEY CYLINDER SWITCH

### Description

INFOID:000000007422685

For vehicles equipped with LH and RH anti-pinch system, the main power window and door lock/unlock switch detects condition of the door key cylinder switch and transmits to BCM as the LOCK or UNLOCK signal.

For vehicles equipped with LH anti-pinch system only, the front door lock assembly LH (key cylinder switch) transmits the LOCK or UNLOCK signal directly to the BCM.

### Component Function Check

INFOID:000000007422686

#### 1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

Check KEY CYL UN-SW, KEY CYL UN-SW in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT. Refer to [BCS-17, "DOOR LOCK : CONSULT Function \(BCM - DOOR LOCK\)"](#).

Monitor item	Condition
KEY CYL LK-SW	Lock : ON
	Neutral / Unlock : OFF
KEY CYL UN-SW	Unlock : ON
	Neutral / Lock : OFF

Is the inspection result normal?

YES >> Key cylinder switch is OK.

NO >> With LH and RH anti-pinch, refer to [SEC-350, "Diagnosis Procedure \(With LH and RH Anti-Pinch\)"](#).

NO >> With LH anti-pinch only, refer to [SEC-352, "Diagnosis Procedure \(With LH Anti-Pinch Only\)"](#).

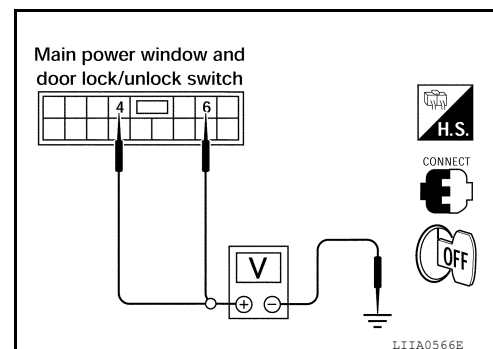
#### Diagnosis Procedure (With LH and RH Anti-Pinch)

INFOID:000000007422687

Regarding Wiring Diagram information, refer to [SEC-413, "Wiring Diagram"](#).

#### 1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

1. Turn ignition switch ON.
2. Check voltage between main power window and door lock/unlock switch connector and ground.



# KEY CYLINDER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

Terminals			Key position	Voltage (V) (Approx.)
(+)		(-)		
Main power window and door lock/unlock switch connector	Terminal			
D7	4	Ground	Lock	0
	6		Neutral / Unlock	5
			Unlock	0
			Neutral / Lock	5

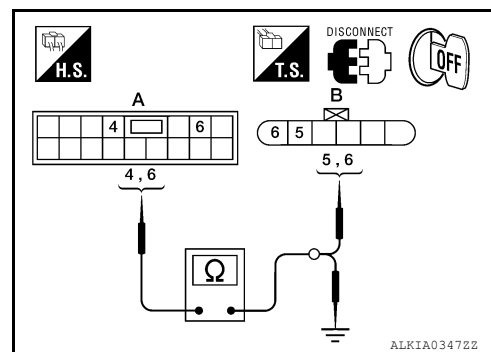
Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to [PWC-298, "Removal and Installation"](#). After that, Refer to [PWC-197, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

NO >> GO TO 2

## 2.CHECK DOOR KEY CYLINDER SIGNAL CIRCUIT

- Turn ignition switch OFF.
- Disconnect main power window and door lock/unlock switch connector and front door lock assembly LH (key cylinder switch) connector.
- Check continuity between main power window and door lock/unlock switch connector and front door lock assembly LH (key cylinder switch) connector.



Main power window and door lock/unlock switch connector	Terminal	Front door lock assembly LH (key cylinder switch) connector	Terminal	Continuity
A: D7	4	B: D10	6	Yes
	6		5	

- Check continuity between main power window and door lock/unlock switch connector and ground.

Power window main switch connector	Terminal	Ground	Continuity
A: D7	4	Ground	No
	6		

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

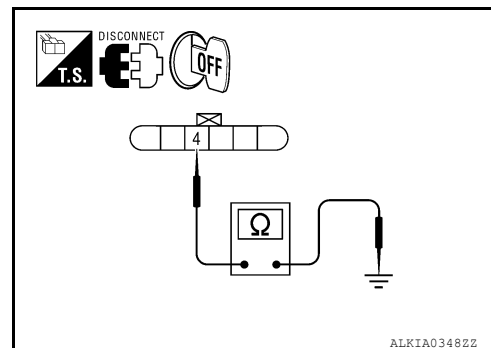
## 3.CHECK DOOR KEY CYLINDER SWITCH GROUND CIRCUIT

## KEY CYLINDER SWITCH

[SEDAN]

### < DTC/CIRCUIT DIAGNOSIS >

Check continuity between front door lock assembly LH connector and ground.



Front door lock assembly LH connector	Terminal	Ground	Continuity
D10	4		Yes

Is the inspection result normal?

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

### 4. CHECK DOOR KEY CYLINDER SWITCH

Check door key cylinder switch.

Refer to [SEC-354, "Component Inspection"](#).

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to [GI-42, "Intermittent Incident"](#).
- NO >> Replace front door lock assembly LH (key cylinder switch). Refer to [DLK-461, "FRONT DOOR LOCK : Removal and Installation"](#). After that, Refer to [DLK-232, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

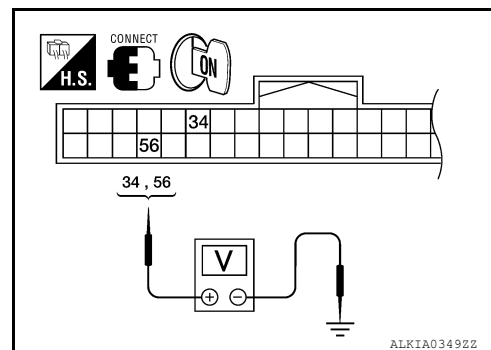
### Diagnosis Procedure (With LH Anti-Pinch Only)

INFOID:000000007422688

Regarding Wiring Diagram information, refer to [SEC-413, "Wiring Diagram"](#).

### 1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

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



# KEY CYLINDER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

Terminals		Key position	Voltage (V) (Approx.)
(+)	(-)		
BCM connector	Terminal		
M18	56	Lock	0
		Neutral / Unlock	5
	34	Unlock	0
		Neutral / Lock	5

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to [DLK-461, "FRONT DOOR LOCK : Removal and Installation"](#). After that, Refer to [DLK-232, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

NO >> GO TO 2

## 2.CHECK DOOR KEY CYLINDER SWITCH GROUND CIRCUIT

- Turn ignition switch OFF.
- Disconnect front door lock assembly LH (key cylinder switch) connector.
- Check continuity between front door lock assembly LH (key cylinder switch) connector and ground.

Front door lock assembly LH connector	Terminal	Ground	Continuity
D10	4		Yes

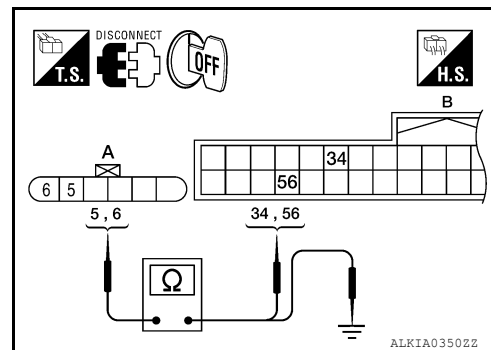
Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

## 3.CHECK DOOR KEY CYLINDER SIGNAL CIRCUIT

- Disconnect BCM connector M18.
- Check continuity between front door lock assembly LH (key cylinder switch) connector and BCM connector M18.



Front door lock assembly LH connector	Terminal	BCM connector	Terminal	Continuity
A: D10	5	B: M18	34	Yes
	6		56	

- Check continuity between front door lock assembly LH (key cylinder switch) connector and ground.

Front door lock assembly LH connector	Terminal	Ground	Continuity
A: D10	5		No
	6		

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

# KEY CYLINDER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

## 4.CHECK DOOR KEY CYLINDER SWITCH

Check door key cylinder switch.

Refer to [SEC-354, "Component Inspection"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-42, "Intermittent Incident"](#).

NO >> Replace front door lock assembly LH (key cylinder switch). Refer to [DLK-461, "FRONT DOOR LOCK : Removal and Installation"](#). After that, Refer to [DLK-232, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

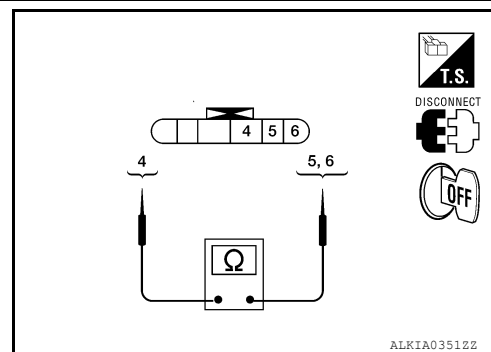
## Component Inspection

INFOID:000000007422689

### COMPONENT INSPECTION

#### 1.CHECK DOOR KEY CYLINDER SWITCH

Check front door lock assembly LH (key cylinder switch).



Terminal		Key position	Continuity
Front door lock assembly LH (key cylinder switch) connector			
5	4	Unlock	Yes
		Neutral / Lock	No
6		Lock	Yes
		Neutral / Unlock	No

Is the inspection result normal?

YES >> Key cylinder switch is OK.

NO >> Replace front door lock assembly LH (key cylinder switch). Refer to [DLK-461, "FRONT DOOR LOCK : Removal and Installation"](#). After that, refer to [SEC-354, "Special Repair Requirement"](#).

## Special Repair Requirement

INFOID:000000007422690

#### 1.PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to [DLK-232, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

Is the inspection result normal?

YES >> Inspection end.

NO >> Check intermittent incident. Refer to [GI-42, "Intermittent Incident"](#).

## HORN

## Description

INFOID:000000007422691

Horn (high/low) is located inside of front bumper and operates when theft warning system is in alarm phase.

## Component Function Check

INFOID:000000007422692

## 1.CHECK FUNCTION

1. Select HORN in "ACTIVE TEST" mode with CONSULT.
2. Check the horn (high/low) operation.

Test item		Description	
HORN	ON	Horn relay	ON (for 20 ms)

Is the operation normal?

- YES >> Inspection End.  
 NO >> Refer to [SEC-355, "Diagnosis Procedure"](#).

## Diagnosis Procedure

INFOID:000000007422693

Regarding Wiring Diagram information, refer to [SEC-413, "Wiring Diagram"](#).

## 1.CHECK HORN FUNCTION

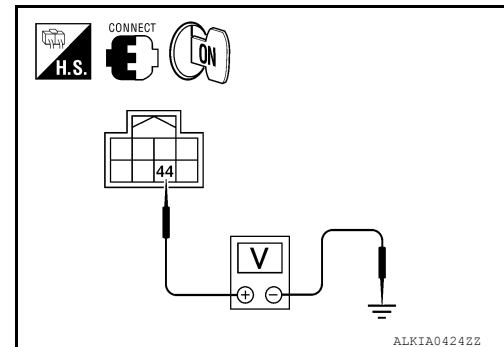
Check horn function with horn switch

Do the horns sound?

- YES >> GO TO 2.  
 NO >> Refer to [HRN-4, "Wiring Diagram"](#).

## 2.CHECK HORN RELAY POWER SUPPLY

1. Turn ignition switch ON.
2. Perform "ACTIVE TEST" ("HORN") with CONSULT.
3. Using an analog voltmeter or an oscilloscope, check voltage between IPDM E/R connector E17 terminal 44 and ground.



IPDM E/R		Ground	Test item		Voltage (V) (Approx.)
Connector	Terminal				
E17	44	Ground	HORN	ON	Battery voltage → 0 → Battery voltage
				Other than above	Battery voltage

Is the inspection result normal?

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

## 3.CHECK HORN RELAY CIRCUIT

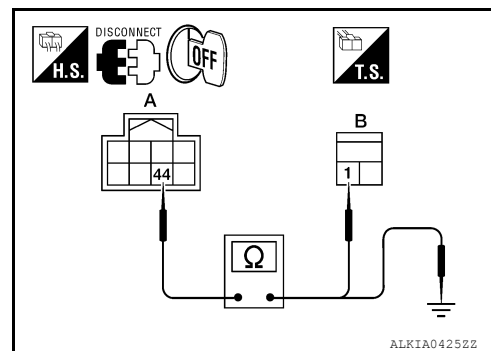
1. Turn ignition switch OFF.

# HORN

[SEDAN]

## < DTC/CIRCUIT DIAGNOSIS >

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



IPDM E/R		Horn relay		Continuity
Connector	Terminal	Connector	Terminal	
A: E17	44	B: H-1	1	Yes

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
A: E17	44	Ground	No

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## 4. CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-45, "Removal and Installation"](#).

NO >> Repair or replace the malfunctioning part.



# HEADLAMP

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

## HEADLAMP

### Description

INFOID:000000007422694

Headlamp lighting when theft warning system is alarm phase.

### Component Function Check

INFOID:000000007422695

#### 1.CHECK HEADLAMP OPERATION

Check if headlamp operate by lighting switch.

Does headlamp come on when turning switch "ON"?

YES >> Headlamp circuit is OK.

NO >> Check headlamp system. Refer to [SEC-357, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000007422696

#### 1.CHECK HEADLAMP OPERATION

Refer to [EXL-4, "Work Flow"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace.

#### 2.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

Is the inspection result normal?

>> Inspection End.

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SEC

# WARNING LAMP

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

## WARNING LAMP

### Description

INFOID:000000007422697

- Warning lamp is built in combination meter.
- Intelligent Key system malfunction is reported to the driver by the warning lamp illumination.

### Component Function Check

INFOID:000000007422698

#### 1.CHECK FUNCTION

1. Perform "INDICATOR" in the "Active Test" mode with CONSULT.
2. Check warning lamp operation.

Test item		Description	
INDICATOR	ON	Warning lamp	ON
	OFF		OFF

Is the inspection result normal?

- YES >> Inspection End.  
NO >> Go to [SEC-358, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000007422699

#### 1.CHECK "COMBINATION METER."

Check combination meter function. Refer to [MWI-4, "Work Flow"](#).

Is the inspection result is normal?

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

#### 2.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End.

# VEHICLE SECURITY INDICATOR

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

## VEHICLE SECURITY INDICATOR

### Description

INFOID:000000007422700

- Vehicle security indicator is built in combination meter.
- NVIS (Infinity Vehicle Immobilizer System-NATS) and vehicle security system conditions are indicated by blink or illumination of vehicle security indicator.

### Component Function Check

INFOID:000000007422701

#### 1.CHECK FUNCTION

1. Perform "THEFT IND" in the "ACTIVE TEST" mode with CONSULT.
2. Check vehicle security indicator operation.

Test item		Description	
THEFT IND	ON	Vehicle security indicator	ON
	OFF		OFF

#### Is the inspection result normal?

- YES >> Inspection End.  
NO >> Go to [SEC-359, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000007422702

#### 1.CHECK COMBINATION METER

Check combination meter. Refer to [MWI-4, "Work Flow"](#).

#### Is the inspection result is normal?

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

#### 2.CHECK INTERMITTENT INCIDENT

Refer to [GI-42, "Intermittent Incident"](#).

>> Inspection End.

SEC

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

## ECU DIAGNOSIS INFORMATION

### BCM (BODY CONTROL MODULE)

#### Reference Value

INFOID:000000007630870

#### VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
FR WIPER HI	Other than front wiper switch HI	OFF
	Front wiper switch HI	ON
FR WIPER LOW	Other than front wiper switch LO	OFF
	Front wiper switch LO	ON
FR WASHER SW	Front washer switch OFF	OFF
	Front washer switch ON	ON
FR WIPER INT	Other than front wiper switch INT	OFF
	Front wiper switch INT	ON
FR WIPER STOP	Front wiper is not in STOP position	OFF
	Front wiper is in STOP position	ON
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 6	Wiper intermittent dial position
TURN SIGNAL R	Other than turn signal switch RH	OFF
	Turn signal switch RH	ON
TURN SIGNAL L	Other than turn signal switch LH	OFF
	Turn signal switch LH	ON
TAIL LAMP SW	Other than lighting switch 1ST and 2ND	OFF
	Lighting switch 1ST or 2ND	ON
HI BEAM SW	Other than lighting switch HI	OFF
	Lighting switch HI	ON
HEAD LAMP SW 1	Other than lighting switch 2ND	OFF
	Lighting switch 2ND	ON
HEAD LAMP SW 2	Other than lighting switch 2ND	OFF
	Lighting switch 2ND	ON
PASSING SW	Other than lighting switch PASS	OFF
	Lighting switch PASS	ON
AUTO LIGHT SW	Other than lighting switch AUTO	OFF
	Lighting switch AUTO	ON
FR FOG SW	Front fog lamp switch OFF	OFF
	Front fog lamp switch ON	ON
DOOR SW-DR	Driver door closed	OFF
	Driver door opened	ON
DOOR SW-AS	Passenger door closed	OFF
	Passenger door opened	ON
DOOR SW-RR	Rear RH door closed	OFF
	Rear RH door opened	ON
DOOR SW-RL	Rear LH door closed	OFF
	Rear LH door opened	ON

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

Monitor Item	Condition	Value/Status
CDL LOCK SW	Other than power door lock switch LOCK	OFF
	Power door lock switch LOCK	ON
CDL UNLOCK SW	Other than power door lock switch UNLOCK	OFF
	Power door lock switch UNLOCK	ON
KEY CYL LK-SW	Other than driver door key cylinder LOCK position	OFF
	Driver door key cylinder LOCK position	ON
KEY CYL UN-SW	Other than driver door key cylinder UNLOCK position	OFF
	Driver door key cylinder UNLOCK position	ON
HAZARD SW	When hazard switch is not pressed	OFF
	When hazard switch is pressed	ON
REAR DEF SW	When rear window defogger switch is pressed	ON
FAN ON SIG	When AUTO switch or fan switch is pressed	ON
AIR COND SW	When A/C switch is pressed	ON
TR CANCEL SW	Trunk lid opener cancel switch OFF	OFF
	Trunk lid opener cancel switch ON	ON
TR/BD OPEN SW	Trunk lid opener switch OFF	OFF
	While the trunk lid opener switch is turned ON	ON
TRNK/HAT MNTR	Trunk lid closed	OFF
	Trunk lid opened	ON
RKE-LOCK	When LOCK button of Intelligent Key is not pressed	OFF
	When LOCK button of Intelligent Key is pressed	ON
RKE-UNLOCK	When UNLOCK button of Intelligent Key is not pressed	OFF
	When UNLOCK button of Intelligent Key is pressed	ON
RKE-TR/BD	When TRUNK OPEN button of Intelligent Key is not pressed	OFF
	When TRUNK OPEN button of Intelligent Key is pressed	ON
RKE-PANIC	When PANIC button of Intelligent Key is not pressed	OFF
	When PANIC button of Intelligent Key is pressed	ON
RKE-P/W OPEN	When UNLOCK button of Intelligent Key is not pressed and held	OFF
	When UNLOCK button of Intelligent Key is pressed and held	ON
RKE-MODE CHG	When LOCK/UNLOCK button of Intelligent Key is not pressed and held simultaneously	OFF
	When LOCK/UNLOCK button of Intelligent Key is pressed and held simultaneously	ON
OPTICAL SENSOR	When outside of the vehicle is bright	Close to 5 V
	When outside of the vehicle is dark	Close to 0 V
REQ SW-DR	When driver door request switch is not pressed	OFF
	When driver door request switch is pressed	ON
REQ SW-AS	When passenger door request switch is not pressed	OFF
	When passenger door request switch is pressed	ON
REQ SW-BD/TR	When trunk request switch is not pressed	OFF
	When trunk request switch is pressed	ON
PUSH SW	When engine switch (push switch) is not pressed	OFF
	When engine switch (push switch) is pressed	ON
IGN RLY -F/B	Ignition switch OFF or ACC	OFF
	Ignition switch ON	ON

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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

Monitor Item	Condition	Value/Status
ACC RLY -F/B	Ignition switch OFF	OFF
	Ignition switch ACC or ON	ON
CLUTCH SW	When the clutch pedal is not depressed	OFF
	When the clutch pedal is depressed	ON
BRAKE SW 1	When the brake pedal is not depressed	ON
	When the brake pedal is depressed	OFF
DETE/CANCL SW	When selector lever is in P position	OFF
	When selector lever is in any position other than P	ON
SFT PN/N SW	When selector lever is in any position other than P or N	OFF
	When selector lever is in P or N position	ON
S/L -LOCK	Electronic steering column lock LOCK status	OFF
	Electronic steering column lock UNLOCK status	ON
S/L -UNLOCK	Electronic steering column lock UNLOCK status	OFF
	Electronic steering column lock LOCK status	ON
S/L RELAY-F/B	Ignition switch OFF or ACC	OFF
	Ignition switch ON	ON
UNLK SEN-DR	Driver door UNLOCK status	OFF
	Driver door LOCK status	ON
PUSH SW -IPDM	When engine switch (push switch) is not pressed	OFF
	When engine switch (push switch) is pressed	ON
IGN RLY1 F/B	Ignition switch OFF or ACC	OFF
	Ignition switch ON	ON
DETE SW -IPDM	When selector lever is in P position	OFF
	When selector lever is in any position other than P	ON
SFT PN -IPDM	When selector lever is in any position other than P or N	OFF
	When selector lever is in P or N position	ON
SFT P -MET	When selector lever is in any position other than P	OFF
	When selector lever is in P position	ON
SFT N -MET	When selector lever is in any position other than N	OFF
	When selector lever is in N position	ON
ENGINE STATE	Engine stopped	STOP
	While the engine stalls	STALL
	At engine cranking	CRANK
	Engine running	RUN
S/L LOCK-IPDM	Electronic steering column lock LOCK status	OFF
	Electronic steering column lock UNLOCK status	ON
S/L UNLCK-IPDM	Electronic steering column lock UNLOCK status	OFF
	Electronic steering column lock LOCK status	ON
S/L RELAY-REQ	Ignition switch OFF or ACC	OFF
	Ignition switch ON	ON
VEH SPEED 1	While driving	Equivalent to speedometer reading
VEH SPEED 2	While driving	Equivalent to speedometer reading

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

Monitor Item	Condition	Value/Status
DR DOOR STATE	Driver door LOCK status	LOCK
	Wait with selective UNLOCK operation (5 seconds)	READY
	Driver door UNLOCK status	UNLK
AS DOOR STATE	Passenger door LOCK status	LOCK
	Wait with selective UNLOCK operation (5 seconds)	READY
	Passenger door UNLOCK status	UNLK
ID OK FLAG	Ignition switch ACC or ON	RESET
	Ignition switch OFF	SET
PRMT ENG STAT	When the engine start is prohibited	RESET
	When the engine start is permitted	SET
KEY SW -SLOT	When Intelligent Key is not inserted into key slot	OFF
	When Intelligent Key is inserted into key slot	ON
RKE OPE COUN1	During the operation of Intelligent Key	Operation frequency of Intelligent Key
AIR PRESS FL	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of front LH tire
AIR PRESS FR	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of front RH tire
AIR PRESS RR	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of rear RH tire
AIR PRESS RL	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of rear LH tire
ID REGST FL1	When ID of front LH tire transmitter is registered	DONE
	When ID of front LH tire transmitter is not registered	YET
ID REGST FR1	When ID of front RH tire transmitter is registered	DONE
	When ID of front RH tire transmitter is not registered	YET
ID REGST RR1	When ID of rear RH tire transmitter is registered	DONE
	When ID of rear RH tire transmitter is not registered	YET
ID REGST RL1	When ID of rear LH tire transmitter is registered	DONE
	When ID of rear LH tire transmitter is not registered	YET
WARNING LAMP	Tire pressure indicator OFF	OFF
	Tire pressure indicator ON	ON

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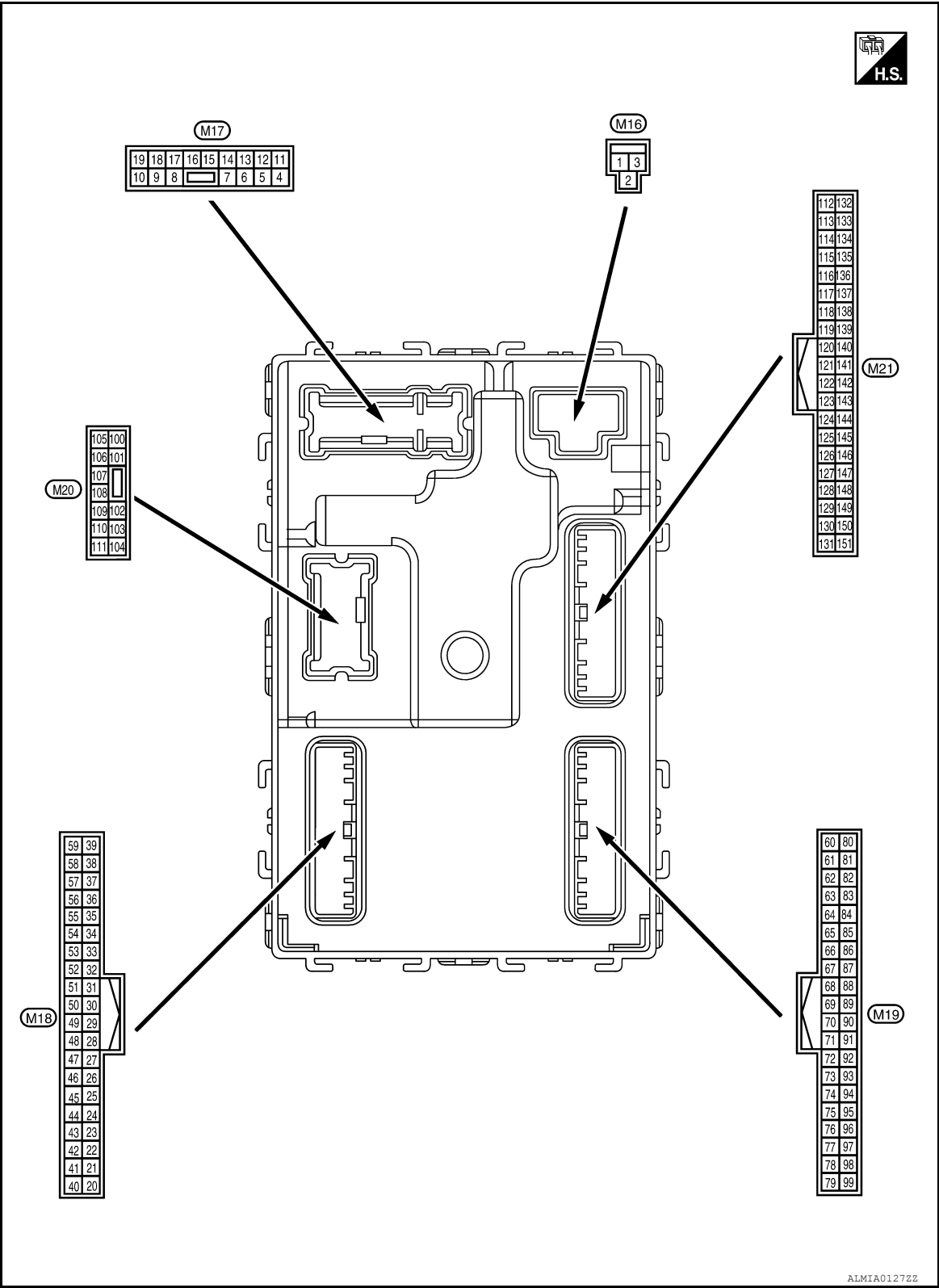
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

Terminal Layout

INFOID:000000007630871



Physical Values

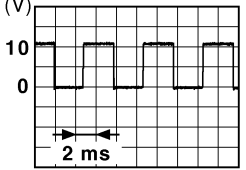
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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

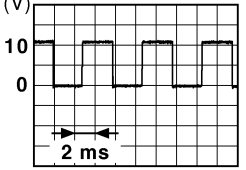
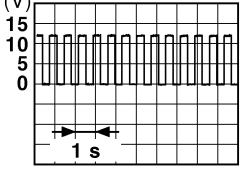
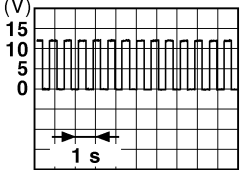
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
1 (W/B)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (R/Y)	Ground	Battery power supply output	Output	Ignition switch OFF		Battery voltage
3 (L/W)	Ground	Ignition power supply output	Output	Ignition switch ON		Battery voltage
4 (P/W)	Ground	Interior room lamp power supply	Output	After passing the interior room lamp battery saver operation time		0V
				Any other time after passing the interior room lamp battery saver operation time		Battery voltage
5 (G/Y)	Ground	Front door RH UNLOCK	Output	Front door RH	UNLOCK (actuator is activated)	Battery voltage
					Other than UNLOCK (actuator is not activated)	0V
7 (R/W)	Ground	Step lamp	Output	Step lamp	ON	0V
					OFF	Battery voltage
8 (V)	Ground	All doors LOCK	Output	All doors	LOCK (actuator is activated)	Battery voltage
					Other than LOCK (actuator is not activated)	0V
9 (G)	Ground	Front door LH UNLOCK	Output	Front door LH	UNLOCK (actuator is activated)	Battery voltage
					Other than UNLOCK (actuator is not activated)	0V
10 <sup>1</sup> (G/Y)	Ground	Rear door RH and rear door LH UNLOCK	Output	Rear door RH and rear door LH	UNLOCK (actuator is activated)	Battery voltage
					Other than UNLOCK (actuator is not activated)	0V
11 (Y/R)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
13 (B)	Ground	Ground	—	Ignition switch ON		0V
14 <sup>1</sup> (O/W)	Ground	Engine switch (push switch) illumination ground	Input	Tail lamp	OFF	0V
					ON	<b>NOTE:</b> When the illumination brightening/dimming level is in the neutral position 

JSNIA0010GB

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

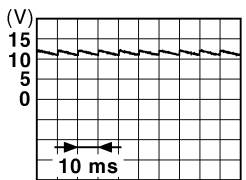
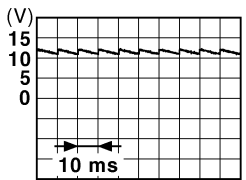
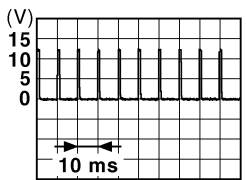
[SEDAN]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
14 <sup>8</sup> (R/Y)	Ground	Engine switch (push switch) illumination ground	Input	Tail lamp	OFF	0V
					ON	<b>NOTE:</b> When the illumination brightening/dimming level is in the neutral position  <small>JSNIA0010GB</small>
15 (Y/L)	Ground	ACC indicator lamp	Output	Ignition switch	OFF	Battery voltage
					ACC	0V
17 (G/B)	Ground	Turn signal (RH)	Output	Ignition switch ON	Turn signal switch OFF	0V
					Turn signal switch RH	 <small>PKID0926E</small> 6.5 V
18 (G/Y)	Ground	Turn signal (LH)	Output	Ignition switch ON	Turn signal switch OFF	0V
					Turn signal switch LH	 <small>PKID0926E</small> 6.5 V
19 (Y)	Ground	Room lamp timer control	Output	Interior room lamp	OFF	Battery voltage
					ON	0V
21 (P/B)	Ground	Optical sensor signal	Input	Ignition switch ON	When outside of the vehicle is bright	Close to 5V
					When outside of the vehicle is dark	Close to 0V
22 <sup>2</sup> (R/Y)	Ground	Clutch interlock switch	Input	Clutch interlock switch	OFF (clutch pedal is not depressed)	0V
					ON (clutch pedal is depressed)	Battery voltage
24 (R/W)	Ground	Stop lamp switch 1	Input	—	—	Battery voltage
26 (O/L)	Ground	Stop lamp switch 2	Input	Stop lamp switch	OFF (brake pedal is not depressed)	0V
					ON (brake pedal is depressed)	Battery voltage

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >


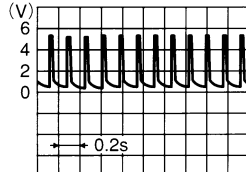

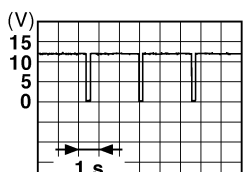
[SEDAN]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
27 (G/W)	Ground	Front door lock as- sembly LH (unlock sensor)	Input	Front door LH	LOCK status	 JPMIA0011GB 11.8V
					UNLOCK status	0V
29 (Y)	Ground	Key slot switch	Input	When Intelligent Key is inserted into key slot		Battery voltage
				When Intelligent Key is not inserted into key slot		0V
30 (V/Y)	Ground	ACC feedback signal	Input	Ignition switch	OFF	0
					ACC or ON	Battery voltage
31 (G)	Ground	Rear window defog- ger feedback signal	Input	Rear window de- fogger switch	OFF	0V
					ON	Battery voltage
32 (R/B)	Ground	Front door RH switch	Input	Front door RH switch	OFF (when front door RH closes)	 JPMIA0011GB 11.8 V
					ON (when front door RH opens)	0V
33 (SB)	Ground	Compressor ON sig- nal	Input	A/C switch	OFF	9V - 12V
					ON	0V
34 <sup>3</sup> (L/R)	Ground	Front door lock as- sembly LH (key cylin- der switch) (unlock)	Input	Front door lock assembly LH (key cylinder switch)	OFF (neutral)	Battery voltage
					ON (unlock)	0V
36 <sup>3</sup> (GR)	Ground	Lock switch signal	Input	Door lock/unlock switch	Lock	Battery voltage
					Unlock	0V
37 (O)	Ground	Trunk lid opener can- cel switch	Input	Trunk lid opener cancel switch	CANCEL	 JPMIA0012GB 1.1V
					ON	0V
38 (GR/ W)	Ground	Rear window defog- ger ON signal	Input	Rear window de- fogger switch	OFF	Battery voltage
					ON	0V
39 <sup>3</sup> (GR/ R)	Ground	Unlock switch signal	Input	Door lock/unlock switch	Unlock	Battery voltage
					Lock	0V

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

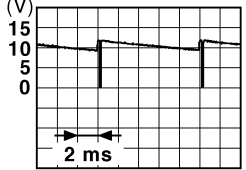
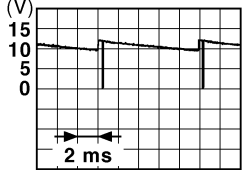

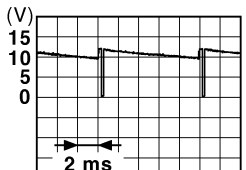
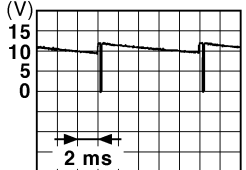

[SEDAN]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
40 <sup>4</sup> (Y/G)	Ground	Power window serial link	Input/ Output	Ignition switch ON		<div> 10.2V</div>
				Ignition switch OFF or ACC		0V
41 (W)	Ground	Engine switch (push switch) illumination	Output	Engine switch (push switch) illumination	ON	5.5V
					OFF	0V
42 (R)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	ON	0V
					OFF	Battery voltage
45 (P)	Ground	Receiver & sensor ground	Input	Ignition switch ON		0V
46 (V/W)	Ground	Receiver & sensor power supply output	Output	Ignition switch	OFF	0V
					ACC or ON	5.0V
47 (G/O)	Ground	Tire pressure receiver signal	Input/ Output	Ignition switch ON	Standby state	<div> OCC3881D</div>
					When receiving the signal from the transmitter	<div> OCC3880D</div>
48 (R/G)	Ground	Selector lever P/N position signal	Input	Selector lever	P or N position	12.0V
					Except P and N positions	0V
49 (L/O)	Ground	Security indicator signal	Output	Security indicator	ON	0V
					Blinking	<div> 11.3V</div>
					OFF	Battery voltage

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

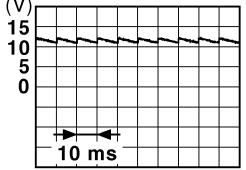
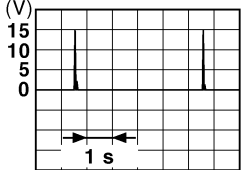
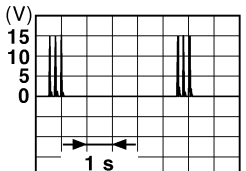
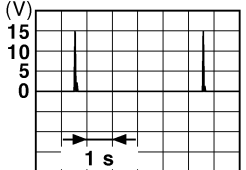
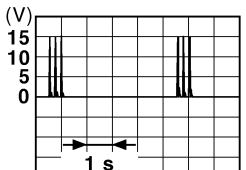
[SEDAN]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
50 (LG/ B)	Ground	Combination switch OUTPUT 5	Input		All switch OFF	0V
				Combination switch (Wiper intermit- tent dial 4)	Lighting switch 1ST	 <p>JPMIA0031GB</p>
					Lighting switch high-beam	
					Lighting switch 2ND	
					Turn signal switch RH	
51 (L/W)	Ground	Combination switch OUTPUT 1	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)	0V
					Front wiper switch HI (Wiper intermittent dial 4)	 <p>JPMIA0032GB</p>
					Any of the conditions below with all switch OFF	
					• Wiper intermittent dial 1	
					• Wiper intermittent dial 2	
52 (G/B)	Ground	Combination switch OUTPUT 2	Input	Combination switch	• Wiper intermittent dial 3	 <p>JPMIA0033GB</p>
					• Wiper intermittent dial 6	
					• Wiper intermittent dial 7	
					All switch OFF (Wiper intermittent dial 4)	0V
					Front washer switch ON (Wiper intermittent dial 4)	 <p>JPMIA0034GB</p>
53 (LG/ R)	Ground	Combination switch OUTPUT 3	Input	Combination switch (Wiper intermit- tent dial 4)	Any of the conditions below with all switch OFF	
					• Wiper intermittent dial 1	
					• Wiper intermittent dial 5	
					• Wiper intermittent dial 6	
					All switch OFF	0V
54 (G/Y)	Ground	Combination switch OUTPUT 4	Input	Combination switch (Wiper intermit- tent dial 4)	Front wiper switch INT	 <p>JPMIA0035GB</p>
					Front wiper switch LO	
					Lighting switch 2ND	
					Lighting switch flash-to- pass	
					Turn signal switch LH	 <p>JPMIA0036GB</p>
55 (BR/ W)	Ground	Front blower monitor	Input	Front blower mo- tor switch	ON	Battery voltage
					OFF	0V

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

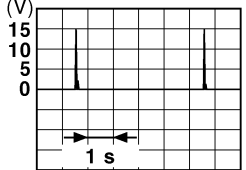
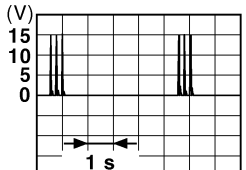
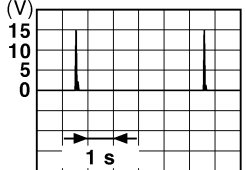
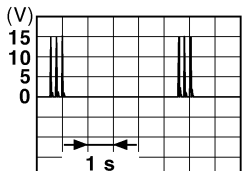
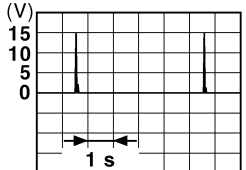
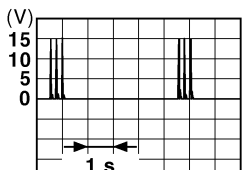
[SEDAN]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
56 <sup>3</sup> (L/B)	Ground	Front door lock as- sembly LH (key cylin- der switch) (lock)	Input	Front door lock as- sembly LH (key cylinder switch)	OFF (neutral)	Battery voltage
					ON (lock)	0V
57 (W)	Ground	Tire pressure warn- ing check switch	Input	—		Battery voltage
58 (SB)	Ground	Front door LH switch	Input	Front door LH switch	OFF (front door LH CLOSE)	 <p>11.8V</p>
					ON (front door LH OPEN)	0V
59 (G/R)	Ground	Rear window defog- ger relay	Output	Rear window de- fogger	Active	Battery voltage
					Not activated	0V
60 (B/R)	Ground	Front console anten- na 2 (-)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	
					When Intelligent Key is not in the passenger compart- ment	
61 (W/R)	Ground	Center console an- tenna 2 (+)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	
					When Intelligent Key is not in the passenger compart- ment	

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
(+)	(-)	Signal name	Input/ Output		
62 (B/Y)	Ground	Front outside handle RH antenna (-)	Output	When the front door RH request switch is operat- ed with ignition switch OFF	 <p>JMKIA0062GB</p>
				When Intelligent Key is not in the antenna detection area	 <p>JMKIA0063GB</p>
63 (LG)	Ground	Front outside handle RH antenna (+)	Output	When the front door RH request switch is operat- ed with ignition switch OFF	 <p>JMKIA0062GB</p>
				When Intelligent Key is not in the antenna detection area	 <p>JMKIA0063GB</p>
64 (V)	Ground	Front outside handle LH antenna (-)	Output	When the front door LH request switch is operat- ed with ignition switch OFF	 <p>JMKIA0062GB</p>
				When Intelligent Key is not in the antenna detection area	 <p>JMKIA0063GB</p>

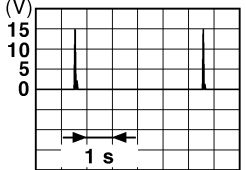
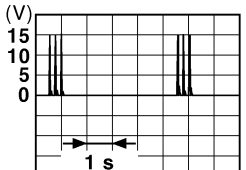
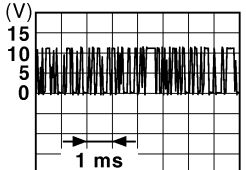
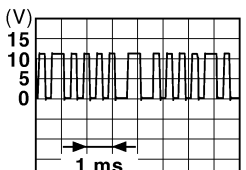
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SEC

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

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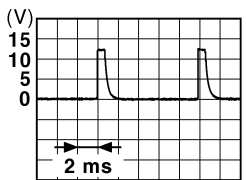
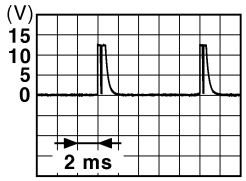
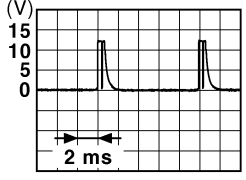
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
65 (P)	Ground	Front outside handle LH antenna (+)	Output	When the front door LH request switch is operat- ed with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
68 (G/O)	Ground	NATS antenna amp (built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
69 (O)	Ground	NATS antenna amp (built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
70 (R/B)	Ground	Ignition relay-2 con- trol	Output	Ignition switch	OFF or ACC	0V
					ON	Battery voltage
71 (L/O)	Ground	Remote keyless entry receiver signal	Input/ Output	During waiting		 JMKIA0064GB
				When operating either button on Intelligent Key		 JMKIA0065GB



# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

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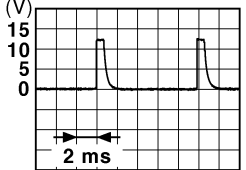
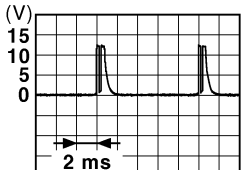

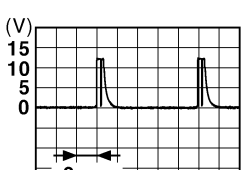
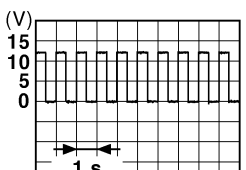
Terminal No. (Wire color)		Description		Condition	Value (Approx.)
(+)	(-)	Signal name	Input/ Output		
75 (R/Y)	Ground	Combination switch INPUT 5	Output	Combination switch	<p>All switch OFF (Wiper intermittent dial 4)</p>  <p>1.4V</p>
				Combination switch	<p>Front fog lamp switch ON (Wiper intermittent dial 4)</p>  <p>1.3V</p>
				<p>Any of the conditions below with all switch OFF</p> <ul style="list-style-type: none"> <li>• Wiper intermittent dial 1</li> <li>• Wiper intermittent dial 2</li> <li>• Wiper intermittent dial 6</li> <li>• Wiper intermittent dial 7</li> </ul>	 <p>1.3V</p>

SEC

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

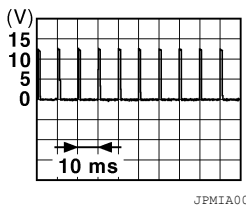
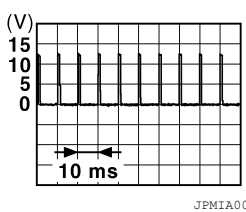
[SEDAN]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
76 (R/G)	Ground	Combination switch INPUT 3	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	 1.4V
					Lighting switch high-beam (Wiper intermittent dial 4)	 1.3V
					Lighting switch 2ND (Wiper intermittent dial 4)	 1.3V
					Any of the conditions below with all switch OFF <ul style="list-style-type: none"> <li>• Wiper intermittent dial 1</li> <li>• Wiper intermittent dial 2</li> <li>• Wiper intermittent dial 3</li> </ul>	 1.3V
77 (BR)	Ground	Engine switch (push switch)	Input	Engine switch (push switch)	Pressed	0V
					Not pressed	Battery voltage
78 (P)	Ground	CAN-L	Input/ Output	—	—	—
79 (L)	Ground	CAN-H	Input/ Output	—	—	—
80 (R/L)	Ground	Key slot illumination	Output	Key slot illumina- tion	OFF	0V
					Blinking	 6.5V
					ON	Battery voltage

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

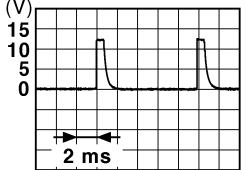

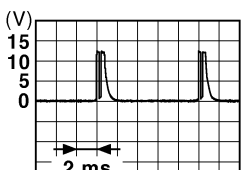
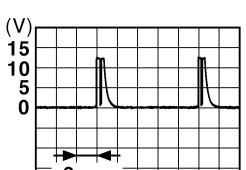
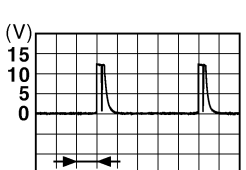
[SEDAN]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
81 (LG)	Ground	ON indicator lamp	Output	Ignition switch	OFF or ACC	Battery voltage
					ON	0V
83 (L)	Ground	ACC relay-1 control	Output	Ignition switch	OFF	0V
					ACC or ON	Battery voltage
84 <sup>5</sup> (Y/R)	Ground	CVT shift selector	Output	—		Battery voltage
85 (L/O)	Ground	Electronic steering column lock condition No. 1	Input	Electronic steer- ing column lock	Lock status	0V
					Unlock status	Battery voltage
86 (G/R)	Ground	Electronic steering column lock condition No. 2	Input	Electronic steer- ing column lock	Lock status	Battery voltage
					Unlock status	0V
87 <sup>5</sup> (G/B)	Ground	Selector lever P posi- tion switch	Input	Selector lever	P position	0V
					Any position other than P	Battery voltage
88 (P/L)	Ground	Front door RH re- quest switch	Input	Front door RH re- quest switch	ON (pressed)	0V
					OFF (not pressed)	 <p>1.0V</p>
89 (B/W)	Ground	Front door LH re- quest switch	Input	Front door LH re- quest switch	ON (pressed)	0V
					OFF (not pressed)	 <p>1.0V</p>
90 (Y)	Ground	Blower fan motor re- lay control	Output	Ignition switch	OFF or ACC	0V
					ON	Battery voltage
91 (L/R)	Ground	Remote keyless entry receiver power sup- ply	Output	Ignition switch OFF		Battery voltage
94 (G/Y)	Ground	Electronic steering column lock power supply	Output	Ignition switch	OFF or ACC	Battery voltage
					ON	0V

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

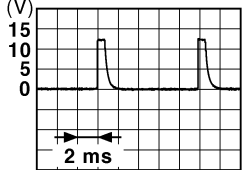
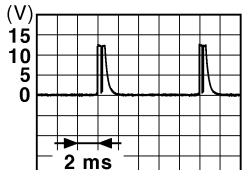
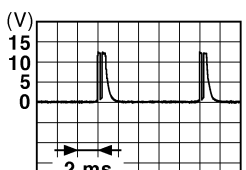
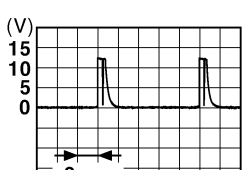
[SEDAN]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
(+)	(-)	Signal name	Input/ Output		
95 (R/W)	Ground	Combination switch INPUT 1	Output	Combination switch (Wiper intermit- tent dial 4)	 <p>JPMIA0041GB</p> <p>1.4V</p>
				Turn signal switch LH	 <p>JPMIA0037GB</p> <p>1.3V</p>
				Turn signal switch RH	 <p>JPMIA0036GB</p> <p>1.3V</p>
				Front wiper switch LO	 <p>JPMIA0038GB</p> <p>1.3V</p>
				Front washer switch ON	 <p>JPMIA0039GB</p> <p>1.3V</p>

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< ECU DIAGNOSIS INFORMATION >

[SEDAN]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
(+)	(-)	Signal name	Input/ Output		
96 (P/B)	Ground	Combination switch INPUT 4	Output	Combination switch	<div> <p>All switch OFF (Wiper intermittent dial 4)</p>  <p>1.4V</p> </div>
				Lighting switch AUTO (Wiper intermittent dial 4)	<div>  <p>1.3V</p> </div>
				Lighting switch 1ST (Wiper intermittent dial 4)	<div>  <p>1.3V</p> </div>
				Any of the conditions below with all switch OFF <ul style="list-style-type: none"> <li>• Wiper intermittent dial 1</li> <li>• Wiper intermittent dial 5</li> <li>• Wiper intermittent dial 6</li> </ul>	<div>  <p>1.3V</p> </div>

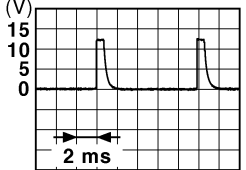

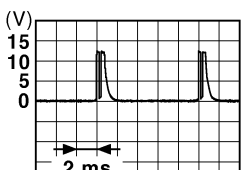
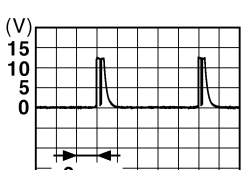
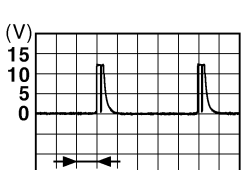
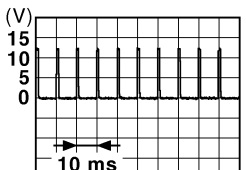
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SEC

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

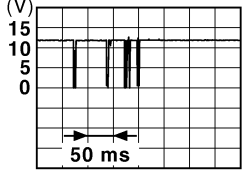
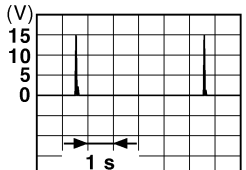
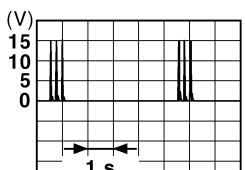
[SEDAN]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
(+)	(-)	Signal name	Input/ Output		
97 (R/B)	Ground	Combination switch INPUT 2	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF  1.4V
					Lighting switch flash-to- pass  1.3V
					Lighting switch 2ND  1.3V
					Front wiper switch INT  1.3V
					Front wiper switch HI  1.3V
98 (G/O)	Ground	Hazard switch	Input	Hazard switch	Pressed 0 V
					Not pressed  1.1V

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
99 (L/Y)	Ground	Electronic steering column lock unit com- munication	Input/ Output	Electronic steer- ing column lock	LOCK status	Battery voltage
					LOCK or UNLOCK	 JMKIA0066GB
					For 15 seconds after UN- LOCK	Battery voltage
					15 seconds or later after UNLOCK	0V
103 (V)	Ground	Trunk lid opening	Output	Trunk lid	Open (trunk lid opener ac- tuator is activated)	Battery voltage
					Close (trunk lid opener ac- tuator is not activated)	0V
110 (V/W)	Ground	Trunk room lamp	Output	Trunk room lamp	ON	0V
					OFF	Battery voltage
114 (B)	Ground	Trunk room antenna 1 (-)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compart- ment	 JMKIA0063GB

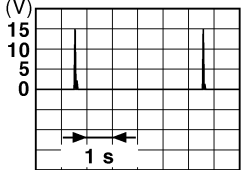
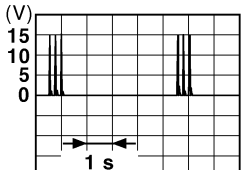
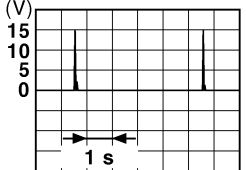
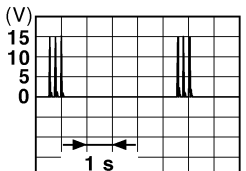
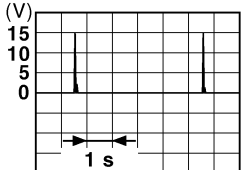
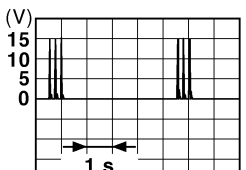
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SEC

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

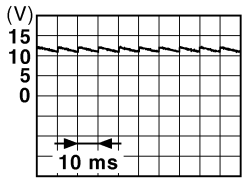
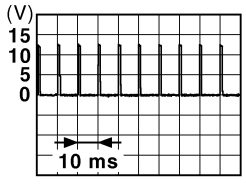
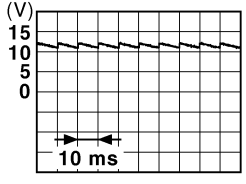
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
115 (W)	Ground	Trunk room antenna 1 (+)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compart- ment	 JMKIA0063GB
118 (L/O)	Ground	Rear bumper anten- na (-)	Output	When the trunk lid request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
119 (BR/ W)	Ground	Rear bumper anten- na (+)	Output	When the trunk lid request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB



# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

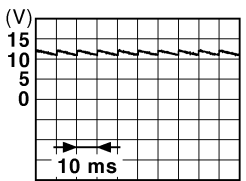
[SEDAN]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
127 (BR/ W)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC	Battery voltage
					ON	0V
130 (Y/G)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (trunk is closed)	 JPMIA0011GB 11.8V
					ON (trunk is open)	0V
132 (R)	Ground	Starter motor relay control	Output	Ignition switch OFF (M/T vehi- cle)	When the clutch pedal is depressed	Battery voltage
					When the clutch pedal is not depressed	0V
				Ignition switch ON (other than M/ T vehicle)	When selector lever is in P or N position and the brake is depressed	Battery voltage
					When selector lever is in P or N position and the brake is not depressed	0V
141 (G/R)	Ground	Trunk request switch	Input	Trunk request switch	ON (pressed)	0V
					OFF (not pressed)	 JPMIA0016GB 1.0V
144 (GR)	Ground	Request switch buzz- er	Output	Request switch buzzer	Sounding	0V
					Not sounding	Battery voltage
147 (L/R)	Ground	Trunk lid opener switch	Input	Trunk lid opener switch	Pressed	0V
					Not pressed	Battery voltage
148 <sup>1</sup> (R/W)	Ground	Rear door RH switch	Input	Rear door RH switch	OFF (when rear door RH closes)	 JPMIA0011GB 11.8V
					ON (when rear door RH opens)	0V

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
149 <sup>1</sup> (R/B)	Ground	Rear door LH switch	Input	Rear door LH switch	OFF (when rear door LH closes)	
					ON (when rear door LH opens)	0V

1: Sedan only

2: M/T only

3: With LH front window anti-pinch

4: With LH and RH front window anti-pinch.

5: CVT only

6: With auto lights

7: With low tire pressure warning system

8: Coupe only

## Fail Safe

INFOID:000000007630873

Display contents of CONSULT	Fail-safe	Cancellation
B2013: ID DISCORD BCM-S/L	Inhibit engine cranking	Erase DTC
B2014: CHAIN OF S/L-BCM	Inhibit engine cranking	Erase DTC
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI-SCANNING	Inhibit engine cranking	Erase DTC
B2557: VEHICLE SPEED	Inhibit electronic steering column lock	When normal vehicle speed signals have been received from ABS actuator and electric unit (control unit) for 500 ms
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has become consistent <ul style="list-style-type: none"> <li>Starter control relay signal</li> <li>Starter relay status signal</li> </ul>
B2562: LO VOLTAGE	<ul style="list-style-type: none"> <li>Inhibit engine cranking</li> <li>Inhibit electronic steering column lock</li> </ul>	100 ms after the power supply voltage increases to more than 8.8 V
B2601: SHIFT POSITION	Inhibit electronic steering column lock	500 ms after the following signal reception status becomes consistent <ul style="list-style-type: none"> <li>Selector lever P position switch signal</li> <li>P range signal (CAN)</li> </ul>
B2602: SHIFT POSITION	Inhibit electronic steering column lock	5 seconds after the following BCM recognition conditions are fulfilled <ul style="list-style-type: none"> <li>Ignition switch is in the ON position</li> <li>Selector lever P position switch signal: Except P position (battery voltage)</li> <li>Vehicle speed: 4 /h or more</li> </ul>

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

Display contents of CONSULT	Fail-safe	Cancellation
B2603: SHIFT POSI STATUS	Inhibit electronic steering column lock	500 ms after the following BCM recognition conditions are fulfilled <ul style="list-style-type: none"> <li>Ignition switch is in the ON position</li> <li>Selector lever P position switch signal: Except P position (battery voltage)</li> <li>Selector lever P/N position signal: Except P and N positions (0 V)</li> </ul>
B2604: PNP SW	Inhibit electronic steering column lock	500 ms after any of the following BCM recognition conditions is fulfilled <ul style="list-style-type: none"> <li>Status 1 <ul style="list-style-type: none"> <li>Ignition switch is in the ON position</li> <li>Selector lever P/N position signal: P and N position (battery voltage)</li> <li>P range signal or N range signal (CAN): ON</li> </ul> </li> <li>Status 2 <ul style="list-style-type: none"> <li>Ignition switch is in the ON position</li> <li>Selector lever P/N position signal: Except P and N positions (0 V)</li> <li>P range signal and N range signal (CAN): OFF</li> </ul> </li> </ul>
B2605: PNP SW	Inhibit electronic steering column lock	500 ms after any of the following BCM recognition conditions is fulfilled <ul style="list-style-type: none"> <li>Status 1 <ul style="list-style-type: none"> <li>Ignition switch is in the ON position</li> <li>Power position: IGN</li> <li>Selector lever P/N position signal: Except P and N positions (0 V)</li> <li>Interlock/transmission switch signal (CAN): OFF</li> </ul> </li> <li>Status 2 <ul style="list-style-type: none"> <li>Ignition switch is in the ON position</li> <li>Selector lever P/N position signal: P or N position (battery voltage)</li> <li>transmission switch signal (CAN): ON</li> </ul> </li> </ul>
B2606: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has become consistent <ul style="list-style-type: none"> <li>Electronic steering column lock relay signal (Request signal)</li> <li>Electronic steering column lock relay signal (Condition signal)</li> </ul>
B2607: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has become consistent <ul style="list-style-type: none"> <li>Electronic steering column lock relay signal (Request signal)</li> <li>Electronic steering column lock relay signal (Condition signal)</li> </ul>
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent <ul style="list-style-type: none"> <li>Starter motor relay control signal</li> <li>Starter relay status signal (CAN)</li> </ul>
B2609: S/L STATUS	<ul style="list-style-type: none"> <li>Inhibit engine cranking</li> <li>Inhibit electronic steering column lock</li> </ul>	When the following electronic steering column lock conditions agree <ul style="list-style-type: none"> <li>BCM electronic steering column lock control status</li> <li>Electronic steering column lock condition No. 1 signal status</li> <li>Electronic steering column lock condition No. 2 signal status</li> </ul>
B260A: IGNITION RELAY	Inhibit engine cranking	500 ms after the following conditions are fulfilled <ul style="list-style-type: none"> <li>IGN relay (IPDM E/R) control signal: OFF (Battery voltage)</li> <li>Ignition ON signal (CAN to IPDM E/R): OFF (Request signal)</li> <li>Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)</li> </ul>
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions is fulfilled <ul style="list-style-type: none"> <li>Power position changes to ACC</li> <li>Receives engine status signal (CAN)</li> </ul>
B2612: S/L STATUS	<ul style="list-style-type: none"> <li>Inhibit engine cranking</li> <li>Inhibit electronic steering column lock</li> </ul>	When any of the following conditions is fulfilled <ul style="list-style-type: none"> <li>Electronic steering column lock unit status signal (CAN) is received normally</li> <li>The BCM electronic steering column lock control status matches the electronic steering column lock status recognized by the electronic steering column lock unit status signal (CAN from IPDM E/R)</li> </ul>
B2617: STARTER RELAY CIRC	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal

# BCM (BODY CONTROL MODULE)

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Display contents of CONSULT	Fail-safe	Cancellation
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal
B2619: BCM	Inhibit engine cranking	1 second after the electronic steering column lock unit power supply output control inside BCM becomes normal
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization
B26E1: ENG STATE NO RECIV	Inhibit engine cranking	When any of the following conditions is fulfilled <ul style="list-style-type: none"> <li>• Power position changes to ACC</li> <li>• Receives engine status signal (CAN)</li> </ul>
B26E8: CLUTCH SW	Inhibit engine cranking	When any of the following BCM recognition conditions are fulfilled <ul style="list-style-type: none"> <li>• Status 1 <ul style="list-style-type: none"> <li>- Clutch switch signal (CAN from ECM): ON</li> <li>- Clutch interlock switch signal: OFF (0 V)</li> </ul> </li> <li>• Status 2 <ul style="list-style-type: none"> <li>- Clutch switch signal (CAN from ECM): OFF</li> <li>- Clutch interlock switch signal: OFF (Battery voltage)</li> </ul> </li> </ul>
B26E9: S/L STATUS	<ul style="list-style-type: none"> <li>• Inhibit engine cranking</li> <li>• Inhibit electronic steering column lock</li> </ul>	When BCM transmits the LOCK request signal to the steering lock unit and receives LOCK response signal from steering lock unit, the following conditions are fulfilled <ul style="list-style-type: none"> <li>• Steering condition No 1 signal: LOCK (0V)</li> <li>• Steering condition No 2 signal: LOCK (Battery voltage)</li> </ul>

## DTC Inspection Priority Chart

INFOID:0000000007630874

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

Priority	DTC
1	<ul style="list-style-type: none"> <li>• B2562: LOW VOLTAGE</li> </ul>
2	<ul style="list-style-type: none"> <li>• U1000: CAN COMM CIRCUIT</li> <li>• U1010: CONTROL UNIT (CAN)</li> </ul>
3	<ul style="list-style-type: none"> <li>• B2190: NATS ANTENNA AMP</li> <li>• B2191: DIFFERENCE OF KEY</li> <li>• B2192: ID DISCORD BCM-ECM</li> <li>• B2193: CHAIN OF BCM-ECM</li> <li>• B2195: ANTI SCANNING</li> </ul>

# BCM (BODY CONTROL MODULE)

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[SEDAN]

Priority	DTC	
4	• B2013: ID DISCORD BCM-S/L	A
	• B2014: CHAIN OF S/L-BCM	
	• B2553: IGNITION RELAY	
	• B2555: STOP LAMP	B
	• B2556: PUSH-BTN IGN SW	
	• B2557: VEHICLE SPEED	
	• B2560: STARTER CONT RELAY	
	• B2601: SHIFT POSITION	C
	• B2602: SHIFT POSITION	
	• B2603: SHIFT POSI STATUS	
	• B2604: PNP SW	
	• B2605: PNP SW	D
	• B2606: S/L RELAY	
	• B2607: S/L RELAY	
	• B2608: STARTER RELAY	
	• B2609: S/L STATUS	E
	• B260A: IGNITION RELAY	
	• B260B: STEERING LOCK UNIT	
	• B260C: STEERING LOCK UNIT	F
	• B260D: STEERING LOCK UNIT	
	• B260F: ENG STATE SIG LOST	
	• B2611: ACC RELAY	
	• B2612: S/L STATUS	G
	• B2614: ACC RELAY CIRC	
	• B2615: BLOWER RELAY CIRC	
	• B2616: IGN RELAY CIRC	
	• B2617: STARTER RELAY CIRC	H
	• B2618: BCM	
	• B2619: BCM	
	• B261A: PUSH-BTN IGN SW	
	• B261E: VEHICLE TYPE	I
	• B26E1: ENG STATE NO RECIV	
	• B26E8: CLUTCH SW	
	• B26E9: S/L STATUS	J
	• B26EA: KEY REGISTRATION	
	• C1729: VHCL SPEED SIG ERR	
	• U0415: VEHICLE SPEED SIG	
5	• C1704: LOW PRESSURE FL	SEC
	• C1705: LOW PRESSURE FR	
	• C1706: LOW PRESSURE RR	
	• C1707: LOW PRESSURE RL	
	• C1708: [NO DATA] FL	L
	• C1709: [NO DATA] FR	
	• C1710: [NO DATA] RR	
	• C1711: [NO DATA] RL	M
	• C1712: [CHECKSUM ERR] FL	
	• C1713: [CHECKSUM ERR] FR	
	• C1714: [CHECKSUM ERR] RR	
	• C1715: [CHECKSUM ERR] RL	N
	• C1716: [PRESSDATA ERR] FL	
	• C1717: [PRESSDATA ERR] FR	
	• C1718: [PRESSDATA ERR] RR	
	• C1719: [PRESSDATA ERR] RL	O
	• C1720: [CODE ERR] FL	
	• C1721: [CODE ERR] FR	
	• C1722: [CODE ERR] RR	
	• C1723: [CODE ERR] RL	P
	• C1724: [BATT VOLT LOW] FL	
	• C1725: [BATT VOLT LOW] FR	
	• C1726: [BATT VOLT LOW] RR	
	• C1727: [BATT VOLT LOW] RL	
	• C1734: CONTROL UNIT	
6	• B2622: INSIDE ANTENNA	
	• B2623: INSIDE ANTENNA	

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

## DTC Index

INFOID:000000007630875

### NOTE:

- Details of time display
- CRNT: Displays when there is a malfunction now or after returning to the normal condition until turning ignition switch OFF → ON again.
- 1 - 39: Displayed if any previous malfunction is present when current condition is normal. It increases like 1 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. The counter remains at 39 even if the number of cycles exceeds it. It is counted from 1 again when turning ignition switch OFF → ON after returning to the normal condition if the malfunction is detected again.

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
No DTC is detected. further testing may be required.	—	—	—	—
U1000: CAN COMM CIRCUIT	—	—	—	<a href="#">BCS-32</a>
U1010: CONTROL UNIT (CAN)	—	—	—	<a href="#">BCS-33</a>
U0415: VEHICLE SPEED SIG	—	—	—	<a href="#">BCS-34</a>
B2013: ID DISCORD BCM-S/L	×	—	—	<a href="#">SEC-36</a> (Coupe), <a href="#">SEC-250</a> (Sedan)
B2014: CHAIN OF S/L-BCM	×	—	—	<a href="#">SEC-37</a> (Coupe), <a href="#">SEC-251</a> (Sedan)
B2190: NATS ANTENNA AMP	×	—	—	<a href="#">SEC-65</a> (Coupe), <a href="#">SEC-281</a> (Sedan)
B2191: DIFFERENCE OF KEY	×	—	—	<a href="#">SEC-69</a> (Coupe), <a href="#">SEC-285</a> (Sedan)
B2192: ID DISCORD BCM-ECM	×	—	—	<a href="#">SEC-70</a> (Coupe), <a href="#">SEC-286</a> (Sedan)
B2193: CHAIN OF BCM-ECM	×	—	—	<a href="#">SEC-71</a> (Coupe), <a href="#">SEC-287</a> (Sedan)
B2195: ANTI-SCANNING	—	—	—	<a href="#">SEC-72</a>
B2553: IGNITION RELAY	—	—	—	<a href="#">PCS-59</a>
B2555: STOP LAMP	—	—	—	<a href="#">SEC-73</a> (Coupe), <a href="#">SEC-289</a> (Sedan)
B2556: PUSH-BTN IGN SW	—	×	—	<a href="#">SEC-78</a> (Coupe), <a href="#">SEC-294</a> (Sedan)
B2557: VEHICLE SPEED	×	×	—	<a href="#">SEC-80</a> (Coupe), <a href="#">SEC-296</a> (Sedan)
B2560: STARTER CONT RELAY	×	×	—	<a href="#">SEC-81</a> (Coupe), <a href="#">SEC-297</a> (Sedan)
B2562: LOW VOLTAGE	—	—	—	<a href="#">BCS-35</a>
B2601: SHIFT POSITION	×	×	—	<a href="#">SEC-82</a> (Coupe), <a href="#">SEC-298</a> (Sedan)
B2602: SHIFT POSITION	×	×	—	<a href="#">SEC-86</a> (Coupe), <a href="#">SEC-302</a> (Sedan)
B2603: SHIFT POSI STATUS	×	×	—	<a href="#">SEC-89</a> (Coupe), <a href="#">SEC-305</a> (Sedan)
B2604: PNP SW	×	×	—	<a href="#">SEC-92</a> (Coupe), <a href="#">SEC-308</a> (Sedan)
B2605: PNP SW	×	×	—	<a href="#">SEC-94</a> (Coupe), <a href="#">SEC-310</a> (Sedan)
B2606: S/L RELAY	×	×	—	<a href="#">SEC-96</a> (Coupe), <a href="#">SEC-312</a> (Sedan)

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
B2607: S/L RELAY	×	×	—	<a href="#">SEC-97</a> (Coupe), <a href="#">SEC-313</a> (Sedan)
B2608: STARTER RELAY	×	×	—	<a href="#">SEC-99</a> (Coupe), <a href="#">SEC-315</a> (Sedan)
B2609: S/L STATUS	×	×	—	<a href="#">SEC-101</a> (Coupe), <a href="#">SEC-317</a> (Sedan)
B260A: IGNITION RELAY	×	×	—	<a href="#">PCS-61</a>
B260B: STEERING LOCK UNIT	—	×	—	<a href="#">SEC-106</a> (Coupe), <a href="#">SEC-322</a> (Sedan)
B260C: STEERING LOCK UNIT	—	×	—	<a href="#">SEC-107</a> (Coupe), <a href="#">SEC-323</a> (Sedan)
B260D: STEERING LOCK UNIT	—	×	—	<a href="#">SEC-108</a> (Coupe), <a href="#">SEC-324</a> (Sedan)
B260F: ENG STATE SIG LOST	×	×	—	<a href="#">SEC-109</a> (Coupe), <a href="#">SEC-325</a> (Sedan)
B2611: ACC RELAY	—	—	—	<a href="#">PCS-62</a>
B2612: S/L STATUS	×	×	—	<a href="#">SEC-110</a> (Coupe), <a href="#">SEC-331</a> (Sedan)
B2614: ACC RELAY CIRC	—	×	—	<a href="#">PCS-64</a>
B2615: BLOWER RELAY CIRC	—	×	—	<a href="#">PCS-67</a>
B2616: IGN RELAY CIRC	—	×	—	<a href="#">PCS-70</a>
B2617: STARTER RELAY CIRC	×	×	—	<a href="#">SEC-115</a> (Coupe), <a href="#">SEC-336</a> (Sedan)
B2618: BCM	×	×	—	<a href="#">PCS-73</a>
B2619: BCM	×	×	—	<a href="#">SEC-117</a> (Coupe), <a href="#">SEC-338</a> (Sedan)
B261A: PUSH-BTN IGN SW	—	×	—	<a href="#">SEC-118</a> (Coupe), <a href="#">SEC-339</a> (Sedan)
B261E: VEHICLE TYPE	×	× (Turn ON for 15 seconds)	—	<a href="#">SEC-121</a>
B2622: INSIDE ANTENNA	—	—	—	<a href="#">DLK-282</a>
B2623: INSIDE ANTENNA	—	—	—	<a href="#">DLK-285</a>
B26E1: ENG STATE NO RES	×	×	—	<a href="#">SEC-326</a>
B26E8: CLUTCH SW	×	×	—	<a href="#">SEC-123</a>
B26E9: S/L STATUS	×	× (Turn ON for 15 seconds)	—	<a href="#">SEC-125</a>
B26EA: KEY REGISTRATION	×	× (Turn ON for 15 seconds)	—	<a href="#">SEC-126</a>
C1704: LOW PRESSURE FL	—	—	×	<a href="#">WT-8</a>
C1705: LOW PRESSURE FR	—	—	×	<a href="#">WT-8</a>
C1706: LOW PRESSURE RR	—	—	×	<a href="#">WT-8</a>
C1707: LOW PRESSURE RL	—	—	×	<a href="#">WT-8</a>
C1708: [NO DATA] FL	—	—	×	<a href="#">WT-13</a>
C1709: [NO DATA] FR	—	—	×	<a href="#">WT-13</a>
C1710: [NO DATA] RR	—	—	×	<a href="#">WT-13</a>
C1711: [NO DATA] RL	—	—	×	<a href="#">WT-13</a>
C1712: [CHECKSUM ERR] FL	—	—	×	<a href="#">WT-15</a>

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## BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
C1713: [CHECKSUM ERR] FR	—	—	×	<a href="#">WT-15</a>
C1714: [CHECKSUM ERR] RR	—	—	×	<a href="#">WT-15</a>
C1715: [CHECKSUM ERR] RL	—	—	×	<a href="#">WT-15</a>
C1716: [PRESSDATA ERR] FL	—	—	×	<a href="#">WT-17</a>
C1717: [PRESSDATA ERR] FR	—	—	×	<a href="#">WT-17</a>
C1718: [PRESSDATA ERR] RR	—	—	×	<a href="#">WT-17</a>
C1719: [PRESSDATA ERR] RL	—	—	×	<a href="#">WT-17</a>
C1720: [CODE ERR] FL	—	—	×	<a href="#">WT-15</a>
C1721: [CODE ERR] FR	—	—	×	<a href="#">WT-15</a>
C1722: [CODE ERR] RR	—	—	×	<a href="#">WT-15</a>
C1723: [CODE ERR] RL	—	—	×	<a href="#">WT-15</a>
C1724: [BATT VOLT LOW] FL	—	—	×	<a href="#">WT-15</a>
C1725: [BATT VOLT LOW] FR	—	—	×	<a href="#">WT-15</a>
C1726: [BATT VOLT LOW] RR	—	—	×	<a href="#">WT-15</a>
C1727: [BATT VOLT LOW] RL	—	—	×	<a href="#">WT-15</a>
C1729: VHCL SPEED SIG ERR	—	—	×	<a href="#">WT-18</a>
C1734: CONTROL UNIT	—	—	×	<a href="#">WT-19</a>



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

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

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

Reference Value

INFOID:000000007630876

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition		Value/Status
RADFAN REQ	Engine idle speed	Changes depending on engine coolant temperature, air conditioner operation status, vehicle speed, etc.	0 - 100 %
AC COMP REQ	Engine running	A/C switch OFF	Off
		A/C switch ON (Compressor is operating)	On
TAIL&CLR REQ	Lighting switch OFF		Off
	Lighting switch 1ST, 2ND, HI or AUTO (Light is illuminated)		On
HL LO REQ	Lighting switch OFF		Off
	Lighting switch 2ND HI or AUTO (Light is illuminated)		On
HL HI REQ	Lighting switch OFF		Off
	Lighting switch HI		On
FR FOG REQ	Lighting switch 2ND or AUTO (Light is illuminated)	Front fog lamp switch OFF	Off
		Front fog lamp switch ON	On
FR WIP REQ	Ignition switch ON	Front wiper switch OFF	STOP
		Front wiper switch INT	1LOW
		Front wiper switch LO	Low
		Front wiper switch HI	Hi
WIP AUTO STOP	Ignition switch ON	Front wiper stop position	STOP P
		Any position other than front wiper stop position	ACT P
WIP PROT	Ignition switch ON	Front wiper operates normally	Off
		Front wiper stops at fail-safe operation	BLOCK
IGN RLY1 -REQ	Ignition switch OFF or ACC		Off
	Ignition switch ON		On
IGN RLY	Ignition switch OFF or ACC		Off
	Ignition switch ON		On
PUSH SW	Release the push-button ignition switch		Off
	Press the push-button ignition switch		On
INTER/NP SW	Ignition switch ON	CVT selector lever in any position other than P or N (CVT models)	Off
		Release clutch pedal (M/T models)	
	Ignition switch ON	CVT selector lever in P or N position (CVT models)	On
		Depress clutch pedal (M/T models)	
ST RLY CONT	Ignition switch ON		Off
	At engine cranking		On
IHBT RLY -REQ	Ignition switch ON		Off
	At engine cranking		On

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

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

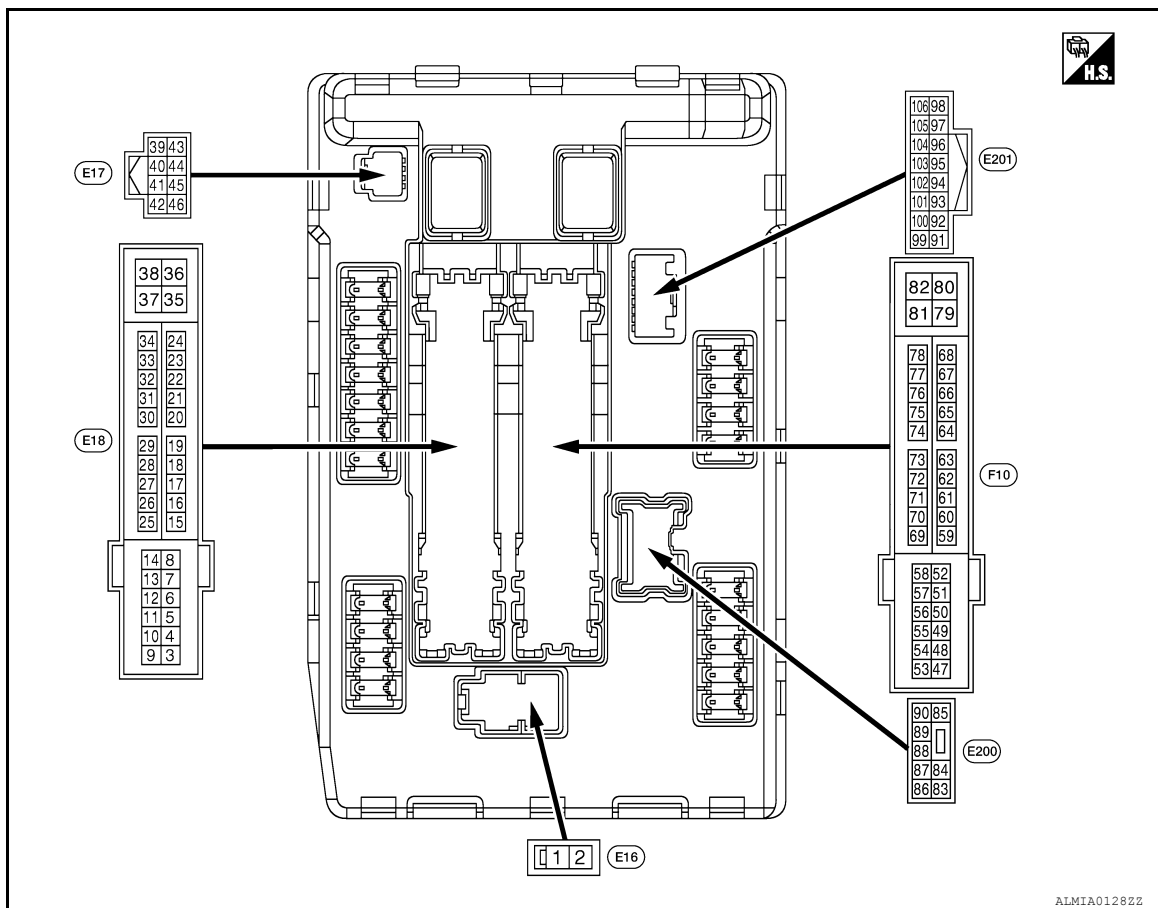
Monitor Item	Condition		Value/Status
ST/INHI RLY	Ignition switch ON		Off
	At engine cranking		ST → INHI
	The status of starter relay or starter control relay cannot be recognized by the battery voltage malfunction, etc. when the starter relay is ON and the starter control relay is OFF		UNKWN
DETENT SW	Ignition switch ON	<ul style="list-style-type: none"> <li>Press the selector button with CVT selector lever in P position</li> <li>CVT selector lever in any position other than P</li> </ul>	Off
	Release the CVT selector button with CVT selector lever in P position <b>NOTE:</b> The lever is fixed ON for M/T		On
S/L RLY -REQ	None of the conditions below are present		Off
	<ul style="list-style-type: none"> <li>Open the driver door after the ignition switch is turned OFF (for a few seconds)</li> <li>Press the push-button ignition switch when the steering lock is activated</li> <li>Depress the clutch pedal when the steering lock is activated</li> </ul>		On
S/L STATE	Steering lock is activated		LOCK
	Steering lock is deactivated		UNLK
	[DTC B210A] is detected		UNKWN
OIL P SW	Ignition switch OFF, ACC or engine running		Open
	Ignition switch ON		Close
THFT HRN REQ	Not operated		Off
	<ul style="list-style-type: none"> <li>Panic alarm is activated</li> <li>Horn is activated with VEHICLE SECURITY (THEFT WARNING) SYSTEM</li> </ul>		On
HORN CHIRP	Not operated		Off
	Door locking with Intelligent Key (horn chirp mode)		On

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

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

## TERMINAL LAYOUT



## PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
1 (R)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (L)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
4 (LG)	Ground	Front wiper LO	Output	Ignition switch ON	Front wiper switch OFF	0 V
					Front wiper switch LO	Battery voltage
5 (Y)	Ground	Front wiper HI	Output	Ignition switch ON	Front wiper switch OFF	0 V
					Front wiper switch HI	Battery voltage
7 (GR)	Ground	Tail, license plate lamps & interior lamps	Output	Ignition switch ON	Lighting switch OFF	0 V
					Lighting switch 1ST	Battery voltage
10 (BR)	Ground	ECM relay power supply	Output	Ignition switch OFF (For a few seconds after turning ignition switch OFF)		0 V
				• Ignition switch ON • Ignition switch OFF (More than a few seconds after turn- ing ignition switch OFF)		Battery voltage

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

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
11 (O)	Ground	Electronic steering column lock power supply	Output	Ignition switch OFF	A few seconds after open- ing the driver door	Battery voltage
				Ignition switch LOCK	Press the push-button ig- nition switch	Battery voltage
				Ignition switch ACC or ON		0 V
12 (B)	Ground	Ground	—	Ignition switch ON		0 V
13 (SB)	Ground	Fuel pump power supply	Output	Approximately 1 second or more after turning the ignition switch ON		0 V
				<ul style="list-style-type: none"> <li>Approximately 1 second after turning the ignition switch ON</li> <li>Engine running</li> </ul>		Battery voltage
15 (W)	Ground	Ignition relay-1 power sup- ply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
16 (R)	Ground	Front wiper auto stop	Input	Ignition switch ON	Front wiper stop position	0 V
					Any position other than front wiper stop position	Battery voltage
19 (Y)	Ground	Ignition relay-1 power sup- ply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
20 (L)	Ground	Ambient sensor ground	—	Ignition switch ON		0V
21 (LG)	Ground	Ambient sensor	—	Ignition switch ON		5V
22 (W/R)	Ground	Refrigerant pressure sen- sor ground	—	Ignition switch ON		0V
23 (B/R)	Ground	Refrigerant pressure sen- sor	—	<ul style="list-style-type: none"> <li>Ignition switch ON (READY)</li> <li>Both A/C switch and blower motor switch ON (electric compressor oper- ates)</li> </ul>		1.0 - 4.0V
24 (BR/W)	Ground	Refrigerant pressure sen- sor power supply	—	Ignition switch ON		5V
25 (GR)	Ground	Ignition relay-1 power sup- ply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
27 (W)	Ground	Ignition relay monitor	Input	Ignition switch OFF or ACC		Battery voltage
				Ignition switch ON		0 V
28 (SB)	Ground	Push-button ignition switch	Input	Press the push-button ignition switch		0 V
				Release the push-button ignition switch		Battery voltage
30 (R) (with M/T) 30 (BR) (with CVT)	Ground	Starter relay control	Input	CVT mod- els	CVT selector lever in any position other than P or N (ignition switch ON)	0 V
					CVT selector lever P or N (ignition switch ON)	Battery voltage
				M/T mod- els	Release the clutch pedal	0 V
					Depress the clutch pedal	Battery voltage

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

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
32 (P)	Ground	Electronic steering column lock unit condition-1	Input	Electronic steering column lock is activated		0 V
				Electronic steering column lock is deactivated		Battery voltage
33 (G)	Ground	Electronic steering column lock unit condition-2	Input	Electronic steering column lock is activated		Battery voltage
				Electronic steering column lock is deactivated		0 V
34 (O)	Ground	Cooling fan relay-3 control	Input	Ignition switch OFF or ACC		0 V
				Ignition switch ON		0.7 V
35 (P)	Ground	Cooling fan motor control	Output	Ignition switch OFF or ACC		0 V
				Ignition switch ON		0.7 V
36 (G)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
38 (GR)	Ground	Cooling fan motor control	Output	Ignition switch OFF or ACC		0 V
				Ignition switch ON		0.7 V
39 (P)	—	CAN - L	Input/ Output	—		—
40 (L)	—	CAN - H	Input/ Output	—		—
41 (B)	Ground	Ground	—	Ignition switch ON		0 V
42 (SB)	Ground	Cooling fan relay-2 control	Input	Ignition switch OFF or ACC		0 V
				Ignition switch ON		0.7 V
43 (Y)	Ground	CVT shift selector (Detention switch)	Input	Ignition switch ON	Press the CVT selector button (CVT selector lever P)	Battery voltage
					<ul style="list-style-type: none"> <li>CVT selector lever in any position other than P</li> <li>Release the CVT selector button (CVT selector lever P)</li> </ul>	0 V
44 (W)	Ground	Horn relay control	Input	The horn is deactivated		Battery voltage
				The horn is activated		0 V
45 (GR)	Ground	Anti theft horn relay control	Input	The horn is deactivated		Battery voltage
				The horn is activated		0 V
46 (BR)	Ground	Starter relay control	Input	CVT models	CVT selector lever in any position other than P or N (ignition switch ON)	0 V
					CVT selector lever P or N (ignition switch ON)	Battery voltage
				M/T models	Release the clutch pedal	0 V
					Depress the clutch pedal	Battery voltage
48 (W)	Ground	A/C relay power supply	Output	Engine running	A/C switch OFF	0 V
					A/C switch ON (A/C compressor is operating)	Battery voltage

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

< ECU DIAGNOSIS INFORMATION >

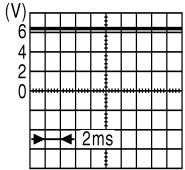
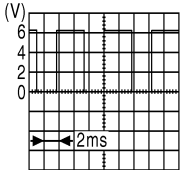
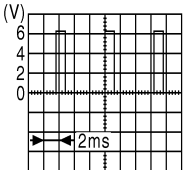
[SEDAN]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
49 (V)	Ground	ECM relay power supply	Output	Ignition switch OFF (For a few seconds after turning ignition switch OFF)		0 V
				• Ignition switch ON • Ignition switch OFF (More than a few seconds after turning ignition switch OFF)		Battery voltage
51 (SB)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
52 (Y)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
53 (V) (with QR25DE) 53 (G) (with VQ35DE)	Ground	ECM relay power supply	Output	Ignition switch OFF (For a few seconds after turning ignition switch OFF)		0 V
				• Ignition switch ON • Ignition switch OFF (More than a few seconds after turning ignition switch OFF)		Battery voltage
54 (GR)	Ground	Throttle control motor relay power supply	Output	Ignition switch OFF (For a few seconds after turning ignition switch OFF)		0 V
				• Ignition switch ON • Ignition switch OFF (More than a few seconds after turning ignition switch OFF)		Battery voltage
55 (LG)	Ground	ECM power supply	Output	Ignition switch OFF		Battery voltage
56 (R)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
57 (O)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
58 (BR) (with CVT)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
69 (SB)	Ground	ECM relay control	Output	Ignition switch OFF (For a few seconds after turning ignition switch OFF)		Battery voltage
				• Ignition switch ON • Ignition switch OFF (More than a few seconds after turning ignition switch OFF)		0 - 1.5 V
70 (G)	Ground	Throttle control motor relay control	Output	Ignition switch ON → OFF		0 - 1.0 V ↓ Battery voltage ↓ 0 V
				Ignition switch ON		0 - 1.0 V
72 (W)	Ground	Transmission range switch signal	Input	Ignition switch ON	CVT selector lever in P or N position	Battery voltage
					CVT selector lever in any position other than P or N position	0 V

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

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
74 (L)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
75 (LG)	Ground	Oil pressure switch	Input	Ignition switch ON	Engine stopped	0 V
					Engine running	Battery voltage
76 (Y)	Ground	Power generation com- mand signal	Output	Ignition switch ON		 <p>JPMIA0001GB</p> <p>6.3 V</p>
				40% is set on "Active test", "ALTERNATOR DUTY" of "ENGINE"		 <p>JPMIA0002GB</p> <p>3.8 V</p>
				80% is set on "Active test", "ALTERNATOR DUTY" of "ENGINE"		 <p>JPMIA0003GB</p> <p>1.4 V</p>
77 (B/R)	Ground	Fuel pump relay control	Output	<ul style="list-style-type: none"> <li>Approximately 1 second after turning the ignition switch ON</li> <li>Engine running</li> </ul>		0 - 1.0 V
				Approximately 1 second or more after turning the ignition switch ON		Battery voltage
80 (R)	Ground	Starter motor	Output	At engine cranking		Battery voltage
83 (R/Y)	Ground	Headlamp LO (RH)	Output	Ignition switch ON	Lighting switch OFF	0 V
					Lighting switch 2ND	Battery voltage
84 (L)	Ground	Headlamp LO (LH)	Output	Ignition switch ON	Lighting switch OFF	0 V
					Lighting switch 2ND	Battery voltage
86 (W/R)	Ground	Front fog lamp (RH) (If equipped)	Output	Lighting switch 2ND	Front fog lamp switch ON	Battery voltage
					Front fog lamp switch OFF	0 V
87 (L/Y)	Ground	Front fog lamp (LH) (If equipped)	Output	Lighting switch 2ND	Front fog lamp switch ON	Battery voltage
					Front fog lamp switch OFF	0 V
88 (R/W)	Ground	Washer pump power supply	Output	Ignition switch ON		Battery voltage

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

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
89 (L/W)	Ground	Headlamp HI (RH)	Output	Ignition switch ON	• Lighting switch HI • lighting switch PASS	Battery voltage
					Lighting switch OFF	0 V
90 (G)	Ground	Headlamp HI (LH)	Output	Ignition switch ON	• Lighting switch HI • Lighting switch PASS	Battery voltage
					Lighting switch OFF	0 V
91 (LG/R)	Ground	Parking lamp (RH)	Output	Ignition switch ON	Lighting switch 1ST	Battery voltage
					Lighting switch OFF	0 V
92 (LG/B)	Ground	Parking lamp (LH)	Output	Ignition switch ON	Lighting switch 1ST	Battery voltage
					Lighting switch OFF	0 V
99 (BR/W)	Ground	Ambient sensor ground	—	Ignition switch ON		0V
100 (SB)	Ground	Ambient sensor	—	Ignition switch ON		5V
101 (O/L)	Ground	Refrigerant pressure sensor ground	—	Ignition switch ON		0V
102 (R/B)	Ground	Refrigerant pressure sensor	—	• Ignition switch ON (READY) • Both A/C switch and blower motor switch ON (electric compressor operates)		1.0 - 4.0V
103 (P)	Ground	Refrigerant pressure sensor power supply	—	Ignition switch ON		5V

## Fail Safe

INFOID:000000007630877

### CAN COMMUNICATION CONTROL

When CAN communication with ECM and BCM is impossible, IPDM E/R performs fail-safe control. After CAN communication recovers normally, it also returns to normal control.

If No CAN Communication Is Available With ECM

Control part	Fail-safe in operation
Cooling fan	<ul style="list-style-type: none"> <li>• Signals cooling fans ON when the ignition switch is turned ON</li> <li>• Signals cooling fans OFF when the ignition switch is turned OFF</li> </ul>
A/C compressor	A/C relay OFF
Generator	Outputs the power generation command signal (PWM signal) 0%

If No CAN Communication Is Available With BCM

Control part	Fail-safe in operation
Headlamp	<ul style="list-style-type: none"> <li>• Turns ON the headlamp low relay when the ignition switch is turned ON</li> <li>• Turns OFF the headlamp low relay when the ignition switch is turned OFF</li> <li>• Headlamp high relay OFF</li> </ul>
<ul style="list-style-type: none"> <li>• Parking lamps</li> <li>• License plate lamps</li> <li>• Illumination</li> <li>• Tail lamps</li> </ul>	<ul style="list-style-type: none"> <li>• Turns ON the tail lamp relay when the ignition switch is turned ON</li> <li>• Turns OFF the tail lamp relay when the ignition switch is turned OFF</li> </ul>
Front wiper	<ul style="list-style-type: none"> <li>• The status just before activation of fail-safe control is maintained until the ignition switch is turned OFF while the front wiper is operating at LO or HI speed.</li> <li>• The wiper is operated at LO speed until the ignition switch is turned OFF if the fail-safe control is activated while the front wiper is set in the INT mode and the front wiper motor is operating.</li> </ul>



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

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

Control part	Fail-safe in operation
Front fog lamps (if equipped)	Front fog lamp relay OFF
Horn	Horn OFF
Ignition relay	The status just before activation of fail-safe is maintained.
Starter motor	Starter control relay OFF
Electronic steering column lock unit	Steering lock relay OFF

## IGNITION RELAY MALFUNCTION DETECTION FUNCTION

- IPDM E/R monitors the voltage at the contact circuit and excitation coil circuit of the ignition relay inside it.
- IPDM E/R judges the ignition relay error if the voltage differs between the contact circuit and the excitation coil circuit.
- If the ignition relay cannot turn OFF due to contact seizure, it activates the tail lamp relay for 10 minutes to alert the user to the ignition relay malfunction when the ignition switch is turned OFF.

DTC	Ignition switch	Ignition relay	Tail lamp relay
—	ON	ON	—
—	OFF	OFF	—
B2098: IGN RELAY ON	OFF	ON	ON (10 minutes)
B2099: IGN RELAY OFF	ON	OFF	—

### NOTE:

The tail lamp turns OFF when the ignition switch is turned ON.

## FRONT WIPER CONTROL

IPDM E/R detects front wiper stop position by a front wiper auto stop signal.

When a front wiper auto stop signal is in the conditions listed below, IPDM E/R stops power supply to wiper after repeating a front wiper 10 second activation and 20 second stop five times.

Ignition switch	Front wiper switch	Auto stop signal
ON	OFF	Front wiper stop position signal cannot be input 10 seconds.
	ON	The signal does not change for 10 seconds.

### NOTE:

This operation status can be confirmed on the IPDM E/R “Data Monitor” that displays “BLOCK” for the item “WIP PROT” while the wiper is stopped.

## STARTER MOTOR PROTECTION FUNCTION

IPDM E/R turns OFF the starter control relay to protect the starter motor when the starter control relay remains active for 90 seconds.

## DTC Index

INFOID:0000000007630878

CONSULT display	Fail-safe	TIME <sup>NOTE</sup>		Refer to
No DTC is detected. further testing may be required.	—	—	—	—
U1000: CAN COMM CIRCUIT	×	CRNT	1 – 39	<a href="#">PCS-17</a>
B2098: IGN RELAY ON	×	CRNT	1 – 39	<a href="#">PCS-18</a>
B2099: IGN RELAY OFF	—	CRNT	1 – 39	<a href="#">PCS-19</a>
B2108: STRG LCK RELAY ON	—	CRNT	1 – 39	<a href="#">SEC-255</a>
B2109: STRG LCK RELAY OFF	—	CRNT	1 – 39	<a href="#">SEC-256</a>
B210A: STRG LCK STATE SW	—	CRNT	1 – 39	<a href="#">SEC-257</a>
B210B: START CONT RLY ON	—	CRNT	1 – 39	<a href="#">SEC-262</a>
B210C: START CONT RLY OFF	—	CRNT	1 – 39	<a href="#">SEC-263</a>

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

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

CONSULT display	Fail-safe	TIME <sup>NOTE</sup>		Refer to
B210D: STARTER RELAY ON	—	CRNT	1 – 39	<a href="#">SEC-264</a>
B210E: STARTER RELAY OFF	—	CRNT	1 – 39	<a href="#">SEC-266</a>
B210F: INTRLCK/TRANSMISSION RANGE SW ON	—	CRNT	1 – 39	<a href="#">SEC-269</a>
B2110: INTRLCK/TRANSMISSION RANGE SW OFF	—	CRNT	1 – 39	<a href="#">SEC-275</a>

## NOTE:

The details of TIME display are as follows.

- CRNT: The malfunctions that are detected now
- 1 - 39: The number is indicated when it is normal at present and a malfunction was detected in the past. It increases like 0 → 1 → 2 ... 38 → 39 after returning to the normal condition whenever IGN OFF → ON. It is fixed to 39 until the self-diagnosis results are erased if it is over 39. It returns to 0 when a malfunction is detected again in the process.

# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

[SEDAN]

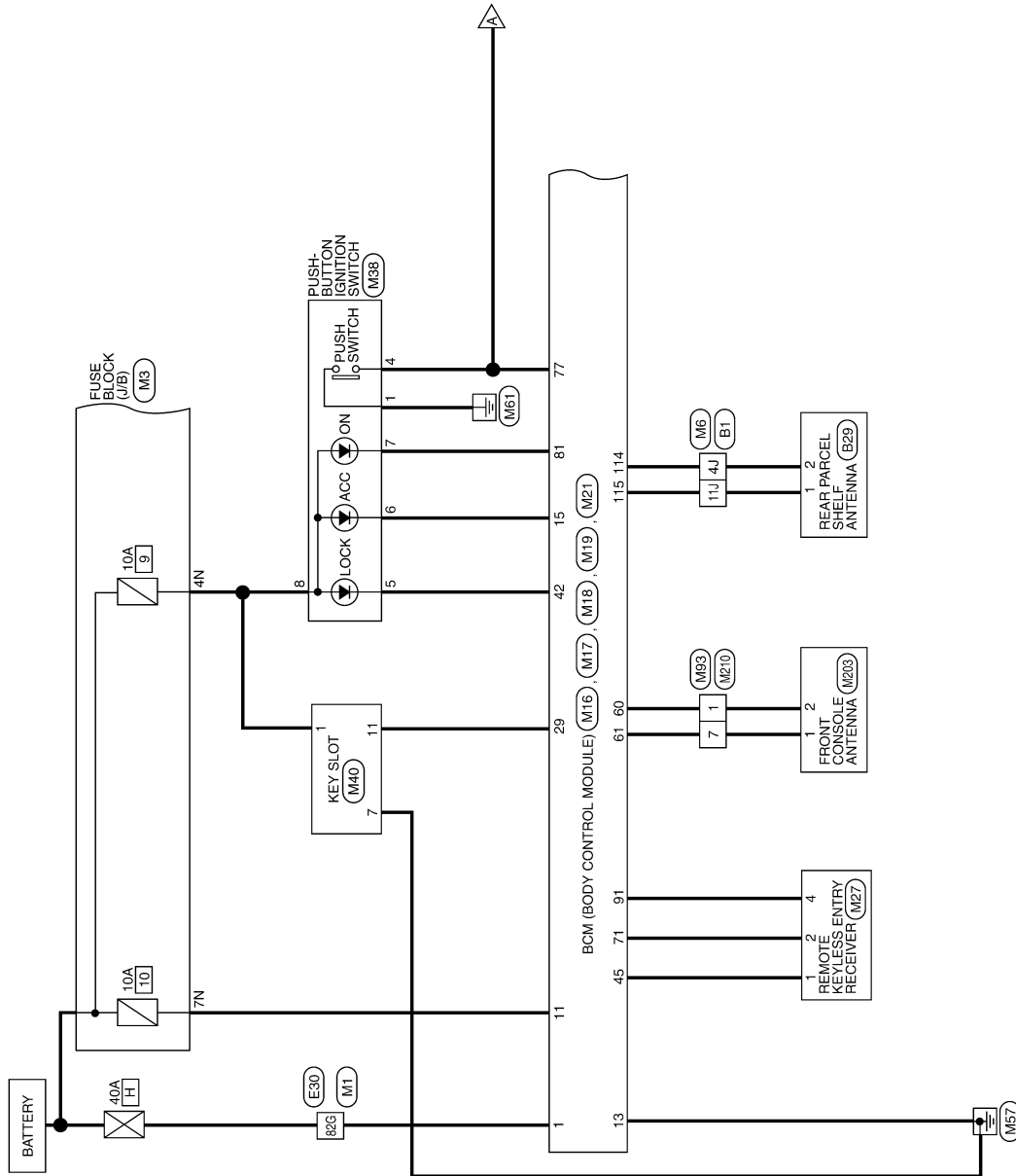
## WIRING DIAGRAM

### INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

#### Wiring Diagram

INFOID:000000007422712

#### INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

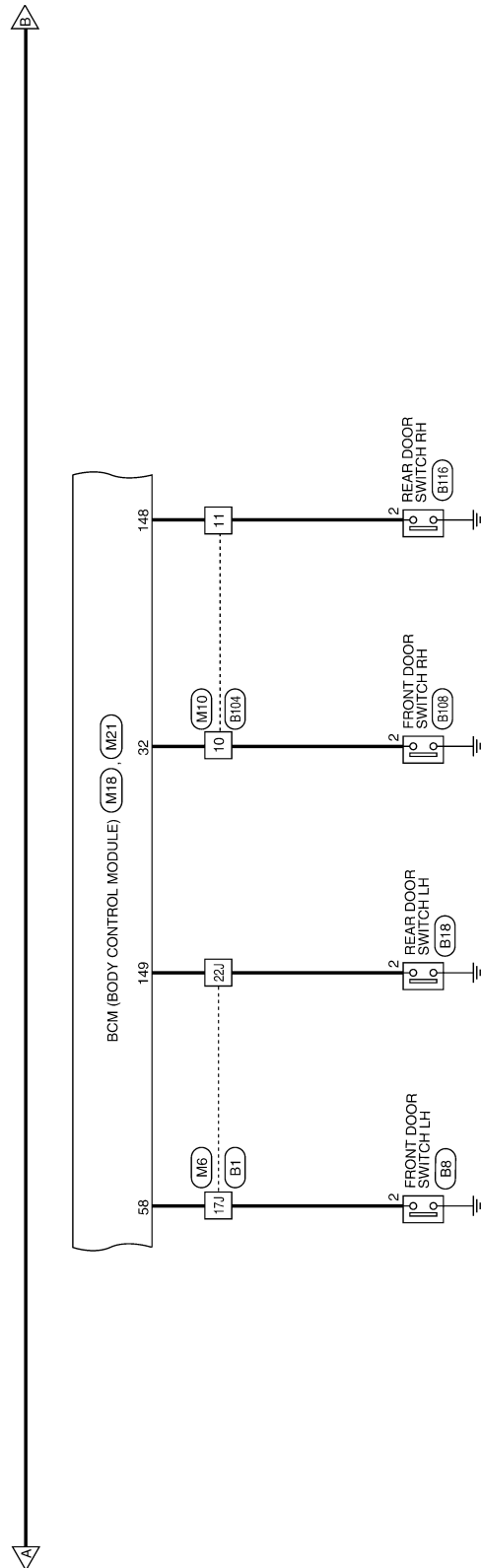


ABKWA0860GB

# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

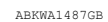
[SEDAN]



ABKWA1510GB

**[SEDAN]**

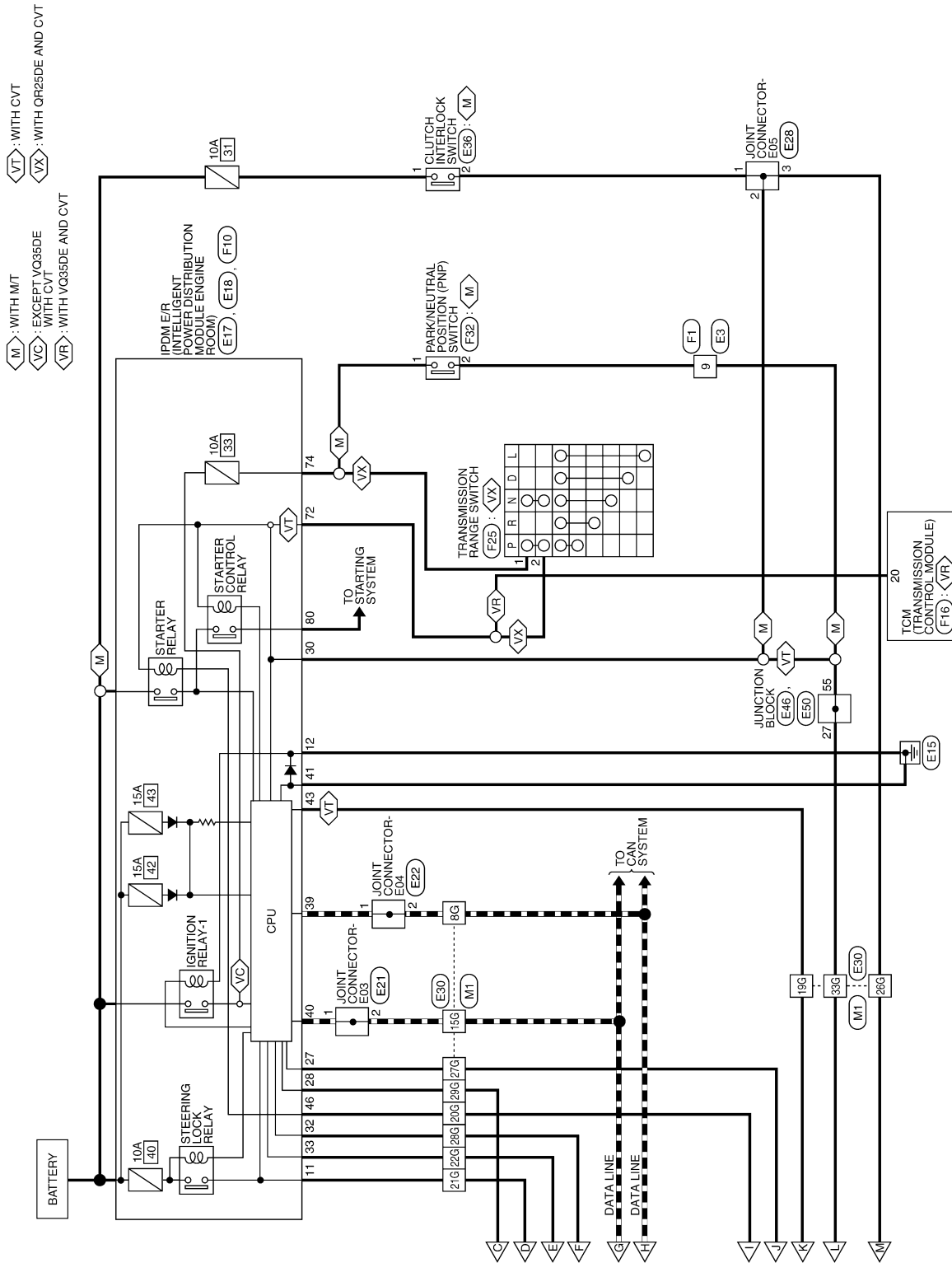
A  
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I  
J  
SEC  
L  
M  
N  
O  
P



# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

[SEDAN]



ABKWA1488GB

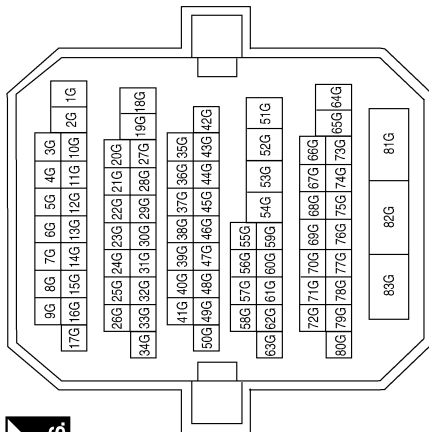
# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

[SEDAN]

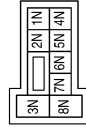
## INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION CONNECTORS

Connector No.	M1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
8G	P	-
15G	L	-
19G	G/B	-
20G	R	-
21G	P/L	-
22G	G/R	-
26G	R/Y	-
27G	BR/W	-
28G	L/O	-
29G	BR	-
33G	R/G	-
82G	W/B	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1N	W/L	-
4N	G/Y	-
5N	V/Y	-
7N	Y/R	-

Connector No.	M4
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3Q	O/L	-
9Q	R/W	-

ABKIA2415GB

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

# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

[SEDAN]

Connector No.	M10
Connector Name	WIRE TO WIRE
Connector Color	BROWN

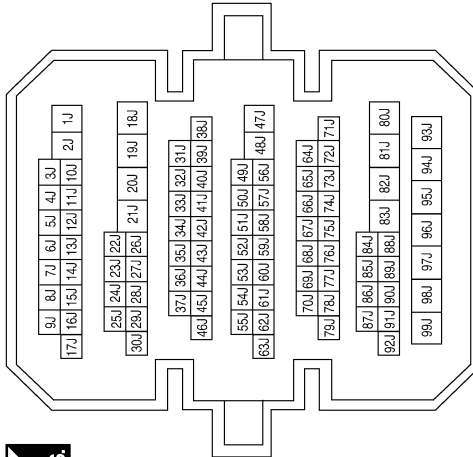
5	4	<div></div>	3	2	1	
12	11	10	9	8	7	6



Terminal No.	Color of Wire	Signal Name
10	R/B	—
11	R/W	—

Terminal No.	Color of Wire	Signal Name
4J	B	—
11J	W	—
17J	SB	—
22J	R/B	—

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Connector No.	M17
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE

4	5	6	7	8	9	10		
11	12	13	14	15	16	17	18	19



Terminal No.	Color of Wire	Signal Name
11	Y/R	BAT_BCM_FUSE
13	B	GND1
15	Y/L	ACC_LED

Connector No.	M16
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK

1	3	2
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Terminal No.	Color of Wire	Signal Name
1	W/B	BAT_POWER_F/L

ABKIA2416GB



# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

[SEDAN]

Terminal No.	Color of Wire	Signal Name
71	L/O	RF1_TUNER_SIGNAL
77	BR	ENG_START_SW
78	P	CAN-L
79	L	CAN-H
81	LG	IGN_ON_LED
84	Y/R	AT_DEVICE_OUT
85	L/O	S/L_CONDITION_1
86	G/R	S/L_CONDITION_2
87	G/B	SHIFT_P
91	L/R	RF1_POWER_SUPPLY
94	G/Y	S/L_POWER_SUPPLY_12V
99	L/Y	S/L_K-LINE

Connector No.	M19
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61	60
99	98	97	96	95	94	93	92	91	90	89	88	87	86	85	84	83	82	81	80

Terminal No.	Color of Wire	Signal Name
60	B/R	ROOM_ANT_2_B
61	W/R	ROOM_ANT_2_A

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GREEN



39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20
59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40

Terminal No.	Color of Wire	Signal Name
22	R/Y	CLUTCH_SW
24	R/W	STOP_LAMP_LOW_SW
26	O/L	STOP_LAMP_HIGH_SW
29	Y	FOB_IN_SW
32	R/B	AS_DOOR_SW
42	R	S/L_LOCK_LED
45	P	GND_RF2_A/L
48	R/G	SHIFT_N/P
49	L/O	IMMO_LED
58	SB	DR_DOOR_SW

Connector No.	M23
Connector Name	CVT SHIFT SELECTOR
Connector Color	WHITE



1	3			7	9
2	4	5	6	8	10

Terminal No.	Color of Wire	Signal Name
8	Y/R	DETENT_KEY_SW
9	G/B	DETENT_KEY_SW

Terminal No.	Color of Wire	Signal Name
114	B	TRUNK_ANT_1_B
115	W	TRUNK_ANT_1_A
127	BR/W	IGN_USM_CONT1
132	R	ST_CONT_USM
148	R/W	RR_DOOR_SW
149	R/B	RL_DOOR_SW

Connector No.	M21
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GRAY



131	130	129	128	127	126	125	124	123	122	121	120	119	118	117	116	115	114	113	112
151	150	149	148	147	146	145	144	143	142	141	140	139	138	137	136	135	134	133	132

ABKIA2417GB

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

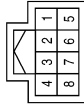
SEC

# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

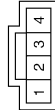
[SEDAN]

Connector No.	M32
Connector Name	ELECTRONIC STEERING COLUMN LOCK
Connector Color	WHITE



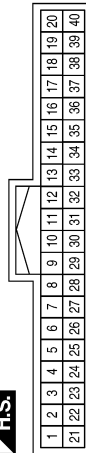
Terminal No.	Color of Wire	Signal Name
1	P/L	S/L_12V_MECHANICAL (V1)
2	L/Y	S/L_COM
3	L/O	S/L_CONDITION_1
5	B	GND
6	B	GND
7	G/Y	S/L_12V_CPU (V2)
8	G/R	S/L_CONDITION_2

Connector No.	M27
Connector Name	REMOTE KEYLESS ENTRY RECEIVER
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	P	GND
2	L/O	SIGNAL
4	L/R	12V

Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE



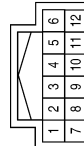
Terminal No.	Color of Wire	Signal Name
1	W/L	BAT
3	B	GND (POWER)
4	B	GND (ILL)
14	V/Y	ACC
21	L	CAN-H
22	P	CAN-L
23	B	GND (CIRCUIT)
28	L/O	SECURITY

Connector No.	M93
Connector Name	WIRE TO WIRE
Connector Color	WHITE



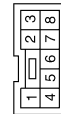
Terminal No.	Color of Wire	Signal Name
1	B/R	-
7	W/R	-

Connector No.	M40
Connector Name	KEY SLOT
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	G/Y	B+
7	B	GND
11	Y	CARD_SW_1

Connector No.	M38
Connector Name	PUSH-BUTTON IGNITION SWITCH
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	B	GND
4	BR	START_SW
5	R	LOCK
6	Y/L	ACC
7	LG	ON
8	G/Y	B+

ABKIA2418GB

# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

[SEDAN]

Connector No.	E3
Connector Name	WIRE TO WIRE
Connector Color	WHITE

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



Terminal No.	9	Color of Wire	BR	Signal Name	-
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Connector No.	M210
Connector Name	WIRE TO WIRE
Connector Color	WHITE

6	5	4	3	2	1
12	11	10	9	8	7



Terminal No.	1	Color of Wire	B/R	Signal Name	-
	7		W/R		-

Connector No.	M203
Connector Name	FRONT CONSOLE ANTENNA
Connector Color	GRAY



Terminal No.	1	Color of Wire	W/R	Signal Name	ANT+
	2		B/R		ANT-

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

42	41	40	39
46	45	44	43



Terminal No.	39	Color of Wire	P	Signal Name	CAN-L
	40		L		CAN-H
	41		B		GND (SIGNAL)
	43		Y		RANGE SW
	46		BR		START CONT

Connector No.	E6
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE

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



Terminal No.	2P	Color of Wire	LG	Signal Name	- (WITH M/T)
	2P		Y		- (WITH CVT)
	8P		R		-

AAKIA0622GB

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# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

[SEDAN]

Connector No.	E21
Connector Name	JOINT CONNECTOR-E03
Connector Color	WHITE

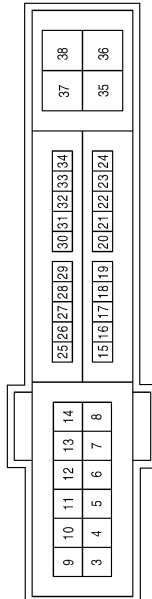


4	3	2	1
---	---	---	---

Terminal No.	Color of Wire	Signal Name
1	L	—
2	L	—

Terminal No.	Color of Wire	Signal Name
11	O	ESCL
12	B	GND (POWER)
27	W	IGN_SIGNAL
28	SB	PUSH_START_SW
30	R	CLUTCH_I/L_SW (WITH M/T)
30	BR	ECM (WITH CVT)
32	P	SL_CONDITION_1
33	G	SL_CONDITION_2

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



Connector No.	E28
Connector Name	JOINT CONNECTOR-E05
Connector Color	WHITE



4	3	2	1
---	---	---	---

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

Connector No.	E22
Connector Name	JOINT CONNECTOR-E04
Connector Color	WHITE



4	3	2	1
---	---	---	---

Terminal No.	Color of Wire	Signal Name
1	P	—
2	P	—

ABKIA2420GB

# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

[SEDAN]

Connector No.	E36
Connector Name	CLUTCH INTERLOCK SWITCH
Connector Color	BROWN

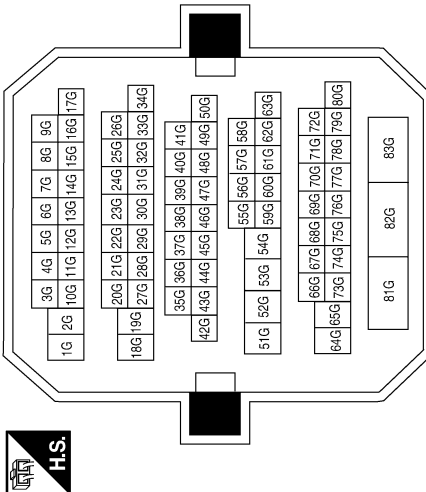


2	1
---	---

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

Terminal No.	Color of Wire	Signal Name
8G	P	-
15G	L	-
19G	Y	-
20G	BR	-
21G	O	-
22G	G	-
26G	R	-
27G	W	-
28G	P	-
29G	SB	-
33G	BR	-
51G	L	-
52G	P	-
82G	LG	-

Connector No.	E30
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Connector No.	E46
Connector Name	JUNCTION BLOCK
Connector Color	WHITE



31	30	29	28	27	26	25
40	39	38	37	36	35	34
33	32					

Connector No.	E38
Connector Name	STOP LAMP SWITCH (WITH M/T)
Connector Color	BLACK



2	1
---	---

Connector No.	E38
Connector Name	STOP LAMP SWITCH (WITH CVT)
Connector Color	WHITE



3	4	1	2
---	---	---	---

Terminal No.	Color of Wire	Signal Name
27	BR	-

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

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

AAKIA0623GB

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SEC

# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

[SEDAN]

Connector No.	E56
Connector Name	JOINT CONNECTOR-E14
Connector Color	WHITE



4	3	2	1
---	---	---	---

Terminal No.	Color of Wire	Signal Name
3	LG	—
4	LG	—

Connector No.	E55
Connector Name	JOINT CONNECTOR-E07
Connector Color	WHITE



4	3	2	1
---	---	---	---

Terminal No.	Color of Wire	Signal Name
1	W	—
3	R	—
4	R	—

Connector No.	E50
Connector Name	JUNCTION BLOCK
Connector Color	WHITE



56	55
----	----

Terminal No.	Color of Wire	Signal Name
55	BR	—

Connector No.	F10
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



16	15	14	13	12	11	10	9	8
----	----	----	----	----	----	----	---	---

Connector No.	F1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Connector No.	E57
Connector Name	STOP LAMP RELAY-1
Connector Color	BLUE



3	5	2	1
---	---	---	---

Terminal No.	Color of Wire	Signal Name
9	W	—

53	54	55	56	57	58
47	48	49	50	51	52

69	70	71	72	73	74	75	76	77	78
59	60	61	62	63	64	65	66	67	68

81	82
79	80

Terminal No.	Color of Wire	Signal Name
72	W	NPSW
74	L	START IG EGI
80	R	STARTER MOTOR

Terminal No.	Color of Wire	Signal Name
9	W	—

Terminal No.	Color of Wire	Signal Name
1	LG	—
2	B	—
3	Y	—
5	W	—

AAKIA0624GB

# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

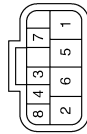
[SEDAN]

Connector No.	F32
Connector Name	PARK/NEUTRAL POSITION (PNP) SWITCH
Connector Color	BLACK



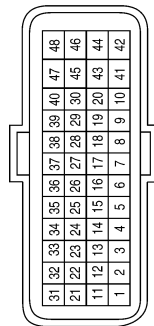
Terminal No.	Color of Wire	Signal Name
1	L	—
2	W	—

Connector No.	F25
Connector Name	TRANSMISSION RANGE SWITCH
Connector Color	BLACK



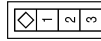
Terminal No.	Color of Wire	Signal Name
1	L	IGN P N
2	W	P N OUTPUT

Connector No.	F16
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
20	W	ST RLY

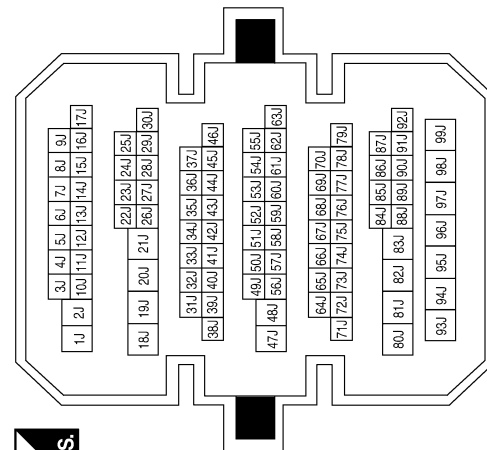
Connector No.	B8
Connector Name	FRONT DOOR SWITCH LH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	SB	DOOR SW (DR)

Terminal No.	Color of Wire	Signal Name
4J	V	—
11J	W	—
17J	SB	—
22J	BR	—

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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# INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

[SEDAN]

Connector No.	B104
Connector Name	WIRE TO WIRE
Connector Color	BROWN



1	2	3	4	5
6	7	8	9	10
11	12			

Terminal No.	Color of Wire	Signal Name
10	GR	—
11	B	—

Connector No.	B29
Connector Name	REAR PARCEL SHELF ANTENNA
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	W	ANT+
2	V	ANT-

Connector No.	B18
Connector Name	REAR DOOR SWITCH LH
Connector Color	WHITE



1	2	3
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Terminal No.	Color of Wire	Signal Name
2	BR	DOOR SW (RL)

Connector No.	B116
Connector Name	REAR DOOR SWITCH RH
Connector Color	WHITE



1	2	3
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Terminal No.	Color of Wire	Signal Name
2	B	DOOR SW (RR)

Connector No.	B108
Connector Name	FRONT DOOR SWITCH RH
Connector Color	WHITE



1	2	3
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Terminal No.	Color of Wire	Signal Name
2	GR	DOOR SW (AS)

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# VEHICLE SECURITY SYSTEM

[SEDAN]

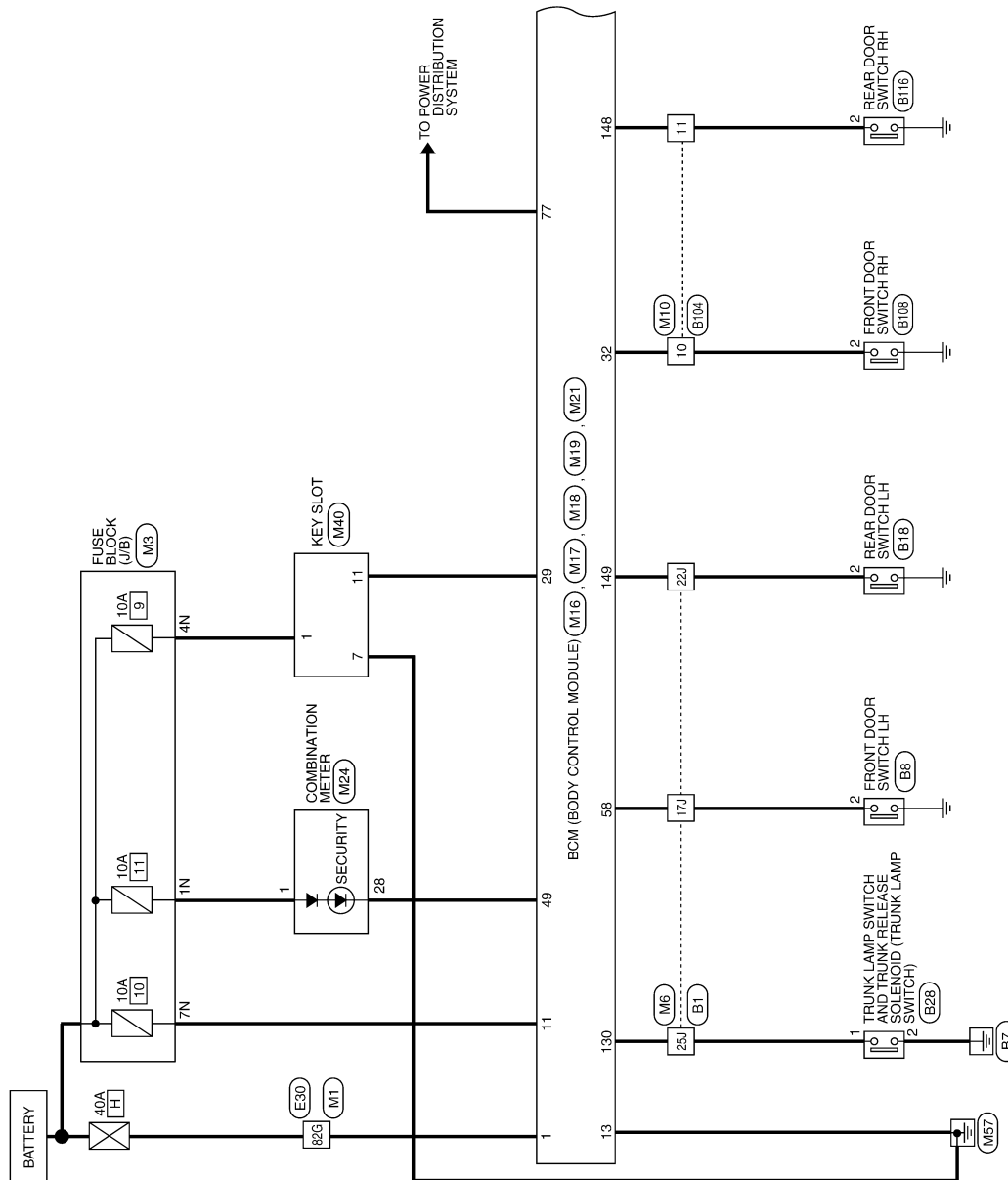
< WIRING DIAGRAM >

## VEHICLE SECURITY SYSTEM

### Wiring Diagram

INFOID:000000007422713

#### VEHICLE SECURITY SYSTEM

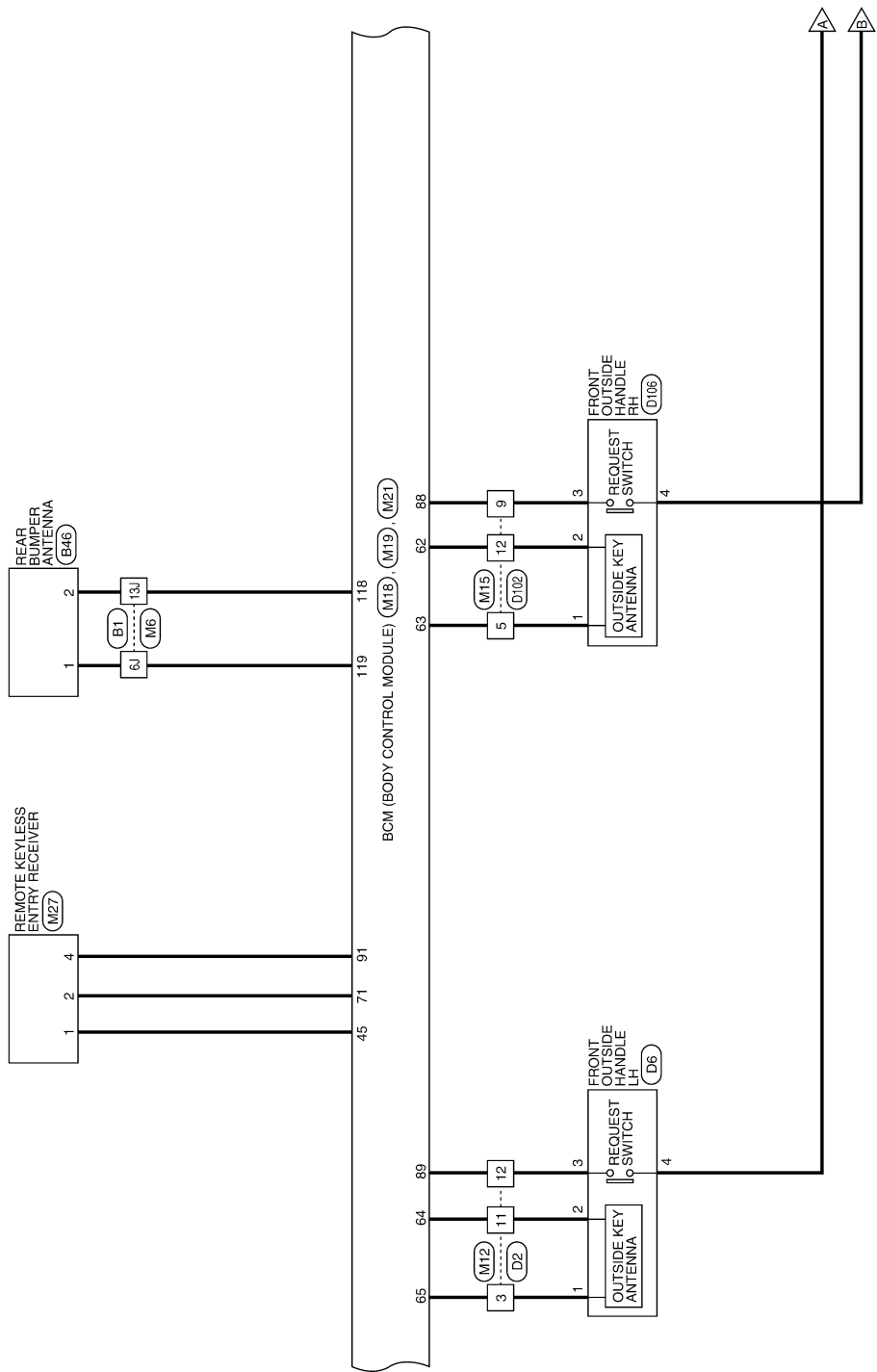


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# VEHICLE SECURITY SYSTEM

[SEDAN]

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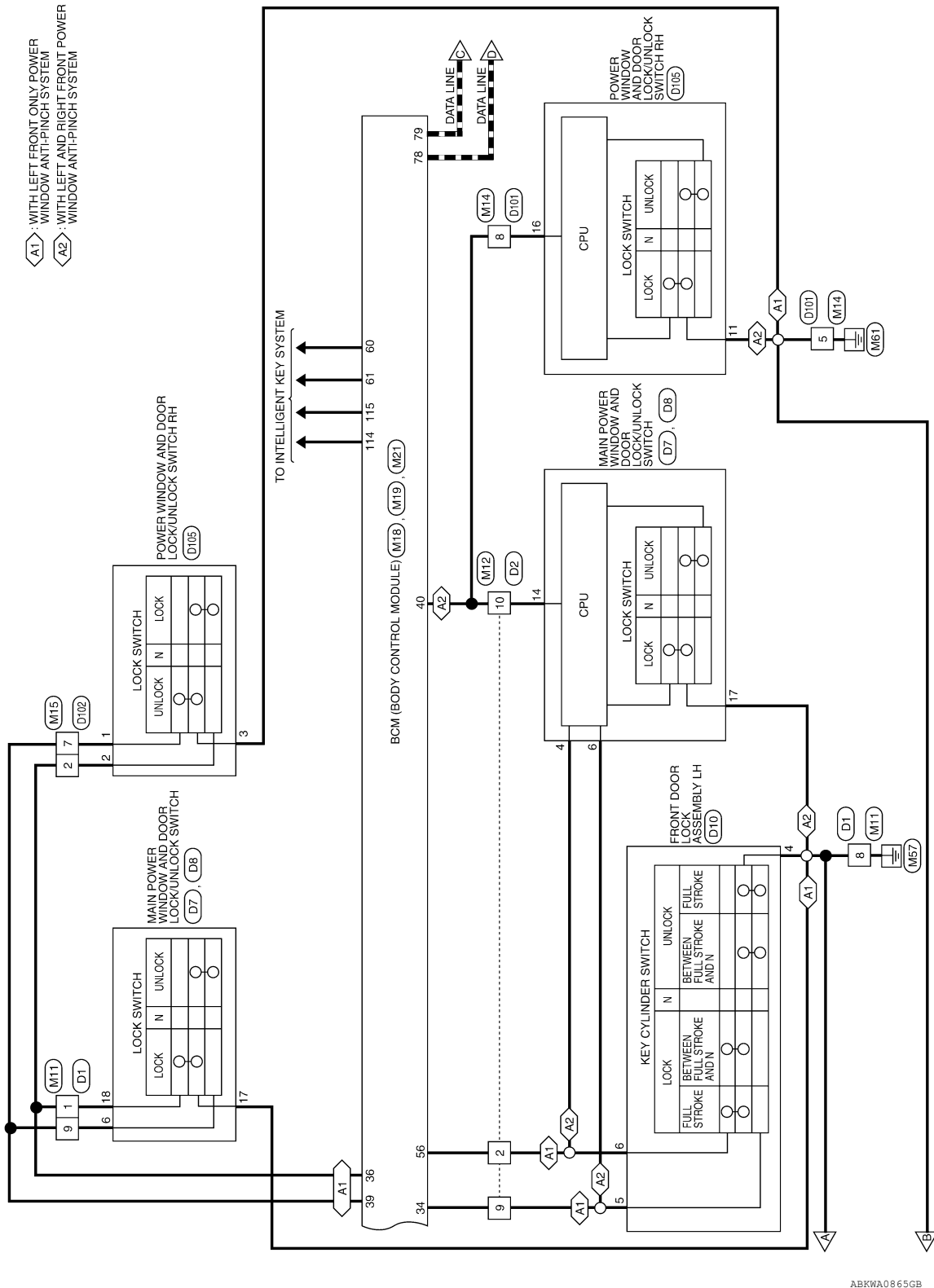


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# VEHICLE SECURITY SYSTEM

< WIRING DIAGRAM >

[SEDAN]



ABKWA0865GB

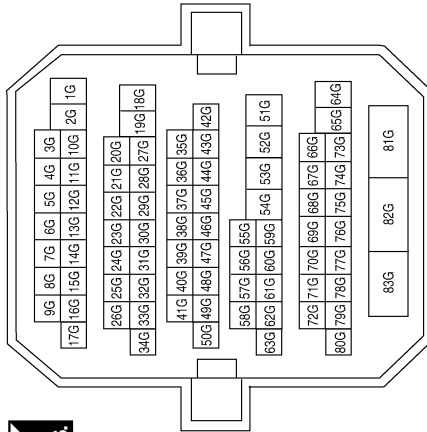
**[SEDAN]**

[illegible]

ABKWA0866GB

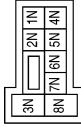
## VEHICLE SECURITY SYSTEM CONNECTORS

Connector No.	M1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



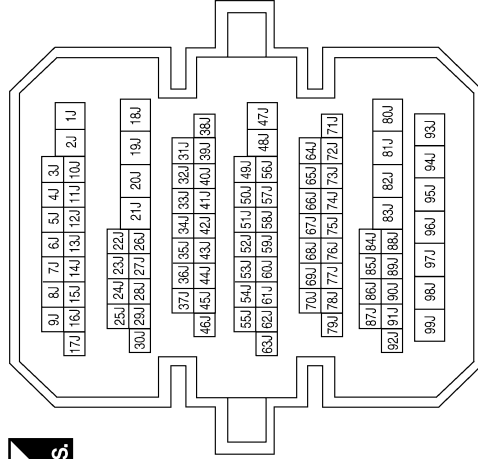
Terminal No.	Color of Wire	Signal Name
8G	P	-
15G	L	-
82G	W/B	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



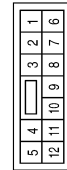
Terminal No.	Color of Wire	Signal Name
1N	W/L	-
4N	G/Y	-
7N	Y/R	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
6J	BR/W	-
13J	L/O	-
17J	SB	-
22J	R/B	-
25J	Y/G	-

Connector No.	M10
Connector Name	WIRE TO WIRE
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
10	R/B	-
11	R/W	-

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# VEHICLE SECURITY SYSTEM

< WIRING DIAGRAM >

[SEDAN]

Connector No.	M14
Connector Name	WIRE TO WIRE
Connector Color	WHITE



1	2	3	4
5	6	7	8
9	10		

Terminal No.	Color of Wire	Signal Name
5	B	—
8	Y/G	—

Connector No.	M12
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
2	L/B	—
3	P	—
9	L/R	—
10	Y/G	—
11	V	—
12	B/W	—

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
1	GR	—
8	B	—
9	GR/R	—

Connector No.	M17
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE



4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19					

Connector No.	M16
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



1	2	3
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Connector No.	M15
Connector Name	WIRE TO WIRE
Connector Color	WHITE



1	2	3	4	5	6
7	8	9	10	11	12

Terminal No.	Color of Wire	Signal Name
11	Y/R	BAT_BCM_FUSE
13	B	GND1

Terminal No.	Color of Wire	Signal Name
1	W/B	BAT_POWER_F/L

Terminal No.	Color of Wire	Signal Name
2	G/R	—
5	LG	—
7	GR/R	—
9	P/L	—
12	B/Y	—


ABK1A2439GB

# VEHICLE SECURITY SYSTEM

< WIRING DIAGRAM >

[SEDAN]


Connector No.	M21
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GRAY



131	130	129	128	127	126	125	124	123	122	121	120	119	118	117	116	115	114	113	112
151	150	149	148	147	146	145	144	143	142	141	140	139	138	137	136	135	134	133	132

Terminal No.	Color of Wire	Signal Name
114	B	TRUNK_ANT_1_B
115	W	TRUNK_ANT_1_A
118	L/O	BACK_DOOR_ANT_B
119	BR/W	BACK_DOOR_ANT_A
130	Y/G	TRUNK_SW
148	R/W	RR_DOOR_SW
149	R/B	RL_DOOR_SW


Connector No.	M19
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61	60
99	98	97	96	95	94	93	92	91	90	89	88	87	86	85	84	83	82	81	80

Terminal No.	Color of Wire	Signal Name
60	B/R	ROOM_ANT_2_B
61	W/R	ROOM_ANT_2_A
62	B/Y	AS_DOOR_ANT_B
63	LG	AS_DOOR_ANT_A
64	V	DR_DOOR_ANT_B
65	P	DR_DOOR_ANT_A
71	L/O	RF1_TUNER_SIGNAL
77	BR	ENG_START_SW
78	P	CAN-L
79	L	CAN-H
91	L/R	RF1_POWER_SUPPLY

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GREEN



39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20
59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40

Terminal No.	Color of Wire	Signal Name
29	Y	FOB_IN_SW_1
32	R/B	AS_DOOR_SW
34	L/R	DOOR_KEY/C_UNLOCK_SW
36	GR	CENTRAL_LOCK_SW
39	GR/R	CENTRAL_UNLOCK_SW
40	Y/G	PW_K-LINE
45	P	GND_RF2_A/L
49	L/O	IMMO_LED
56	L/B	DOOR_KEY/C_LOCK_SW
58	SB	DR_DOOR_SW

ABKIA2440GB


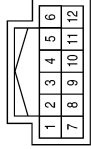
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# VEHICLE SECURITY SYSTEM

< WIRING DIAGRAM >


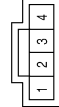
[SEDAN]

Connector No.	M40
Connector Name	KEY SLOT
Connector Color	WHITE


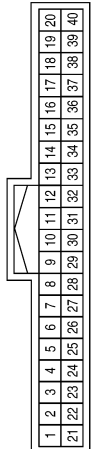
Terminal No.	Color of Wire	Signal Name
1	G/Y	B+
7	B	GND
11	Y	CARD SW 1

Connector No.	M27
Connector Name	REMOTE KEYLESS ENTRY RECEIVER
Connector Color	BLACK


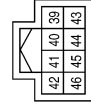
Terminal No.	Color of Wire	Signal Name
1	P	GND
2	L/O	SIGNAL
4	L/R	12V

Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE


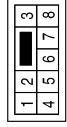
Terminal No.	Color of Wire	Signal Name
1	W/L	BAT
28	L/O	SECURITY

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

Terminal No.	Color of Wire	Signal Name
39	P	CAN-L
40	L	CAN-H
41	B	GND (SIGNAL)
44	W	HORN_RLY

Connector No.	E2
Connector Name	WIRE TO WIRE
Connector Color	WHITE

Terminal No.	Color of Wire	Signal Name
5	O	-

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VEHICLE SECURITY SYSTEM

< WIRING DIAGRAM >

[SEDAN]

Connector No.	E21
Connector Name	JOINT CONNECTOR-E03
Connector Color	WHITE

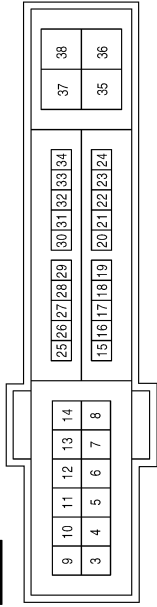


4	3	2	1
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Terminal No.	Color of Wire	Signal Name
1	L	-
2	L	-

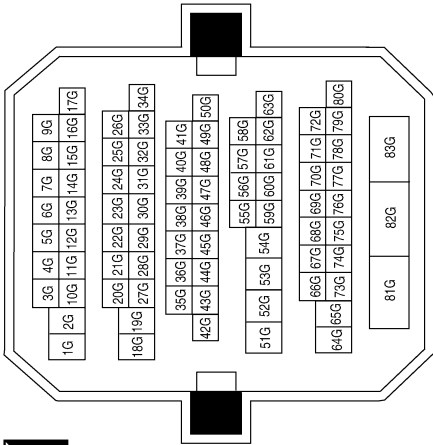
Terminal No.	Color of Wire	Signal Name
12	B	GND (POWER)

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



Terminal No.	Color of Wire	Signal Name
8G	P	-
15G	L	-
82G	LG	-

Connector No.	E30
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Connector No.	E22
Connector Name	JOINT CONNECTOR-E04
Connector Color	WHITE



4	3	2	1
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Terminal No.	Color of Wire	Signal Name
1	P	-
2	P	-

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# VEHICLE SECURITY SYSTEM

[SEDAN]

< WIRING DIAGRAM >

Connector No.	E216
Connector Name	HORN (HIGH)
Connector Color	BLACK



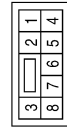
Terminal No.	Color of Wire	Signal Name
1	G	-

Connector No.	E215
Connector Name	HORN (LOW)
Connector Color	BLACK



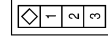
Terminal No.	Color of Wire	Signal Name
1	G	-

Connector No.	E202
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5	G	-

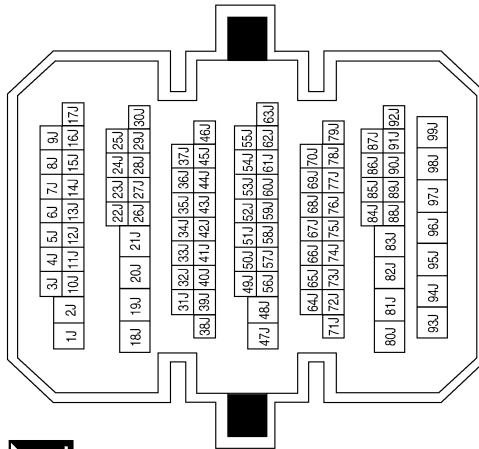
Connector No.	B8
Connector Name	FRONT DOOR SWITCH LH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	SB	DOOR SW (DR)

Terminal No.	Color of Wire	Signal Name
6J	L	-
13J	LG	-
17J	SB	-
22J	BR	-
25J	W	-

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



ABKIA2428GB

# VEHICLE SECURITY SYSTEM

< WIRING DIAGRAM >

[SEDAN]

Connector No.	B46
Connector Name	REAR BUMPER ANTENNA
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	L	ANT+
2	LG	ANT-

Connector No.	B28
Connector Name	TRUNK LAMP SWITCH AND TRUNK RELEASE SOLENOID
Connector Color	WHITE



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

Connector No.	B18
Connector Name	REAR DOOR SWITCH LH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	BR	DOOR SW (RL)

Connector No.	B116
Connector Name	REAR DOOR SWITCH RH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	B	DOOR SW (RR)

Connector No.	B108
Connector Name	FRONT DOOR SWITCH RH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	GR	DOOR SW (AS)

Connector No.	B104
Connector Name	WIRE TO WIRE
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
10	GR	-
11	B	-

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# VEHICLE SECURITY SYSTEM

< WIRING DIAGRAM >

[SEDAN]

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Color	WHITE

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



Connector No.	D2
Connector Name	WIRE TO WIRE
Connector Color	WHITE

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



Connector No.	D6
Connector Name	FRONT OUTSIDE HANDLE LH
Connector Color	BLACK



1	2	3	4
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Terminal No.	Color of Wire	Signal Name
1	GR	-
8	B	-
9	GR/R	-

Terminal No.	Color of Wire	Signal Name
2	L	-
3	P	-
9	R	-
10	GR	-
11	V	-
12	GR	-

Terminal No.	Color of Wire	Signal Name
1	P	ANT+
2	V	ANT-
3	GR	SW+
4	B	SW-

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

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



Terminal No.	Color of Wire	Signal Name
4	L	LOCK
6	R	UNLOCK (WITH LEFT AND RIGHT FRONT POWER WINDOW ANTI-PINCH SYSTEM)
6	GR/R	UNLOCK (WITH LEFT FRONT ONLY POWER WINDOW ANTI-PINCH SYSTEM)
14	GR	COM

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

17	18	19
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Terminal No.	Color of Wire	Signal Name
17	B	GND
18	GR	LOCK

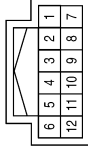
ABKIA3242GB

# VEHICLE SECURITY SYSTEM

< WIRING DIAGRAM >

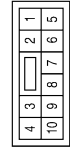
[SEDAN]

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Color	WHITE



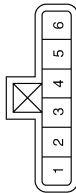
Terminal No.	Color of Wire	Signal Name
2	GR	-
5	R	-
7	GR/R	-
9	GR	-
12	L	-

Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Color	WHITE



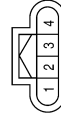
Terminal No.	Color of Wire	Signal Name
5	B	-
8	R	-

Connector No.	D10
Connector Name	FRONT DOOR LOCK ASSEMBLY LH
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
4	B	GND
5	R	DOOR_KEY/C_UNLOCK_SW
6	L	DOOR_KEY/C_LOCK_SW

Connector No.	D106
Connector Name	FRONT OUTSIDE HANDLE RH
Connector Color	BLACK



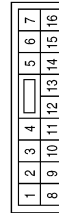
Terminal No.	Color of Wire	Signal Name
1	R	ANT+
2	L	ANT-
3	GR	SW+
4	B	SW-

Connector No.	D105
Connector Name	POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH (WITH LEFT FRONT ONLY POWER WINDOW ANTI-PINCH SYSTEM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	GR	LOCK
2	GR/R	UNLOCK
3	B	GND

Connector No.	D105
Connector Name	POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH (WITH LEFT AND RIGHT FRONT POWER WINDOW ANTI-PINCH SYSTEM)
Connector Color	WHITE

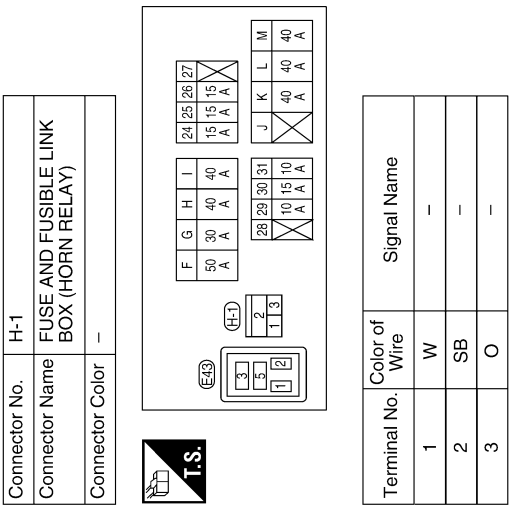


Terminal No.	Color of Wire	Signal Name
11	B	GND
16	R	COM

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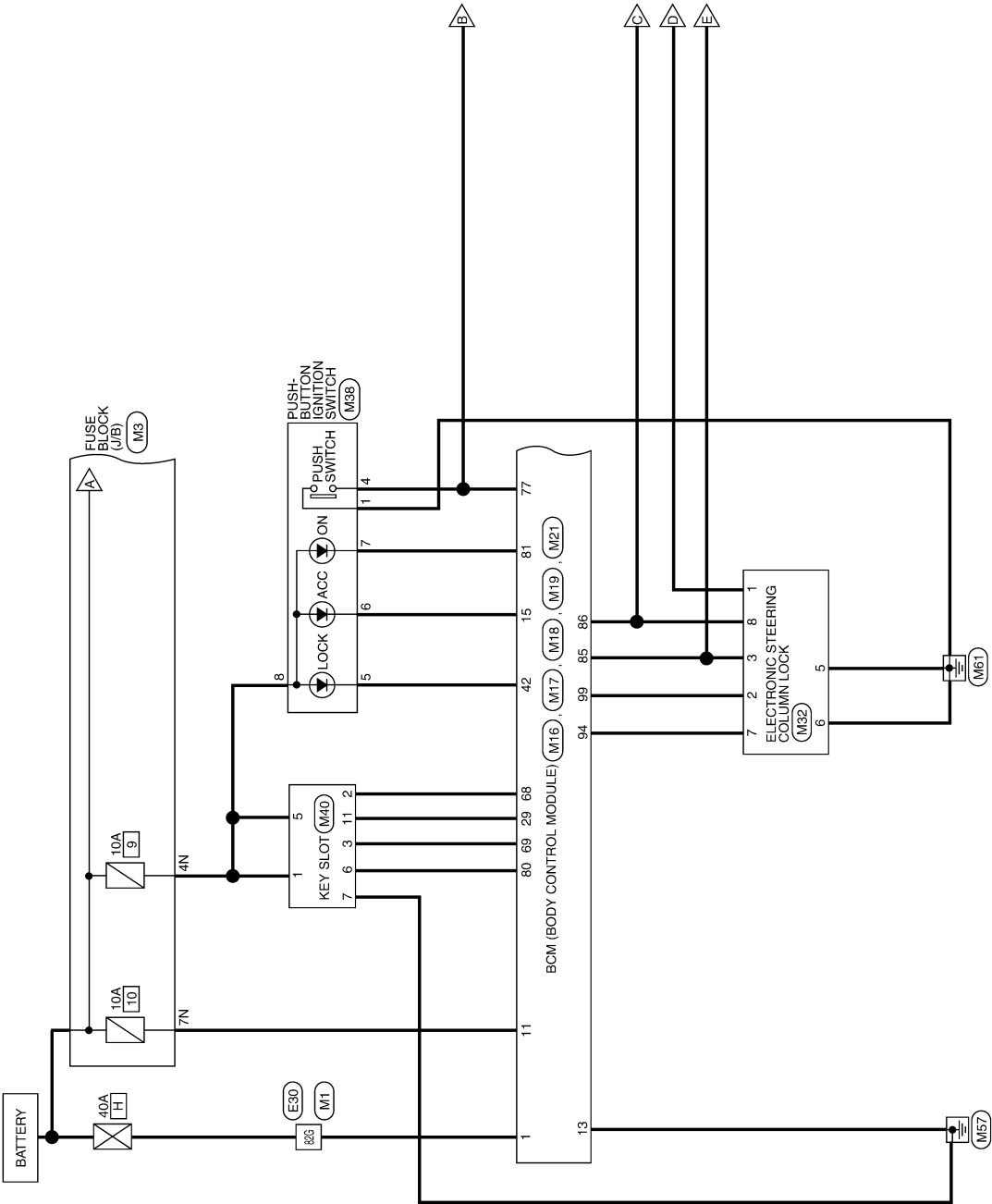


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NVIS

Wiring Diagram

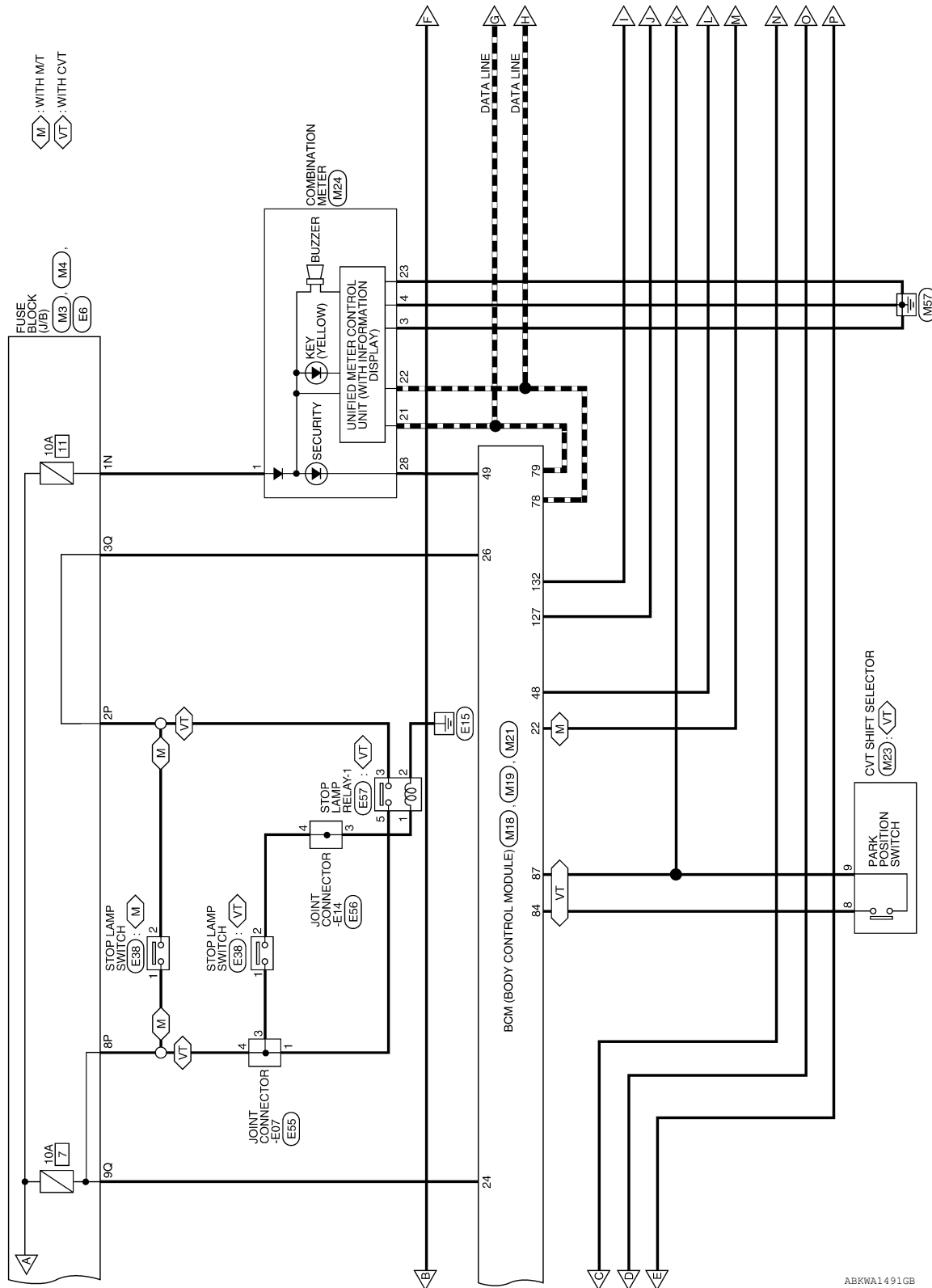
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SEC

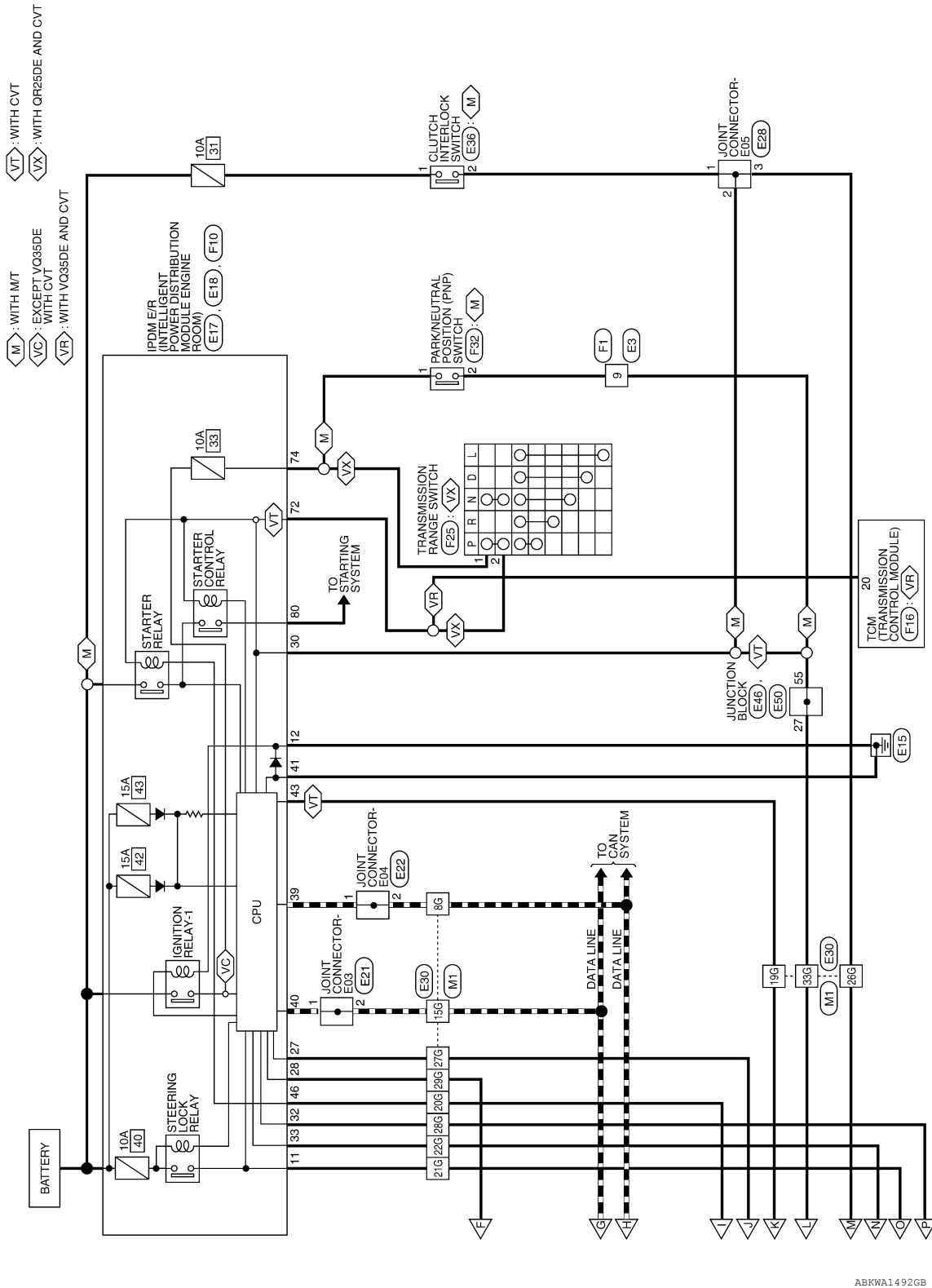
NVIS

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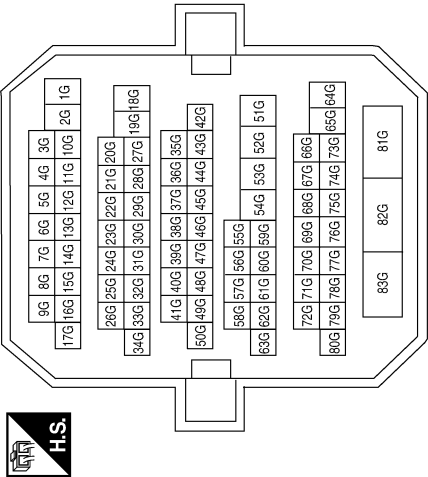




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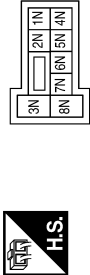
NVIS CONNECTORS

Connector No.	M1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



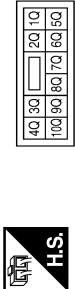
Terminal No.	Color of Wire	Signal Name
8G	P	-
15G	L	-
19G	G/B	-
20G	R	-
21G	P/L	-
22G	G/R	-
26G	R/Y	-
27G	BR/W	-
28G	L/O	-
29G	BR	-
33G	R/G	-
82G	W/B	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1N	W/L	-
4N	G/Y	-
7N	Y/R	-

Connector No.	M4
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE

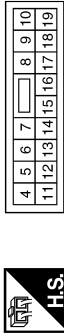


Connector No.	M16
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
3Q	O/L	-
9Q	R/W	-

Connector No.	M17
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
11	Y/R	BAT_BCM_FUSE
13	B	GND1
15	Y/L	ACC_LED

Terminal No.	Color of Wire	Signal Name
77	BR	ENG_START_SW
78	P	CAN-L
79	L	CAN-H
80	R/L	FOB_SLOT_ILLUMINATION
81	LG	IGN_ON_LED
84	Y/R	AT_DEVICE_OUT
85	L/O	S/L_CONDITION_1
86	G/R	S/L_CONDITION_2
87	G/B	SHIFT_P
94	G/Y	S/L_POWER_SUPPLY_12V
99	L/Y	S/L_K-LINE

Connector No.	M19
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



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

Terminal No.	Color of Wire	Signal Name
68	G/O	FOB_READER_CLOCK
69	O	FOB_READER_DATA

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GREEN



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	0

Terminal No.	Color of Wire	Signal Name
22	R/Y	CLUTCH_SW
24	R/W	STOP_LAMP_LOW_SW
26	O/L	STOP_LAMP_HIGH_SW
29	Y	FOB_IN_SW_1
42	R	S/L_LOCK_LED
48	R/G	SHIFT_N/P
49	L/O	IMMO_LED

Connector No.	M23
Connector Name	CVT SHIFT SELECTOR
Connector Color	WHITE



1	3	7	9		
2	4	5	6	8	10

Terminal No.	Color of Wire	Signal Name
8	Y/R	DETENT_KEY_SW
9	G/B	DETENT_KEY_SW

Connector No.	M21
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GRAY

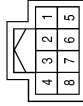


131	130	129	128	127	126	125	124	123	122	121	120	119	118	117	116	115	114	113	112
151	150	149	148	147	146	145	144	143	142	141	140	139	138	137	136	135	134	133	132

Terminal No.	Color of Wire	Signal Name
127	BRW	IGN_USM_CONT1
132	R	ST_CONT_USM

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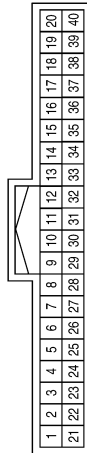
Connector No.	M32
Connector Name	ELECTRONIC STEERING COLUMN LOCK
Connector Color	WHITE



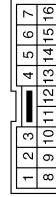
Terminal No.	Color of Wire	Signal Name
1	P/L	S/L_12V_MECHANICAL
2	L/Y	S/L_COM
3	L/O	S/L_CONDITION_1
5	B	GND
6	B	GND
7	G/Y	S/L_12V_CPU (V2)
8	G/R	S/L_CONDITION_2

Terminal No.	Color of Wire	Signal Name
1	W/L	BAT
3	B	GND (POWER)
4	B	GND (ILL)
21	L	CAN-H
22	P	CAN-L
23	B	GND (CIRCUIT)
28	L/O	SECURITY

Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE

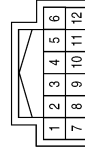


Connector No.	E3
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
9	BR	-

Connector No.	M40
Connector Name	KEY SLOT
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	G/Y	B+
2	G/O	CLOCK
3	O	DATA
5	G/Y	LIGHT_BAT+
6	R/L	LIGHT_A
7	B	GND
11	Y	CARD_SW_1

Connector No.	M38
Connector Name	PUSH-BUTTON IGNITION SWITCH
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	B	GND
4	BR	START_SW
5	R	LOCK
6	Y/L	ACC
7	LG	ON
8	G/Y	B+

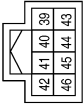
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Connector No.	E6
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



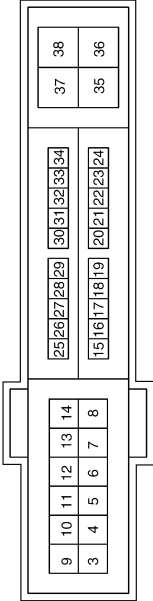
Terminal No.	Color of Wire	Signal Name
2P	LG	– (WITH M/T)
2P	Y	– (WITH CVT)
8P	R	–

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



Terminal No.	Color of Wire	Signal Name
39	P	CAN-L
40	L	CAN-H
41	B	GND (SIGNAL)
43	Y	RANGE SW
46	BR	START_CONT

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



Terminal No.	Color of Wire	Signal Name
11	O	ESCL
12	B	GND (POWER)
27	W	IGN_SIGNAL
28	SB	PUSH_START_SW
30	R	CLUTCH_I/L_SW (WITH M/T)
30	BR	ECM (WITH CVT)
32	P	SL_CONDITION_1
33	G	SL_CONDITION_2

Connector No.	E21
Connector Name	JOINT CONNECTOR-E03
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	L	–
2	L	–

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< WIRING DIAGRAM >

Connector No.	E22
Connector Name	JOINT CONNECTOR-E04
Connector Color	WHITE



4	3	2	1
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Terminal No.	Color of Wire	Signal Name
1	P	-
2	P	-

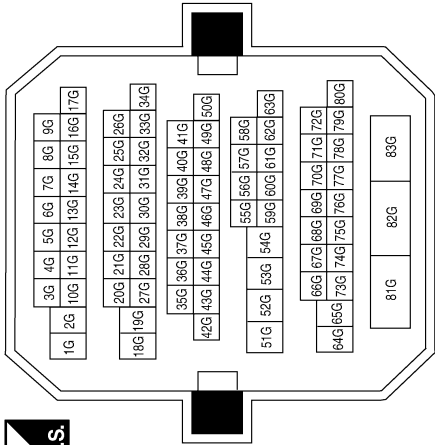
Connector No.	E28
Connector Name	JOINT CONNECTOR-E05
Connector Color	WHITE



4	3	2	1
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Terminal No.	Color of Wire	Signal Name
1	R	-
2	R	-
3	R	-

Connector No.	E30
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
8G	P	-
15G	L	-
19G	Y	-
20G	BR	-
21G	O	-
22G	G	-
26G	R	-
27G	W	-
28G	P	-
29G	SB	-
33G	BR	-
82G	LG	-

Connector No.	E36
Connector Name	CLUTCH INTERLOCK SWITCH
Connector Color	BROWN



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

Connector No.	E46
Connector Name	JUNCTION BLOCK
Connector Color	WHITE

31	30	29	28	27	26	25
40	39	38	37	36	35	34
33	32	31	30	29	28	27



Terminal No.	27
Color of Wire	BR
Signal Name	—

Connector No.	E38
Connector Name	STOP LAMP SWITCH (WITH M/T)
Connector Color	BLACK

2	1
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Terminal No.	1	2
Color of Wire	R	LG
Signal Name	—	—

Connector No.	E38
Connector Name	STOP LAMP SWITCH (WITH CVT)
Connector Color	WHITE

3	4
1	2



Terminal No.	1	2
Color of Wire	R	LG
Signal Name	—	—

Connector No.	E56
Connector Name	JOINT CONNECTOR-E14
Connector Color	WHITE

4	3	2	1
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Terminal No.	3	4
Color of Wire	LG	LG
Signal Name	—	—

Connector No.	E55
Connector Name	JOINT CONNECTOR-E07
Connector Color	WHITE

4	3	2	1
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Terminal No.	1	3	4
Color of Wire	W	R	R
Signal Name	—	—	—

Connector No.	E50
Connector Name	JUNCTION BLOCK
Connector Color	WHITE

56	55
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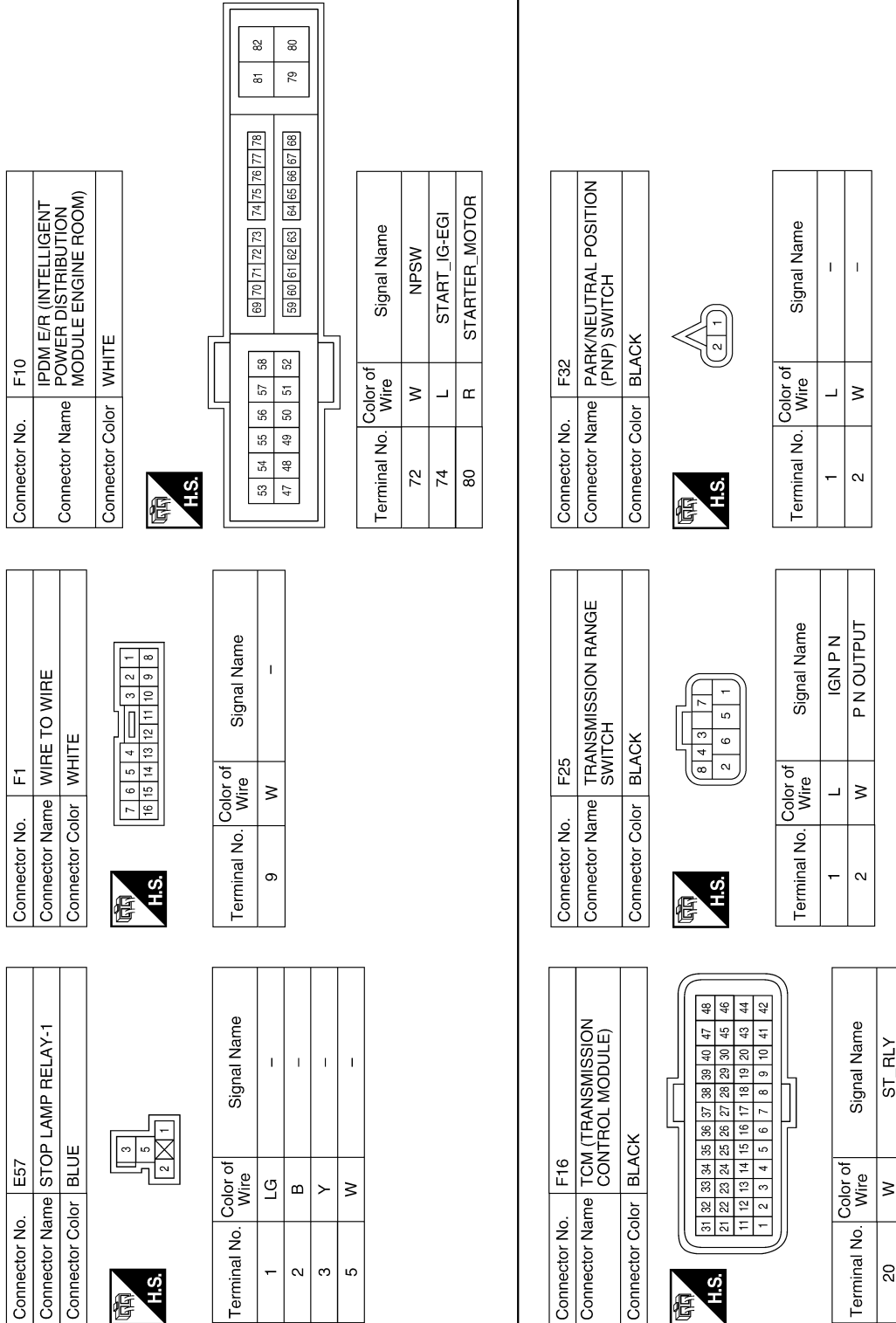


Terminal No.	55
Color of Wire	BR
Signal Name	—

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## SYMPTOM DIAGNOSIS

### INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION SYMPTOMS

#### Symptom Table

INFOID:000000007422715

Engine cannot be started with all Intelligent Keys.

**CAUTION:**

- Follow Trouble Diagnosis Flowchart referring to “[SEC-222. "Work Flow"](#)”. Determine malfunctioning condition before performing this diagnosis.
- Check that vehicle is under the condition shown in “Conditions of vehicle” before starting diagnosis.
- Check systems shown in the “Diagnosis/service procedure” column in this order.

#### CONDITIONS OF VEHICLE (OPERATING CONDITIONS)

- Engine start function is ON when setting on CONSULT.
- Use Intelligent Key with registered Intelligent Key ID.
- One or more of Intelligent Keys with registered Intelligent Key ID is in the passenger compartment.

Diagnosis/service procedure		Reference page
1. Check power supply and ground circuit	BCM	<a href="#">BCS-36</a>
	IPDM E/R	<a href="#">PCS-20</a>
2. Check push button ignition switch		<a href="#">SEC-339</a>
3. Check Intermittent Incident		<a href="#">GI-42</a>

SEC

# VEHICLE SECURITY SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[SEDAN]

## VEHICLE SECURITY SYSTEM SYMPTOMS

### Symptom Table

INFOID:000000007422716

Procedure			Diagnostic procedure	Refer to page
Symptom				
1	Vehicle security system cannot be set by ....	Door switch	Check door switch	<a href="#">DLK-289</a>
		Trunk	Check trunk room lamp switch	<a href="#">DLK-321</a>
		Door outside key	Check key cylinder switch	<a href="#">DLK-306</a>
		Intelligent Key	Check Intelligent Key.	<a href="#">DLK-353</a>
		—	Check Intermittent Incident	<a href="#">GI-42</a>
	Security indicator does not turn ON.		Check vehicle security indicator	<a href="#">SEC-359</a>
			Check Intermittent Incident	<a href="#">GI-42</a>
2	* Vehicle security system does not sound alarm when ....	Any door is opened.	Check door switch	<a href="#">DLK-289</a>
			Check Intermittent Incident	<a href="#">GI-42</a>
3	Vehicle security alarm does not activate.	Horn alarm	Check horn	<a href="#">SEC-355</a>
			Check Intermittent Incident	<a href="#">GI-42</a>
		Head lamp alarm	Check head lamp alarm	<a href="#">SEC-357</a>
			Check Intermittent Incident	<a href="#">GI-42</a>
4	Vehicle security system cannot be canceled by ....	Door outside key	Check key cylinder switch	<a href="#">SEC-350</a>
			Check Intermittent Incident	<a href="#">GI-42</a>
		Intelligent Key	Check Intelligent Key	<a href="#">DLK-353</a>
			Check Intermittent Incident	<a href="#">GI-42</a>

\*: Check that the system is in the armed phase.

# NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS SYMPTOMS

< SYMPTOM DIAGNOSIS >

[SEDAN]

## NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS SYMPTOMS

### Symptom Table

INFOID:000000007422717

Security indicator does not turn ON or flash.

#### CAUTION:

- Follow Trouble Diagnosis Flowchart referring to "[SEC-222, "Work Flow"](#)". Determine malfunctioning condition before performing this diagnosis.
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis.
- Check systems shown in the "Action" column in this order.

#### CONDITIONS OF VEHICLE (OPERATING CONDITIONS)

- Intelligent Key is not inserted into key slot.
- Engine switch is not depressed.

Action	Reference page
1. Check vehicle security indicator	<a href="#">SEC-359</a>
2. Check Intermittent Incident	<a href="#">GI-42</a>

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## PRECAUTION

### PRECAUTIONS

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

INFOID:000000007422718

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

#### **WARNING:**

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

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

#### **WARNING:**

- When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

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

INFOID:000000007422719

#### **NOTE:**

- Before removing and installing any control units, first turn the push-button ignition switch to the LOCK position, 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.

This vehicle is equipped with a push-button ignition switch and a 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 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. Carry the Intelligent Key or insert it to the key slot and turn the push-button ignition switch to ACC position. (At this time, the steering lock will be released.)
3. Disconnect both battery cables. The steering lock will remain released with both battery cables disconnected and the steering wheel can be turned.
4. Perform the necessary repair operation.

# PRECAUTIONS

< PRECAUTION >

[SEDAN]

5. When the repair work is completed, re-connect both battery cables. With the brake pedal released, turn the push-button ignition switch from ACC position to ON position, then to LOCK position. (The steering wheel will lock when the push-button ignition switch is turned to LOCK position.)
6. Perform self-diagnosis check of all control units using CONSULT.

## Precaution for Work

INFOID:000000007422720

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

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# PREPARATION

< PREPARATION >

[SEDAN]

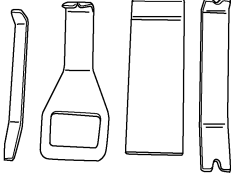
## PREPARATION

### PREPARATION

#### Special Service Tools

INFOID:000000007422721

The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

Tool number (Kent-Moore No.) Tool name	Description
<p>— (J-46534) Trim Tool Set</p>  <p>AWJIA0483ZZ</p>	Removing trim components

## REMOVAL AND INSTALLATION

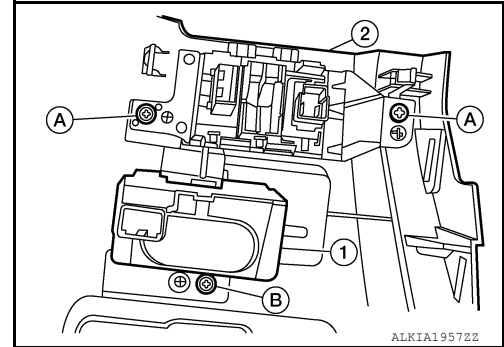
### KEY SLOT

#### Removal and Installation

INFOID:000000007422722

#### REMOVAL

1. Remove the instrument lower panel LH. Refer to [IP-18, "Removal and Installation"](#).
2. Remove the switch assembly screws (A), remove the key slot screw (B), and then remove key slot (1) from instrument lower panel LH (2).



#### INSTALLATION

Installation is in the reverse order of removal.

# PUSH BUTTON IGNITION SWITCH

< REMOVAL AND INSTALLATION >

[SEDAN]


## PUSH BUTTON IGNITION SWITCH

### Removal and Installation

INFOID:000000007422723

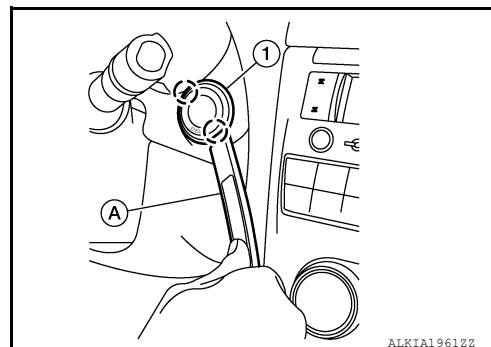
#### REMOVAL

1. Remove the push button ignition switch (1) from cluster lid A using suitable tool (A).

-  Pawl

**Tool number : — (J-46534)**

2. Disconnect the electrical harness connector and remove the push button ignition switch.



#### INSTALLATION

Installation is in the reverse order of removal.