

SECTION **SEC**

SECURITY CONTROL SYSTEM

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DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[COUPE]

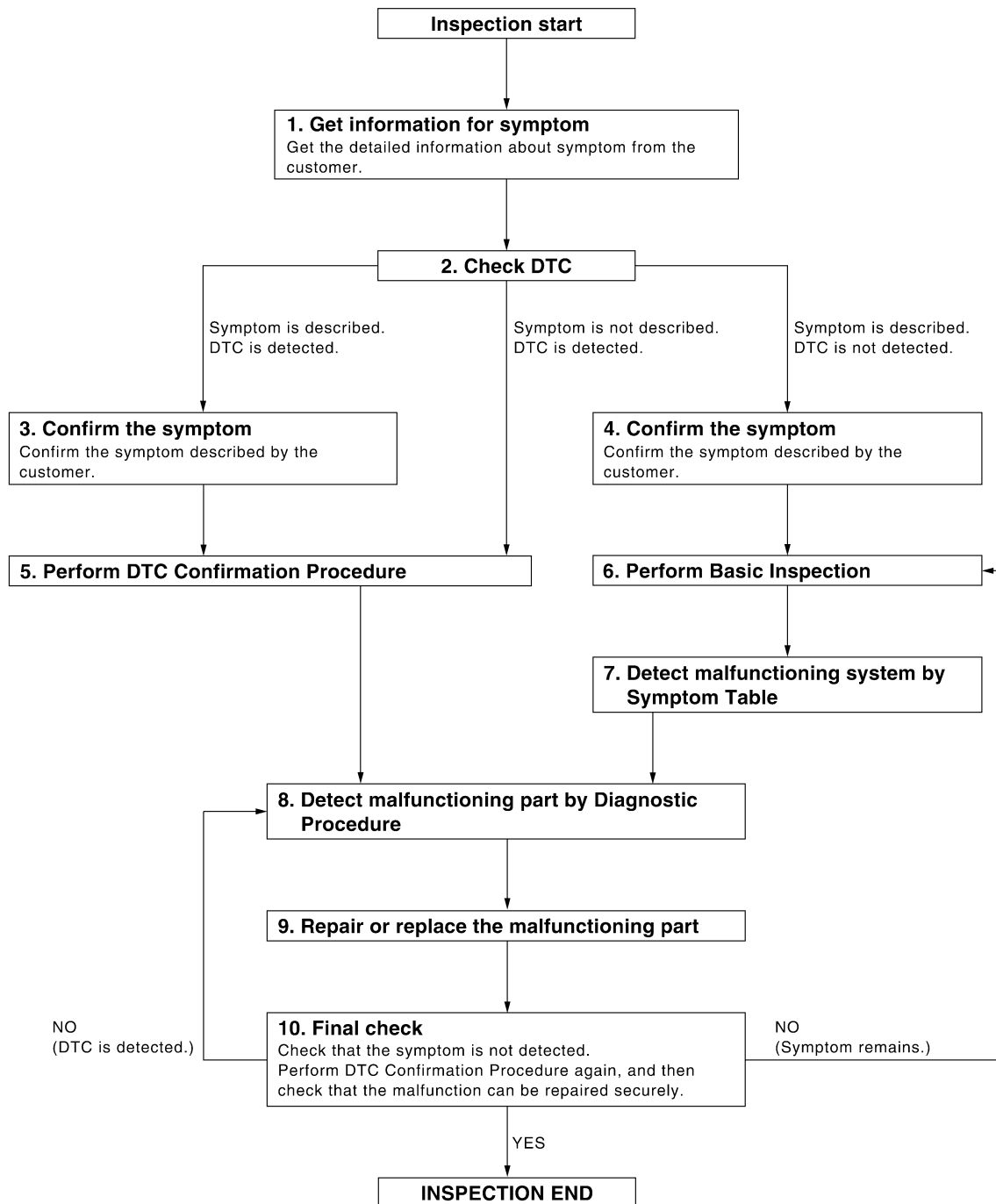
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000006389409

OVERALL SEQUENCE



ALKIA0246GB

DETAILED FLOW

Revision: June 2012

SEC-8

2011 Altima GCC

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[COUPE]

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

< BASIC INSPECTION >

[COUPE]

PRE-INSPECTION FOR DIAGNOSTIC

Pre-Inspection for Multi-System Diagnostic

INFOID:000000006928497

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-186. "Symptom Table"](#) (coupe) or [DLK-420. "Symptom Table"](#) (sedan).

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"](#) (coupe) or [SEC-437. "Symptom Table"](#) (sedan).

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-64. "Component Function Check"](#) (coupe) or [DLK-286. "Component Function Check"](#) (sedan).

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"](#) (coupe) or [SEC-225. "Vehicle Security Operation Check"](#) (sedan).

Are the inspection results normal?

YES >> Inspection End.

NO >> Repair vehicle security system as necessary.

Vehicle Security Operation Check

INFOID:000000006389411

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.

PRE-INSPECTION FOR DIAGNOSTIC

[COUPE]

< BASIC INSPECTION >

2. Check that security indicator lamp illuminates for 30 seconds.

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:000000006389412

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 Operation Manual.
- 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:000000006389413

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 Operation Manual.

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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

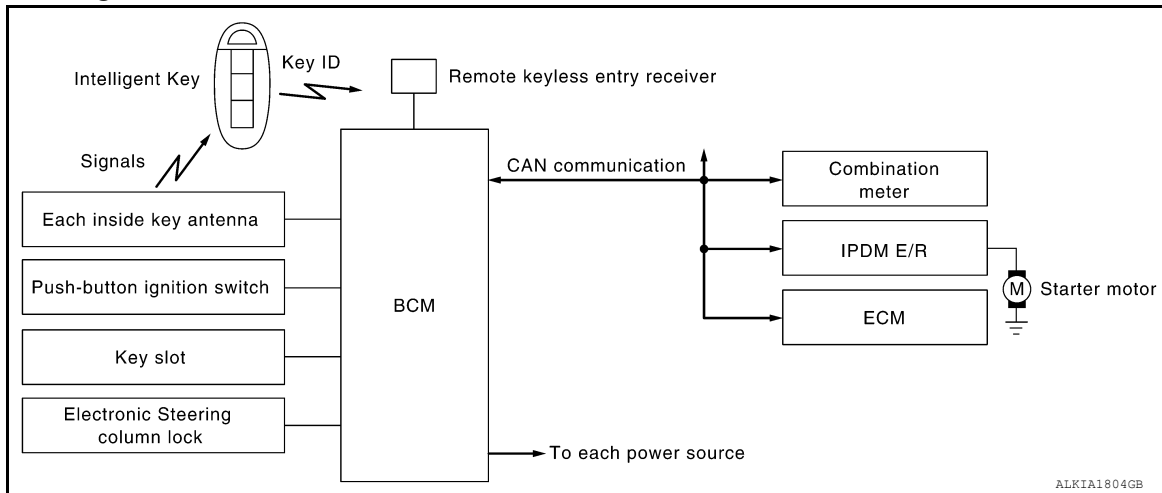
< SYSTEM DESCRIPTION >

[COUPE]

SYSTEM DESCRIPTION

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

System Diagram



System Description

INFOID:000000006389415

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"> Steering lock relay Electronic steering column lock Starter relay (IPDM E/R) Starter control relay (IPDM E/R) Starter motor KEY warning lamp |
| 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-14, "System Description"](#).

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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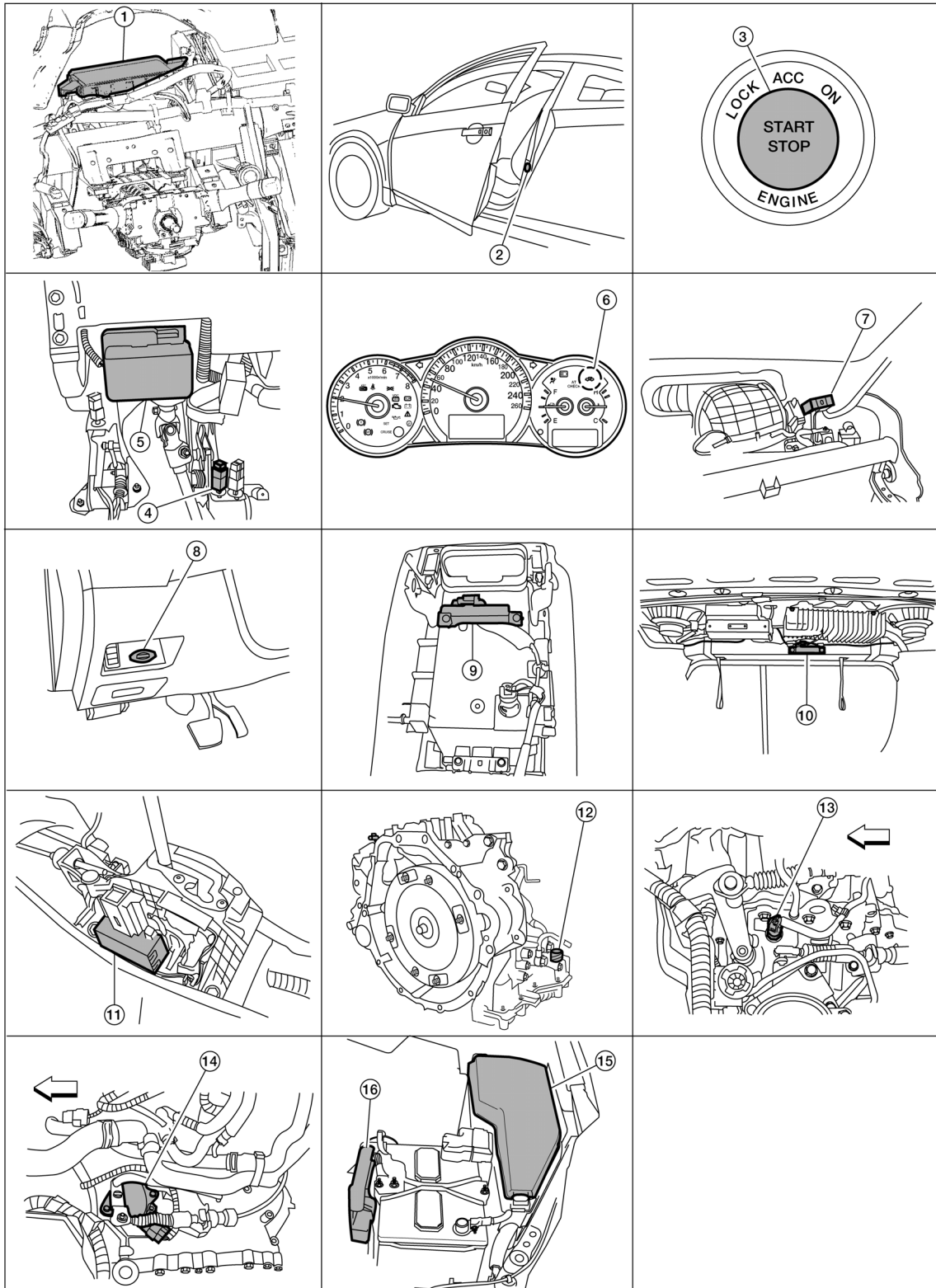
INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< SYSTEM DESCRIPTION >

[COUPE]

Component Parts Location

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AWK1A16342Z

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

[COUPE]

< SYSTEM DESCRIPTION >

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

Component Description

INFOID:000000006389417

| Component | Reference |
|---|-------------------------|
| BCM | SEC-117 |
| Electronic steering column lock | SEC-106 |
| Push-button ignition switch | SEC-118 |
| Door switch | DLK-64 |
| CVT shift selector (park position switch) | SEC-82 |
| Inside key antenna | DLK-57 |
| Remote keyless entry receiver | DLK-114 |
| Stop lamp switch | SEC-73 |
| Transmission range switch | SEC-92 |
| Clutch interlock switch | SEC-55 |
| Steering lock relay | SEC-96 |
| Starter relay | SEC-99 |
| Starter control relay | SEC-81 |
| Security indicator | SEC-141 |
| Key warning lamp | SEC-140 |

SEC

NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

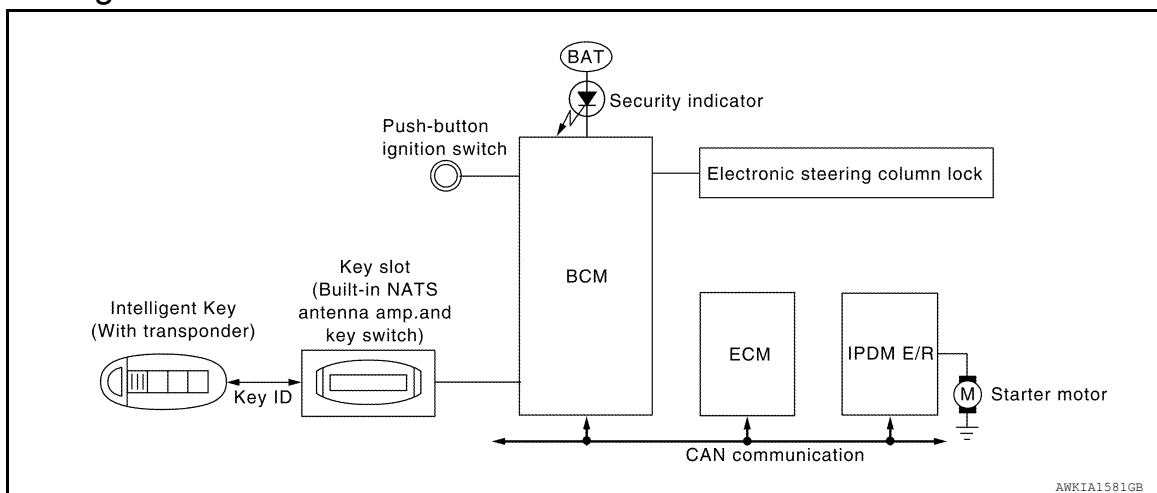
< SYSTEM DESCRIPTION >

[COUPE]

NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

System Diagram

INFOID:000000006389418



System Description

INFOID:000000006389419

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"> Steering lock relay Electronic steering column lock Starter relay (IPDM E/R) Starter control relay (IPDM E/R) Starter motor KEY warning lamp Security indicator lamp |
| 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 Operation Manual.

NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

[COUPE]

< SYSTEM DESCRIPTION >

- 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"](#). A
- 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"](#). B

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 C
- When registering the Intelligent Key, performs only one procedure to register simultaneously both ID (NVIS “NATS” ID registration and Intelligent Key ID registration). D
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. E

SECURITY INDICATOR

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

NOTE:

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

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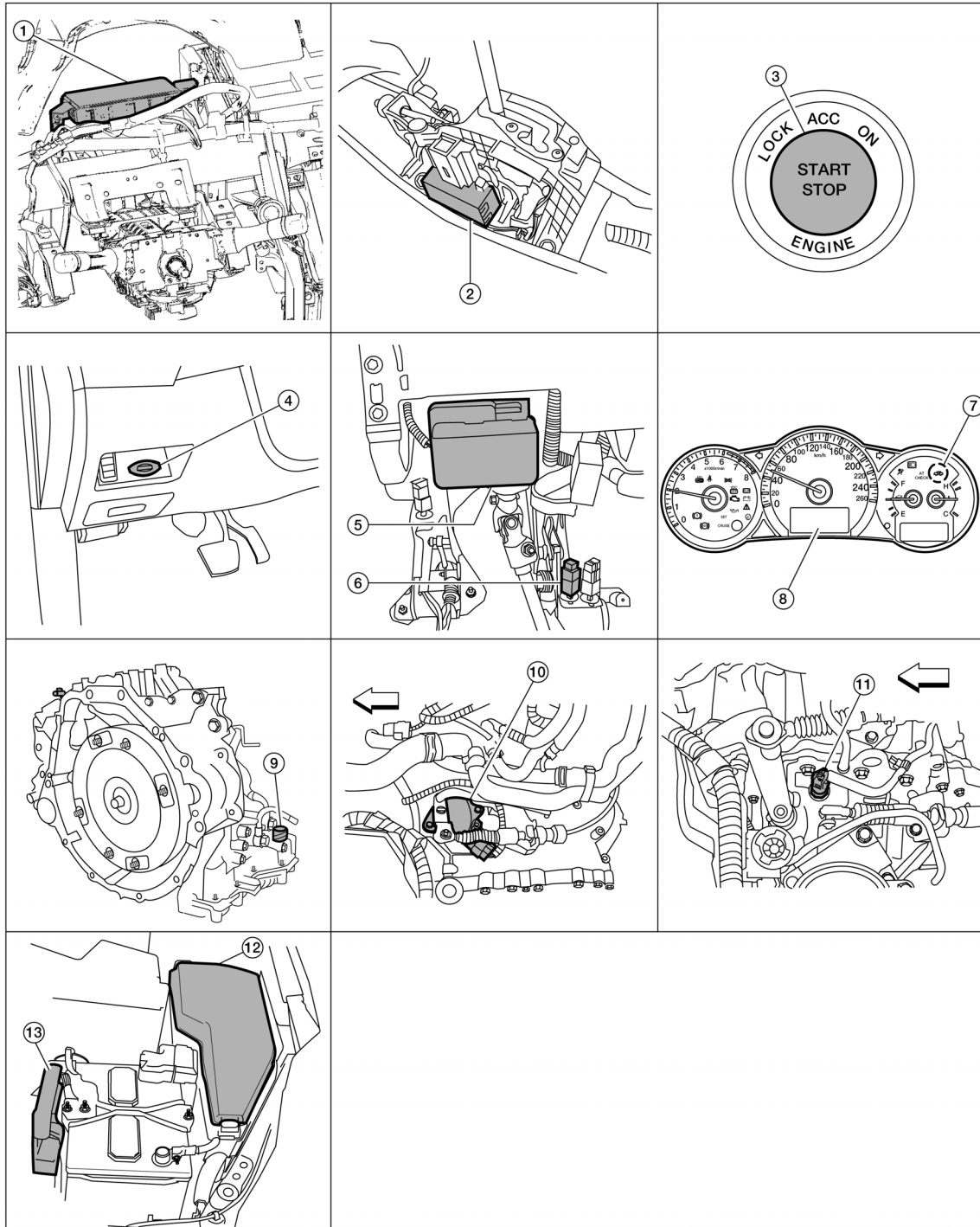
NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

< SYSTEM DESCRIPTION >

[COUPE]

Component Parts Location

INFOID:00000006389420



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- | | | |
|---|---|--|
| 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)

[COUPE]

< SYSTEM DESCRIPTION >

- 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:000000006389421

| Component | Reference |
|---|-------------------------|
| BCM | SEC-117 |
| Electronic steering column lock | SEC-106 |
| Push-button ignition switch | SEC-118 |
| Door switch | DLK-64 |
| CVT shift selector (park position switch) | SEC-82 |
| Inside key antenna | DLK-57 |
| Remote keyless entry receiver | DLK-114 |
| Stop lamp switch | SEC-73 |
| Transmission range switch | SEC-92 |
| Clutch switch | SEC-55 |
| Steering lock relay | SEC-96 |
| Starter relay | SEC-99 |
| Starter control relay | SEC-81 |
| Security indicator | SEC-141 |
| Key warning lamp | SEC-140 |

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VEHICLE SECURITY SYSTEM

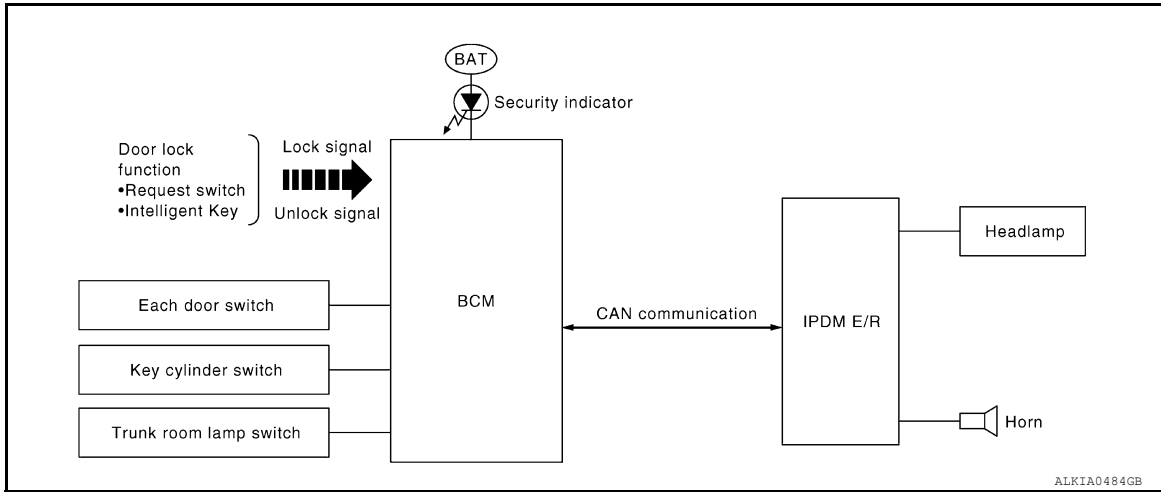
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VEHICLE SECURITY SYSTEM

System Diagram

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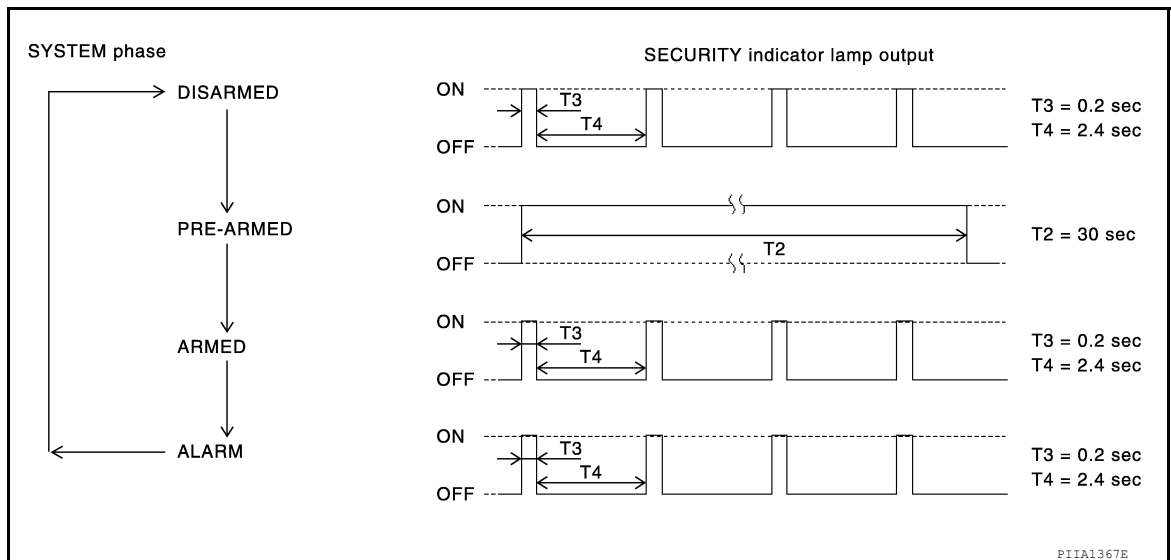
System Description

INFOID:000000006389423

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"> IPDM E/R Headlamp Horn Security indicator lamp |
| 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 | | |

OPERATION FLOW



SETTING THE VEHICLE SECURITY SYSTEM

Initial Condition

- Ignition switch is in OFF position.

Disarmed Phase

VEHICLE SECURITY SYSTEM

[COUPE]

< SYSTEM DESCRIPTION >

- 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. A
- When the vehicle security system is in the disarmed phase, the security indicator lamp blinks every 2.4 seconds. B

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. C
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. D

CANCELING THE SET VEHICLE SECURITY SYSTEM

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

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

CANCELING THE ALARM OPERATION OF THE VEHICLE SECURITY SYSTEM

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

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. H

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

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. J

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. SEC

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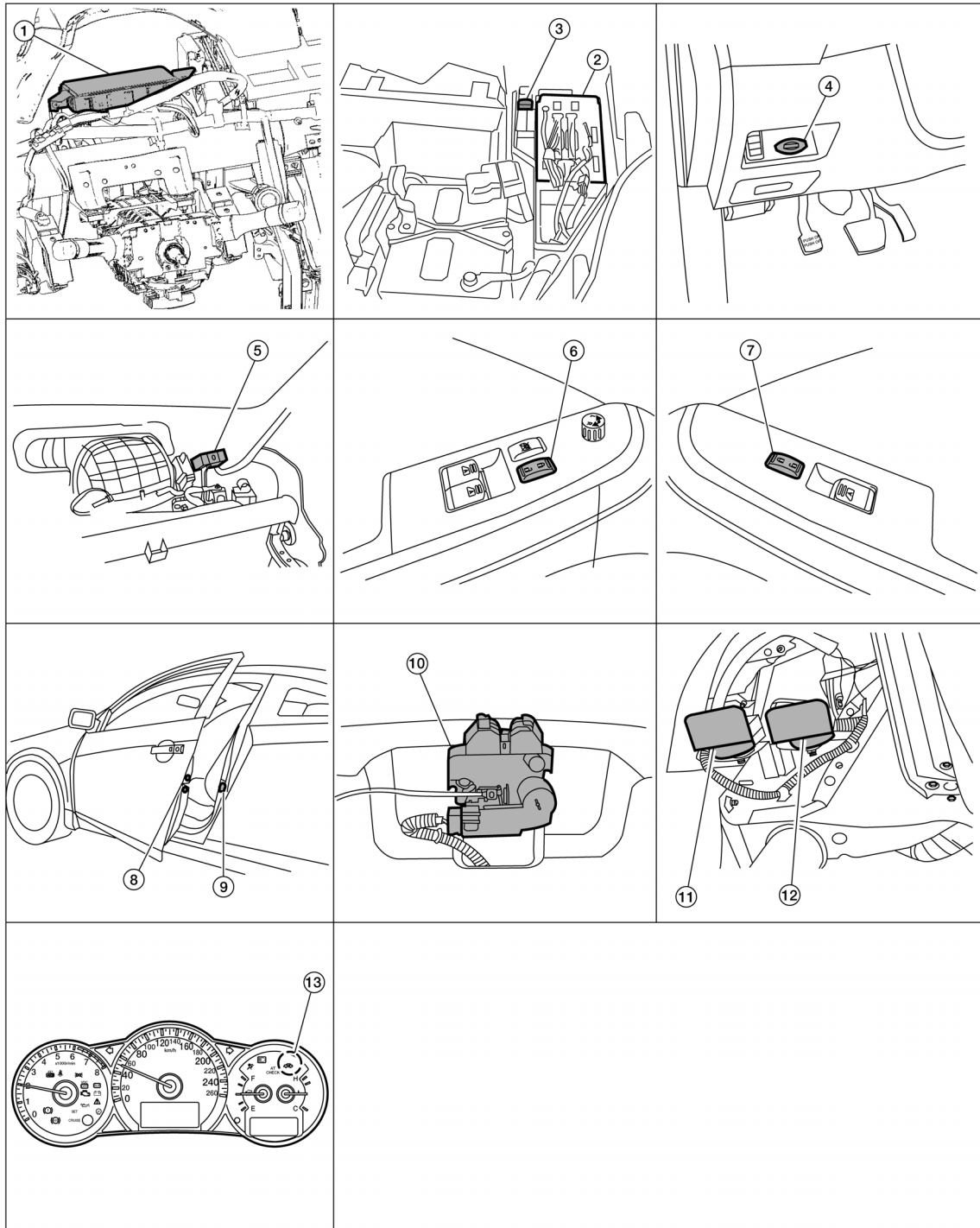
VEHICLE SECURITY SYSTEM

[COUPE]

< SYSTEM DESCRIPTION >

Component Parts Location

INFOID:000000006389424



AWK1A16352Z

- | | | |
|---|---|---|
| 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:000000006389425

| Component | Reference |
|-----------------------------|-------------------------|
| BCM | SEC-24 |
| Horn relay | SEC-137 |
| Security indicator | SEC-141 |
| Door switch | DLK-64 |
| Door lock actuator | DLK-101 |
| Trunk lid lock assembly | DLK-104 |
| Door key cylinder switch | DLK-75 |
| Door lock and unlock switch | DLK-67 |

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DIAGNOSIS SYSTEM (BCM)

[COUPE]

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM : Diagnosis Description

INFOID:000000006949978

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:000000006949979

ECU IDENTIFICATION

Displays the BCM part No.

SELF-DIAG RESULT

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

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[COUPE]

INTELLIGENT KEY

INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)

INFOID:000000006949975

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"> • MODE1: 1 minute • MODE2: 5 minutes • MODE3: 30 seconds • MODE4: 2 minutes |
| 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"> • MODE1: 0.5 sec. • MODE2: Non-operation • MODE3: 1.5 sec. |
| 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"> • MODE1: 3 sec. • MODE2: Non-operation • MODE3: 5 sec. |
| 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"> • MODE1: 0.5 sec. • MODE2: 1.5 sec. • MODE3: OFF: No delay |
| 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"> • LOCK ONLY: Door lock operation only • UNLOCK ONLY: Door unlock operation only • LOCK/UNLOCK: Lock/unlock operation • OFF: Non-operation |
| 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"> • Horn chirp: Sound horn • Buzzer: Sound Intelligent Key warning buzzer • OFF: Non-operation |
| 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 [BCS-67, "DTC Index"](#).

DIAGNOSIS SYSTEM (BCM)

[COUPE]

< 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. |
| 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"> • Take away warning chime sounds when "TAKE OUT" on CONSULT screen is touched. • Key warning chime sounds when "KEY" on CONSULT screen is touched. • OFF position warning chime sounds when "KNOB" on CONSULT screen is touched. |
| INDICATOR | This test is able to check warning lamp operation. <ul style="list-style-type: none"> • "KEY" Warning lamp illuminates when "KEY ON" on CONSULT screen is touched. • "KEY" Warning lamp blinks when "KEY IND" on CONSULT screen is touched. |
| 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"> • Engine start information displays when "BP N" on CONSULT screen is touched. • Engine start information displays when "BP I" on CONSULT screen is touched. • Key ID warning displays when "ID NG" on CONSULT screen is touched. • P position warning displays when "SFT P" on CONSULT screen is touched. • Intelligent Key insert information displays when "INSRT" on CONSULT screen is touched. • Intelligent Key low battery warning displays when "BATT" on CONSULT screen is touched. • Take away through window warning displays when "NO KY" on CONSULT screen is touched. • Take away warning display when "OUTKEY" on CONSULT screen is touched. • OFF position warning display when "LK WN" on CONSULT screen is touched. |
| 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:000000006928503

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:000000006928504

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. | A |
| CONFIRM ID4 | | B |
| CONFIRM ID3 | | |
| CONFIRM ID2 | | |
| CONFIRM ID1 | | |
| TP 4 | Indicates the number of ID which has been registered. | C |
| TP 3 | | D |
| TP 2 | | |
| TP 1 | | |
| PUSH SW | Indicates [ON/OFF] condition of push-button ignition switch. | E |
| 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]. | F |

SEC

U1000 CAN COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description

INFOID:000000006389431

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

DTC Logic

INFOID:000000006389432

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">• Transmission• Receiving (ECM)• Receiving (VDC/TCS/ABS)• Receiving (METER/M&A)• Receiving (TCM)• Receiving (IPDM E/R) |

Diagnosis Procedure

INFOID:000000006389433

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:000000006389434

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:000000006389435

1. REPLACE BCM

When DTC U1010 is detected, replace BCM.

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

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SEC

B2013 ID DISCORD, IMMU-STRG

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

B2013 ID DISCORD, IMMU-STRG

Description

INFOID:000000006389436

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:000000006389437

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">Electronic steering column lock |

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:000000006389438

1. PERFORM INITIALIZATION

Perform initialization with CONSULT. Re-register all Intelligent Keys.
For initialization and registration of Intelligent Key. Refer to "CONSULT Operation Manual".

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:000000006389439

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:000000006389440

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"> • Harness or connectors (electronic steering column lock circuit is open or shorted) • Electronic steering column lock • BCM |

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.

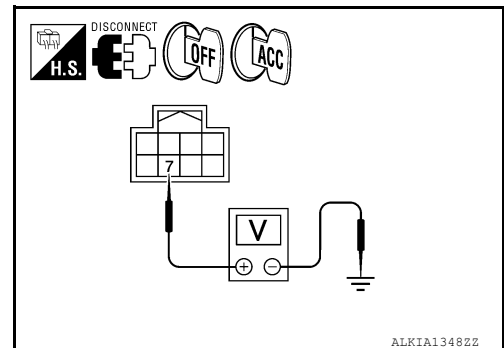
Diagnosis Procedure

INFOID:000000006389441

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?

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SEC

B2014 CHAIN OF STRG-IMMU

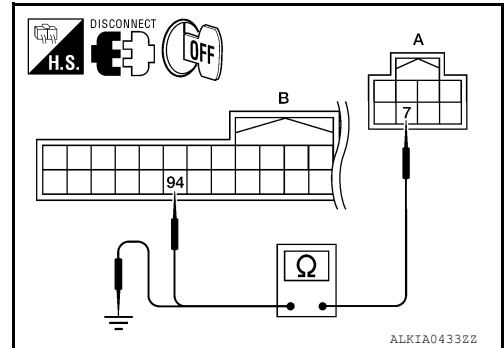
[COUPE]

< 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.

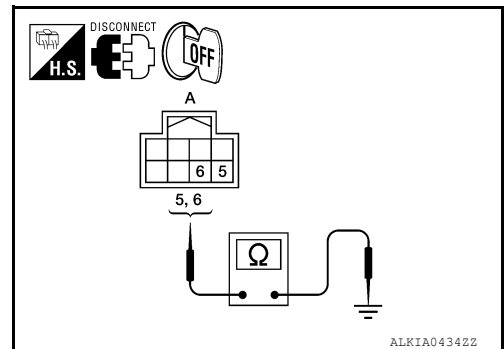
| Electronic steering column lock | | Ground | Continuity |
|---------------------------------|----------|--------|------------|
| Connector | Terminal | | |
| A: M32 | 7 | Ground | No |

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.



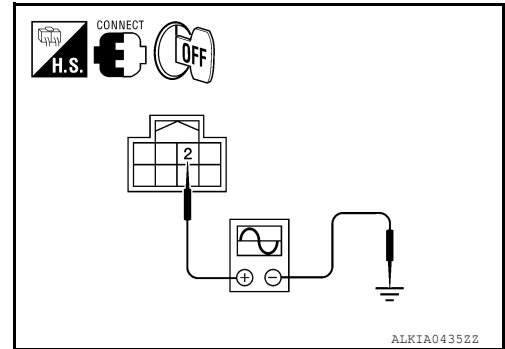
| Electronic steering column lock | | Ground | Continuity |
|---------------------------------|----------|--------|------------|
| Connector | Terminal | | |
| M32 | 5 | Ground | Yes |
| | 6 | | |

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 | <p>(V) 15 10 5 0 50 ms</p> <p>JMKIA0066GB</p> |
| | | | For 15 seconds after unlock | Battery voltage |
| | | | 15 seconds or later after unlock. | 0 V |

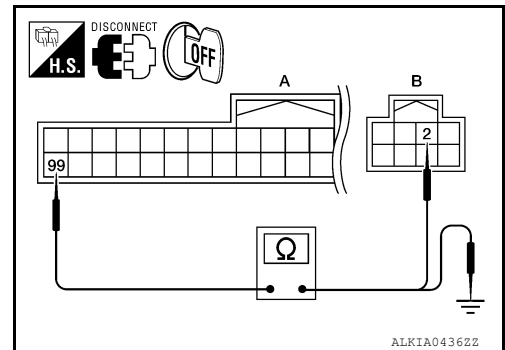
Steering is locked : Opening the door when ignition switch is ON to OFF.
Steering is unlocked : Ignition switch is OFF to ACC.

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:000000006389442

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:000000006389443

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">• IPDM E/R |

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:000000006389444

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:000000006389445

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:000000006389446

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">• Harness or connector (power supply circuit)• IPDM E/R• Battery |

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:000000006389447

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:000000006389448

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:000000006389449

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">• Steering lock or unlock• Feedback of steering lock status from IPDM E/R (CAN) | <ul style="list-style-type: none">• Harness or connectors [Electronic steering column lock circuit (BCM side) is open or shorted]• Harness or connectors [Electronic steering column lock circuit (IPDM E/R side) is open or shorted.]• Electronic steering column lock• IPDM E/R |

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:000000006389450

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

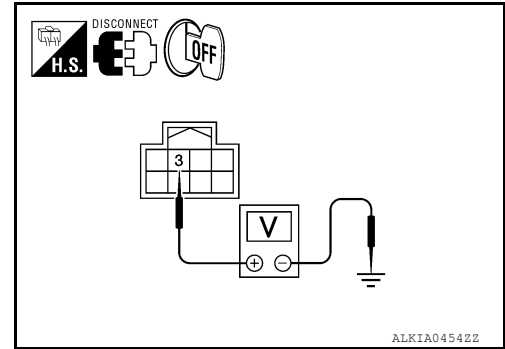
1. Turn ignition switch OFF.
2. Disconnect electronic steering column lock harness connector and IPDM E/R harness connector.

B210A STEERING LOCK CONDITION SWITCH

[COUPE]

< DTC/CIRCUIT DIAGNOSIS >

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



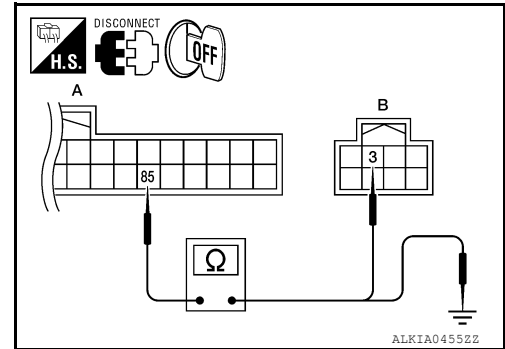
| Electronic steering column lock | | Ground | Voltage [V] |
|---------------------------------|----------|--------|-----------------|
| Connector | Terminal | | |
| M32 | 3 | Ground | Battery voltage |

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

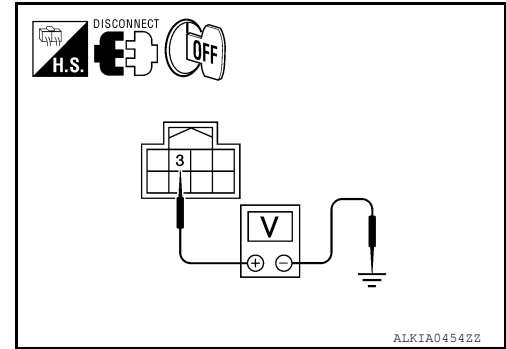
- Connect IPDM E/R harness connector.
- Disconnect BCM harness connector.

B210A STEERING LOCK CONDITION SWITCH

[COUPE]

< DTC/CIRCUIT DIAGNOSIS >

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



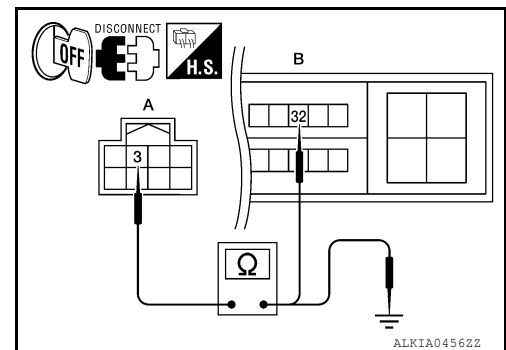
| Electronic steering column lock | | Ground | Voltage [V] |
|---------------------------------|----------|--------|-----------------|
| Connector | Terminal | | |
| M32 | 3 | Ground | Battery voltage |

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 E5.

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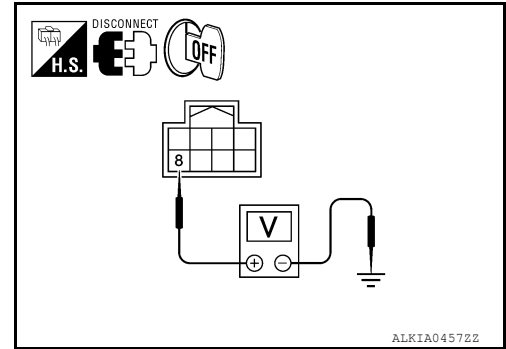
SEC

B210A STEERING LOCK CONDITION SWITCH

[COUPE]

< DTC/CIRCUIT DIAGNOSIS >

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



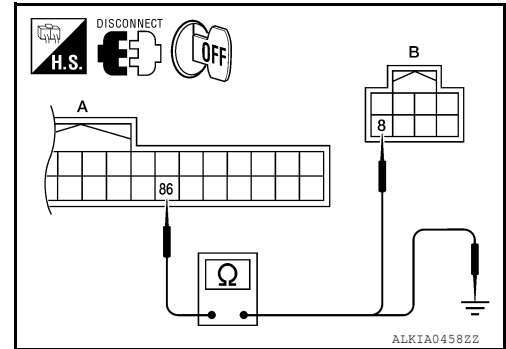
| Electronic steering column lock | | Ground | Voltage [V] |
|---------------------------------|----------|--------|-----------------|
| Connector | Terminal | | |
| M32 | 8 | Ground | Battery voltage |

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

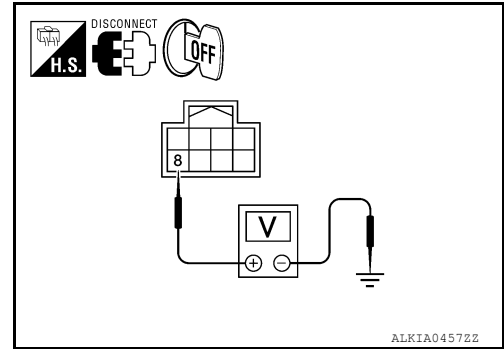
- Connect IPDM E/R harness connector.
- Disconnect BCM harness connector.

B210A STEERING LOCK CONDITION SWITCH

[COUPE]

< DTC/CIRCUIT DIAGNOSIS >

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



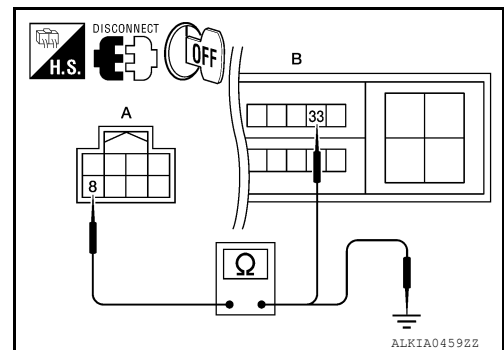
| Electronic steering column lock | | Ground | Voltage [V] |
|---------------------------------|----------|--------|-----------------|
| Connector | Terminal | | |
| M32 | 8 | Ground | Battery voltage |

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.

B210B STARTER CONTROL RELAY

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

B210B STARTER CONTROL RELAY

Description

INFOID:000000006389451

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:000000006389452

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">• Starter control relay ON/OFF signal from BCM• Clutch interlock or transmission range switch input signal | <ul style="list-style-type: none">• IPDM E/R |

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:000000006389453

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

[COUPE]

< DTC/CIRCUIT DIAGNOSIS >

B210C STARTER CONTROL RELAY

Description

INFOID:000000006389454

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:000000006389455

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">• Starter control relay ON/OFF signal from BCM• Clutch interlock or shift transmission range switch input signal | <ul style="list-style-type: none">• IPDM E/R |

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:000000006389456

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:000000006389457

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:000000006389458

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">• Starter control relay ON/OFF signal from BCM• Clutch interlock or shift transmission range switch input | <ul style="list-style-type: none">• IPDM E/R |

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.

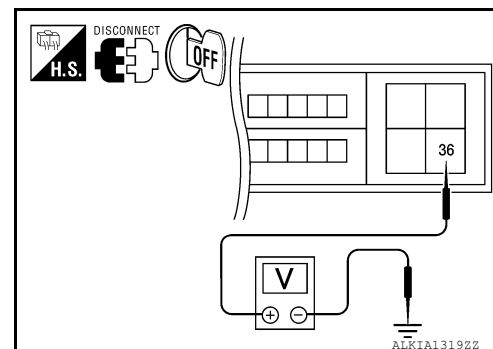
Diagnosis Procedure

INFOID:000000006389459

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.

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B210E STARTER RELAY

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

B210E STARTER RELAY

Description

INFOID:000000006389460

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:000000006389461

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">• Starter control relay ON/OFF signal from BCM• Clutch interlock or shift transmission range switch input | <ul style="list-style-type: none">• 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 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:000000006389462

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

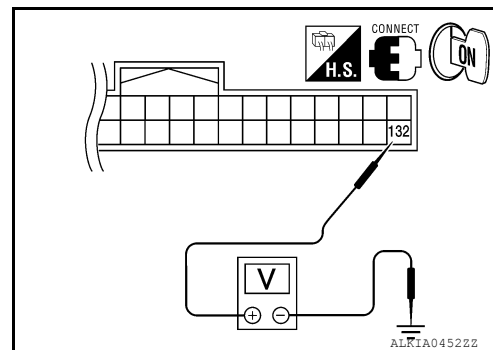
1. Turn ignition switch OFF.
2. Disconnect BCM harness connector.

B210E STARTER RELAY

[COUPE]

< DTC/CIRCUIT DIAGNOSIS >

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 |

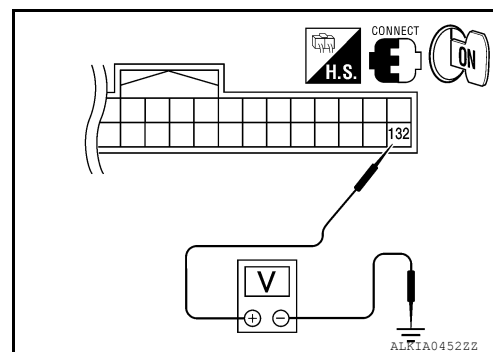
Is the inspection result normal?

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

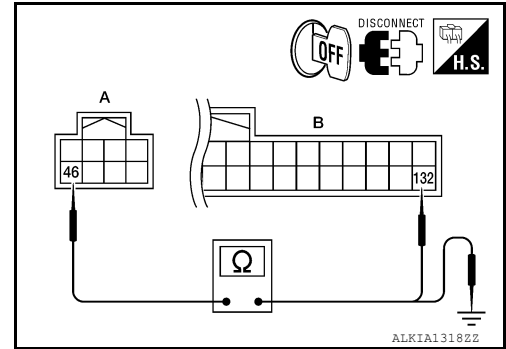
1. Disconnect IPDM E/R harness connector.

B210E STARTER RELAY

[COUPE]

< DTC/CIRCUIT DIAGNOSIS >

- 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.

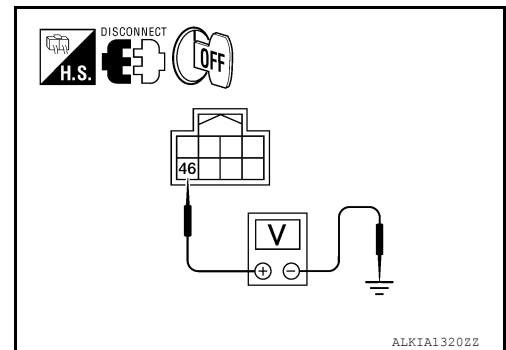
| IPDM E/R | | Ground | Continuity |
|-----------|----------|--------|------------|
| Connector | Terminal | | |
| A: E17 | 46 | Ground | No |

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 >

[COUPE]

B210F TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

Description

INFOID:000000006389463

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:000000006389464

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">• Clutch interlock input signal (M/T models)• Shift transmission range switch input signal (CVT models)• Shift position signal from BCM (CAN) | <ul style="list-style-type: none">• Harness or connectors [Transmission range switch circuit is open or shorted (CVT models)] or (Clutch interlock switch circuit is open or shorted.)• Clutch interlock switch (M/T models)• Transmission range switch (CVT models) |

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:000000006389465

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.

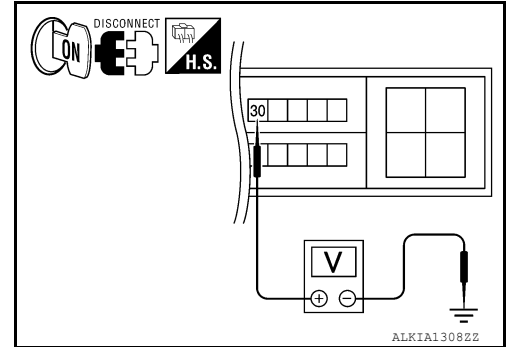
3. CHECK TRANSMISSION RANGE SWITCH INPUT SIGNAL

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 | 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)

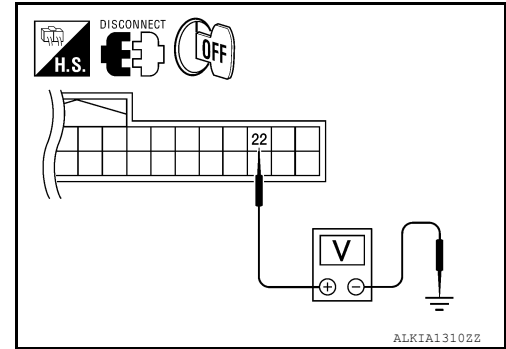
1. Turn ignition switch OFF.
2. Disconnect BCM harness connector.

B210F TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

[COUPE]

< DTC/CIRCUIT DIAGNOSIS >

3. 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 |

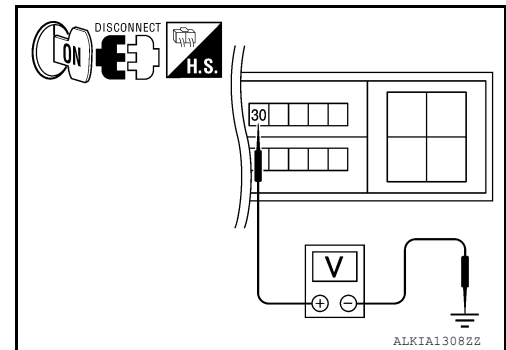
Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 7.

6. CHECK CLUTCH INTERLOCK SWITCH INPUT SIGNAL

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 |
| | | | 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

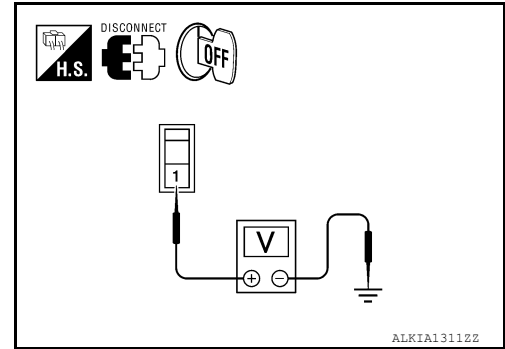
1. Disconnect clutch interlock switch harness connector.

B210F TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

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



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

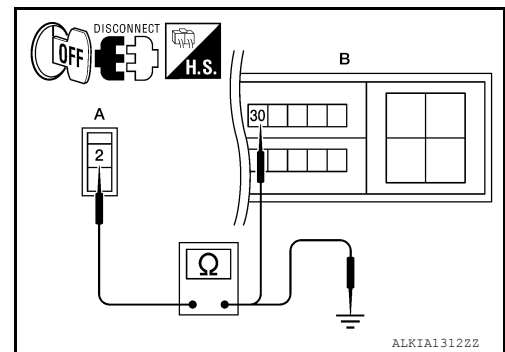
Is the inspection result normal?

YES >> GO TO 8.

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

8. CHECK CLUTCH INTERLOCK SWITCH CIRCUIT

- 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 |

- 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]

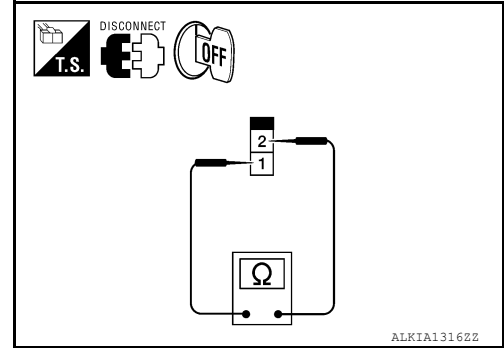
>> Inspection End.

Component Inspection

INFOID:000000006389466

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 |
| | | Clutch pedal Depressed | Yes |

Is the inspection result normal?

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

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SEC

B2110 TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

B2110 TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

Description

INFOID:000000006389467

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:000000006389468

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">• Clutch interlock input signal (M/T models)• Shift transmission range switch input signal (CVT models) | <ul style="list-style-type: none">• Harness or connectors [Transmission range switch circuit is open or shorted (CVT models)] or (Clutch interlock switch circuit is open or shorted.)• Clutch inter lock switch (M/T models)• Transmission range switch (CVT models) |

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:000000006389469

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.

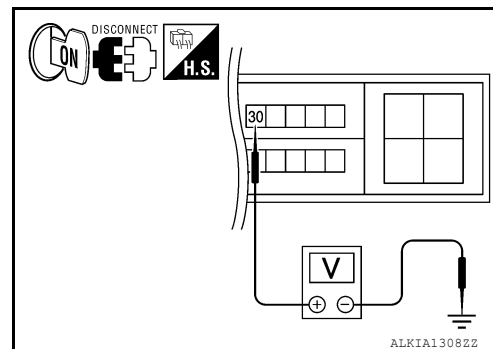
3.CHECK TRANSMISSION RANGE SWITCH INPUT SIGNAL

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)

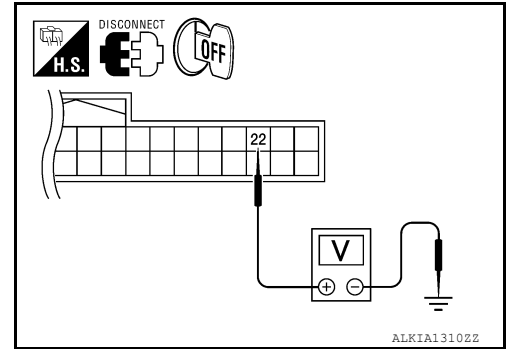
1. Turn ignition switch OFF.
2. Disconnect BCM harness connector.

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 |
| | | | Clutch pedal Depressed | Battery voltage |

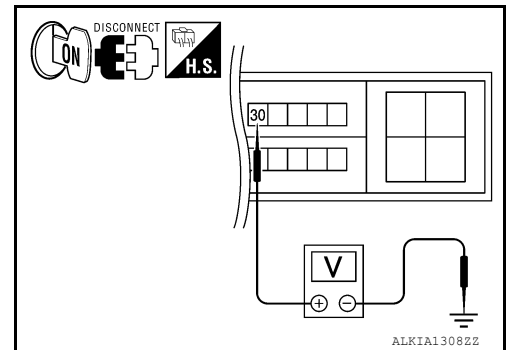
Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 7.

6. CHECK CLUTCH INTERLOCK SWITCH INPUT SIGNAL

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 |
| | | | 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

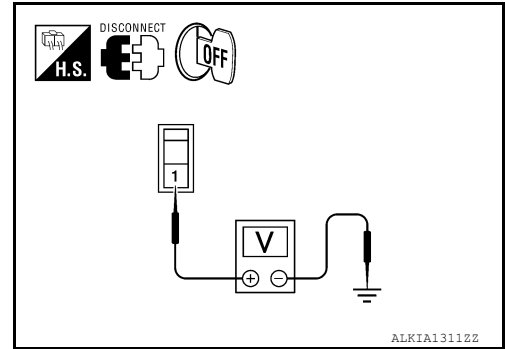
1. Disconnect clutch interlock switch harness connector.

B2110 TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

[COUPE]

< DTC/CIRCUIT DIAGNOSIS >

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



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

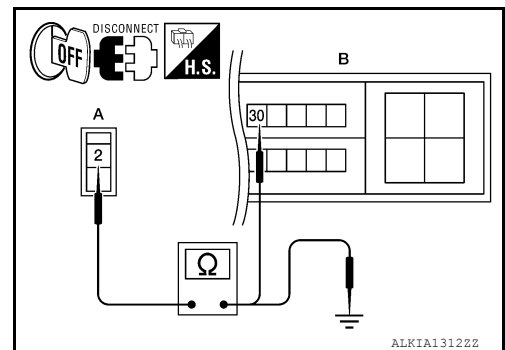
Is the inspection result normal?

YES >> GO TO 8.

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

8.CHECK CLUTCH INTERLOCK SWITCH CIRCUIT

- 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 |

- 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]

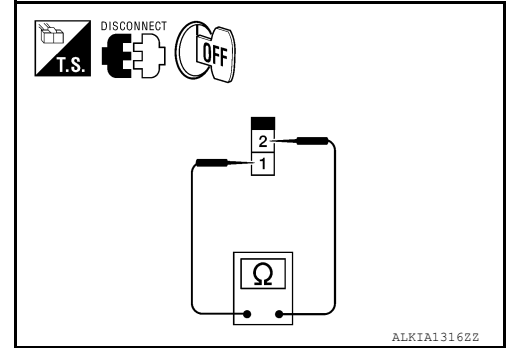
>> Inspection End.

Component Inspection

INFOID:000000006389470

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 |
| | | Clutch pedal 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:000000006389471

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:000000006389472

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">• Harness or connectors (The key slot circuit is open or shorted)• Key slot• BCM |
| 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:000000006389473

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

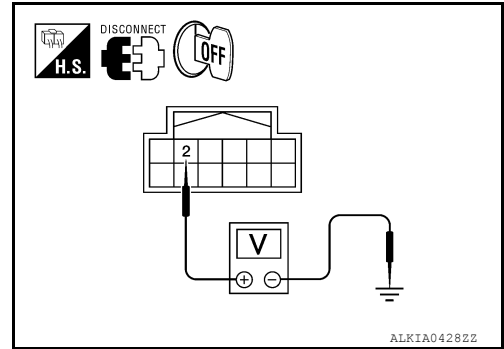
1. Turn ignition switch OFF.
2. Disconnect key slot harness connector.

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 |

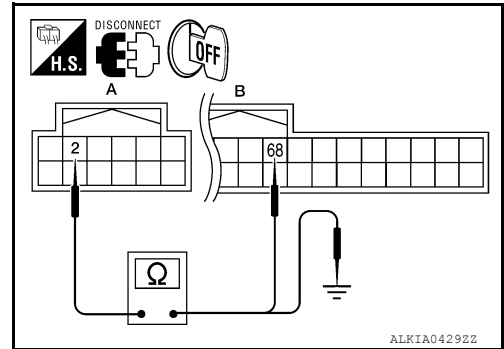
Is the inspection result normal?

YES >> Replace key slot.

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

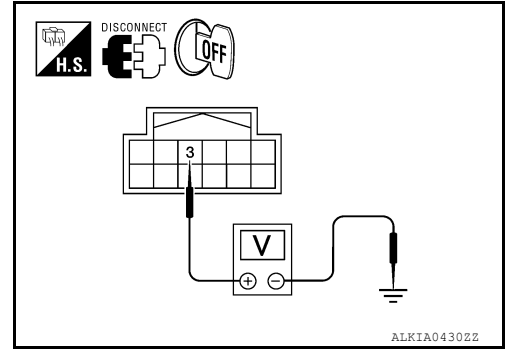
1. Turn ignition switch OFF.

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.



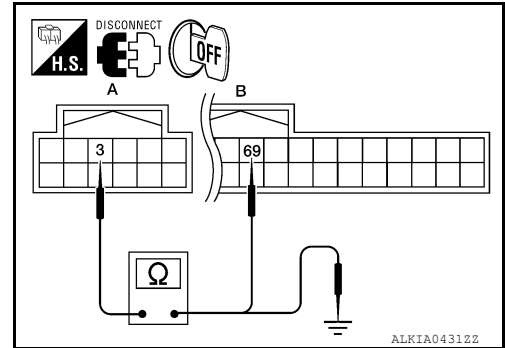
| Key slot | | Ground | Continuity |
|-----------|----------|--------|------------|
| Connector | Terminal | | |
| M40 | 3 | Ground | Yes |

Is the inspection result normal?

- YES >> Replace key slot.
 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

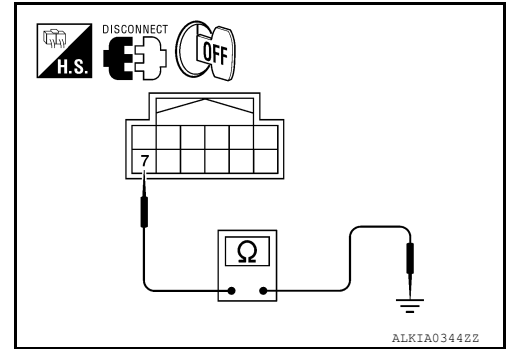
1. Turn ignition switch OFF.
2. Disconnect key slot harness connector.

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:000000006389474

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:000000006389475

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. | <ul style="list-style-type: none"> 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:000000006389476

1.PERFORM INITIALIZATION

Perform initialization with CONSULT. Re-register all Intelligent Keys. For initialization and registration of Intelligent Key. Refer to "CONSULT Operation Manual.

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
 - Perform initialization again

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SEC

B2192, P1611 ID DISCORD, IMMUECM

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

B2192, P1611 ID DISCORD, IMMUECM

Description

INFOID:000000006389477

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:000000006389478

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, IMMUECM | The ID verification results between BCM and ECM are NG. The registration is necessary. | <ul style="list-style-type: none">• BCM• 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-70, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000006389479

1. PERFORM INITIALIZATION

Perform initialization with CONSULT. Re-register all Intelligent Keys.
For initialization and registration of Intelligent Key. Refer to "CONSULT Operation Manual".

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
 - Perform initialization again
 - Replace ECM

B2193, P1612 CHAIN OF ECM-IMMU

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

B2193, P1612 CHAIN OF ECM-IMMU

Description

INFOID:000000006389480

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:000000006389481

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">• Harness or connectors (The CAN communication line is open or shorted)• BCM• ECM |
| 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:000000006389482

1. REPLACE BCM

1. Replace BCM.
2. Perform initialization with CONSULT.
For initialization, refer to "CONSULT Operation Manual".

Does the engine start?

- YES >> BCM is malfunctioning.
 - Replace BCM.
 - Perform initialization again.
- NO >> ECM is malfunctioning.
 - Replace ECM.
 - Perform ECM re-communicating function.

B2195 ANTI-SCANNING

Description

INFOID:000000006389483

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:000000006389484

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:000000006389485

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:000000006928529

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:000000006928530

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"> • Fuse • Stop lamp switch • Stop lamp relay-1 (with CVT) • Harness or connectors |

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 \(With M/ I\)"](#).

NO >> Inspection End.

Diagnosis Procedure (With CVT)

INFOID:000000006928531

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

[COUPE]

< DTC/CIRCUIT DIAGNOSIS >

| 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 E-57 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:000000006928532

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 >

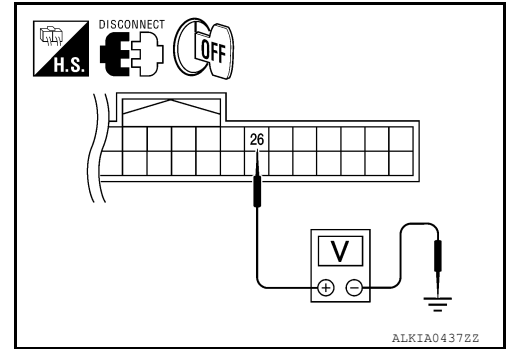
3. Check voltage between BCM harness connector and ground.

| 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: June 2012

SEC-76

2011 Altima GCC

INFOID:000000006928533

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

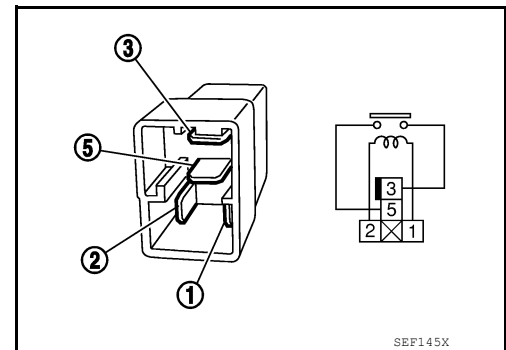
1. CHECK STOP LAMP RELAY-1

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.



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B2556 PUSH-BUTTON IGNITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

B2556 PUSH-BUTTON IGNITION SWITCH

Description

INFOID:000000006389490

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:000000006389491

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">• Harness or connectors (Push-button ignition switch circuit is shorted.)• Push-button ignition switch |

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.

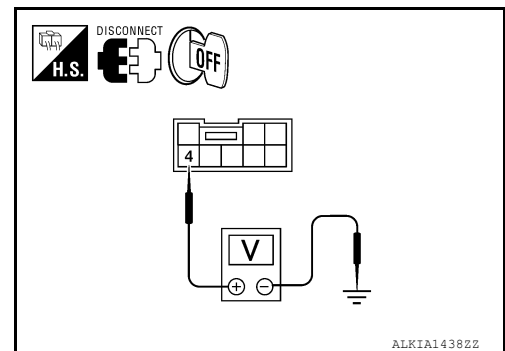
Diagnosis Procedure

INFOID:000000006389492

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"](#).

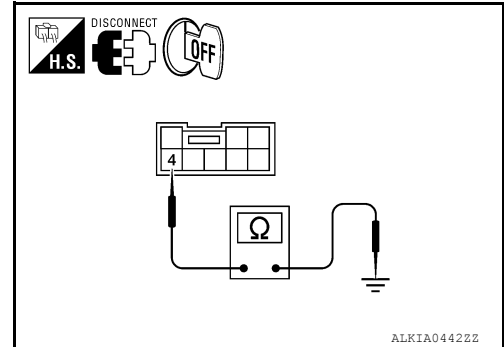
3.CHECK INTERMITTENT INCIDENT

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:000000006389493

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

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

B2557 VEHICLE SPEED

Description

INFOID:000000006389494

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:000000006389495

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">• One is 10km/h or more and the other is 4km/h or less. | <ul style="list-style-type: none">• Wheel sensor• Unified meter• ABS actuator and electric unit (control unit) |

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:000000006389496

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:000000006389497

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:000000006389498

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:000000006389499

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

[COUPE]

< DTC/CIRCUIT DIAGNOSIS >

B2601 SHIFT POSITION

Description

INFOID:000000006389500

BCM confirms the shift position with the following 2 signals.

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

DTC Logic

INFOID:000000006389501

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"> • Harness or connectors (CVT shift selector circuit is open or shorted.) • CVT shift selector (park position switch) |

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:000000006389502

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

1. CHECK CVT SHIFT SELECTOR POWER SUPPLY

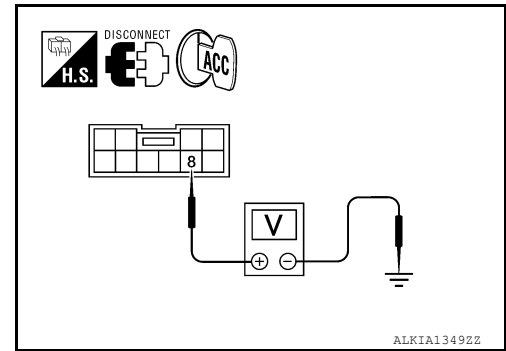
1. Turn ignition switch to ACC.
2. Disconnect CVT shift selector (park position switch) harness connector.

B2601 SHIFT POSITION

[COUPE]

< DTC/CIRCUIT DIAGNOSIS >

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



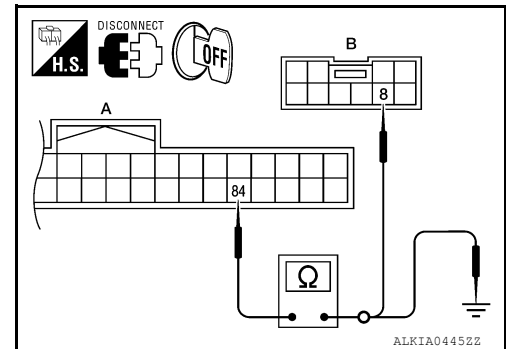
| CVT shift selector (park position switch) | | Ground | Voltage [V] |
|---|----------|--------|-----------------|
| Connector | Terminal | | |
| M23 | 8 | Ground | Battery voltage |

Is the inspection result normal?

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

2.CHECK CVT SHIFT SELECTOR POWER SUPPLY CIRCUIT

1. Disconnect BCM harness connector.
2. 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 |

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.
NO >> Repair harness or connector.

3.CHECK CVT SHIFT SELECTOR CIRCUIT (BCM)

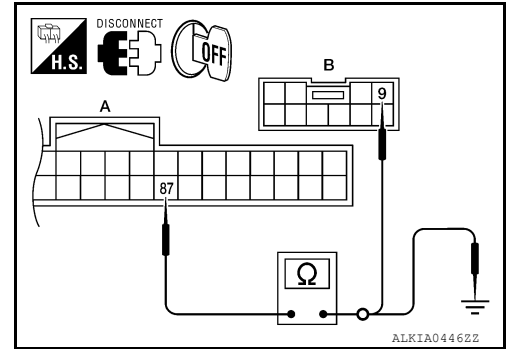
1. Disconnect BCM harness connector and IPDM E/R harness connector.

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 |

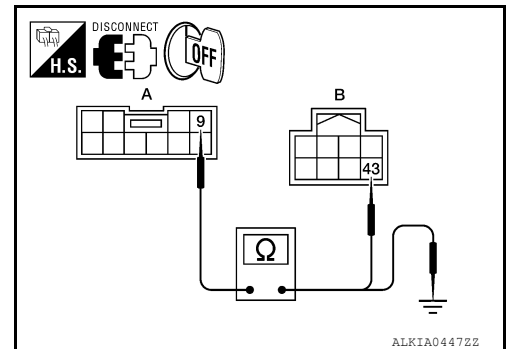
Is the inspection result normal?

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-240, "Removal and Installation"](#).

6.CHECK INTERMITTENT INCIDENT

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

>> Inspection End.

Component Inspection

INFOID:000000006389503

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-240, "Removal and Installation"](#).

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SEC

B2602 SHIFT POSITION

[COUPE]

< DTC/CIRCUIT DIAGNOSIS >

B2602 SHIFT POSITION

Description

INFOID:000000006389504

BCM confirms the shift position with the following 2 signals.

- CVT selector lever
- Speed signal from meter

DTC Logic

INFOID:000000006389505

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">• Shift position is in P position• Vehicle speed is 4km/h (2 MPH) or more• Ignition switch is in the ON position | <ul style="list-style-type: none">• Harness or connectors (CVT drive circuit is open or shorted)• CVT shift selector (park position switch)• Combination meter |

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:000000006389506

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

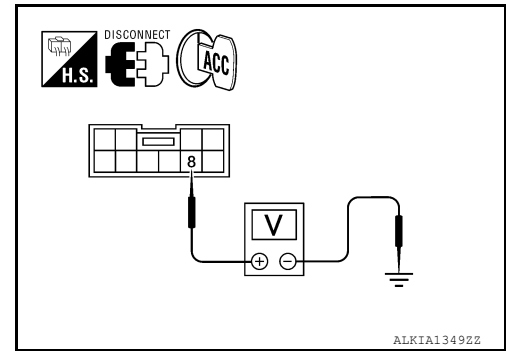
1. Turn ignition switch to ACC.
2. Disconnect CVT shift selector (park position switch) harness connector.

B2602 SHIFT POSITION

[COUPE]

< DTC/CIRCUIT DIAGNOSIS >

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



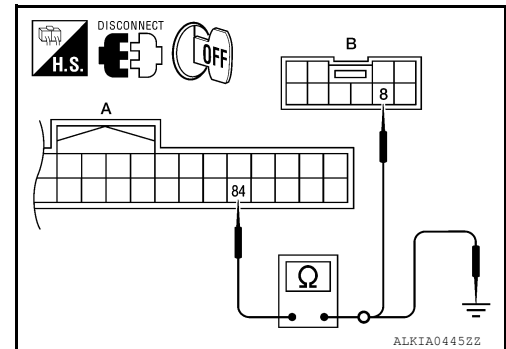
| CVT shift selector (park position switch) | | Ground | Voltage [V] |
|---|----------|--------|-----------------|
| Connector | Terminal | | |
| M23 | 8 | Ground | Battery voltage |

Is the inspection result normal?

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

3.CHECK CVT SHIFT SELECTOR POWER SUPPLY CIRCUIT

1. Disconnect BCM harness connector.
2. 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 |

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.
 NO >> Repair harness or connector.

4.CHECK CVT SHIFT SELECTOR CIRCUIT

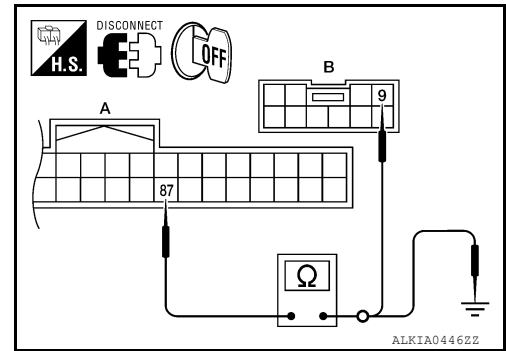
1. Disconnect BCM harness connector.

B2602 SHIFT POSITION

[COUPE]

< DTC/CIRCUIT DIAGNOSIS >

- 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 |

- 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-240. "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:000000006389507

BCM confirms the shift position with the following 2 signals.

- CVT selector lever
- Transmission range switch

DTC Logic

INFOID:000000006389508

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">• Transmission range switch: approx. 0V• CVT shift selector (park position switch): approx 0V | <ul style="list-style-type: none">• Harness or connector (CVT shift selector circuit is open or shorted.)• Harness or connectors [Transmission range) switch circuit is open or shorted.]• CVT shift selector (park position switch)• Transmission range switch |

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:000000006389509

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 | | |

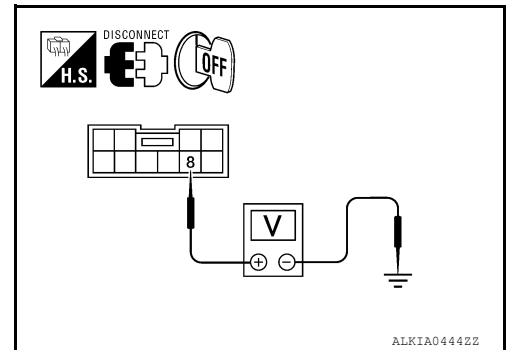
Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3. CHECK CVT SHIFT SELECTOR POWER SUPPLY

1. Turn ignition switch OFF.
2. Disconnect CVT shift selector (park position switch) harness connector.
3. 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 |

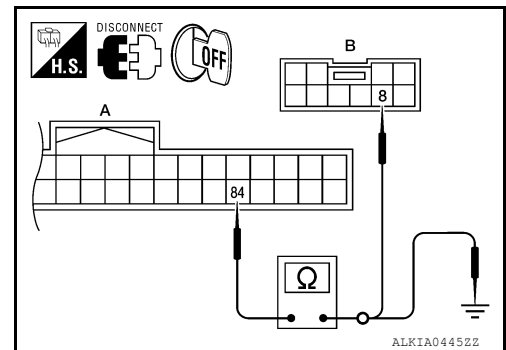
Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4. CHECK CVT SHIFT SELECTOR POWER SUPPLY CIRCUIT

1. Disconnect BCM harness connector.
2. 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

[COUPE]

< DTC/CIRCUIT DIAGNOSIS >

| 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.

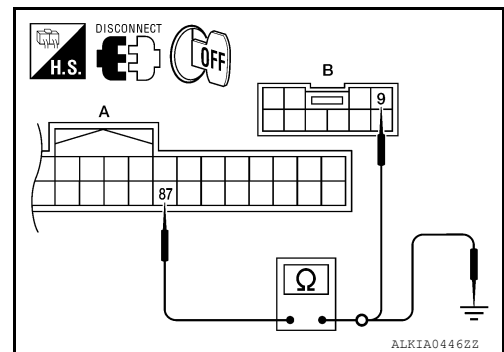
| BCM | | Ground | Continuity |
|-----------|----------|--------|------------|
| Connector | Terminal | | |
| A: M19 | 84 | Ground | No |

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-240, "Removal and Installation"](#).

7.CHECK INTERMITTENT INCIDENT

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

>> Inspection End.

B2604 PNP SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

B2604 PNP SWITCH

Description

INFOID:000000006389510

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:000000006389511

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 | 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">• Transmission range switch indicates vehicle is in P or N shift position. Signal from TCM indicates vehicle is in forward or reverse gear.• Transmission range switch indicates vehicle is in forward or reverse gear. Signal from TCM indicates vehicle is in P or N. | <ul style="list-style-type: none">• Harness or connectors [The transmission range switch circuit is open or shorted.]• Transmission range switch• TCM |

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:000000006389512

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"](#).

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.

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B2605 PNP SWITCH

Description

INFOID:000000006389513

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:000000006389514

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"> • N position input signal exists. Shift position signal from IPDM E/R does not exist. • N position input signal does not exist. Shift position signal from IPDM E/R exists. | <ul style="list-style-type: none"> • Harness or connectors [The transmission range switch circuit is open or shorted.] • Transmission range switch • 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 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:000000006389515

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.

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B2606 STEERING LOCK RELAY

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

B2606 STEERING LOCK RELAY

Description

INFOID:000000006389516

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:000000006389517

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">• Electronic steering column lock ON signal transmitted by IPDM E/R• The electronic steering column lock status feedback | <ul style="list-style-type: none">• Steering lock relay (in IPDM E/R) |

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:000000006389518

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:000000006389519

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:000000006389520

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">• BCM request for electronic steering column lock power supply (ON/OFF)• IPDM E/R status of electronic steering column lock power supply (ON/OFF) | <ul style="list-style-type: none">• Harness or connectors (electronic steering column lock power supply circuit is open or shorted)• Steering lock relay (in IPDM E/R) |

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:000000006389521

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.

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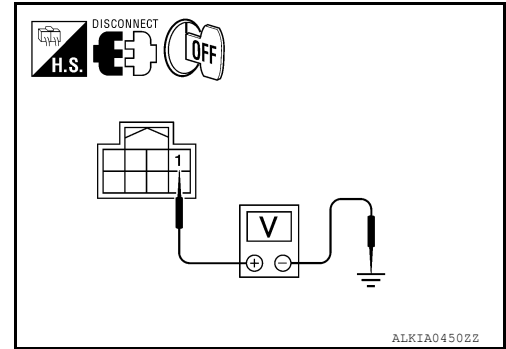
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B2607 STEERING LOCK RELAY

[COUPE]

< DTC/CIRCUIT DIAGNOSIS >

3. 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 |

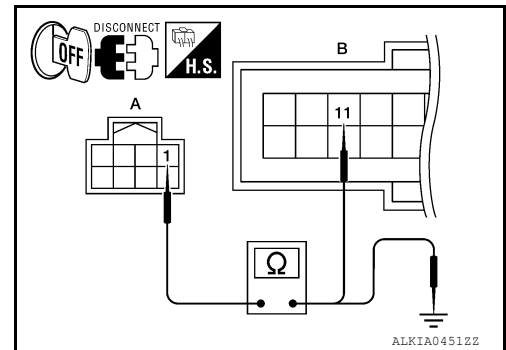
Is the inspection result normal?

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 |

4. 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:000000006389522

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:000000006389523

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">• Harness or connectors (starter relay circuit is open or shorted.)• IPDM E/R |

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

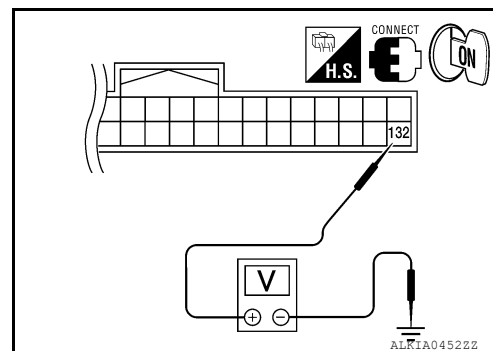
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Regarding Wiring Diagrams information, refer to [SEC-181, "Wiring Diagram"](#).

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 |

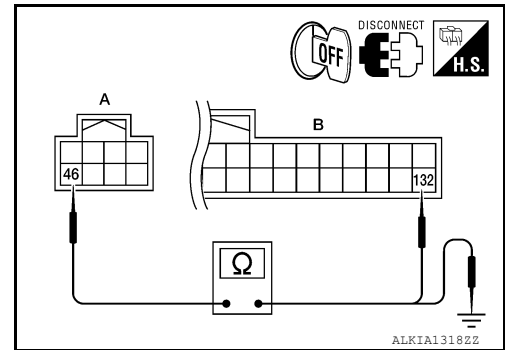
Is the measurement value within the specification?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK STARTER RELAY CIRCUIT

- Turn ignition switch OFF.
- Disconnect BCM harness connector M21 and IPDM E/R harness connector E17.
- 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 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:000000006389525

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:000000006389526

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">• Harness or connectors [Electronic steering column lock circuit (BCM side) is open or shorted]• Harness or connectors [Electronic steering column lock circuit (IPDM E/R side) is open or shorted.]• Electronic steering column lock• IPDM E/R |

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:000000006389527

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 >

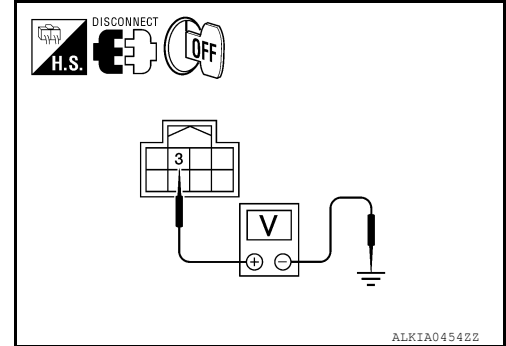
In which case is DTC detected?

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 |

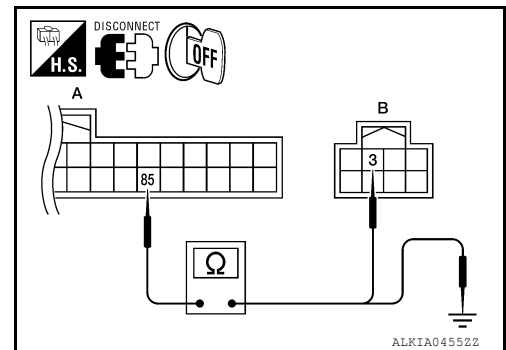
Is the inspection result normal?

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.

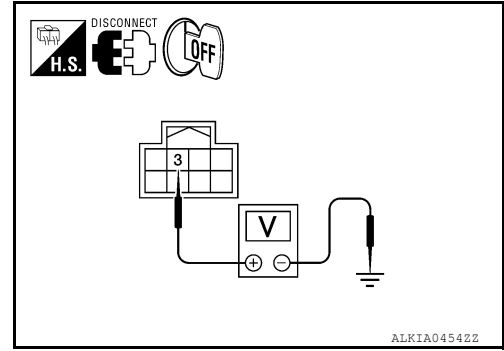
4. CHECK IPDM E/R OUTPUT SIGNAL

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.



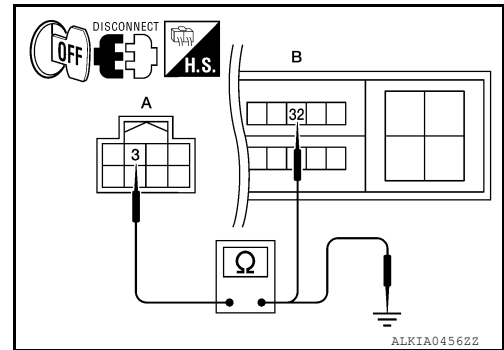
| Electronic steering column lock | | Ground | Voltage [V] |
|---------------------------------|----------|--------|-----------------|
| Connector | Terminal | | |
| M32 | 3 | Ground | Battery voltage |

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.

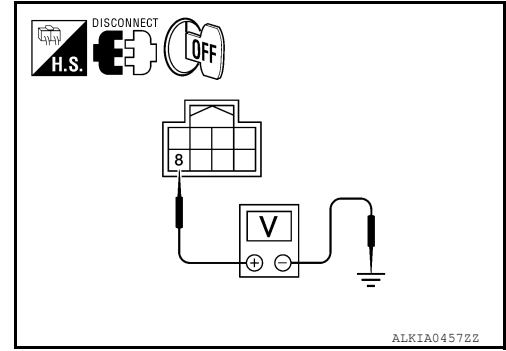
7.CHECK BCM OUTPUT SIGNAL

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.



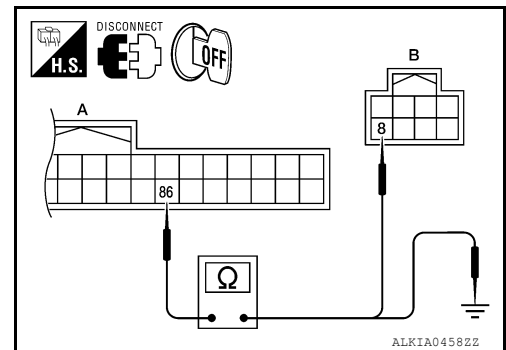
| Electronic steering column lock | | Ground | Voltage [V] |
|---------------------------------|----------|--------|-----------------|
| Connector | Terminal | | |
| M32 | 8 | Ground | Battery voltage |

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

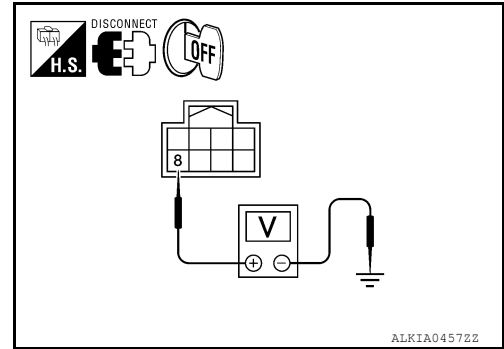
1. Connect IPDM E/R harness connector.
2. Disconnect BCM harness connector M19.

B2609 STEERING STATUS

[COUPE]

< DTC/CIRCUIT DIAGNOSIS >

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



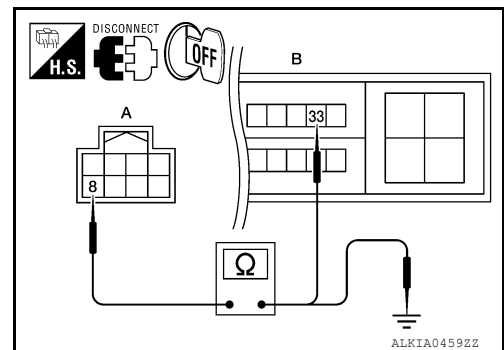
| Electronic steering column lock | | Ground | Voltage [V] |
|---------------------------------|----------|--------|-----------------|
| Connector | Terminal | | |
| M32 | 8 | Ground | Battery voltage |

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 >

[COUPE]

B260B ELECTRONIC STEERING COLUMN LOCK

Description

INFOID:000000006389528

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

DTC Logic

INFOID:000000006389529

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">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-106. "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000006389530

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:000000006389531

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

DTC Logic

INFOID:000000006389532

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:000000006389533

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.

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B260D ELECTRONIC STEERING COLUMN LOCK

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

B260D ELECTRONIC STEERING COLUMN LOCK

Description

INFOID:000000006389534

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:000000006389535

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:000000006389536

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:000000006389537

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

DTC Logic

INFOID:000000006389538

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:000000006389539

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-331, "BASIC INSPECTION : Special Repair Requirement"](#) (VQ35DE).

>> Inspection End.

B2612 STEERING STATUS

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

B2612 STEERING STATUS

Description

INFOID:000000006389540

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:000000006389541

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">• Steering column lock or unlock• Feedback of steering column lock status from IPDM E/R (CAN) | <ul style="list-style-type: none">• Harness or connectors [electronic steering column lock circuit (BCM side) is open or shorted]• Harness or connectors [electronic steering column lock circuit (IPDM E/R side) is open or shorted.]• Electronic steering column lock• IPDM E/R |

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:000000006389542

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

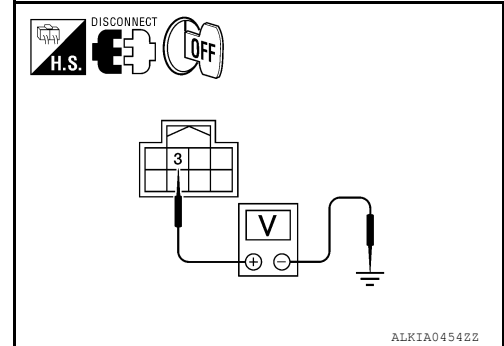
[COUPE]

< 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.



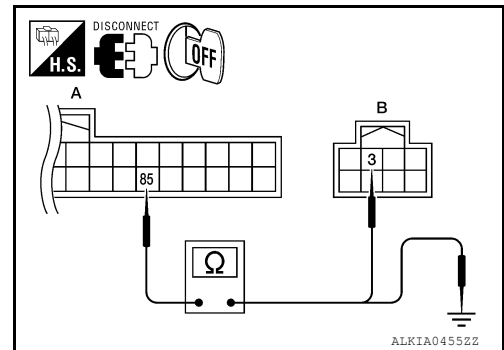
| Electronic steering column lock | | Ground | Voltage [V] |
|---------------------------------|----------|--------|-----------------|
| Connector | Terminal | | |
| M32 | 3 | Ground | Battery voltage |

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.

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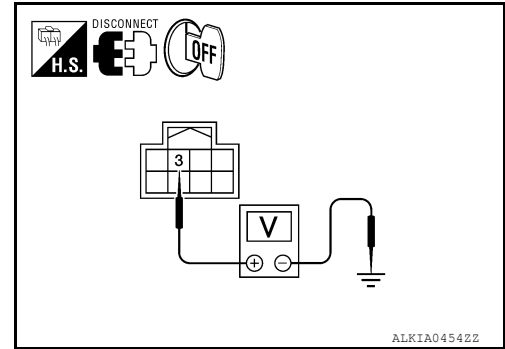
SEC

B2612 STEERING STATUS

[COUPE]

< DTC/CIRCUIT DIAGNOSIS >

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



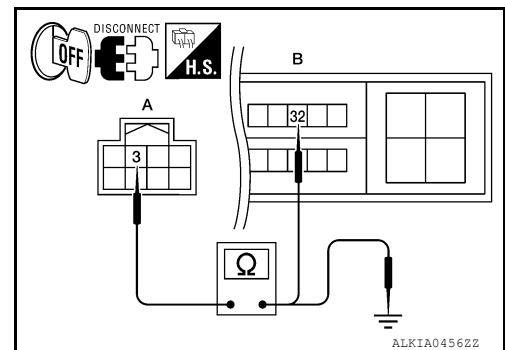
| Electronic steering column lock | | Ground | Voltage [V] |
|---------------------------------|----------|--------|-----------------|
| Connector | Terminal | | |
| M32 | 3 | Ground | Battery voltage |

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

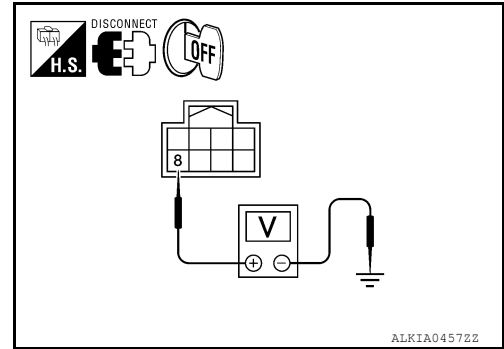
1. Turn ignition switch OFF.
2. Disconnect electronic steering column lock harness connector and IPDM E/R harness connector.

B2612 STEERING STATUS

[COUPE]

< DTC/CIRCUIT DIAGNOSIS >

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



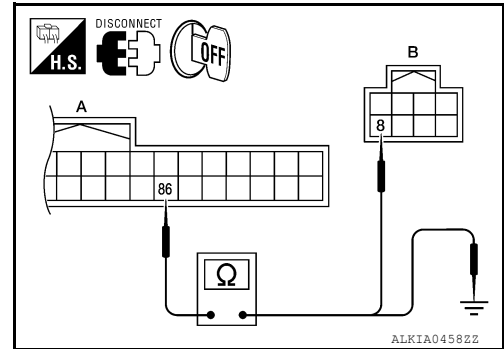
| Electronic steering column lock | | Ground | Voltage [V] |
|---------------------------------|----------|--------|-----------------|
| Connector | Terminal | | |
| M32 | 8 | Ground | Battery voltage |

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

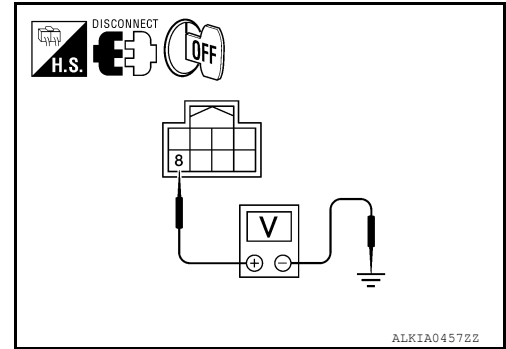
- Connect IPDM E/R harness connector.
- Disconnect BCM harness connector.

B2612 STEERING STATUS

[COUPE]

< DTC/CIRCUIT DIAGNOSIS >

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



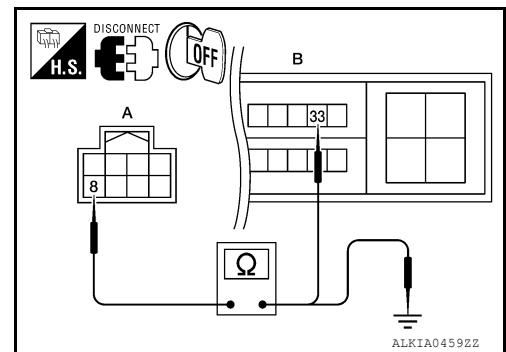
| Electronic steering column lock | | Ground | Voltage [V] |
|---------------------------------|----------|--------|-----------------|
| Connector | Terminal | | |
| M32 | 8 | Ground | Battery voltage |

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:000000006389543

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:000000006389544

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">• An immediate operation of starter relay is requested by BCM, but there is no response for more than 1 second• BCM is not commanding starter relay activation, but BCM detects starter relay output is active | <ul style="list-style-type: none">• Harness or connectors (Starter relay circuit is open or shorted.)• 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 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.

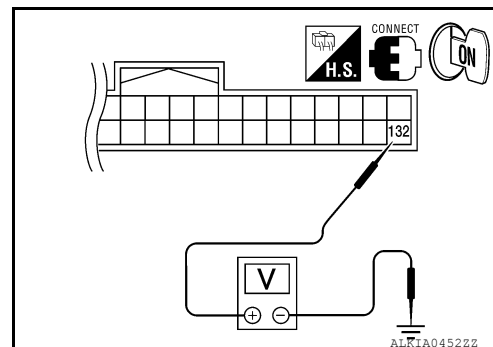
Diagnosis Procedure

INFOID:000000006389545

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]

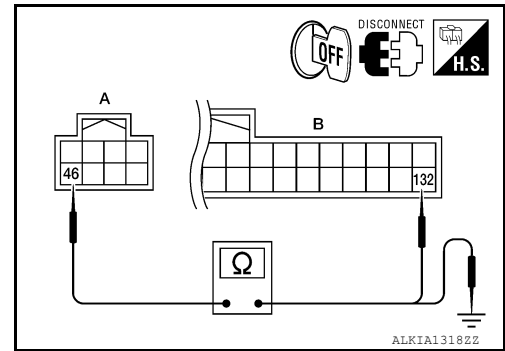
| BCM | | Ground | Transmission type | Condition | Voltage (V) |
|-----------|----------|--------|-----------------------------|--|-----------------|
| Connector | Terminal | | | | |
| M21 | 132 | Ground | CVT: Select lever in Park | Ignition switch cranking or request to start | Battery voltage |
| | | | | 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

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

B2619 BCM

Description

INFOID:000000006389546

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:000000006389547

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-117, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000006389548

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-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:000000006389549

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:000000006389550

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">• Push-button ignition switch status• Push-button ignition switch status from IPDM E/R (CAN) | <ul style="list-style-type: none">• Harness or connectors (Push-button ignition switch circuit is open or shorted)• Between BCM and push-button ignition switch• Between IPDM E/R and push-button ignition switch |

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.

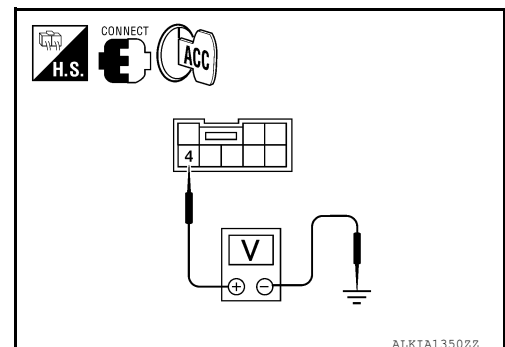
Diagnosis Procedure

INFOID:000000006389551

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 |

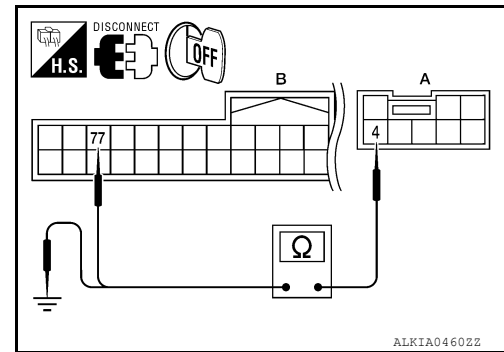
Is the inspection result normal?

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 |

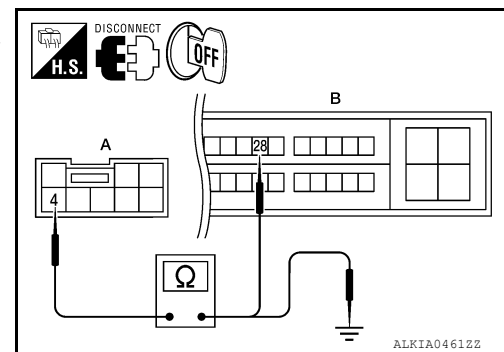
Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

3. CHECK PUSH-BUTTON IGNITION SWITCH

1. Disconnect IPDM E/R harness connector.
2. Check continuity between push-button ignition switch harness connector M38 (A) terminal 4 and IPDM E/R harness connector E18 (B) terminal 28.



| Push-button ignition switch | | IPDM E/R | | Continuity |
|-----------------------------|----------|-----------|----------|------------|
| Connector | Terminal | Connector | Terminal | |
| A: M38 | 4 | B: E18 | 28 | Yes |

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

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B261A PUSH-BUTTON IGNITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

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

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair harness or connector.

4. CHECK INTERMITTENT INCIDENT

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

>> Inspection End.

B261E VEHICLE TYPE

[COUPE]

< DTC/CIRCUIT DIAGNOSIS >

B261E VEHICLE TYPE

Description

INFOID:000000006389552

There are two types of vehicles.

- HEV
- Conventional

DTC Logic

INFOID:000000006389553

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:000000006389554

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:000000006389555

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

DTC Logic

INFOID:000000006389556

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:000000006389557

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-331, "BASIC INSPECTION : Special Repair Requirement"](#) (VQ35DE).

>> Inspection End.

B26E8 CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

B26E8 CLUTCH INTERLOCK SWITCH

Description

INFOID:000000006389558

When clutch interlock switch turns ON, BCM detects that clutch pedal is being depressed and permits to start the engine.

DTC Logic

INFOID:000000006389559

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"> Clutch interlock switch Harness or connector (Clutch interlock switch circuit open or shorted) |

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:000000006389560

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.

| (+) | | (-) | Voltage (V) (Approx.) |
|-------------------------|----------|--------|--------------------------|
| Clutch interlock switch | | | |
| 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:000000006389561

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:000000006389562

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:000000006389563

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:000000006389564

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

[COUPE]

< DTC/CIRCUIT DIAGNOSIS >

B26EA KEY REGISTRATION

Description

INFOID:000000006389565

When the registered Intelligent Key is carried, the door lock/unlock operation and the push-button ignition switch operation become possible.

DTC Logic

INFOID:000000006389566

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">Improper registration operationIntelligent KeyBCM |

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 Operation Manual NATS-IVIS/NVIS".
2. Check "Self-diagnostic result" using CONSULT.

Is DTC detected?

- YES >> Go to [SEC-123. "Diagnosis Procedure"](#).
NO >> Inspection End

Diagnosis Procedure

INFOID:000000006389567

1. PERFORM INITIALIZATION

1. Perform initialization using CONSULT. Reregister all Intelligent Keys.
For initialization and registration of Intelligent Key, refer to "CONSULT Operation Manual NATS-IVIS/NVIS".
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 Operation Manual NATS-IVIS/NVIS".
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:000000006928538

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 |

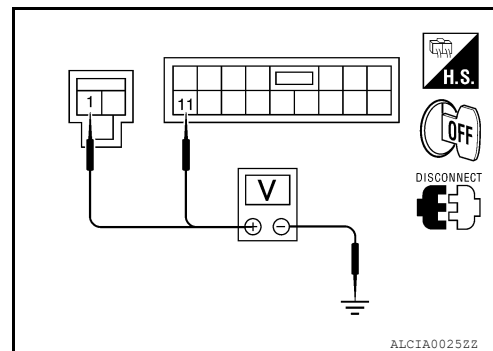
Is the fuse or fusible link blown?

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

2. CHECK POWER SUPPLY CIRCUIT

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

| Terminals | | Voltage (Approx.) |
|-----------|----------|---------------------------|
| (+) | (-) | |
| BCM | | Ground Battery voltage |
| Connector | Terminal | |
| M16 | 1 | |
| M17 | 11 | |



Is the measurement normal?

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

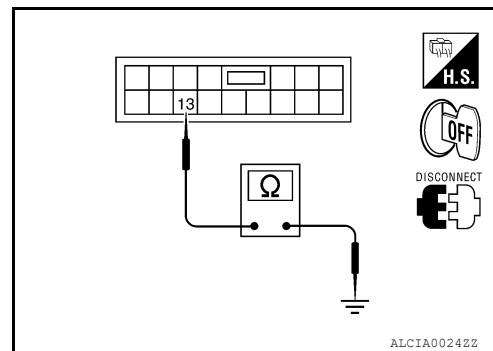
3. CHECK GROUND CIRCUIT

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:000000006928539

1. REQUIRED WORK WHEN REPLACING BCM

Initialize control unit. Refer to [BCS-3. "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

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SEC

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:000000006928540

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?

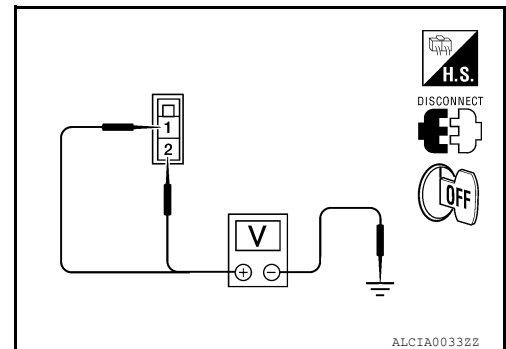
YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

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 | | Battery voltage |
| Connector | Terminal | |
| E16 | 1 | |
| | 2 | |



Is the measurement value normal?

YES >> GO TO 3

NO >> Repair harness or connector.

3. CHECK GROUND CIRCUIT

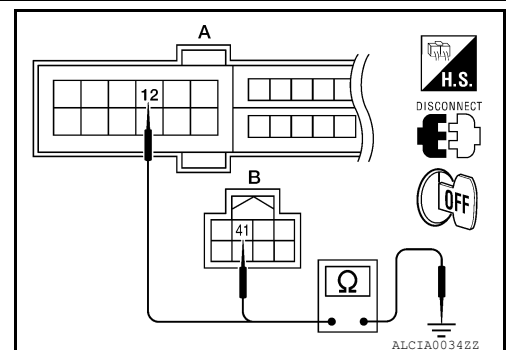
Check continuity between IPDM E/R harness connectors and ground.

| 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

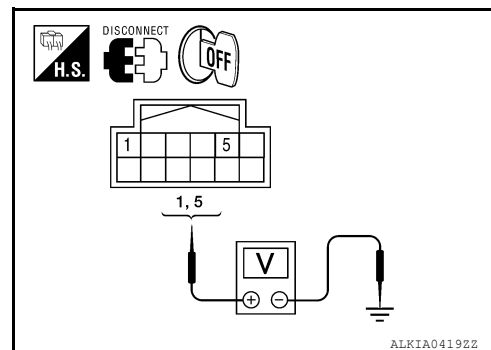
Diagnosis Procedure

INFOID:000000006389571

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.



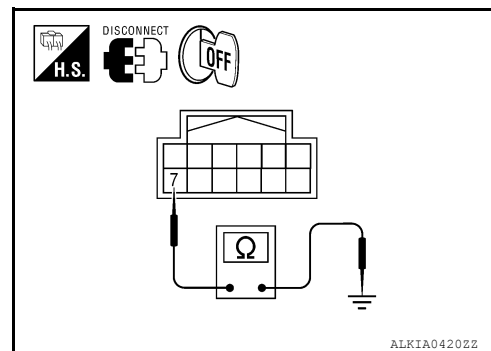
| Key slot | | Ground | Voltage (V) (Approx.) |
|-----------|----------|--------|--------------------------|
| Connector | Terminal | | |
| M40 | 1 | Ground | Battery voltage |
| | 5 | | |

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"](#).

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>> Inspection End.

KEY SLOT ILLUMINATION

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

KEY SLOT ILLUMINATION

Description

INFOID:000000006389572

Blinks when Intelligent Key insertion is required.

Component Function Check

INFOID:000000006389573

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"](#).

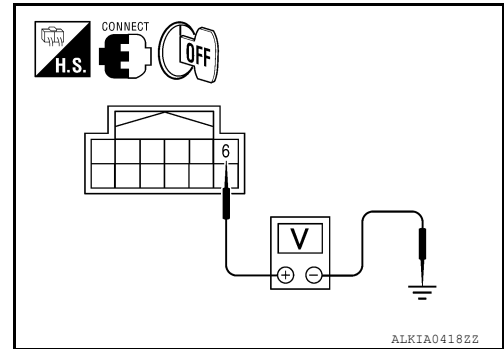
Diagnosis Procedure

INFOID:000000006389574

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

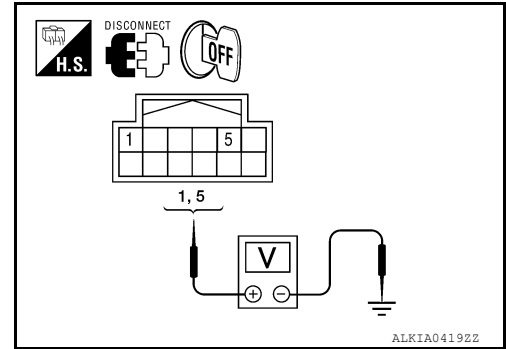
1. Turn ignition switch OFF.
2. Disconnect key slot connector.

KEY SLOT ILLUMINATION

[COUPE]

< DTC/CIRCUIT DIAGNOSIS >

3. Check voltage between slot connector and ground.



| Terminals | | Voltage (V) (Approx.) |
|--------------------|----------|--------------------------|
| (+) | (-) | |
| Key slot connector | Terminal | Battery voltage |
| M40 | 1 | |
| | 5 | |

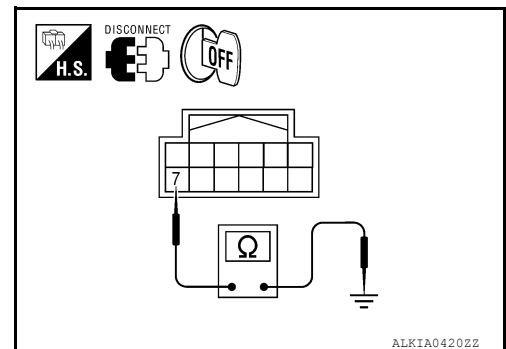
Is the inspection result normal?

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 |

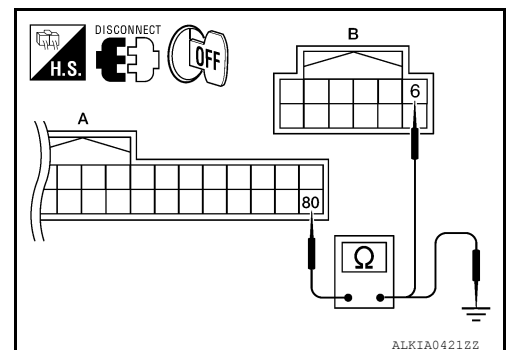
Is the inspection result normal?

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.

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KEY CYLINDER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

KEY CYLINDER SWITCH

Description

INFOID:000000006389575

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:000000006389576

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"](#).

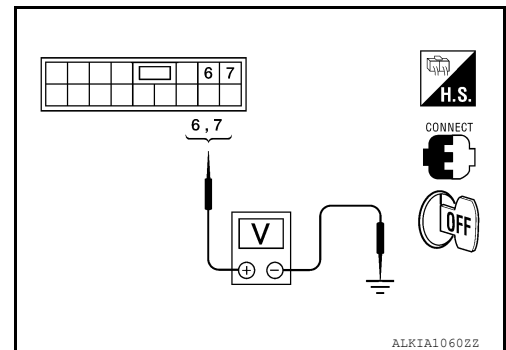
Diagnosis Procedure

INFOID:000000006389577

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 |
| | 7 | Unlock | 0 |
| | | Neutral / Lock | 5 |

Is the inspection result normal?

KEY CYLINDER SWITCH

[COUPE]

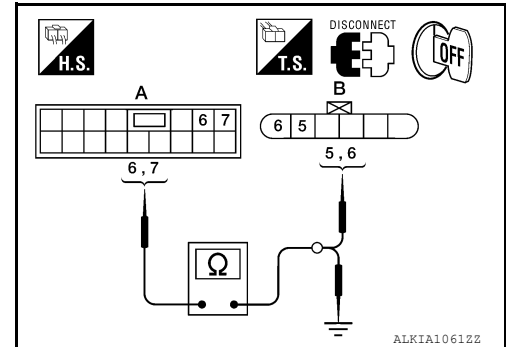
< DTC/CIRCUIT DIAGNOSIS >

YES >> Replace main power window and door lock/unlock switch. Refer to [DLK-220, "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 | | |

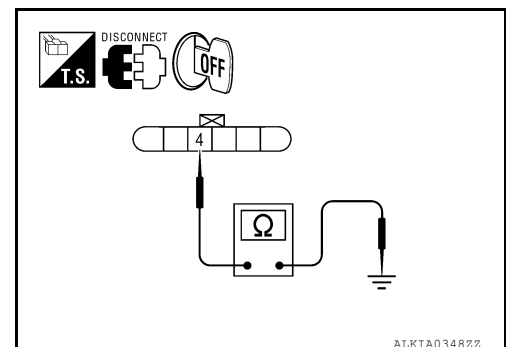
Is the inspection result normal?

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

[COUPE]

< DTC/CIRCUIT DIAGNOSIS >

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-220, "FRONT DOOR LOCK : Removal and Installation"](#).

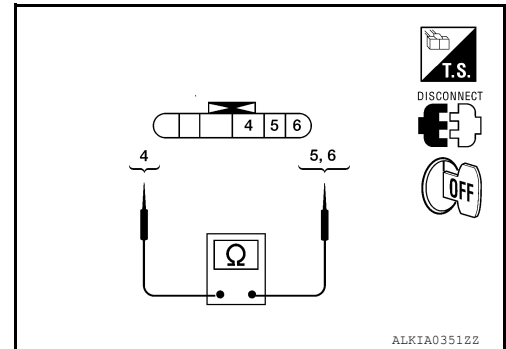
Component Inspection

INFOID:000000006389578

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-457, "FRONT DOOR LOCK : Removal and Installation"](#).

HORN

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

HORN

Description

INFOID:000000006389579

Horn (high/low) is located inside of front bumper and operates when theft warning system is in alarm phase.

Component Function Check

INFOID:000000006389580

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:000000006389581

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

1.CHECK HORN FUNCTION

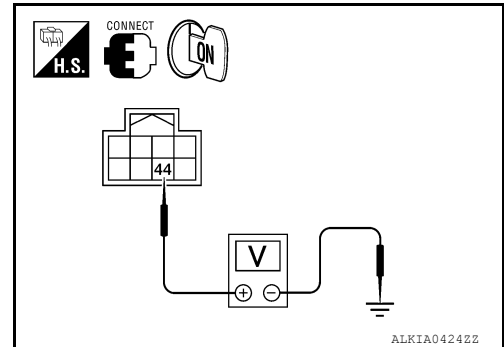
Check horn function with horn switch

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 | 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.

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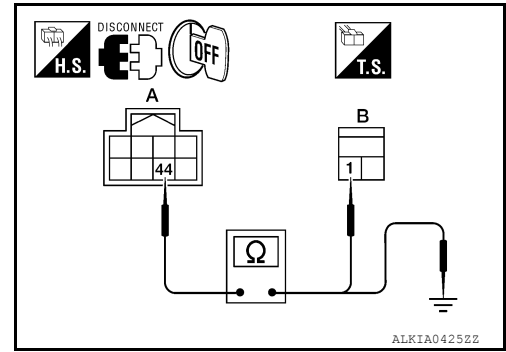
SEC

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

[COUPE]

< DTC/CIRCUIT DIAGNOSIS >

HEADLAMP

Description

INFOID:000000006389582

Headlamp lighting when theft warning system is alarm phase.

Component Function Check

INFOID:000000006389583

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:000000006389584

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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WARNING LAMP

< DTC/CIRCUIT DIAGNOSIS >

[COUPE]

WARNING LAMP

Description

INFOID:000000006389585

- 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:000000006389586

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:000000006389587

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:000000006389588

- 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:000000006389589

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:000000006389590

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:000000006931293

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 | A |
| | Power door lock switch LOCK | ON | |
| CDL UNLOCK SW | Other than power door lock switch UNLOCK | OFF | B |
| | Power door lock switch UNLOCK | ON | |
| KEY CYL LK-SW | Other than driver door key cylinder LOCK position | OFF | C |
| | Driver door key cylinder LOCK position | ON | |
| KEY CYL UN-SW | Other than driver door key cylinder UNLOCK position | OFF | D |
| | Driver door key cylinder UNLOCK position | ON | |
| HAZARD SW | When hazard switch is not pressed | OFF | E |
| | When hazard switch is pressed | ON | |
| REAR DEF SW | When rear window defogger switch is pressed | ON | F |
| FAN ON SIG | When AUTO switch or fan switch is pressed | ON | G |
| AIR COND SW | When A/C switch is pressed | ON | H |
| TR CANCEL SW | Trunk lid opener cancel switch OFF | OFF | I |
| | Trunk lid opener cancel switch ON | ON | |
| TR/BD OPEN SW | Trunk lid opener switch OFF | OFF | J |
| | While the trunk lid opener switch is turned ON | ON | |
| TRNK/HAT MNTR | Trunk lid closed | OFF | K |
| | Trunk lid opened | ON | |
| RKE-LOCK | When LOCK button of Intelligent Key is not pressed | OFF | L |
| | When LOCK button of Intelligent Key is pressed | ON | |
| RKE-UNLOCK | When UNLOCK button of Intelligent Key is not pressed | OFF | M |
| | When UNLOCK button of Intelligent Key is pressed | ON | |
| RKE-TR/BD | When TRUNK OPEN button of Intelligent Key is not pressed | OFF | N |
| | When TRUNK OPEN button of Intelligent Key is pressed | ON | |
| RKE-PANIC | When PANIC button of Intelligent Key is not pressed | OFF | O |
| | 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 | P |
| | 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 | |

SEC

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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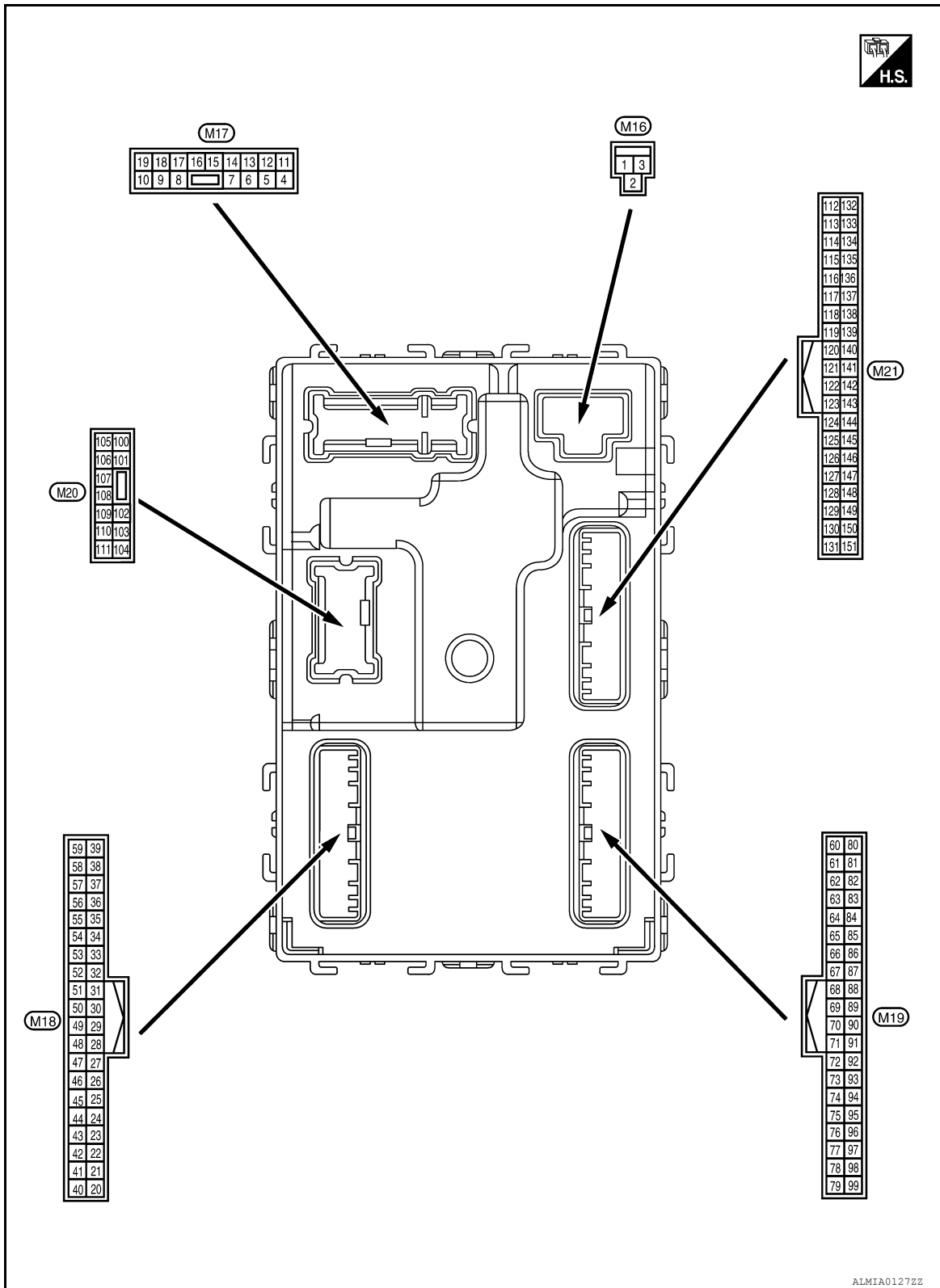
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[COUPE]

Terminal Layout

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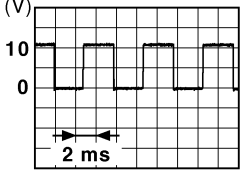
Physical Values

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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 ¹ (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 ¹ (O/W) | Ground | Engine switch (push switch) illumination ground | Input | Tail lamp | OFF | 0V |
| | | | | | ON | <p>NOTE: When the illumination brightening/dimming level is in the neutral position</p>  <p style="text-align: center;">(V)</p> <p style="text-align: center;">10 0</p> <p style="text-align: center;">2 ms</p> <p style="text-align: right; font-size: small;">JSNIA0010GB</p> |

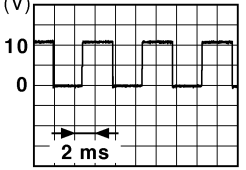
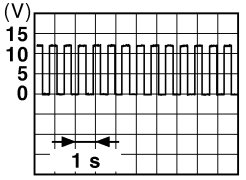
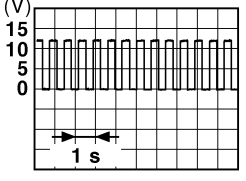
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

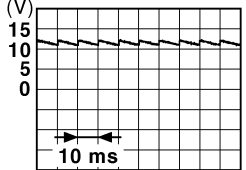
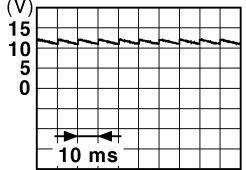
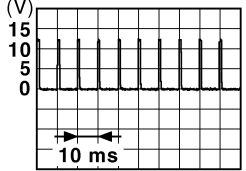
[COUPE]

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) | |
|------------------------------|--------|---|------------------|-------------------------|---------------------------------------|--|
| (+) | (-) | Signal name | Input/ Output | | | |
| 14 ^B (R/Y) | Ground | Engine switch (push switch) illumination ground | Input | Tail lamp | OFF | 0V |
| | | | | | ON | NOTE: When the illumination brightening/dimming level is in the neutral position  <small style="display: block; text-align: right;">JSN1A0010GB</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 style="display: block; text-align: right;">PKID0926E</small> |
| 18 (G/Y) | Ground | Turn signal (LH) | Output | Ignition switch ON | Turn signal switch OFF | 0V |
| | | | | | Turn signal switch LH |  <small style="display: block; text-align: right;">PKID0926E</small> |
| 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 ² (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 |  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) |  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 ³ (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 ³ (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 |  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 ³ (GR/ R) | Ground | Unlock switch signal | Input | Door lock/unlock switch | Unlock | Battery voltage |
| | | | | | Lock | 0V |

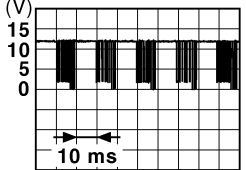
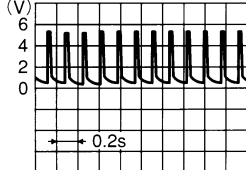

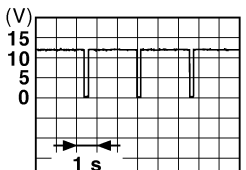
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

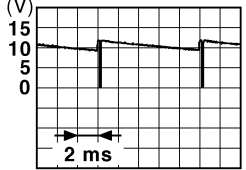
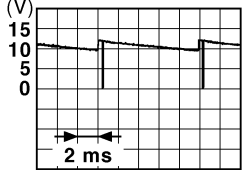

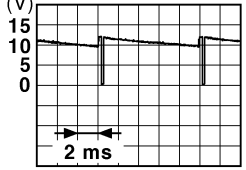
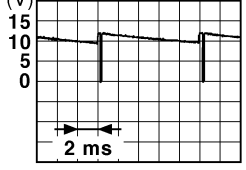
[COUPE]

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|------------------------------|--------|--|------------------|---|--|---|
| (+) | (-) | Signal name | Input/ Output | | | |
| 40 ⁴ (Y/G) | Ground | Power window serial link | Input/ Output | Ignition switch ON | |  10.2V |
| | | | | 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 |  OCC3881D |
| | | | | | When receiving the signal from the transmitter |  OCC3880D |
| 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 |  11.3V | |
| | | | | 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 | Output | Combination switch (Wiper intermit- tent dial 4) | All switch OFF | 0V |
| | | | | | Lighting switch 1ST |  |
| | | | | | Lighting switch high-beam | |
| | | | | | Lighting switch 2ND | |
| Turn signal switch RH | 10.7V | | | | | |
| 51 (L/W) | Ground | Combination switch OUTPUT 1 | Output | Combination switch | All switch OFF (Wiper intermittent dial 4) | 0V |
| | | | | | Front wiper switch HI (Wiper intermittent dial 4) |  |
| | | | | | Any of the conditions below with all switch OFF | |
| | | | | | • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 • Wiper intermittent dial 6 • Wiper intermittent dial 7 | |
| | 10.7V | | | | | |
| 52 (G/B) | Ground | Combination switch OUTPUT 2 | Output | Combination switch | All switch OFF (Wiper intermittent dial 4) | 0V |
| | | | | | Front washer switch ON (Wiper intermittent dial 4) |  |
| | | | | | Any of the conditions below with all switch OFF | |
| | | | | | • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6 | |
| | 10.7V | | | | | |
| 53 (LG/ R) | Ground | Combination switch OUTPUT 3 | Output | Combination switch (Wiper intermit- tent dial 4) | All switch OFF | 0V |
| | | | | | Front wiper switch INT |  |
| | | | | | Front wiper switch LO | |
| | | | | | Lighting switch AUTO | |
| | 10.7V | | | | | |
| 54 (G/Y) | Ground | Combination switch OUTPUT 4 | Output | Combination switch (Wiper intermit- tent dial 4) | All switch OFF | 0V |
| | | | | | Front fog lamp switch ON |  |
| | | | | | Lighting switch 2ND | |
| | | | | | Lighting switch flash-to- pass | |
| Turn signal switch LH | 10.7V | | | | | |
| 55 (BR/ W) | Ground | Front blower monitor | Input | Front blower mo- tor switch | ON | Battery voltage |
| | | | | | OFF | 0V |

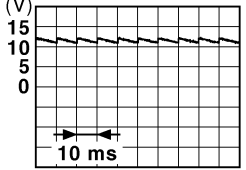
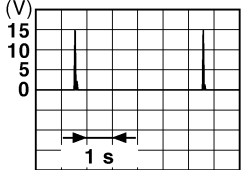
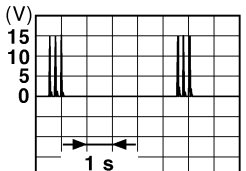
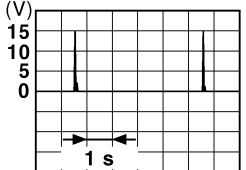
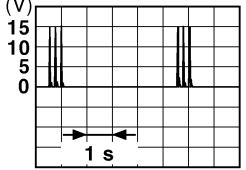
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BCM (BODY CONTROL MODULE)

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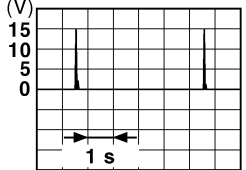
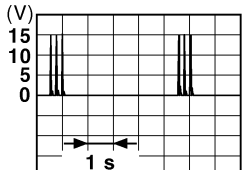
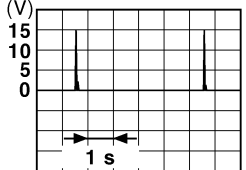
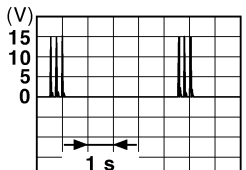
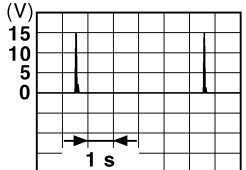
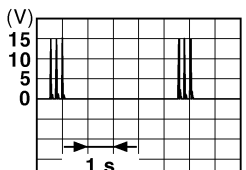
[COUPE]

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|------------------------------|--------|--|------------------|---|--|---|
| | | Signal name | Input/ Output | | | |
| (+) | (-) | | | | | |
| 56 ³ (L/B) | Ground | Front door lock assembly LH (key cylinder switch) (lock) | Input | Front door lock assembly LH (key cylinder switch) | OFF (neutral) | Battery voltage |
| | | | | | ON (lock) | 0V |
| 57 (W) | Ground | Tire pressure warning check switch | Input | — | — | Battery voltage |
| 58 (SB) | Ground | Front door LH switch | Input | Front door LH switch | OFF (front door LH CLOSE) |  <p style="text-align: right; margin-right: 50px;">JPMIA0011GB</p> <p style="text-align: right;">11.8V</p> |
| | | | | | ON (front door LH OPEN) | 0V |
| 59 (G/R) | Ground | Rear window defogger relay | Output | Rear window defogger | Active | Battery voltage |
| | | | | | Not activated | 0V |
| 60 (B/R) | Ground | Front console antenna 2 (-) | Output | Ignition switch OFF | When Intelligent Key is in the passenger compartment |  <p style="text-align: right; margin-right: 50px;">JMKIA0062GB</p> |
| | | | | | When Intelligent Key is not in the passenger compartment |  <p style="text-align: right; margin-right: 50px;">JMKIA0063GB</p> |
| 61 (W/R) | Ground | Center console antenna 2 (+) | Output | Ignition switch OFF | When Intelligent Key is in the passenger compartment |  <p style="text-align: right; margin-right: 50px;">JMKIA0062GB</p> |
| | | | | | When Intelligent Key is not in the passenger compartment |  <p style="text-align: right; margin-right: 50px;">JMKIA0063GB</p> |

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 | When Intelligent Key is in the antenna detection area  <small>JMKIA0062GB</small> |
| | | | | When Intelligent Key is not in the antenna detection area |  <small>JMKIA0063GB</small> |
| 63 (LG) | Ground | Front outside handle RH antenna (+) | Output | When the front door RH request switch is operat- ed with ignition switch OFF | When Intelligent Key is in the antenna detection area  <small>JMKIA0062GB</small> |
| | | | | When Intelligent Key is not in the antenna detection area |  <small>JMKIA0063GB</small> |
| 64 (V) | 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  <small>JMKIA0062GB</small> |
| | | | | When Intelligent Key is not in the antenna detection area |  <small>JMKIA0063GB</small> |

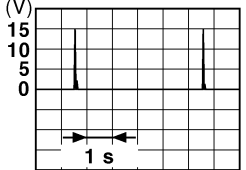
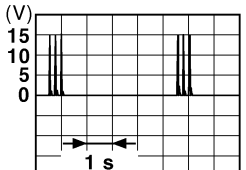
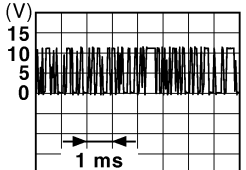
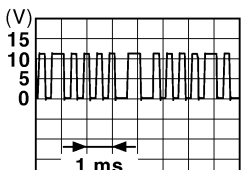
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

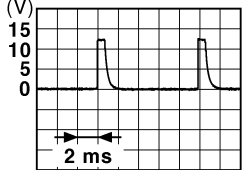
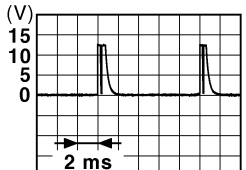

[COUPE]

| 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 |  <p style="text-align: right; font-size: small;">JMKIA0062GB</p> |
| | | | | | When Intelligent Key is not in the antenna detection area |  <p style="text-align: right; font-size: small;">JMKIA0063GB</p> |
| 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 control | Output | Ignition switch | OFF or ACC | 0V |
| | | | | | ON | Battery voltage |
| 71 (L/O) | Ground | Remote keyless entry receiver signal | Input/ Output | During waiting | During waiting |  <p style="text-align: right; font-size: small;">JMKIA0064GB</p> |
| | | | | | When operating either button on Intelligent Key |  <p style="text-align: right; font-size: small;">JMKIA0065GB</p> |

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 | Input | Combination switch | All switch OFF (Wiper intermittent dial 4) |  <p style="text-align: right; font-size: small;">JPMA0041GB</p> <p style="text-align: center;">1.4V</p> |
| | | | | | Front fog lamp switch ON (Wiper intermittent dial 4) |  <p style="text-align: right; font-size: small;">JPMA0037GB</p> <p style="text-align: center;">1.3V</p> |
| | | | | | Any of the conditions below with all switch OFF |  <p style="text-align: right; font-size: small;">JPMA0040GB</p> <p style="text-align: center;">1.3V</p> |

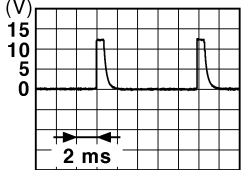
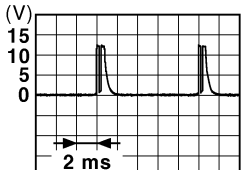

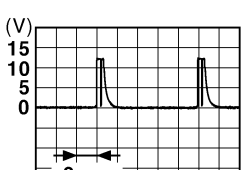
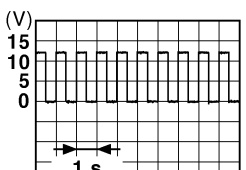
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

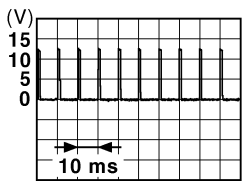
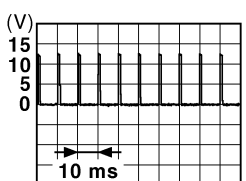
[COUPE]

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) | |
|------------------------------|--------|--------------------------------|------------------|--------------------------------|---|---|
| (+) | (-) | Signal name | Input/ Output | | | |
| 76 (R/G) | Ground | Combination switch INPUT 3 | Input | Combination switch | All switch OFF (Wiper intermittent dial 4) |  <small>JPMIA0041GB</small> 1.4V |
| | | | | | Lighting switch high-beam (Wiper intermittent dial 4) |  <small>JPMIA0036GB</small> 1.3V |
| | | | | | Lighting switch 2ND (Wiper intermittent dial 4) |  <small>JPMIA0037GB</small> 1.3V |
| | | | | | Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 |  <small>JPMIA0040GB</small> 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 |  <small>JPMIA0015GB</small> 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 control | Output | Ignition switch | OFF | 0V |
| | | | | | ACC or ON | Battery voltage |
| 84 ⁵ (Y/R) | Ground | CVT shift selector | Output | — | | Battery voltage |
| 85 (L/O) | Ground | Electronic steering column lock condition No. 1 | Input | Electronic steering column lock | Lock status | 0V |
| | | | | | Unlock status | Battery voltage |
| 86 (G/R) | Ground | Electronic steering column lock condition No. 2 | Input | Electronic steering column lock | Lock status | Battery voltage |
| | | | | | Unlock status | 0V |
| 87 ⁵ (G/B) | Ground | Selector lever P position switch | Input | Selector lever | P position | 0V |
| | | | | | Any position other than P | Battery voltage |
| 88 (P/L) | Ground | Front door RH request switch | Input | Front door RH request switch | ON (pressed) | 0V |
| | | | | | OFF (not pressed) |  <p style="text-align: center;">1.0V</p> |
| 89 (B/W) | Ground | Front door LH request switch | Input | Front door LH request switch | ON (pressed) | 0V |
| | | | | | OFF (not pressed) |  <p style="text-align: center;">1.0V</p> |
| 90 (Y) | Ground | Blower fan motor relay control | Output | Ignition switch | OFF or ACC | 0V |
| | | | | | ON | Battery voltage |
| 91 (L/R) | Ground | Remote keyless entry receiver power supply | 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 |

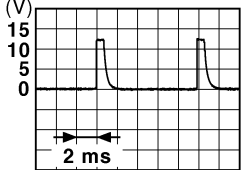

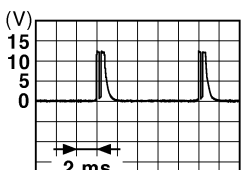
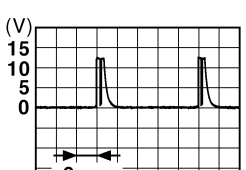
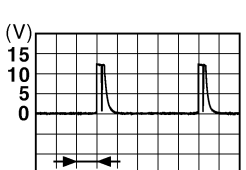
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

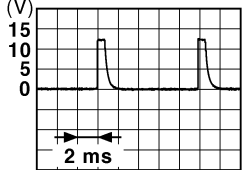
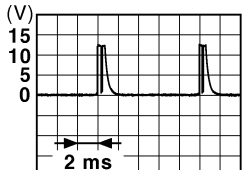
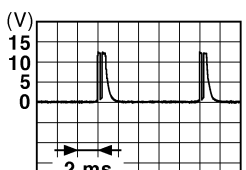
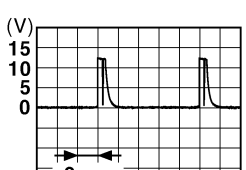
[COUPE]

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) |
|------------------------------|--------|-------------------------------|------------------|------------------------|---|
| (+) | (-) | Signal name | Input/ Output | | |
| 95 (R/W) | Ground | Combination switch INPUT 1 | Input | All switch OFF |  <small>JPMIA0041GB</small> 1.4V |
| | | | | Turn signal switch LH |  <small>JPMIA0037GB</small> 1.3V |
| | | | | Turn signal switch RH |  <small>JPMIA0036GB</small> 1.3V |
| | | | | Front wiper switch LO |  <small>JPMIA0038GB</small> 1.3V |
| | | | | Front washer switch ON |  <small>JPMIA0039GB</small> 1.3V |

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 | Input | Combination switch | All switch OFF (Wiper intermittent dial 4) |  1.4V |
| | | | | | Lighting switch AUTO (Wiper intermittent dial 4) |  1.3V |
| | | | | | Lighting switch 1ST (Wiper intermittent dial 4) |  1.3V |
| | | | | | Any of the conditions below with all switch OFF |  1.3V |
| | | | | | <ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6 | |

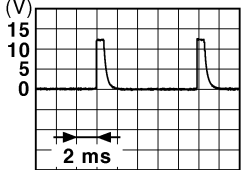

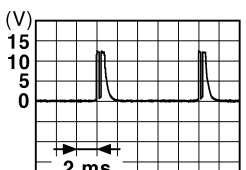
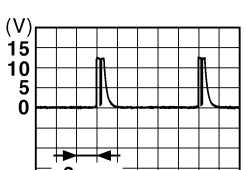
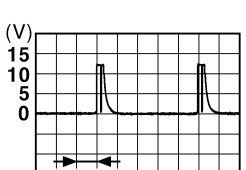
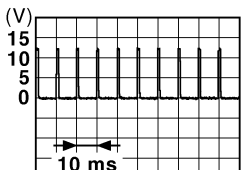
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

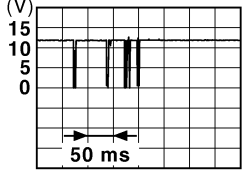
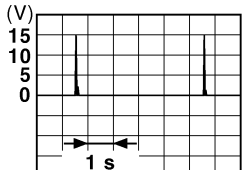
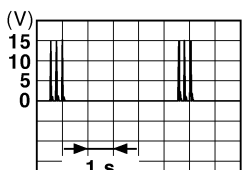
[COUPE]

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) | |
|------------------------------|--------|-------------------------------|------------------|--|---|---|
| (+) | (-) | Signal name | Input/ Output | | | |
| 97 (R/B) | Ground | Combination switch INPUT 2 | Input | Combination switch (Wiper intermittent dial 4) | All switch OFF |  <small>JPMIA0041GB</small> 1.4V |
| | | | | | Lighting switch flash-to-pass |  <small>JPMIA0037GB</small> 1.3V |
| | | | | | Lighting switch 2ND |  <small>JPMIA0036GB</small> 1.3V |
| | | | | | Front wiper switch INT |  <small>JPMIA0038GB</small> 1.3V |
| | | | | | Front wiper switch HI |  <small>JPMIA0040GB</small> 1.3V |
| | | | | | Pressed | 0 V |
| 98 (G/O) | Ground | Hazard switch | Input | Hazard switch |  <small>JPMIA0012GB</small> 1.1V | |
| | | | | Not pressed | | |

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 |  <p style="text-align: right; font-size: small;">JMKIA0066GB</p> |
| | | | | | 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 |  <p style="text-align: right; font-size: small;">JMKIA0062GB</p> |
| | | | | | When Intelligent Key is not in the passenger compart- ment |  <p style="text-align: right; font-size: small;">JMKIA0063GB</p> |

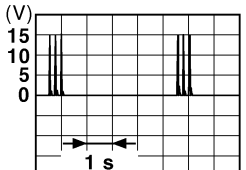
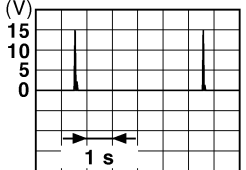
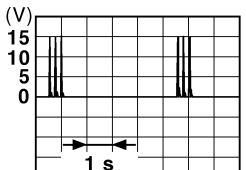
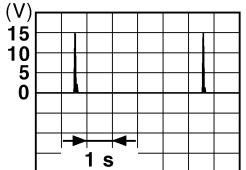
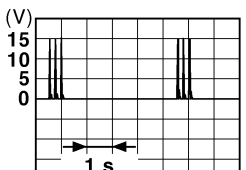
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

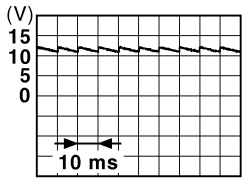
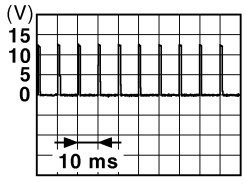
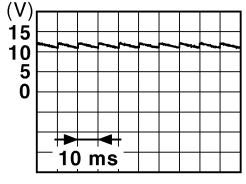
[COUPE]

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) |
|------------------------------|--------|------------------------------|------------------|--|---|
| (+) | (-) | Signal name | Input/ Output | | |
| 115 (W) | Ground | Trunk room antenna 1 (+) | Output | | |
| | | | | When Intelligent Key is not in the passenger compart- ment  <p style="text-align: right; font-size: small;">JMKIA0063GB</p> | |
| 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  <p style="text-align: right; font-size: small;">JMKIA0062GB</p> |
| | | | | When Intelligent Key is not in the antenna detection area  <p style="text-align: right; font-size: small;">JMKIA0063GB</p> | |
| 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  <p style="text-align: right; font-size: small;">JMKIA0062GB</p> |
| | | | | When Intelligent Key is not in the antenna detection area  <p style="text-align: right; font-size: small;">JMKIA0063GB</p> | |

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) |  <p style="text-align: center;">11.8V</p> |
| | | | | | 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) |  <p style="text-align: center;">1.0V</p> |
| 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 ¹ (R/W) | Ground | Rear door RH switch | Input | Rear door RH switch | OFF (when rear door RH closes) |  <p style="text-align: center;">11.8V</p> |
| | | | | | ON (when rear door RH opens) | 0V |

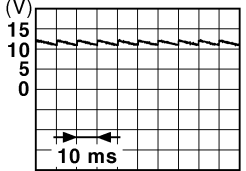
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[COUPE]

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|------------------------------|--------|---------------------|------------------|------------------------------|--------------------------------|---|
| (+) | (-) | Signal name | Input/ Output | | | |
| 149 ¹ (R/B) | Ground | Rear door LH switch | Input | Rear door LH switch | OFF (when rear door LH closes) |  <p style="text-align: right; font-size: small;">JFM1A0011GB</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:000000006931296

| 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"> • Starter control relay signal • Starter relay status signal |
| B2562: LO VOLTAGE | <ul style="list-style-type: none"> • Inhibit engine cranking • Inhibit electronic steering column lock | 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"> • Selector lever P position switch signal • P range signal (CAN) |
| B2602: SHIFT POSITION | Inhibit electronic steering column lock | 5 seconds after the following BCM recognition conditions are fulfilled <ul style="list-style-type: none"> • Ignition switch is in the ON position • Selector lever P position switch signal: Except P position (battery voltage) • Vehicle speed: 4 /h or more |

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"> • Ignition switch is in the ON position • Selector lever P position switch signal: Except P position (battery voltage) • Selector lever P/N position signal: Except P and N positions (0 V) | A |
| 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"> • Status 1 <ul style="list-style-type: none"> - Ignition switch is in the ON position - Selector lever P/N position signal: P and N position (battery voltage) - P range signal or N range signal (CAN): ON • Status 2 <ul style="list-style-type: none"> - Ignition switch is in the ON position - Selector lever P/N position signal: Except P and N positions (0 V) - P range signal and N range signal (CAN): OFF | B C D E |
| 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"> • Ignition switch is in the ON position - Power position: IGN - Selector lever P/N position signal: Except P and N positions (0 V) - Interlock/transmission switch signal (CAN): OFF • Status 2 <ul style="list-style-type: none"> - Ignition switch is in the ON position - Selector lever P/N position signal: P or N position (battery voltage) - transmission switch signal (CAN): ON | F G H |
| 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"> • Electronic steering column lock relay signal (Request signal) • Electronic steering column lock relay signal (Condition signal) | I |
| 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"> • Electronic steering column lock relay signal (Request signal) • Electronic steering column lock relay signal (Condition signal) | J |
| B2608: STARTER RELAY | Inhibit engine cranking | 500 ms after the following signal communication status becomes consistent <ul style="list-style-type: none"> • Starter motor relay control signal • Starter relay status signal (CAN) | SEC |
| B2609: S/L STATUS | <ul style="list-style-type: none"> • Inhibit engine cranking • Inhibit electronic steering column lock | When the following electronic steering column lock conditions agree <ul style="list-style-type: none"> • BCM electronic steering column lock control status • Electronic steering column lock condition No. 1 signal status • Electronic steering column lock condition No. 2 signal status | L M |
| B260A: IGNITION RELAY | Inhibit engine cranking | 500 ms after the following conditions are fulfilled <ul style="list-style-type: none"> • IGN relay (IPDM E/R) control signal: OFF (Battery voltage) • Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) • Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal) | N |
| 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"> • Power position changes to ACC • Receives engine status signal (CAN) | O |
| B2612: S/L STATUS | <ul style="list-style-type: none"> • Inhibit engine cranking • Inhibit electronic steering column lock | When any of the following conditions is fulfilled <ul style="list-style-type: none"> • Electronic steering column lock unit status signal (CAN) is received normally • 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) | P |
| 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"> • Power position changes to ACC • Receives engine status signal (CAN) |
| B26E8: CLUTCH SW | Inhibit engine cranking | When any of the following BCM recognition conditions are fulfilled <ul style="list-style-type: none"> • Status 1 <ul style="list-style-type: none"> - Clutch switch signal (CAN from ECM): ON - Clutch interlock switch signal: OFF (0 V) • Status 2 <ul style="list-style-type: none"> - Clutch switch signal (CAN from ECM): OFF - Clutch interlock switch signal: OFF (Battery voltage) |
| B26E9: S/L STATUS | <ul style="list-style-type: none"> • Inhibit engine cranking • Inhibit electronic steering column lock | 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"> • Steering condition No 1 signal: LOCK (0V) • Steering condition No 2 signal: LOCK (Battery voltage) |

DTC Inspection Priority Chart

INFOID:000000006931297

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"> • B2562: LOW VOLTAGE |
| 2 | <ul style="list-style-type: none"> • U1000: CAN COMM CIRCUIT • U1010: CONTROL UNIT (CAN) |
| 3 | <ul style="list-style-type: none"> • B2190: NATS ANTENNA AMP • B2191: DIFFERENCE OF KEY • B2192: ID DISCORD BCM-ECM • B2193: CHAIN OF BCM-ECM • B2195: ANTI SCANNING |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[COUPE]

| Priority | DTC | | |
|----------|---|---|--|
| 4 | <ul style="list-style-type: none"> • B2013: ID DISCORD BCM-S/L • B2014: CHAIN OF S/L-BCM • B2553: IGNITION RELAY • B2555: STOP LAMP • B2556: PUSH-BTN IGN SW • B2557: VEHICLE SPEED • B2560: STARTER CONT RELAY • B2601: SHIFT POSITION • B2602: SHIFT POSITION • B2603: SHIFT POSI STATUS • B2604: PNP SW • B2605: PNP SW • B2606: S/L RELAY • B2607: S/L RELAY • B2608: STARTER RELAY • B2609: S/L STATUS • B260A: IGNITION RELAY • B260B: STEERING LOCK UNIT • B260C: STEERING LOCK UNIT • B260D: STEERING LOCK UNIT • B260F: ENG STATE SIG LOST • B2611: ACC RELAY • B2612: S/L STATUS • B2614: ACC RELAY CIRC • B2615: BLOWER RELAY CIRC • B2616: IGN RELAY CIRC • B2617: STARTER RELAY CIRC • B2618: BCM • B2619: BCM • B261A: PUSH-BTN IGN SW • B261E: VEHICLE TYPE • B26E1: ENG STATE NO RECIV • B26E8: CLUTCH SW • B26E9: S/L STATUS • B26EA: KEY REGISTRATION • C1729: VHCL SPEED SIG ERR • U0415: VEHICLE SPEED SIG | <p>A</p> <p>B</p> <p>C</p> <p>D</p> <p>E</p> <p>F</p> <p>G</p> <p>H</p> <p>I</p> <p>J</p> | |
| | 5 | <ul style="list-style-type: none"> • C1704: LOW PRESSURE FL • C1705: LOW PRESSURE FR • C1706: LOW PRESSURE RR • C1707: LOW PRESSURE RL • C1708: [NO DATA] FL • C1709: [NO DATA] FR • C1710: [NO DATA] RR • C1711: [NO DATA] RL • C1712: [CHECKSUM ERR] FL • C1713: [CHECKSUM ERR] FR • C1714: [CHECKSUM ERR] RR • C1715: [CHECKSUM ERR] RL • C1716: [PRESSDATA ERR] FL • C1717: [PRESSDATA ERR] FR • C1718: [PRESSDATA ERR] RR • C1719: [PRESSDATA ERR] RL • C1720: [CODE ERR] FL • C1721: [CODE ERR] FR • C1722: [CODE ERR] RR • C1723: [CODE ERR] RL • C1724: [BATT VOLT LOW] FL • C1725: [BATT VOLT LOW] FR • C1726: [BATT VOLT LOW] RR • C1727: [BATT VOLT LOW] RL • C1734: CONTROL UNIT | <p>L</p> <p>M</p> <p>N</p> <p>O</p> <p>P</p> |
| | 6 | <ul style="list-style-type: none"> • B2622: INSIDE ANTENNA • B2623: INSIDE ANTENNA | <p>SEC</p> |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[COUPE]

DTC Index

INFOID:000000006931298

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 | — | — | — | BCS-32 |
| U1010: CONTROL UNIT (CAN) | — | — | — | BCS-33 |
| U0415: VEHICLE SPEED SIG | — | — | — | BCS-34 |
| B2013: ID DISCORD BCM-S/L | × | — | — | SEC-36 (Coupe), SEC-250 (Sedan) |
| B2014: CHAIN OF S/L-BCM | × | — | — | SEC-37 (Coupe), SEC-251 (Sedan) |
| B2190: NATS ANTENNA AMP | × | — | — | SEC-65 (Coupe), SEC-281 (Sedan) |
| B2191: DIFFERENCE OF KEY | × | — | — | SEC-69 (Coupe), SEC-285 (Sedan) |
| B2192: ID DISCORD BCM-ECM | × | — | — | SEC-70 (Coupe), SEC-286 (Sedan) |
| B2193: CHAIN OF BCM-ECM | × | — | — | SEC-71 (Coupe), SEC-287 (Sedan) |
| B2195: ANTI-SCANNING | — | — | — | SEC-72 |
| B2553: IGNITION RELAY | — | — | — | PCS-59 |
| B2555: STOP LAMP | — | — | — | SEC-73 (Coupe), SEC-289 (Sedan) |
| B2556: PUSH-BTN IGN SW | — | × | — | SEC-78 (Coupe), SEC-294 (Sedan) |
| B2557: VEHICLE SPEED | × | × | — | SEC-80 (Coupe), SEC-296 (Sedan) |
| B2560: STARTER CONT RELAY | × | × | — | SEC-81 (Coupe), SEC-297 (Sedan) |
| B2562: LOW VOLTAGE | — | — | — | BCS-35 |
| B2601: SHIFT POSITION | × | × | — | SEC-82 (Coupe), SEC-298 (Sedan) |
| B2602: SHIFT POSITION | × | × | — | SEC-86 (Coupe), SEC-302 (Sedan) |
| B2603: SHIFT POSI STATUS | × | × | — | SEC-89 (Coupe), SEC-305 (Sedan) |
| B2604: PNP SW | × | × | — | SEC-92 (Coupe), SEC-308 (Sedan) |
| B2605: PNP SW | × | × | — | SEC-94 (Coupe), SEC-310 (Sedan) |
| B2606: S/L RELAY | × | × | — | SEC-96 (Coupe), SEC-312 (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 | × | × | — | SEC-97 (Coupe), SEC-313 (Sedan) | A B |
| B2608: STARTER RELAY | × | × | — | SEC-99 (Coupe), SEC-315 (Sedan) | C |
| B2609: S/L STATUS | × | × | — | SEC-101 (Coupe), SEC-317 (Sedan) | D |
| B260A: IGNITION RELAY | × | × | — | PCS-61 | E |
| B260B: STEERING LOCK UNIT | — | × | — | SEC-106 (Coupe), SEC-322 (Sedan) | F |
| B260C: STEERING LOCK UNIT | — | × | — | SEC-107 (Coupe), SEC-323 (Sedan) | G |
| B260D: STEERING LOCK UNIT | — | × | — | SEC-108 (Coupe), SEC-324 (Sedan) | H |
| B260F: ENG STATE SIG LOST | × | × | — | SEC-109 (Coupe), SEC-325 (Sedan) | I |
| B2611: ACC RELAY | — | — | — | PCS-62 | J |
| B2612: S/L STATUS | × | × | — | SEC-110 (Coupe), SEC-331 (Sedan) | K |
| B2614: ACC RELAY CIRC | — | × | — | PCS-64 | L |
| B2615: BLOWER RELAY CIRC | — | × | — | PCS-67 | M |
| B2616: IGN RELAY CIRC | — | × | — | PCS-70 | N |
| B2617: STARTER RELAY CIRC | × | × | — | SEC-115 (Coupe), SEC-336 (Sedan) | O |
| B2618: BCM | × | × | — | PCS-73 | P |
| B2619: BCM | × | × | — | SEC-117 (Coupe), SEC-338 (Sedan) | Q |
| B261A: PUSH-BTN IGN SW | — | × | — | SEC-118 (Coupe), SEC-339 (Sedan) | R |
| B261E: VEHICLE TYPE | × | × (Turn ON for 15 seconds) | — | SEC-121 | S |
| B2622: INSIDE ANTENNA | — | — | — | DLK-279 | T |
| B2623: INSIDE ANTENNA | — | — | — | DLK-282 | U |
| B26E1: ENG STATE NO RES | × | × | — | SEC-326 | V |
| B26E8: CLUTCH SW | × | × | — | SEC-123 | W |
| B26E9: S/L STATUS | × | × (Turn ON for 15 seconds) | — | SEC-125 | X |
| B26EA: KEY REGISTRATION | × | × (Turn ON for 15 seconds) | — | SEC-126 | Y |
| C1704: LOW PRESSURE FL | — | — | × | WT-8 | Z |
| C1705: LOW PRESSURE FR | — | — | × | WT-8 | AA |
| C1706: LOW PRESSURE RR | — | — | × | WT-8 | AB |
| C1707: LOW PRESSURE RL | — | — | × | WT-8 | AC |
| C1708: [NO DATA] FL | — | — | × | WT-13 | AD |
| C1709: [NO DATA] FR | — | — | × | WT-13 | AE |
| C1710: [NO DATA] RR | — | — | × | WT-13 | AF |
| C1711: [NO DATA] RL | — | — | × | WT-13 | AG |
| C1712: [CHECKSUM ERR] FL | — | — | × | WT-15 | AH |

SEC

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 | — | — | × | WT-15 |
| C1714: [CHECKSUM ERR] RR | — | — | × | WT-15 |
| C1715: [CHECKSUM ERR] RL | — | — | × | WT-15 |
| C1716: [PRESSDATA ERR] FL | — | — | × | WT-17 |
| C1717: [PRESSDATA ERR] FR | — | — | × | WT-17 |
| C1718: [PRESSDATA ERR] RR | — | — | × | WT-17 |
| C1719: [PRESSDATA ERR] RL | — | — | × | WT-17 |
| C1720: [CODE ERR] FL | — | — | × | WT-15 |
| C1721: [CODE ERR] FR | — | — | × | WT-15 |
| C1722: [CODE ERR] RR | — | — | × | WT-15 |
| C1723: [CODE ERR] RL | — | — | × | WT-15 |
| C1724: [BATT VOLT LOW] FL | — | — | × | WT-15 |
| C1725: [BATT VOLT LOW] FR | — | — | × | WT-15 |
| C1726: [BATT VOLT LOW] RR | — | — | × | WT-15 |
| C1727: [BATT VOLT LOW] RL | — | — | × | WT-15 |
| C1729: VHCL SPEED SIG ERR | — | — | × | WT-18 |
| C1734: CONTROL UNIT | — | — | × | WT-19 |

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:000000006931273

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 |

A
B
C
D
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P

SEC

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

< ECU DIAGNOSIS INFORMATION >

[COUPE]

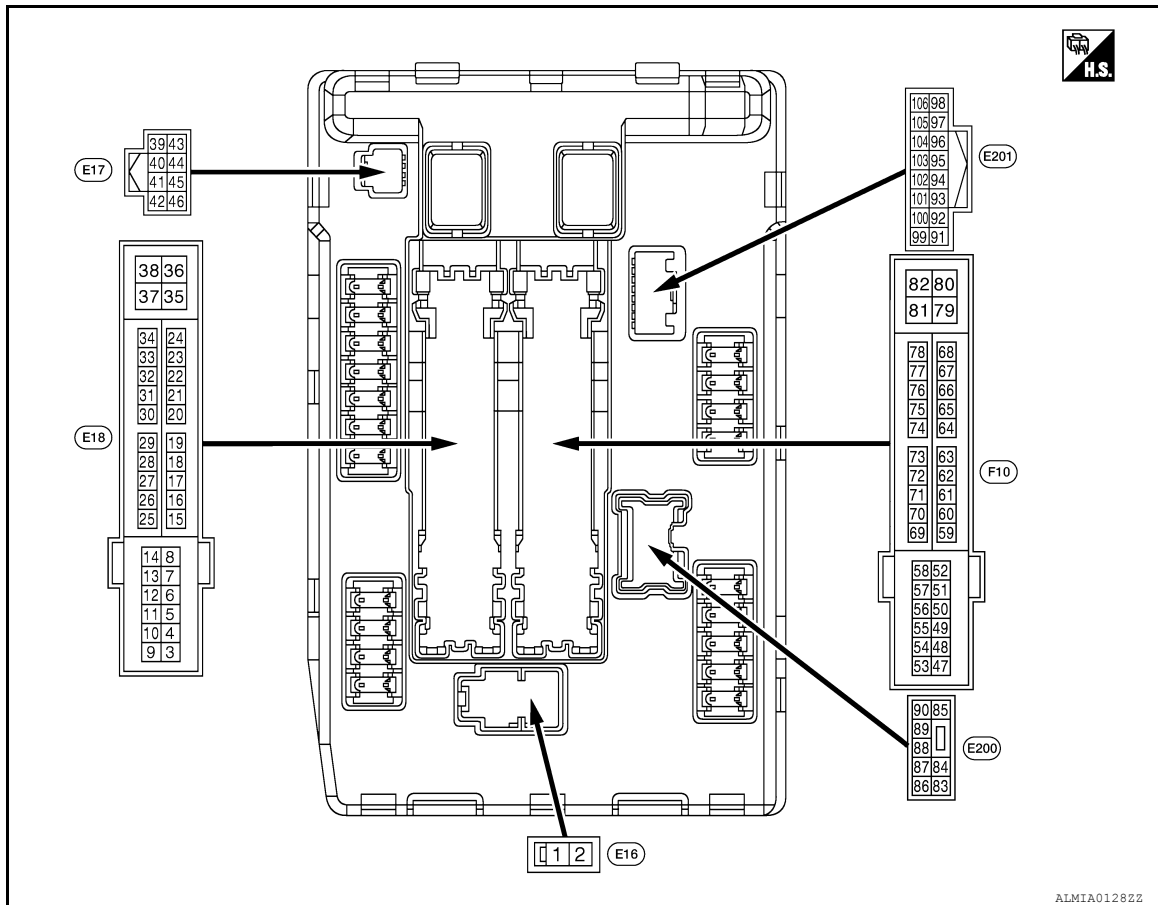
| Monitor Item | Condition | Value/Status |
|--------------|---|--------------|
| ST/INHI RLY | Ignition switch ON | Off |
| | At engine cranking | ST →INHI |
| | The status of starter relay or starter control relay cannot be recognized by the battery voltage malfunction, etc. when the starter relay is ON and the starter control relay is OFF | UNKWN |
| DETENT SW | Ignition switch ON <ul style="list-style-type: none"> • Press the selector button with CVT selector lever in P position • CVT selector lever in any position other than P | Off |
| | Release the CVT selector button with CVT selector lever in P position NOTE: 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"> • Open the driver door after the ignition switch is turned OFF (for a few seconds) • Press the push-button ignition switch when the steering lock is activated • Depress the clutch pedal when the steering lock is activated | 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"> • Panic alarm is activated • Horn is activated with VEHICLE SECURITY (THEFT WARNING) SYSTEM | 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 OFF | Front wiper switch OFF | 0 V |
| | | | | Ignition switch ON | Front wiper switch LO | Battery voltage |
| 5 (Y) | Ground | Front wiper HI | Output | Ignition switch OFF | Front wiper switch OFF | 0 V |
| | | | | Ignition switch ON | Front wiper switch HI | Battery voltage |
| 7 (GR) | Ground | Tail, license plate lamps & interior lamps | Output | Ignition switch OFF | Lighting switch OFF | 0 V |
| | | | | Ignition switch ON | 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 |
| | | | | <ul style="list-style-type: none"> Ignition switch ON Ignition switch OFF (More than a few seconds after turning 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 opening the driver door | Battery voltage | |
| | | | | Ignition switch LOCK | Press the push-button ignition 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"> • Approximately 1 second after turning the ignition switch ON • Engine running | | Battery voltage | |
| 15 (W) | Ground | Ignition relay-1 power supply | Output | Ignition switch OFF | | 0 V | |
| | | | | Ignition switch ON | | Battery voltage | |
| 16 (L/Y) | 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 supply | 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 sensor ground | — | Ignition switch ON | | 0V | |
| 23 (B/R) | Ground | Refrigerant pressure sensor | — | <ul style="list-style-type: none"> • Ignition switch ON (READY) • Both A/C switch and blower motor switch ON (electric compressor operates) | | 1.0 - 4.0V | |
| 24 (BR/W) | Ground | Refrigerant pressure sensor power supply | — | Ignition switch ON | | 5V | |
| 25 (GR) | Ground | Ignition relay-1 power supply | 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 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 |

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 (O/L) | 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 (R/W) | 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 (G/B) | Ground | CVT shift selector (Detention switch) | Input | Ignition switch ON | Battery voltage | |
| | | | | <ul style="list-style-type: none"> • Press the CVT selector button (CVT selector lever P) • CVT selector lever in any position other than P • Release the CVT selector button (CVT selector lever P) | 0 V | |
| 44 (G/W) coupe (W) sedan | Ground | Horn relay control | Input | The horn is deactivated | Battery voltage | |
| | | | | The horn is activated | 0 V | |
| 45 (L/O) | 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 >

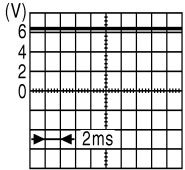
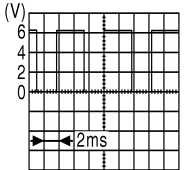
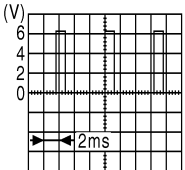
[COUPE]

| 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 | |
| | | | | <ul style="list-style-type: none"> • 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 | |
| | | | | <ul style="list-style-type: none"> • 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 | |
| | | | | <ul style="list-style-type: none"> • 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 | |
| | | | | <ul style="list-style-type: none"> • 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) (with QR25DE) 72 (BR) (with VQ35DE) | 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 command signal | Output | Ignition switch ON | |  <small>JPMIA0001GB</small> 6.3 V |
| | | | | 40% is set on "Active test", "ALTERNATOR DUTY" of "ENGINE" | |  <small>JPMIA0002GB</small> 3.8 V |
| | | | | 80% is set on "Active test", "ALTERNATOR DUTY" of "ENGINE" | |  <small>JPMIA0003GB</small> 1.4 V |
| 77 (GR) | Ground | Fuel pump relay control | Output | • Approximately 1 second after turning the ignition switch ON • Engine running | | 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:000000006931274

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"> • Signals cooling fans ON when the ignition switch is turned ON • Signals cooling fans OFF when the ignition switch is turned OFF |
| 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"> • Turns ON the headlamp low relay when the ignition switch is turned ON • Turns OFF the headlamp low relay when the ignition switch is turned OFF • Headlamp high relay OFF |
| <ul style="list-style-type: none"> • Parking lamps • License plate lamps • Illumination • Tail lamps | <ul style="list-style-type: none"> • Turns ON the tail lamp relay when the ignition switch is turned ON • Turns OFF the tail lamp relay when the ignition switch is turned OFF |
| Front wiper | <ul style="list-style-type: none"> • 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. • 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. |

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:000000006931275

| CONSULT display | Fail-safe | TIME ^{NOTE} | | Refer to |
|--|-----------|----------------------|--------|-------------------------|
| No DTC is detected. further testing may be required. | — | — | — | — |
| U1000: CAN COMM CIRCUIT | × | CRNT | 1 – 39 | PCS-17 |
| B2098: IGN RELAY ON | × | CRNT | 1 – 39 | PCS-18 |
| B2099: IGN RELAY OFF | — | CRNT | 1 – 39 | PCS-19 |
| B2108: STRG LCK RELAY ON | — | CRNT | 1 – 39 | SEC-255 |
| B2109: STRG LCK RELAY OFF | — | CRNT | 1 – 39 | SEC-256 |
| B210A: STRG LCK STATE SW | — | CRNT | 1 – 39 | SEC-257 |
| B210B: START CONT RLY ON | — | CRNT | 1 – 39 | SEC-262 |
| B210C: START CONT RLY OFF | — | CRNT | 1 – 39 | SEC-263 |

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

< ECU DIAGNOSIS INFORMATION >

[COUPE]

| CONSULT display | Fail-safe | TIME ^{NOTE} | | Refer to |
|--|-----------|----------------------|--------|-------------------------|
| B210D: STARTER RELAY ON | — | CRNT | 1 – 39 | SEC-264 |
| B210E: STARTER RELAY OFF | — | CRNT | 1 – 39 | SEC-266 |
| B210F: INTRLCK/TRANSMISSION RANGE SW ON | — | CRNT | 1 – 39 | SEC-269 |
| B2110: INTRLCK/TRANSMISSION RANGE SW OFF | — | CRNT | 1 – 39 | SEC-275 |

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]

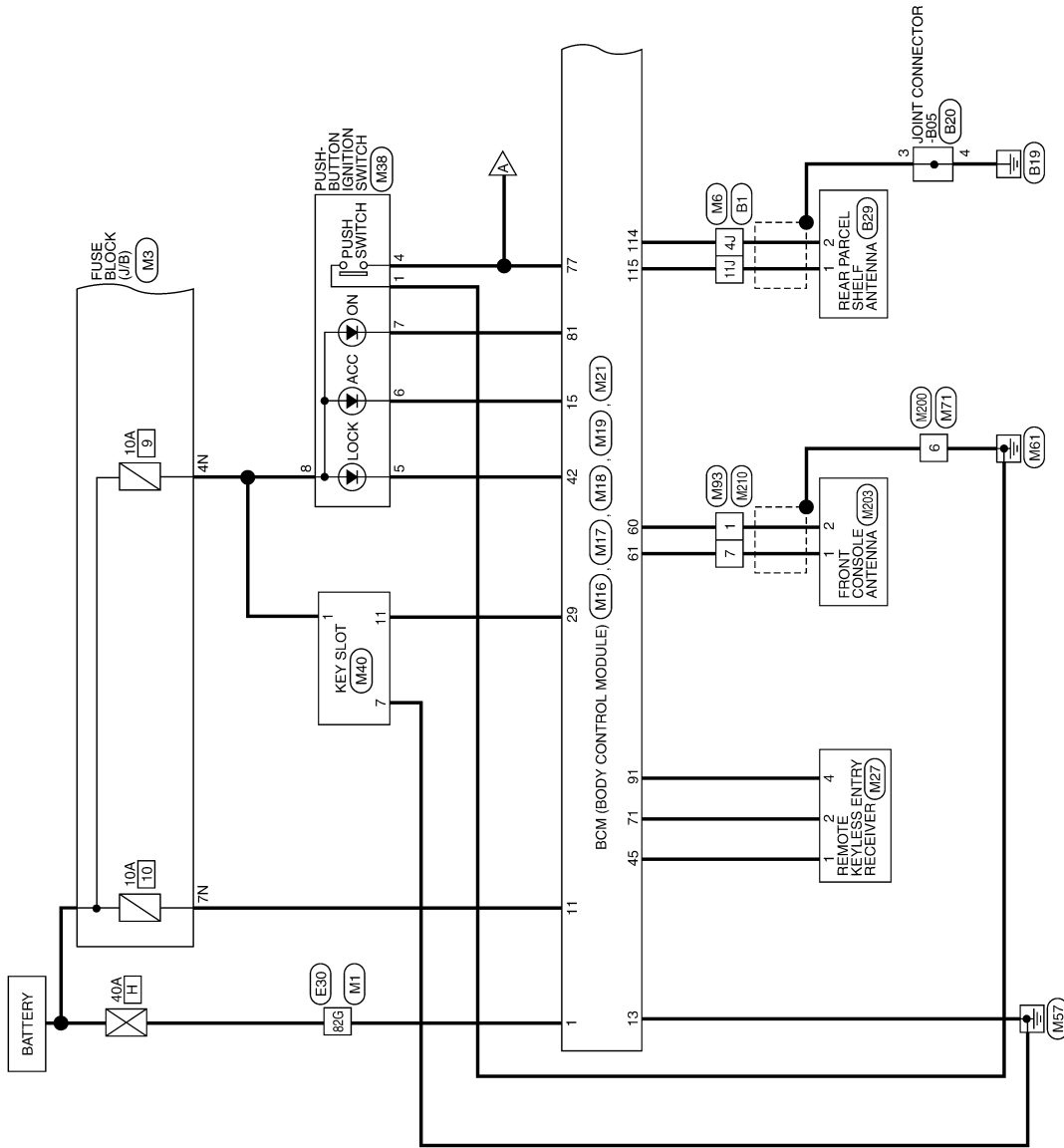
WIRING DIAGRAM

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

Wiring Diagram

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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION



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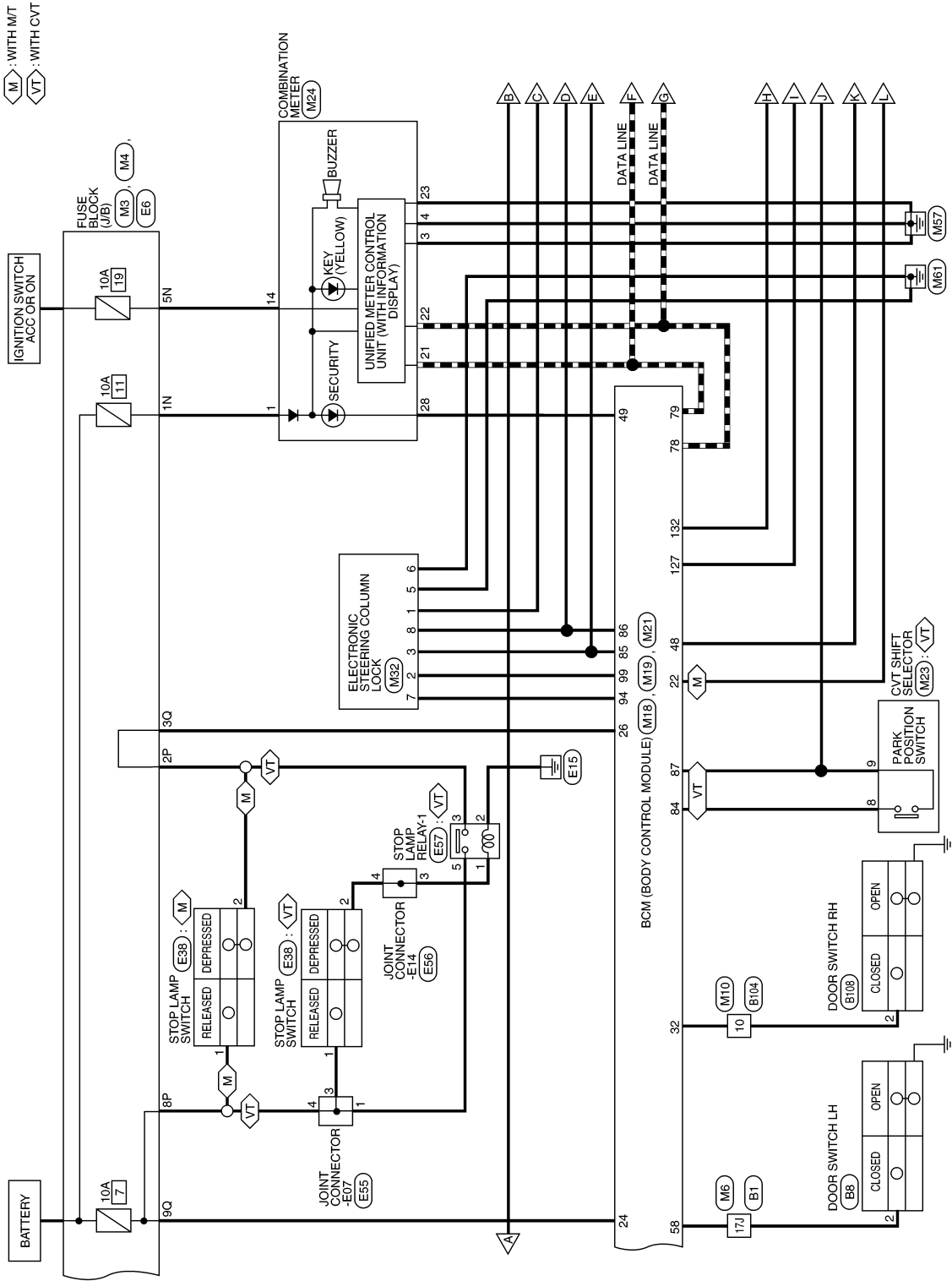
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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

[COUPE]

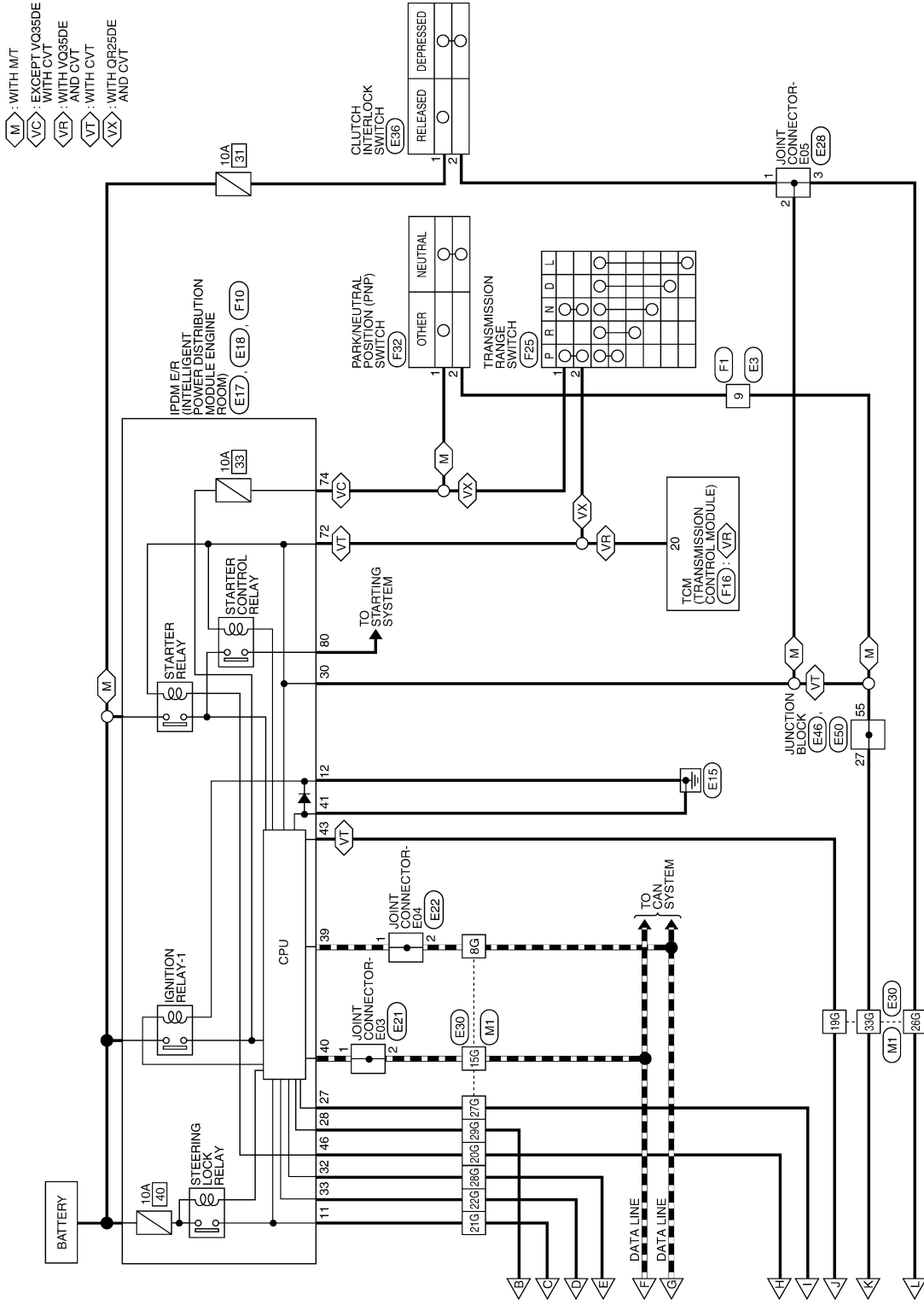


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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

[COUPE]



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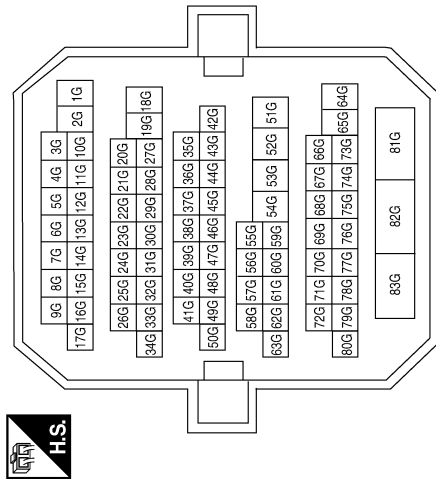
INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

[COUPE]

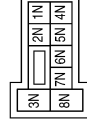
INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION CONNECTORS

| | |
|-----------------|--------------|
| Connector No. | M1 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



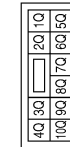
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 8G | P | - |
| 15G | L | - |
| 19G | G/B | - |
| 20G | R | - |
| 21G | P/L | - |
| 22G | G/R | - |
| 26G | R/Y | - |
| 27G | BR/W | - |
| 28G | L/O | - |
| 29G | BR | - |
| 33G | R/G | - |
| 51G | L | - |
| 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 | - |

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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

[COUPE]

| | |
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| Connector No. | M10 |
| Connector Name | WIRE TO WIRE |
| Connector Color | BROWN |

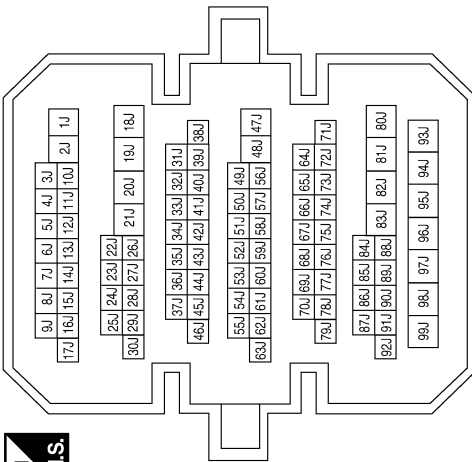


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|----|----|----|---|---|
| 5 | 4 | 3 | 2 | 1 |
| 12 | 11 | 10 | 9 | 8 |
| 7 | 6 | 5 | 4 | 3 |

| | | |
|--------------|---------------|-------------|
| 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 |



| | | |
|--------------|---------------|---------------|
| Terminal No. | Color of Wire | Signal Name |
| 1 | W/B | BAT_POWER_F/L |

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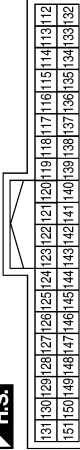
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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >


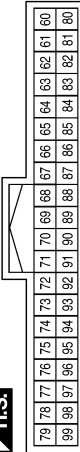
[COUPE]

| | |
|-----------------|---------------------------|
| 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 |
| 127 | BRW | IGN_USM_CONT1 |
| 132 | R | ST_CONT_USM |


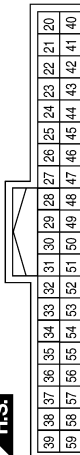
| | |
|-----------------|---------------------------|
| Connector No. | M19 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Color | BLACK |

| 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 |

| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|---------------|
| 8 | Y/R | DETENT_KEY_SW |
| 9 | G/B | DETENT_KEY_SW |

| | |
|-----------------|---------------------------|
| Connector No. | M18 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Color | GREEN |

| 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 |



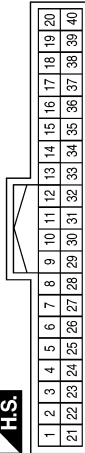
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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

[COUPE]

| | |
|-----------------|-------------------|
| Connector No. | M24 |
| Connector Name | COMBINATION METER |
| Connector Color | WHITE |



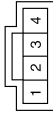
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|---------------|
| 1 | W/L | BAT |
| 3 | B | GND (POWER) |
| 4 | B | GND (ILL) |
| 14 | V/Y | ACC |
| 21 | L | CAN-H |
| 22 | P | CAN-L |
| 23 | B | GND (CIRCUIT) |
| 28 | L/O | SECURITY |

| | |
|-----------------|-----------------------------|
| Connector No. | M38 |
| Connector Name | PUSH-BUTTON IGNITION SWITCH |
| Connector Color | BROWN |



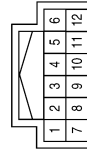
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | B | GND |
| 4 | BR | START_SW |
| 5 | R | LOCK |
| 6 | Y/L | ACC |
| 7 | LG | ON |
| 8 | G/Y | B+ |

| | |
|-----------------|-------------------------------|
| Connector No. | M27 |
| Connector Name | REMOTE KEYLESS ENTRY RECEIVER |
| Connector Color | BLACK |



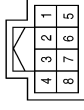
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | P | GND |
| 2 | L/O | SIGNAL |
| 4 | L/R | 12V |

| | |
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| Connector No. | M40 |
| Connector Name | KEY SLOT |
| Connector Color | WHITE |



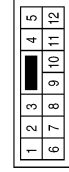
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | G/Y | B+ |
| 7 | B | GND |
| 11 | Y | CARD_SW_1 |

| | |
|-----------------|---------------------------------|
| Connector No. | 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. | M71 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 6 | B | - |

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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

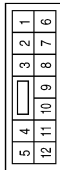
[COUPE]

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| Connector No. | M203 |
| Connector Name | FRONT CONSOLE ANTENNA |
| Connector Color | GRAY |



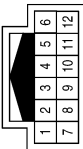
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | W/R | ANT+ |
| 2 | B/R | ANT- |

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| Connector No. | M200 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 6 | B | - |

| | |
|-----------------|--------------|
| Connector No. | M93 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | B/R | - |
| 7 | W/R | - |

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| Connector No. | E6 |
| Connector Name | FUSE BLOCK (J/B) |
| Connector Color | WHITE |



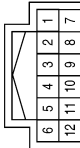
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|--------------|
| 2P | LG | - (WITH M/T) |
| 2P | Y | - (WITH CVT) |
| 8P | R | - |

| | |
|-----------------|--------------|
| Connector No. | E3 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 9 | BR | - |

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|-----------------|--------------|
| Connector No. | M210 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | B/R | - |
| 7 | W/R | - |

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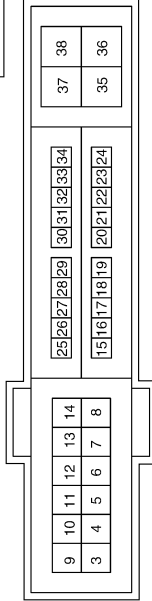
INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

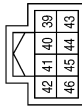
[COUPE]

| 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_J/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 |

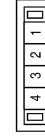


| Connector No. | E17 |
|-----------------|--|
| Connector Name | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Color | WHITE |



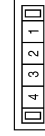
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|--------------|
| 39 | P | CAN-L |
| 40 | L | CAN-H |
| 41 | B | GND (SIGNAL) |
| 43 | Y | RANGE SW |
| 46 | BR | START CONT |

| Connector No. | E28 |
|-----------------|---------------------|
| Connector Name | JOINT CONNECTOR-E05 |
| Connector Color | WHITE |



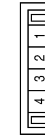
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | R | - |
| 2 | R | - |
| 3 | R | - |

| Connector No. | E22 |
|-----------------|---------------------|
| Connector Name | JOINT CONNECTOR-E04 |
| Connector Color | WHITE |



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

| 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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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

[COUPE]

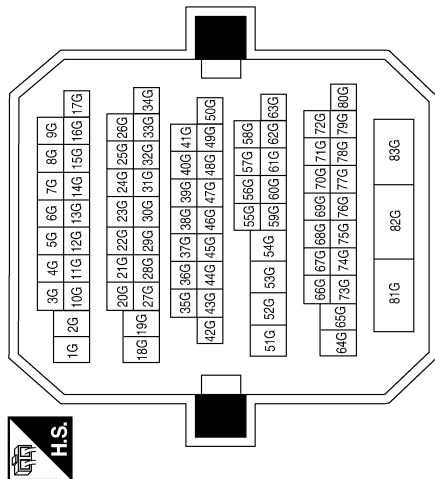
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| Connector No. | E36 |
| Connector Name | CLUTCH INTERLOCK SWITCH |
| Connector Color | BROWN |



| 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 |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 27 | BR | - |

| | |
|-----------------|-----------------------------|
| Connector No. | E38 |
| Connector Name | STOP LAMP SWITCH (WITH M/T) |
| Connector Color | BLACK |



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

| | |
|-----------------|-----------------------------|
| Connector No. | E38 |
| Connector Name | STOP LAMP SWITCH (WITH CVT) |
| Connector Color | WHITE |



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

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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 |



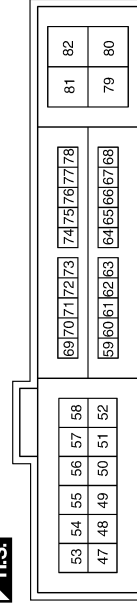
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | W | - |
| 3 | R | - |
| 4 | R | - |

| | |
|-----------------|----------------|
| Connector No. | E50 |
| Connector Name | JUNCTION BLOCK |
| Connector Color | WHITE |



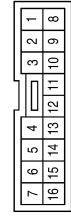
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 55 | BR | - |

| | |
|-----------------|--|
| 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 | - |

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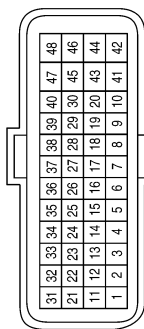
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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

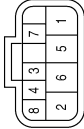
[COUPE]

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| Connector No. | F16 |
| Connector Name | TCM (TRANSMISSION CONTROL MODULE) |
| Connector Color | BLACK |



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|--------------|---------------|-------------|
| Terminal No. | Color of Wire | Signal Name |
| 20 | W | ST_RLY |

| | |
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| Connector No. | F25 |
| Connector Name | TRANSMISSION RANGE SWITCH |
| Connector Color | BLACK |



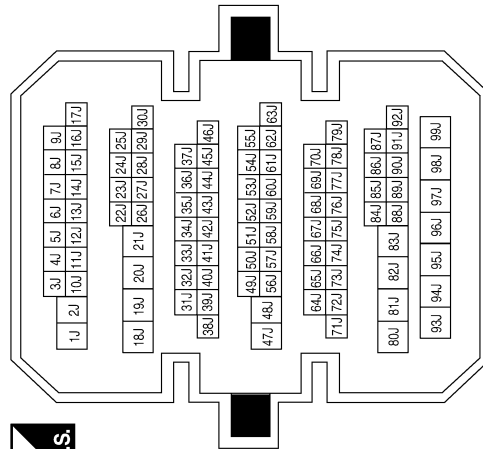
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| Terminal No. | Color of Wire | Signal Name |
| 1 | L | IGN P N |
| 2 | W | P N OUTPUT |

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| Connector No. | F32 |
| Connector Name | PARK/NEUTRAL POSITION (PNP) SWITCH |
| Connector Color | BLACK |



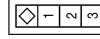
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| Terminal No. | Color of Wire | Signal Name |
| 1 | L | - |
| 2 | W | - |

| | |
|-----------------|--------------|
| Connector No. | B1 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



| | | |
|--------------|---------------|-------------|
| Terminal No. | Color of Wire | Signal Name |
| 4J | B | - |
| 11J | W | - |
| 17J | SB | - |

| | |
|-----------------|----------------|
| Connector No. | B8 |
| Connector Name | DOOR SWITCH LH |
| Connector Color | WHITE |



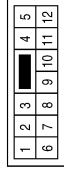
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| Terminal No. | Color of Wire | Signal Name |
| 2 | SB | DOOR SW (DR) |

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

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[COUPE]

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| Connector No. | B104 |
| Connector Name | WIRE TO WIRE |
| Connector Color | BROWN |



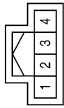
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| Terminal No. | 10 | Color of Wire | GR | Signal Name | - |
|--------------|----|---------------|----|-------------|---|

| | |
|-----------------|---------------------------|
| Connector No. | B29 |
| Connector Name | REAR PARCEL SHELF ANTENNA |
| Connector Color | GRAY |



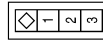
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| Terminal No. | 1 | Color of Wire | W | Signal Name | ANT+ |
| 2 | B | ANT- | | | |

| | |
|-----------------|---------------------|
| Connector No. | B20 |
| Connector Name | JOINT CONNECTOR-B05 |
| Connector Color | GRAY |



| | | | | | |
|--------------|---|---------------|---|-------------|---|
| Terminal No. | 3 | Color of Wire | B | Signal Name | - |
| 4 | B | - | | | |

| | |
|-----------------|----------------|
| Connector No. | B108 |
| Connector Name | DOOR SWITCH RH |
| Connector Color | WHITE |



| | | | | | |
|--------------|---|---------------|----|-------------|--------------|
| Terminal No. | 2 | Color of Wire | GR | Signal Name | DOOR SW (AS) |
|--------------|---|---------------|----|-------------|--------------|

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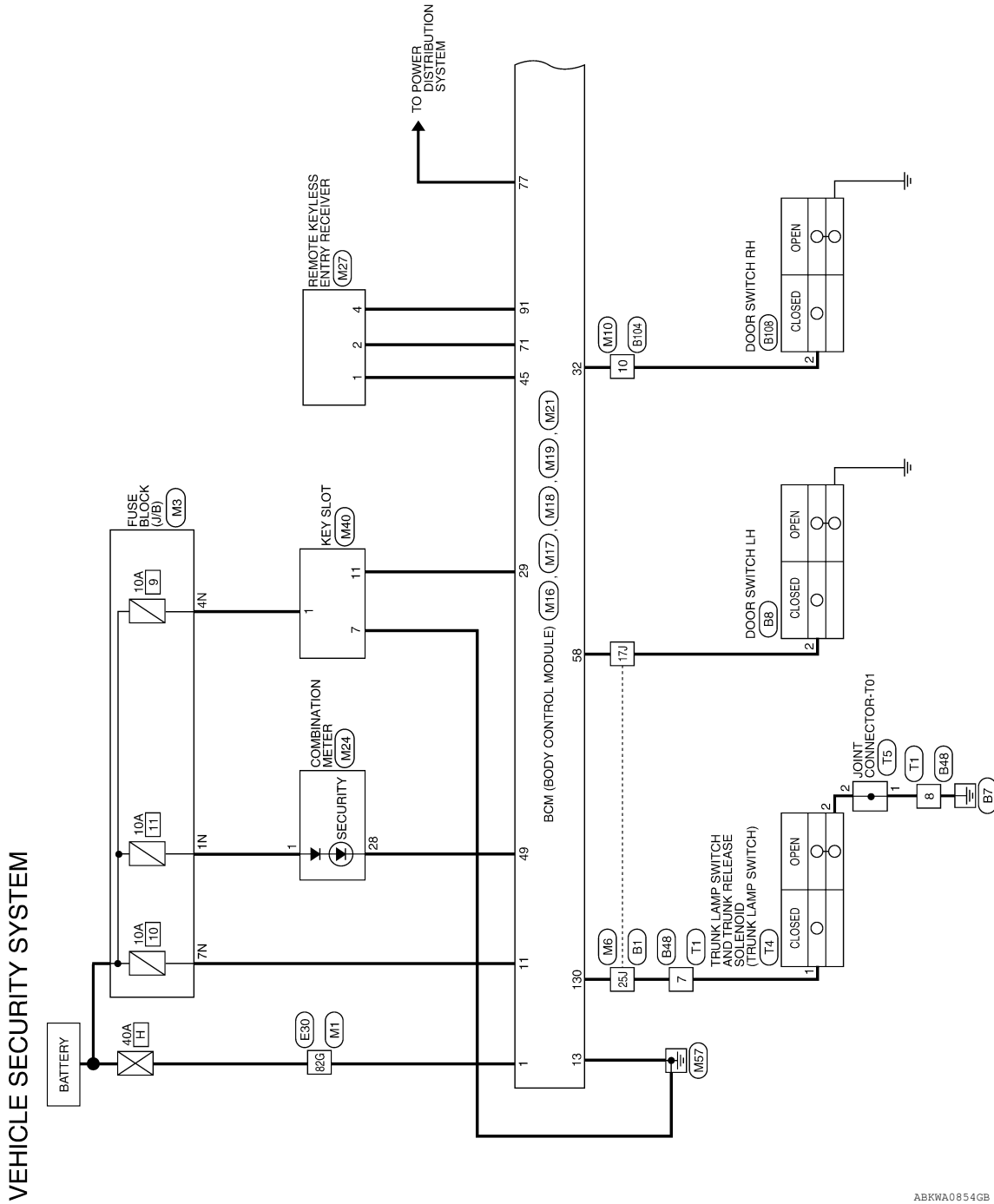
[COUPE]

< WIRING DIAGRAM >

VEHICLE SECURITY SYSTEM

Wiring Diagram

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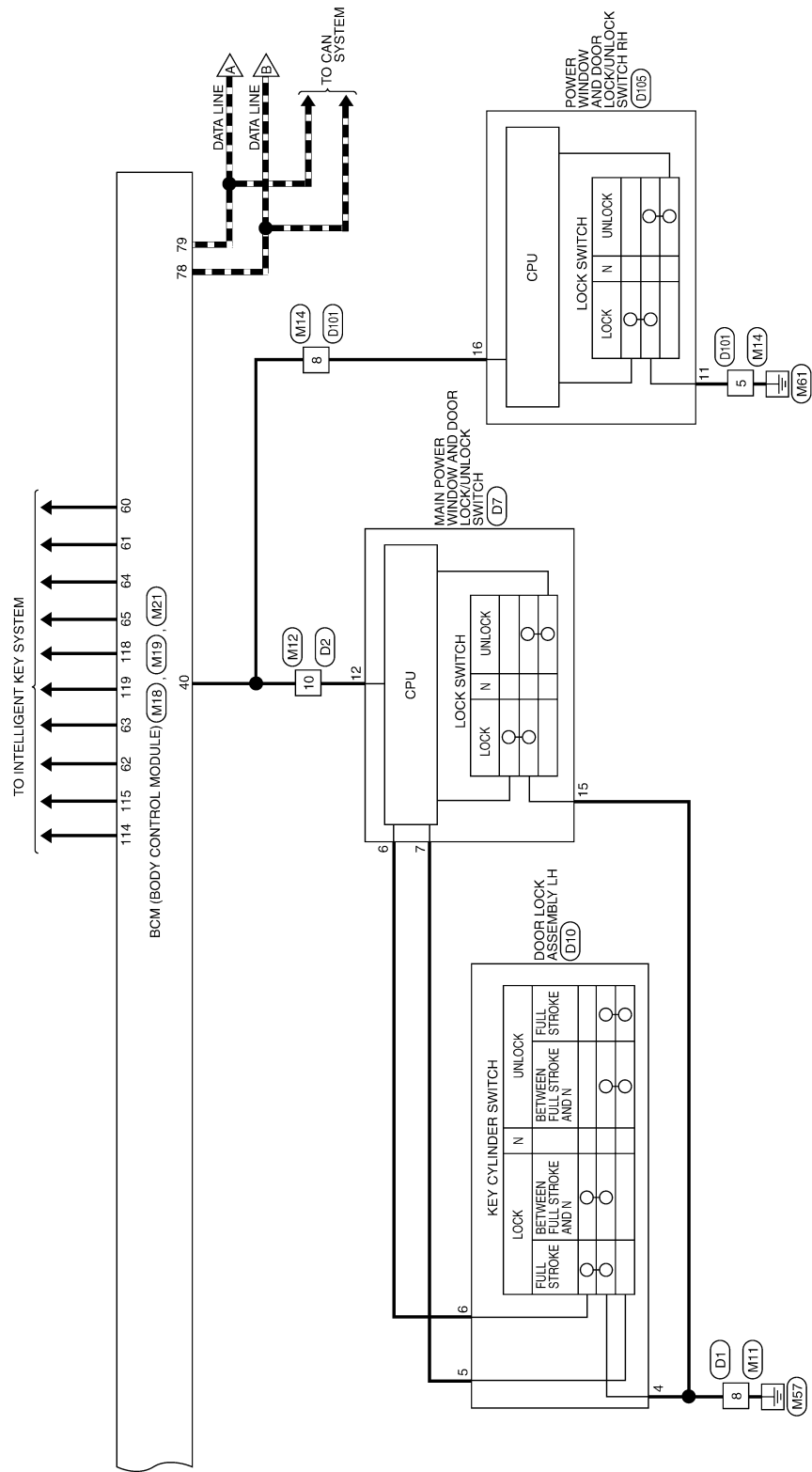


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VEHICLE SECURITY SYSTEM

< WIRING DIAGRAM >

[COUPE]



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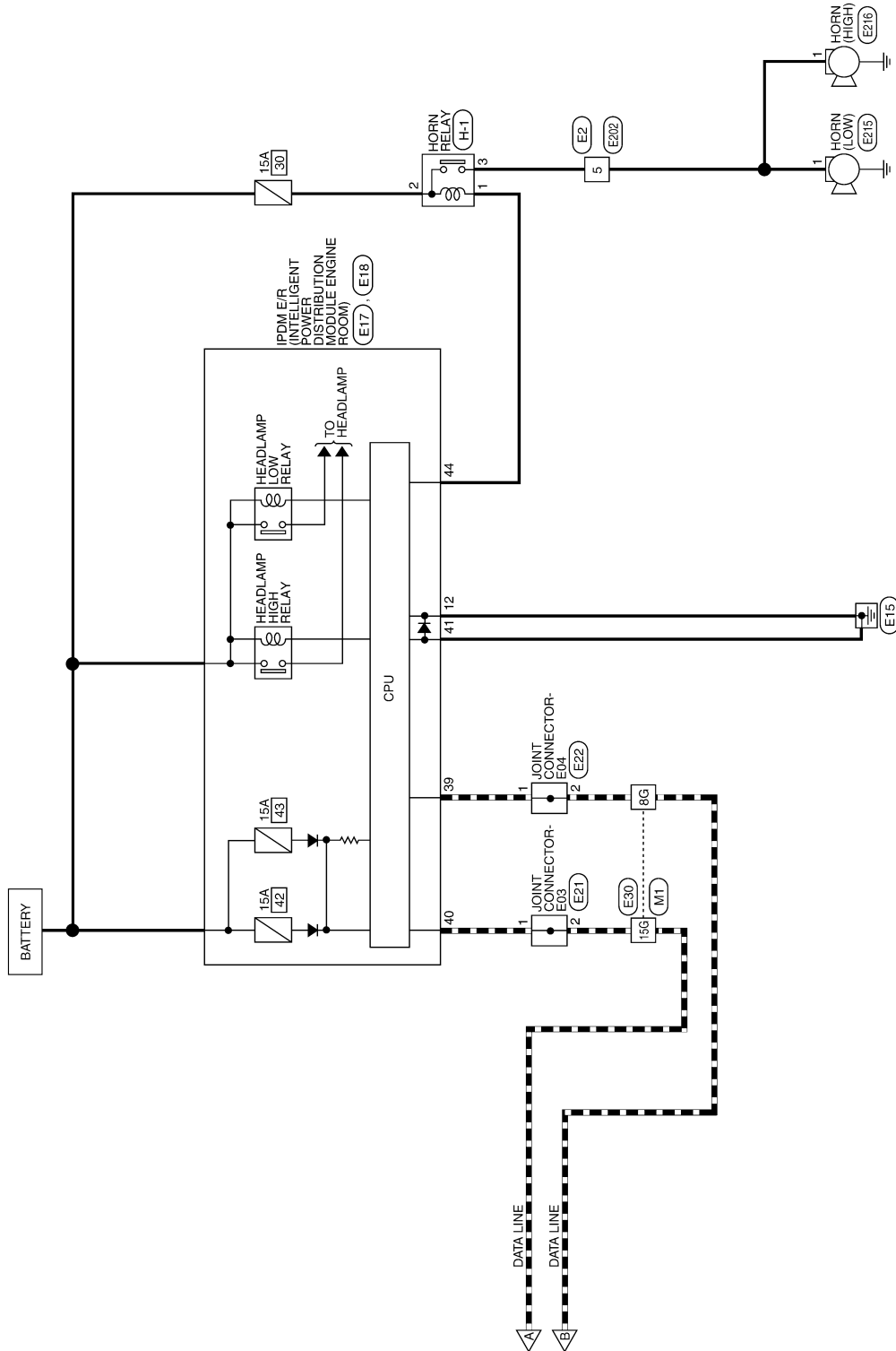
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VEHICLE SECURITY SYSTEM

< WIRING DIAGRAM >

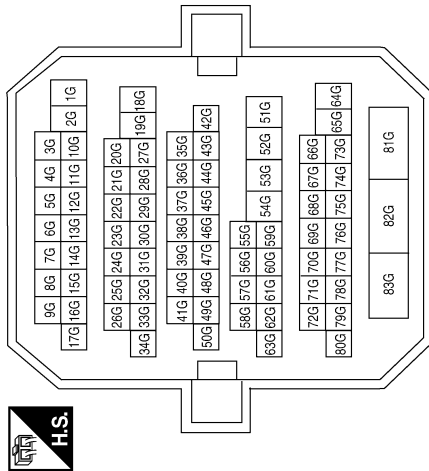
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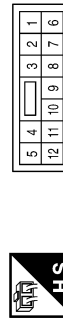
VEHICLE SECURITY SYSTEM CONNECTORS

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|-----------------|--------------|
| Connector No. | M1 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



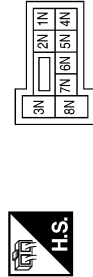
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 8G | P | - |
| 15G | L | - |
| 82G | W/B | - |

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| Connector No. | M10 |
| Connector Name | WIRE TO WIRE |
| Connector Color | BROWN |



| | | | | | |
|--------------|----|---------------|-----|-------------|---|
| Terminal No. | 10 | Color of Wire | R/B | Signal Name | - |
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| Connector No. | M3 |
| Connector Name | FUSE BLOCK (J/B) |
| Connector Color | WHITE |



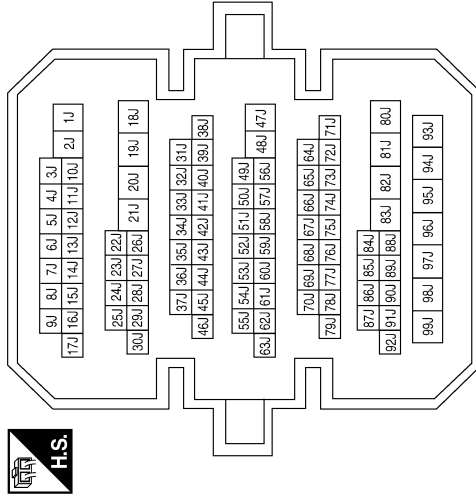
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1N | W/L | - |
| 4N | G/Y | - |
| 7N | Y/R | - |

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|-----------------|--------------|
| Connector No. | M11 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



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|--------------|---|---------------|---|-------------|---|
| Terminal No. | 8 | Color of Wire | B | Signal Name | - |
|--------------|---|---------------|---|-------------|---|

| | |
|-----------------|--------------|
| 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. | M12 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



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|--------------|----|---------------|-----|-------------|---|
| Terminal No. | 10 | Color of Wire | Y/G | Signal Name | - |
|--------------|----|---------------|-----|-------------|---|

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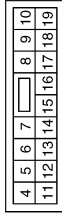
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VEHICLE SECURITY SYSTEM

< WIRING DIAGRAM >

[COUPE]

| | |
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| Connector No. | M17 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Color | WHITE |



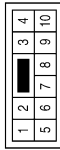
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|--------------|
| 11 | Y/R | BAT_BCM_FUSE |
| 13 | B | GND1 |

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| Connector No. | M16 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Color | BLACK |



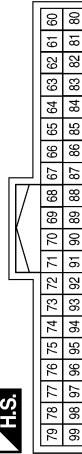
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|---------------|
| 1 | W/B | BAT_POWER_F/L |

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| Connector No. | M14 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |

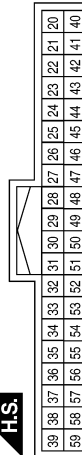


| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 5 | B | - |
| 8 | Y/G | - |

| | |
|-----------------|---------------------------|
| Connector No. | M19 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Color | BLACK |



| | |
|-----------------|---------------------------|
| Connector No. | M18 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Color | GREEN |



| 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 |

| 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 |

| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|------------------|
| 78 | P | CAN-L |
| 79 | L | CAN-H |
| 91 | L/R | RF1_POWER_SUPPLY |

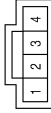
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VEHICLE SECURITY SYSTEM

< WIRING DIAGRAM >

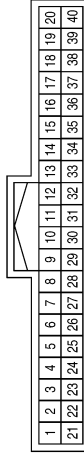
[COUPE]

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| Connector No. | M27 |
| Connector Name | REMOTE KEYLESS ENTRY RECEIVER |
| Connector Color | BLACK |



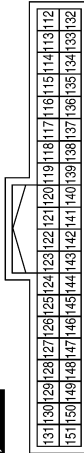
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | P | GND |
| 2 | L/O | SIGNAL |
| 4 | L/R | 12V |

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|-----------------|-------------------|
| Connector No. | M24 |
| Connector Name | COMBINATION METER |
| Connector Color | WHITE |



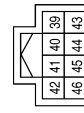
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | W/L | BAT |
| 28 | L/O | SECURITY |

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| Connector No. | M21 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Color | GRAY |



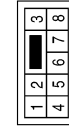
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-----------------|
| 114 | B | TRUNK_ANT_1_B |
| 115 | W | TRUNK_ANT_1_A |
| 118 | L/O | BACK_DOOR_ANT_B |
| 119 | BR/W | BACK_DOOR_ANT_A |
| 130 | Y/G | TRUNK_SW |

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| Connector No. | E17 |
| Connector Name | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Color | WHITE |



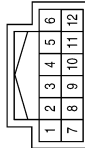
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|--------------|
| 39 | P | CAN-L |
| 40 | L | CAN-H |
| 41 | B | GND (SIGNAL) |
| 44 | W | HORN_RLY |

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| Connector No. | E2 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 5 | O | - |

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|-----------------|----------|
| 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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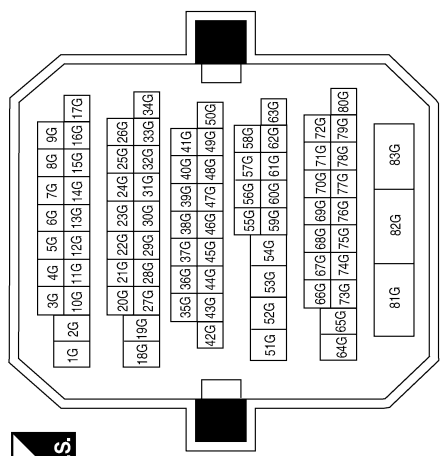
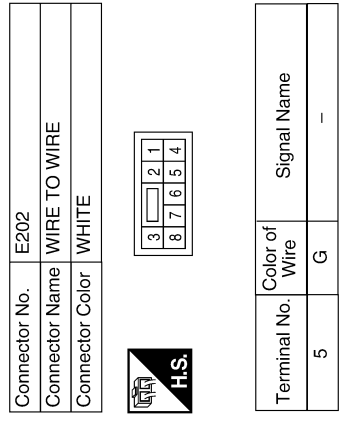
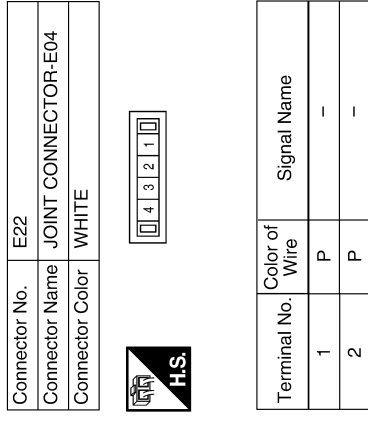
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[COUPE]



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VEHICLE SECURITY SYSTEM

< WIRING DIAGRAM >

[COUPE]

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| Connector No. | B1 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |

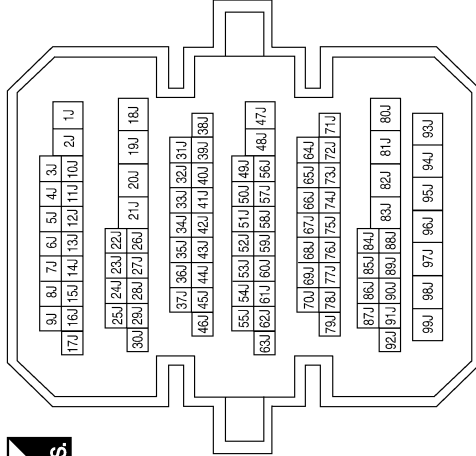


| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | G | - |

| | |
|-----------------|------------|
| Connector No. | E215 |
| Connector Name | HORN (LOW) |
| Connector Color | BLACK |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | G | - |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 17J | SB | - |
| 22J | BR | - |
| 25J | W | - |

| | |
|-----------------|--------------|
| 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) |

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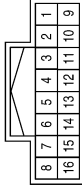
SEC

VEHICLE SECURITY SYSTEM

< WIRING DIAGRAM >

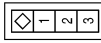
[COUPE]

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| Connector No. | T1 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



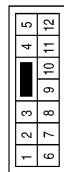
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 7 | W | - |
| 8 | B/Y | - |

| | |
|-----------------|----------------|
| Connector No. | B108 |
| Connector Name | 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 | - |

| | |
|-----------------|--------------|
| Connector No. | D1 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 8 | B | - |

| | |
|-----------------|---------------------|
| Connector No. | T5 |
| Connector Name | JOINT CONNECTOR-T01 |
| Connector Color | WHITE |



| 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 |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | W | - |
| 2 | B/Y | - |

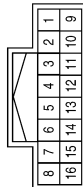
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VEHICLE SECURITY SYSTEM

< WIRING DIAGRAM >

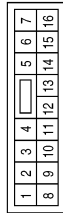
[COUPE]

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| Connector No. | D2 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



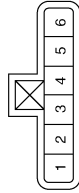
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 10 | BR | - |

| | |
|-----------------|---|
| 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 |

| | |
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| Connector No. | D10 |
| Connector Name | DOOR LOCK ASSEMBLY LH |
| Connector Color | GRAY |



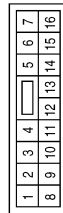
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|----------------------|
| 4 | B | GND |
| 5 | L/R | DOOR_KEY/C_UNLOCK_SW |
| 6 | L/B | DOOR_KEY/C_LOCK_SW |

| | |
|-----------------|--------------|
| Connector No. | D101 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



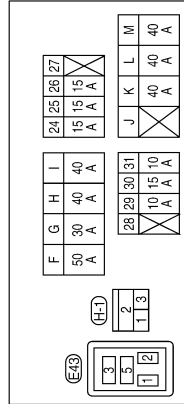
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 5 | B | - |
| 8 | R | - |

| | |
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| 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 | - |

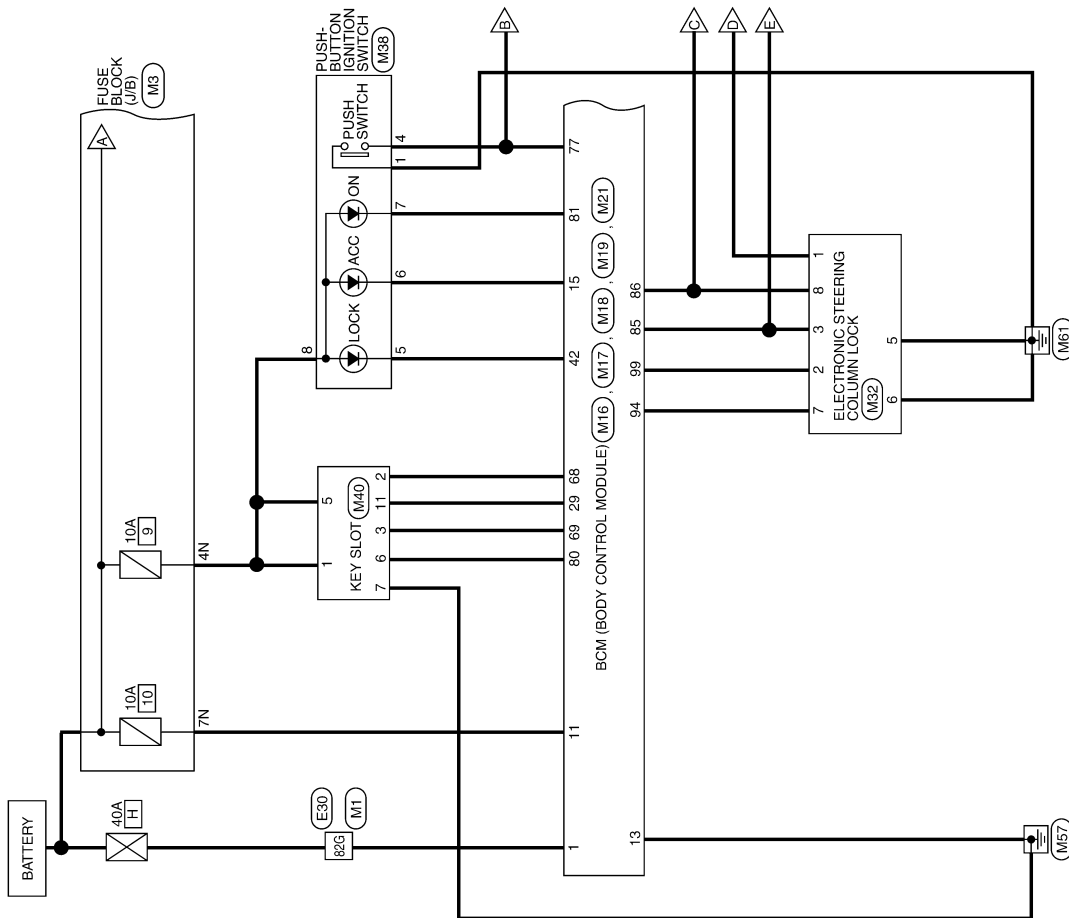
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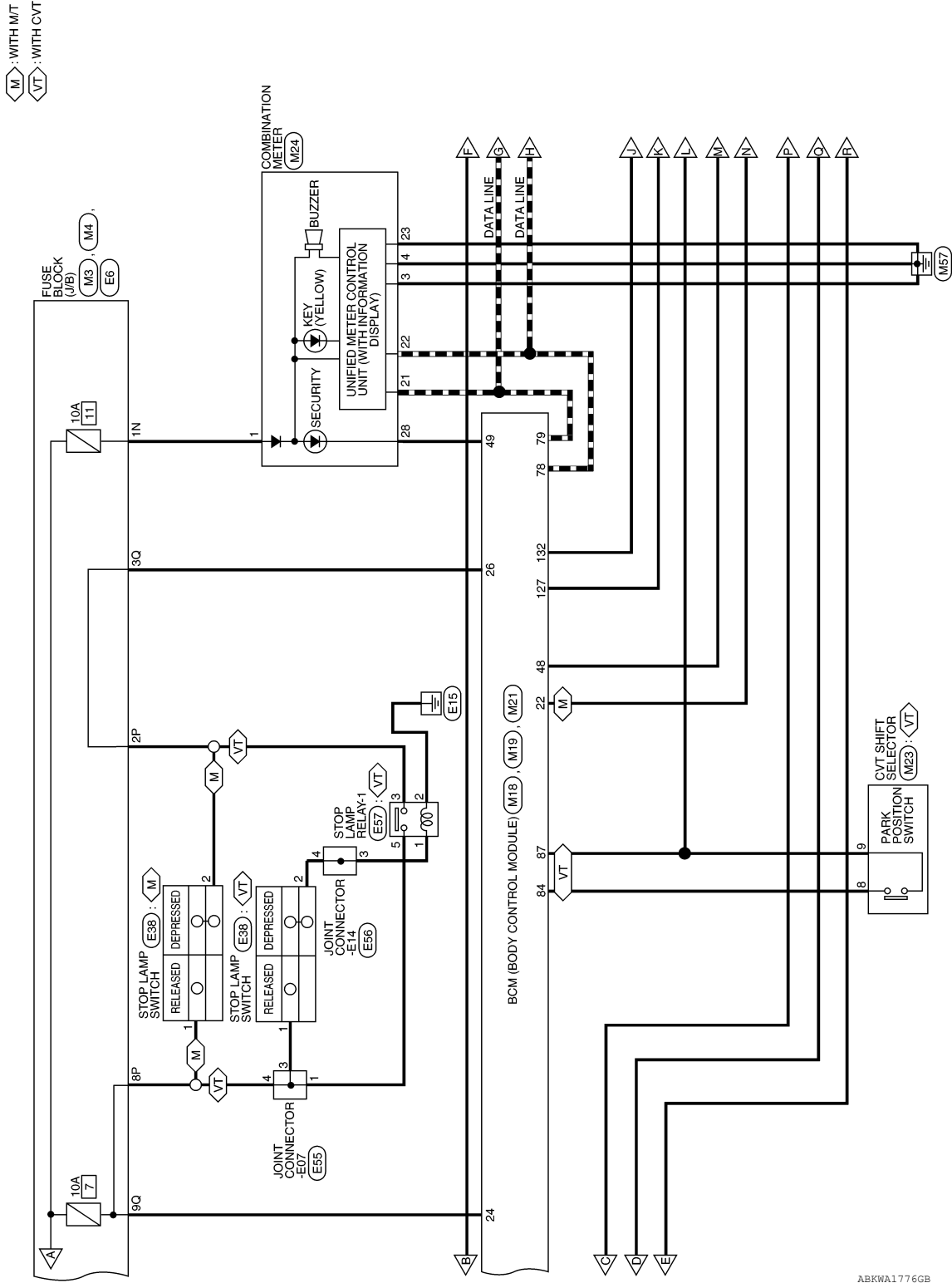
Wiring Diagram

INFOID:000000006389603



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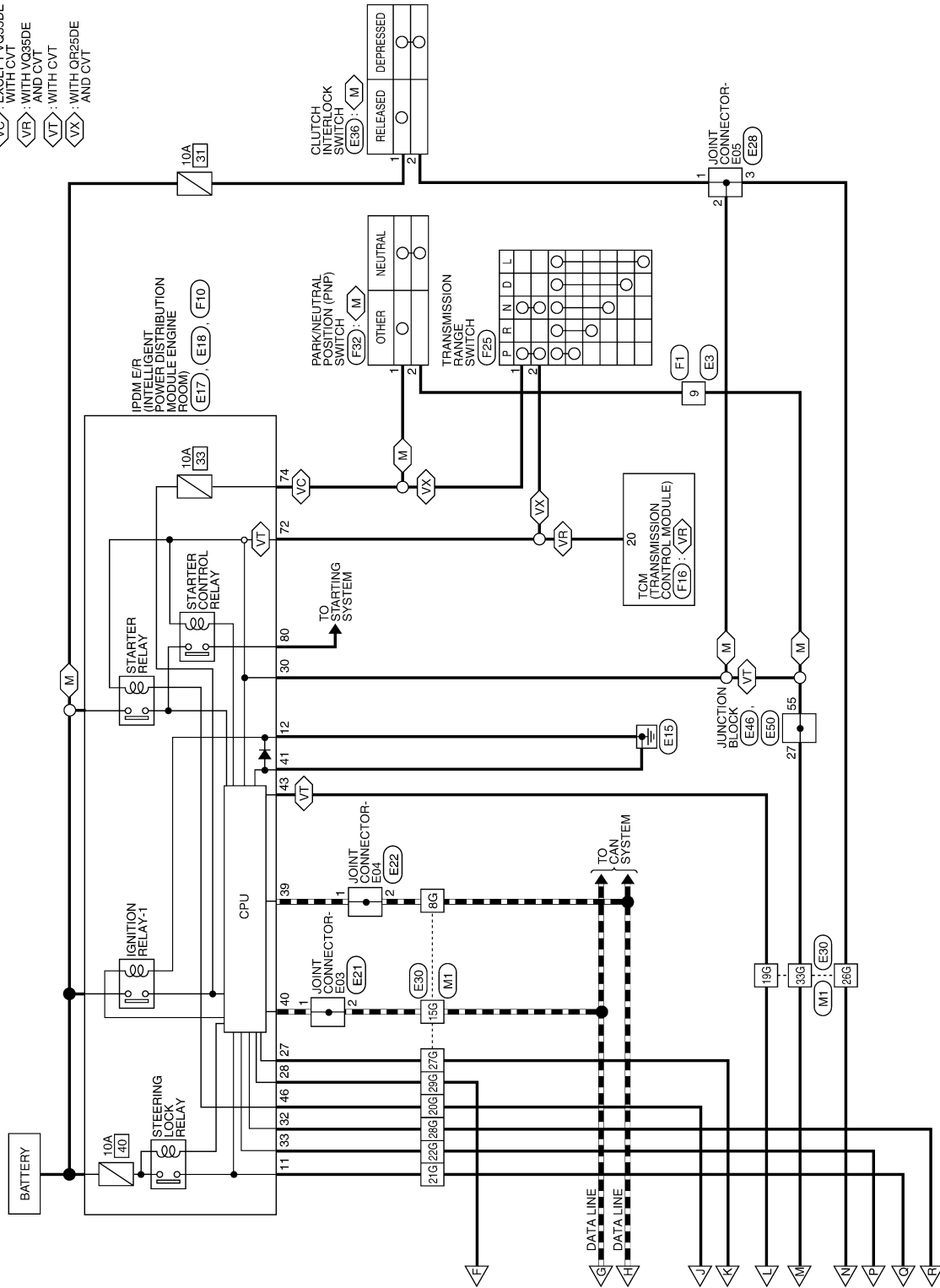


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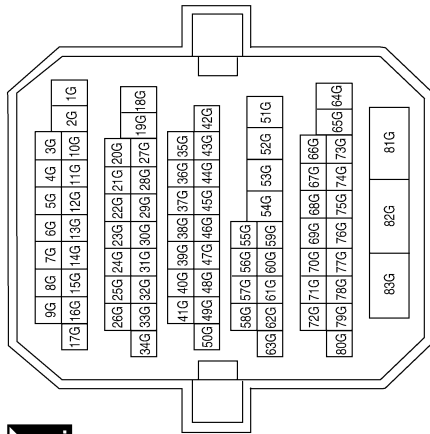
- (M) : WITH M/T
- (VC) : EXCEPT VQ35DE WITH CVT
- (VR) : WITH VQ35DE AND CVT
- (VT) : WITH CVT
- (VX) : WITH QR25DE AND CVT



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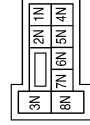
NVIS CONNECTORS

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| 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 | - |

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| 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 | - |

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| Connector No. | M4 |
| Connector Name | FUSE BLOCK (J/B) |
| Connector Color | WHITE |



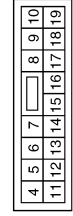
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 3Q | O/L | - |
| 9Q | R/W | - |

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| 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 |

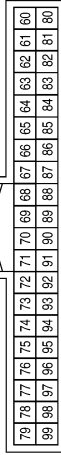
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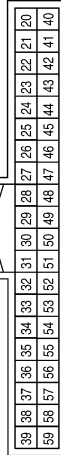
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-----------------------|
| 77 | BR | ENG_START_SW |
| 78 | P | CAN-L |
| 79 | L | CAN-H |
| 80 | R/L | FOB_SLOT ILLUMINATION |
| 81 | LG | IGN_ON_LED |
| 84 | Y/R | AT_DEVICE_OUT |
| 85 | L/O | S/L_CONDITION_1 |
| 86 | G/R | S/L_CONDITION_2 |
| 87 | G/B | SHIFT_P |
| 94 | G/Y | S/L POWER SUPPLY_12V |
| 99 | L/Y | S/L_K-LINE |

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|-----------------|---------------------------|
| Connector No. | M19 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Color | BLACK |



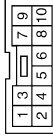
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|------------------|
| 68 | G/O | FOB_READER_CLOCK |
| 69 | O | FOB_READER_DATA |

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| Connector No. | M18 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Color | GREEN |



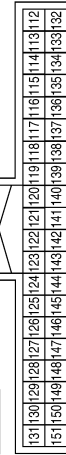
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------------|
| 22 | R/Y | CLUTCH_SW |
| 24 | R/W | STOP_LAMP_LOW_SW |
| 26 | O/L | STOP_LAMP_HIGH_SW |
| 29 | Y | FOB_IN_SW_1 |
| 42 | R | S/L_LOCK_LED |
| 48 | R/G | SHIFT_N/P |
| 49 | L/O | IMMO_LED |

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|-----------------|--------------------|
| Connector No. | M23 |
| Connector Name | CVT SHIFT SELECTOR |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|---------------|
| 8 | Y/R | DETENT_KEY_SW |
| 9 | G/B | DETENT_KEY_SW |

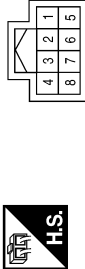
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| Connector No. | M21 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Color | GRAY |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|---------------|
| 127 | BR/W | IGN_USM_CONTT |
| 132 | R | ST_CONT_USM |

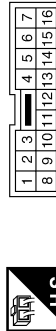
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| Connector No. | M32 |
| Connector Name | ELECTRONIC STEERING COLUMN LOCK |
| Connector Color | WHITE |



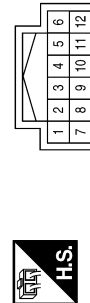
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------------------|
| 1 | P/L | S/L_12V_MECHANICAL (V1) |
| 2 | L/Y | S/L_COM |
| 3 | L/O | S/L_CONDITION_1 |
| 5 | B | GND |
| 6 | B | GND |
| 7 | G/Y | S/L_12V_CPU (V2) |
| 8 | G/R | S/L_CONDITION_2 |

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| Connector No. | E3 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 9 | BR | - |

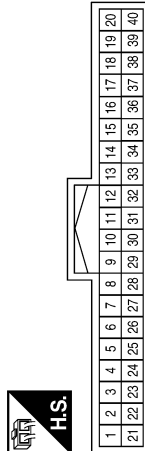
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|---------------|
| 1 | W/L | BAT |
| 3 | B | GND (POWER) |
| 4 | B | GND (ILL) |
| 21 | L | CAN-H |
| 22 | P | CAN-L |
| 23 | B | GND (CIRCUIT) |
| 28 | L/O | SECURITY |



| | |
|-----------------|----------|
| Connector No. | 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. | M24 |
| Connector Name | COMBINATION METER |
| Connector Color | WHITE |



| | |
|-----------------|-----------------------------|
| Connector No. | M38 |
| Connector Name | PUSH-BUTTON IGNITION SWITCH |
| Connector Color | BROWN |



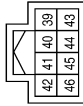
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | B | GND |
| 4 | BR | START_SW |
| 5 | R | LOCK |
| 6 | Y/L | ACC |
| 7 | LG | ON |
| 8 | G/Y | B+ |

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| Connector No. | E17 |
| Connector Name | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Color | WHITE |



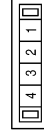
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|--------------|
| 39 | P | CAN-L |
| 40 | L | CAN-H |
| 41 | B | GND (SIGNAL) |
| 43 | Y | RANGE SW |
| 46 | BR | START CONT |

| | |
|-----------------|------------------|
| 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 | - |

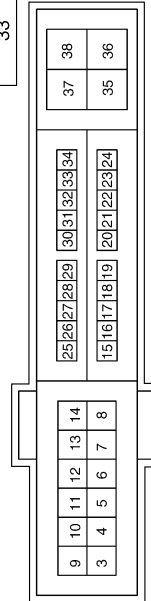
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| Connector No. | E21 |
| Connector Name | JOINT CONNECTOR-E03 |
| Connector Color | WHITE |



| 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 |

| | |
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| Connector No. | E18 |
| Connector Name | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Color | WHITE |



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| Connector No. | E22 |
| Connector Name | JOINT CONNECTOR-E04 |
| Connector Color | WHITE |



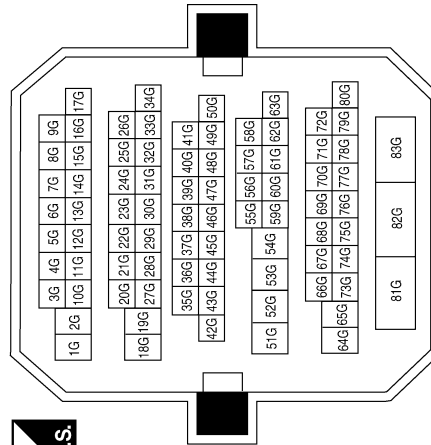
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | P | - |
| 2 | P | - |

| | |
|-----------------|---------------------|
| 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 |



| 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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|-----------------|----------------|
| 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 CVT) |
| 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 | - |

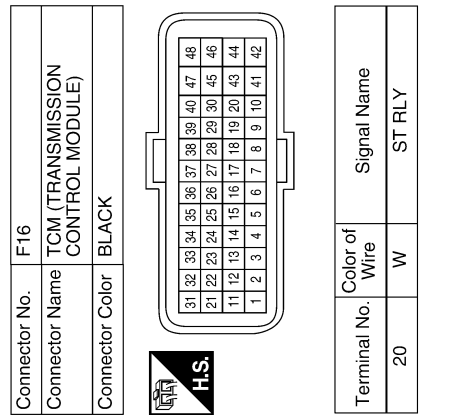
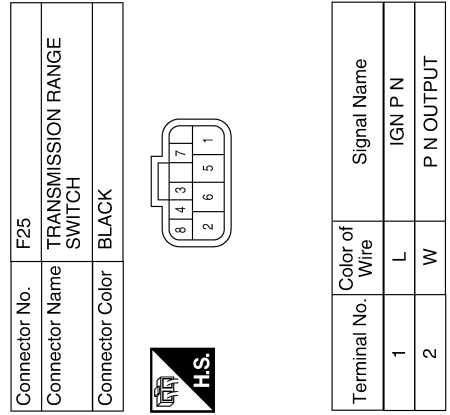
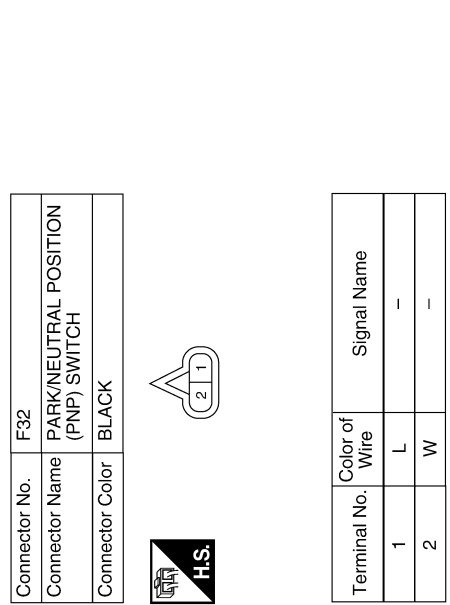
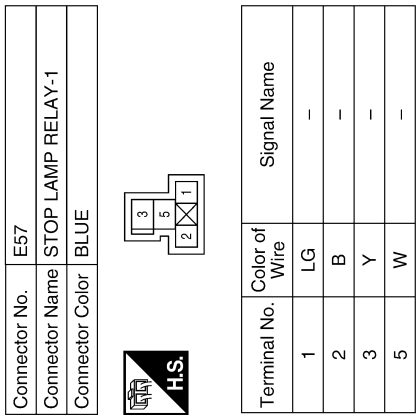
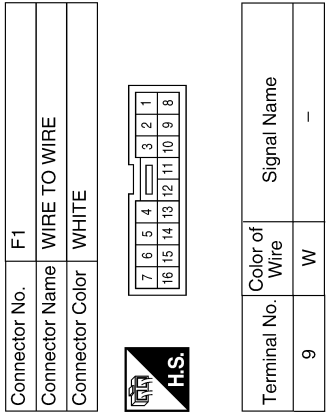
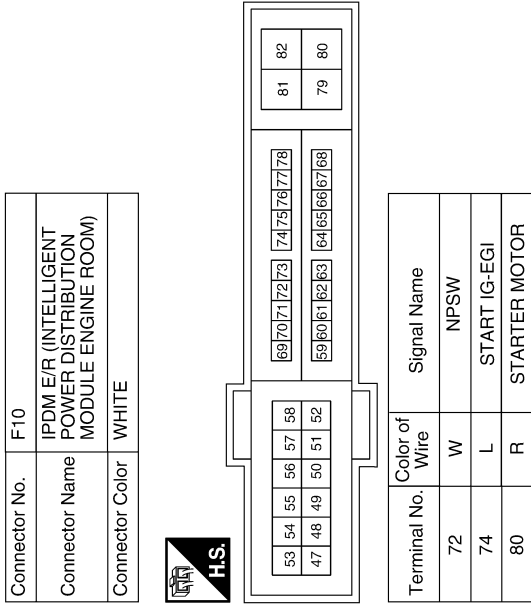
| | |
|-----------------|----------------|
| Connector No. | E50 |
| Connector Name | JUNCTION BLOCK |
| Connector Color | WHITE |

| | |
|----|----|
| 56 | 55 |
|----|----|



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 55 | BR | - |

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SEC

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION SYMPTOMS

< SYMPTOM DIAGNOSIS >

[COUPE]

SYMPTOM DIAGNOSIS

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION SYMPTOMS

Symptom Table

INFOID:000000006389604

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 | BCS-36 |
| | IPDM E/R | PCS-20 |
| 2. Check push button ignition switch | | SEC-78 |
| 3. Check Intermittent Incident | | GI-42 |

VEHICLE SECURITY SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[COUPE]

VEHICLE SECURITY SYSTEM SYMPTOMS

Symptom Table

INFOID:000000006389605

| Procedure | | Diagnostic procedure | Refer to page |
|-----------|--|---|--|
| Symptom | | | |
| 1 | Vehicle security system cannot be set by | Door switch | Check door switch DLK-64 |
| | | Trunk | Check trunk room lamp switch DLK-89 |
| | | Door outside key | Check key cylinder switch DLK-75 |
| | | Intelligent Key | Check Intelligent Key. DLK-118 |
| | | — | Check Intermittent Incident GI-42 |
| | Security indicator does not turn ON. | Check vehicle security indicator SEC-141 | |
| | | Check Intermittent Incident GI-42 | |
| 2 | * Vehicle security system does not sound alarm when | Any door is opened. Check door switch DLK-64 | |
| | | Check Intermittent Incident GI-42 | |
| 3 | Vehicle security alarm does not activate. | Horn alarm Check horn SEC-137 | |
| | | Check Intermittent Incident GI-42 | |
| | | Head lamp alarm Check head lamp alarm SEC-139 | |
| | | Check Intermittent Incident GI-42 | |
| 4 | Vehicle security system cannot be canceled by | Door outside key Check key cylinder switch DLK-75 | |
| | | Check Intermittent Incident GI-42 | |
| | | Intelligent Key Check Intelligent Key DLK-118 | |
| | | Check Intermittent Incident GI-42 | |

*: Check the system is in the armed phase.

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NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS SYMPTOMS

< SYMPTOM DIAGNOSIS >

[COUPE]

NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS SYMPTOMS

Symptom Table

INFOID:000000006389606

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 | SEC-141 |
| 2. Check Intermittent Incident | GI-42 |

PRECAUTION

PRECAUTIONS

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

INFOID:000000006389607

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.

Precautions Necessary for Steering Wheel Rotation After Battery Disconnect

INFOID:000000006934924

SEC

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.

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PRECAUTIONS

[COUPE]

< PRECAUTION >

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:000000006934925

- 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

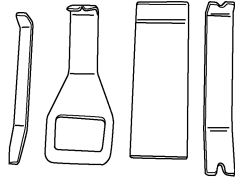
PREPARATION

Special Service Tools

INFOID:000000006389609

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 |



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REMOVAL AND INSTALLATION

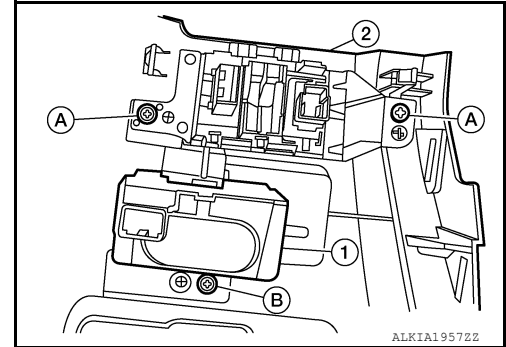
KEY SLOT

Removal and Installation

INFOID:000000006389610

REMOVAL

1. Remove the instrument lower panel LH. Refer to [JP-19. "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]

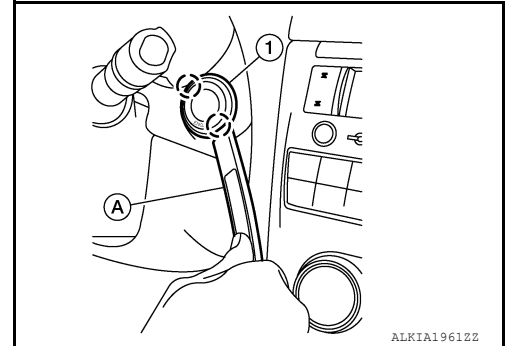
PUSH BUTTON IGNITION SWITCH

Removal and Installation

INFOID:000000006389611

REMOVAL

1. Remove the push button ignition switch (1) from cluster lid A using suitable tool (A).
 - Pawl
2. Disconnect the electrical harness connector and remove the push button ignition switch.



INSTALLATION

Installation is in the reverse order of removal.

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DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

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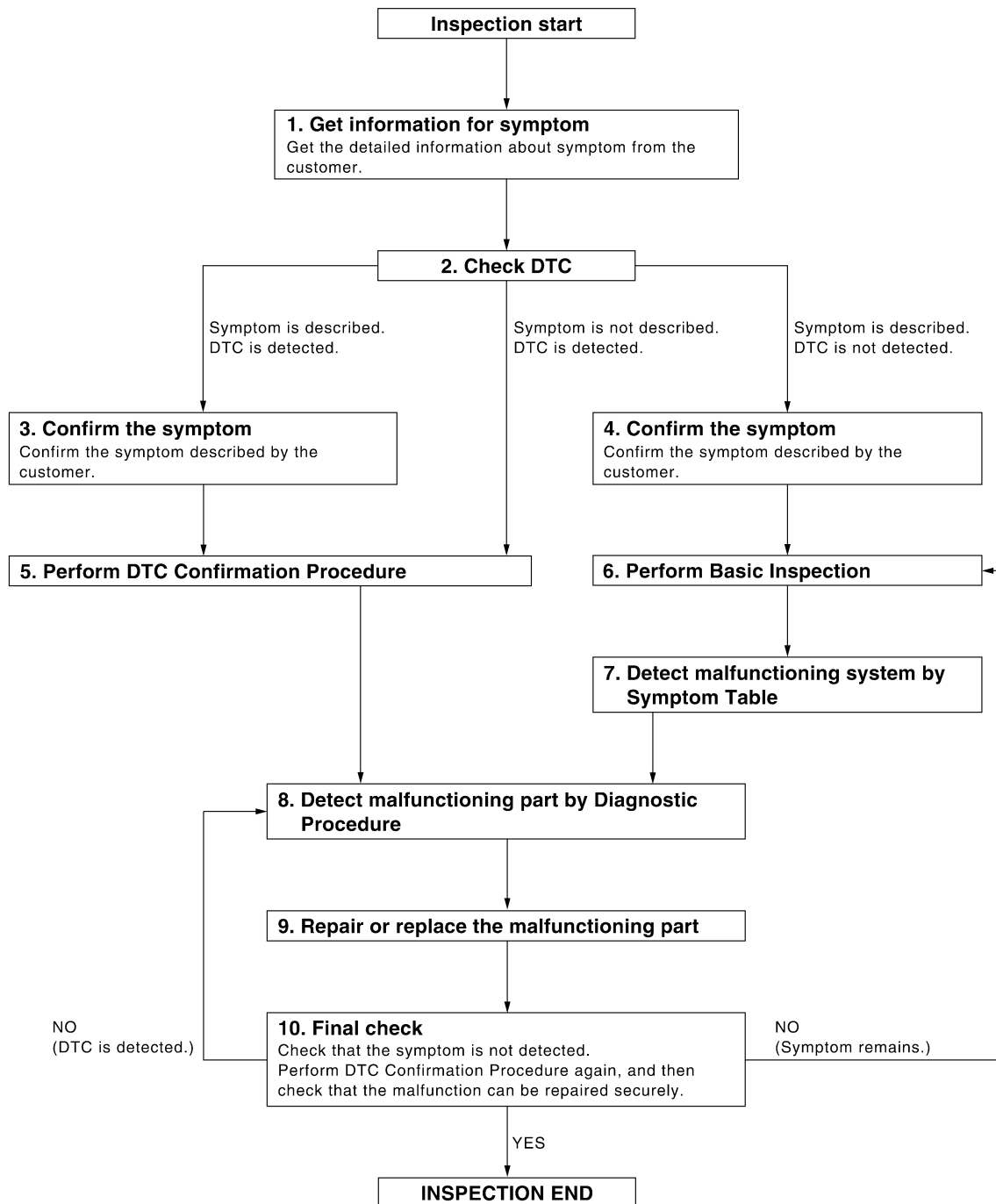
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000006389612

OVERALL SEQUENCE



ALKIA0246GB

DETAILED FLOW

Revision: June 2012

SEC-222

2011 Altima GCC

DIAGNOSIS AND REPAIR WORKFLOW

[SEDAN]

< 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-437. "Symptom Table"](#).
- Vehicle security system: [SEC-438. "Symptom Table"](#).

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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

< BASIC INSPECTION >

[SEDAN]

PRE-INSPECTION FOR DIAGNOSTIC

Pre-Inspection for Multi-System Diagnostic

INFOID:000000006928498

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-186. "Symptom Table"](#) (coupe) or [DLK-420. "Symptom Table"](#) (sedan).

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"](#) (coupe) or [SEC-437. "Symptom Table"](#) (sedan).

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-64. "Component Function Check"](#) (coupe) or [DLK-286. "Component Function Check"](#) (sedan).

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"](#) (coupe) or [SEC-225. "Vehicle Security Operation Check"](#) (sedan).

Are the inspection results normal?

YES >> Inspection End.

NO >> Repair vehicle security system as necessary.

Vehicle Security Operation Check

INFOID:000000006389614

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.

PRE-INSPECTION FOR DIAGNOSTIC

[SEDAN]

< BASIC INSPECTION >

2. Check that security indicator lamp illuminates for 30 seconds.

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-242, "INTELLIGENT KEY : System Description"](#).

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[SEDAN]

INSPECTION AND ADJUSTMENT ECM RE-COMMUNICATING FUNCTION

ECM RE-COMMUNICATING FUNCTION : Description

INFOID:000000006389615

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 Operation Manual.
- 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:000000006389616

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 Operation Manual.

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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

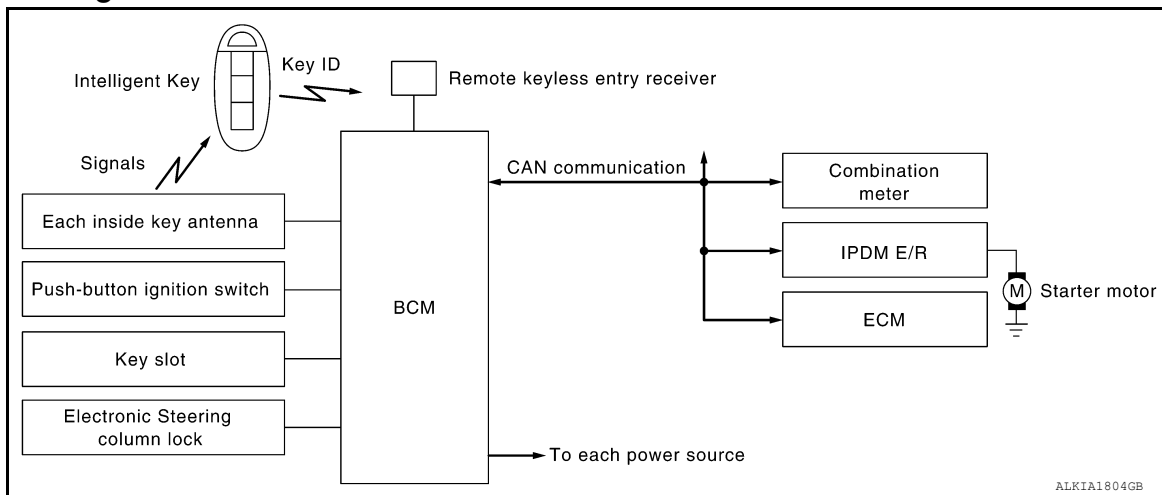
< SYSTEM DESCRIPTION >

[SEDAN]

SYSTEM DESCRIPTION

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

System Diagram



System Description

INFOID:000000006389618

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"> Steering lock relay Electronic steering column lock Starter relay (IPDM E/R) Starter control relay (IPDM E/R) Starter motor KEY warning lamp |
| 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-228. "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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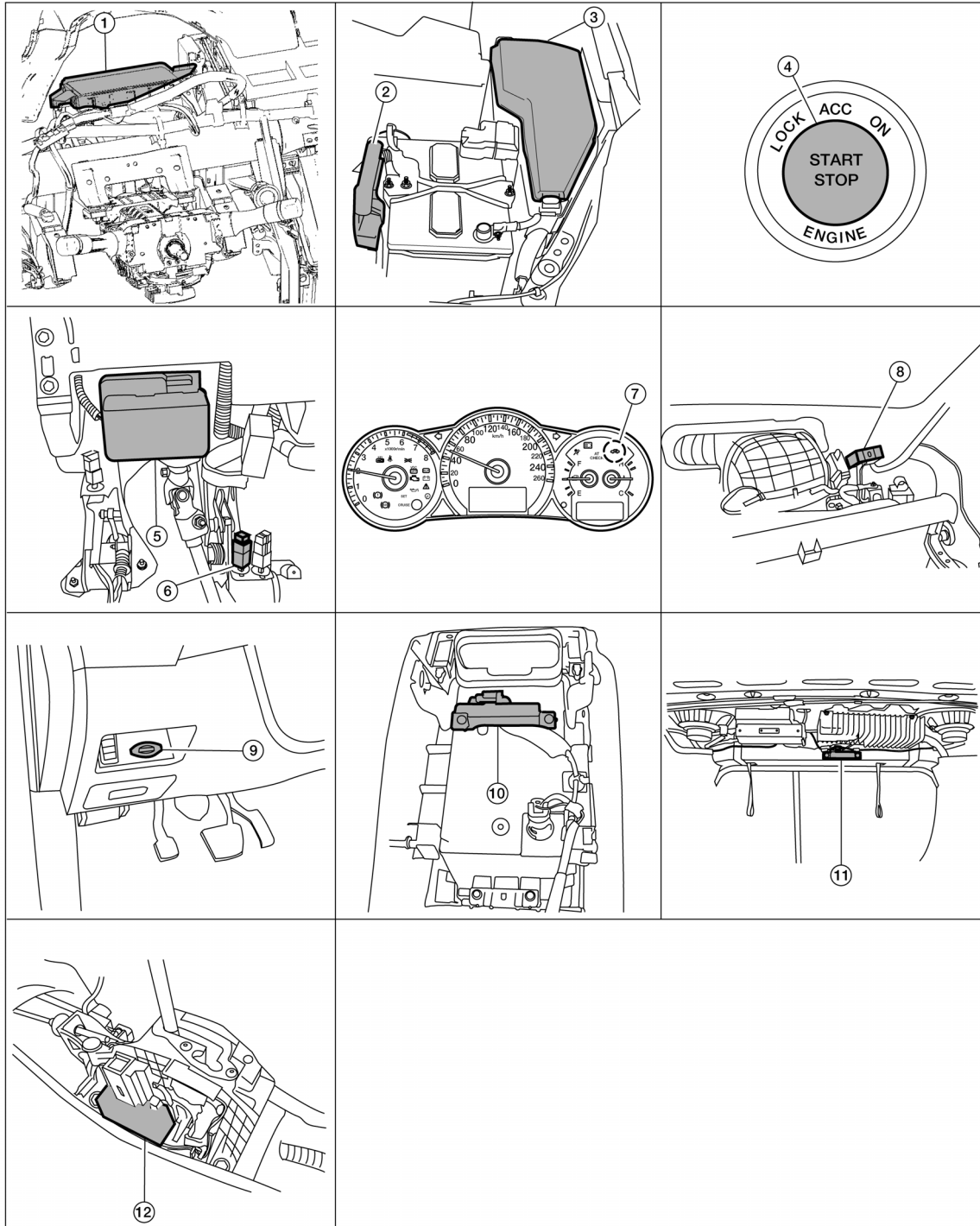
INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< SYSTEM DESCRIPTION >

[SEDAN]

Component Parts Location

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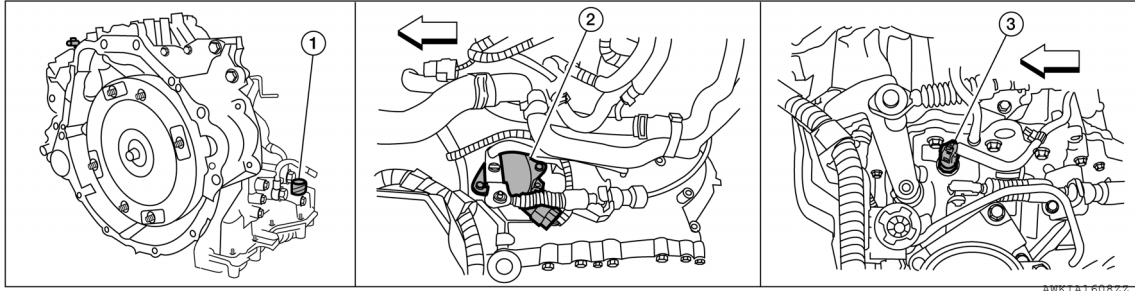
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- | | | |
|---|---|---|
| 1. Body control module M16, M17, M18, M18, M21 (view with instrument panel removed) | 2. ECM E10 | 3. IPDM E/R E17, E18, F10 |
| 4. Push-button ignition switch M38 | 5. Electronic steering column lock (steering column) M32 | 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:000000006389620

| Component | Reference |
|---|-------------------------|
| BCM | SEC-338 |
| Electronic steering column lock | SEC-322 |
| Push-button ignition switch | SEC-294 |
| Door switch | DLK-286 |
| CVT shift selector (park position switch) | SEC-298 |
| Inside key antenna | DLK-279 |
| Remote keyless entry receiver | DLK-346 |
| Stop lamp switch | SEC-289 |
| Transmission range switch | SEC-308 |
| Clutch switch | SEC-269 |
| Steering lock relay | SEC-256 |
| Starter relay | SEC-264 |
| Starter control relay | SEC-262 |
| Security indicator | SEC-359 |
| Key warning lamp | SEC-358 |

NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

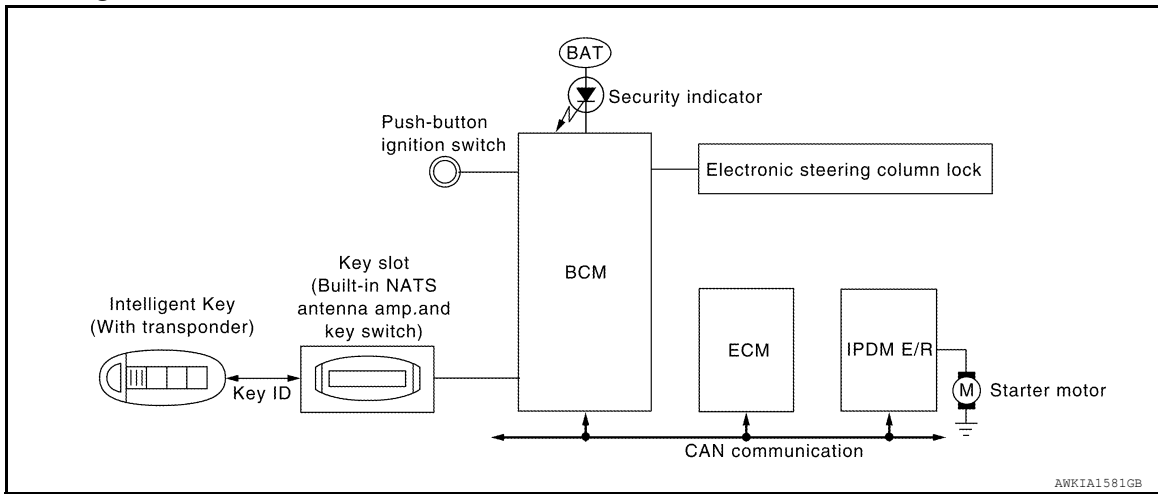
< SYSTEM DESCRIPTION >

[SEDAN]

NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

System Diagram

INFOID:000000006389621



System Description

INFOID:000000006389622

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"> Steering lock relay Electronic steering column lock Starter relay (IPDM E/R) Starter control relay (IPDM E/R) Starter motor KEY warning lamp Security indicator lamp |
| 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 Operation Manual.

NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

[SEDAN]

< SYSTEM DESCRIPTION >

- 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"](#). A
- 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"](#). B

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 C
- When registering the Intelligent Key, performs only one procedure to register simultaneously both ID (NVIS “NATS” ID registration and Intelligent Key ID registration). D
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. E

SECURITY INDICATOR

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

NOTE:

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

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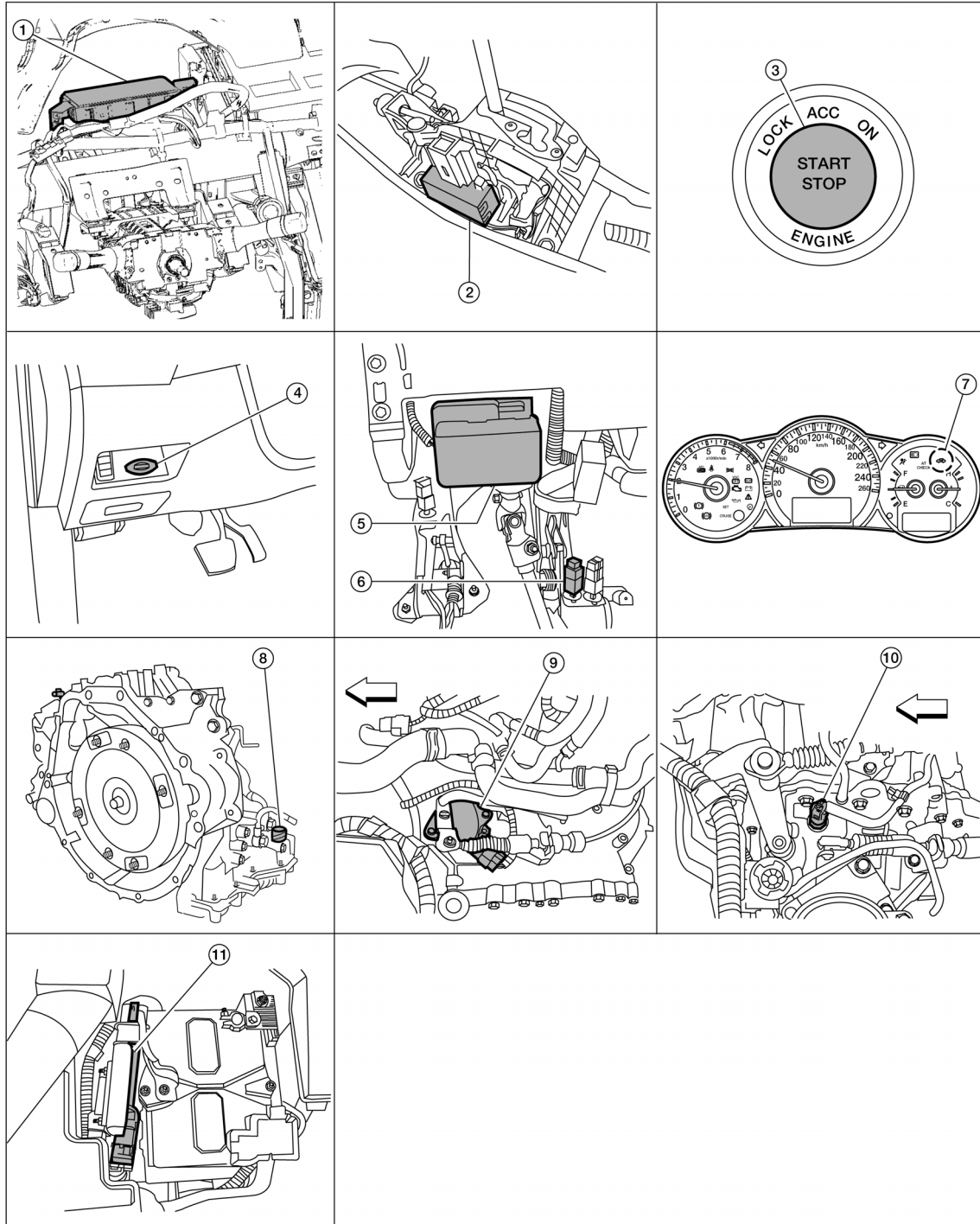
NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

< SYSTEM DESCRIPTION >

[SEDAN]

Component Parts Location

INFOID:000000006389623



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- | | | |
|--|--|--|
| 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)

[SEDAN]

< SYSTEM DESCRIPTION >

- | | | | |
|---|--|--|-----------|
| 7. Security indicator lamp | 8. Transmission range switch connector (TCM connector) F16 (with CVT/VQ) | 9. Transmission range switch F25 (with CVT/QR) | ← : Front |
| 10. Park neutral position switch F32 (with M/T) | 11. ECM E10 | | |

Component Description

INFOID:000000006389624

| Component | Reference |
|---|-------------------------|
| BCM | SEC-338 |
| Electronic steering column lock | SEC-322 |
| Push-button ignition switch | SEC-339 |
| Door switch | DLK-286 |
| CVT shift selector (park position switch) | SEC-298 |
| Inside key antenna | DLK-279 |
| Remote keyless entry receiver | DLK-346 |
| Stop lamp switch | SEC-289 |
| Transmission range switch | SEC-308 |
| Clutch switch | SEC-269 |
| Steering lock relay | SEC-255 |
| Starter relay | SEC-315 |
| Starter control relay | SEC-297 |
| Security indicator | SEC-359 |
| Key warning lamp | SEC-358 |

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VEHICLE SECURITY SYSTEM

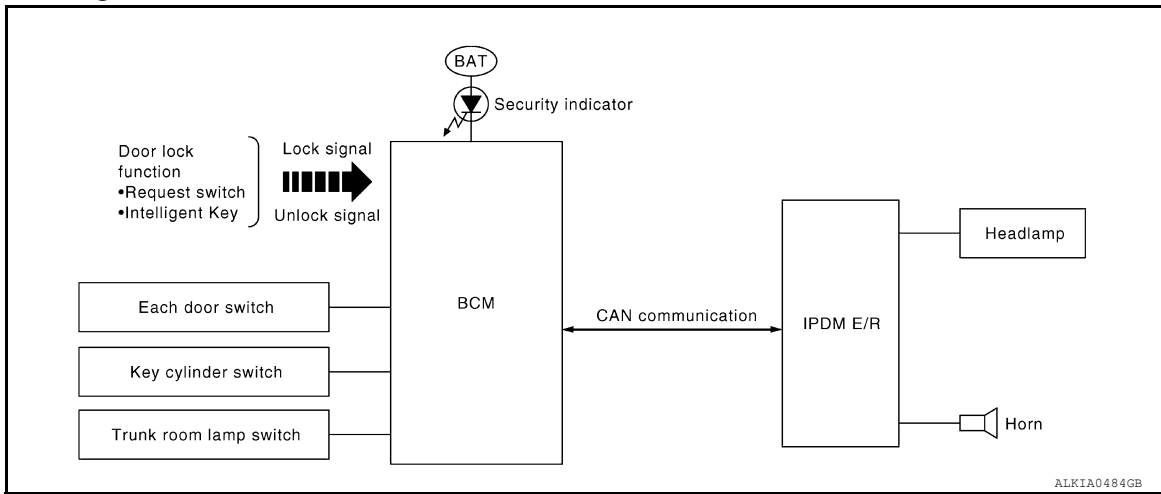
[SEDAN]

< SYSTEM DESCRIPTION >

VEHICLE SECURITY SYSTEM

System Diagram

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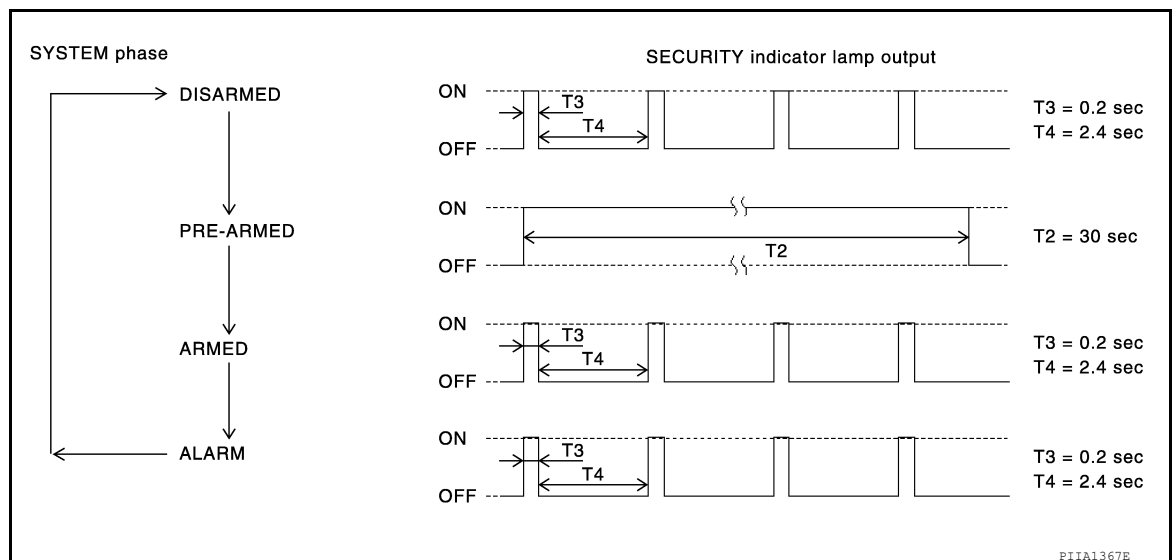
System Description

INFOID:000000006389626

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"> • IPDM E/R • Head lamp • Horn • Security indicator lamp |
| 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 | | |

OPERATION FLOW



SETTING THE VEHICLE SECURITY SYSTEM

Initial Condition

- Ignition switch is in OFF position.

Disarmed Phase

VEHICLE SECURITY SYSTEM

[SEDAN]

< SYSTEM DESCRIPTION >

- 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. A
- When the vehicle security system is in the disarmed phase, the security indicator lamp blinks every 2.4 seconds. B

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. C
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. D

CANCELING THE SET VEHICLE SECURITY SYSTEM

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

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

CANCELING THE ALARM OPERATION OF THE VEHICLE SECURITY SYSTEM

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

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. H

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

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. J

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. SEC

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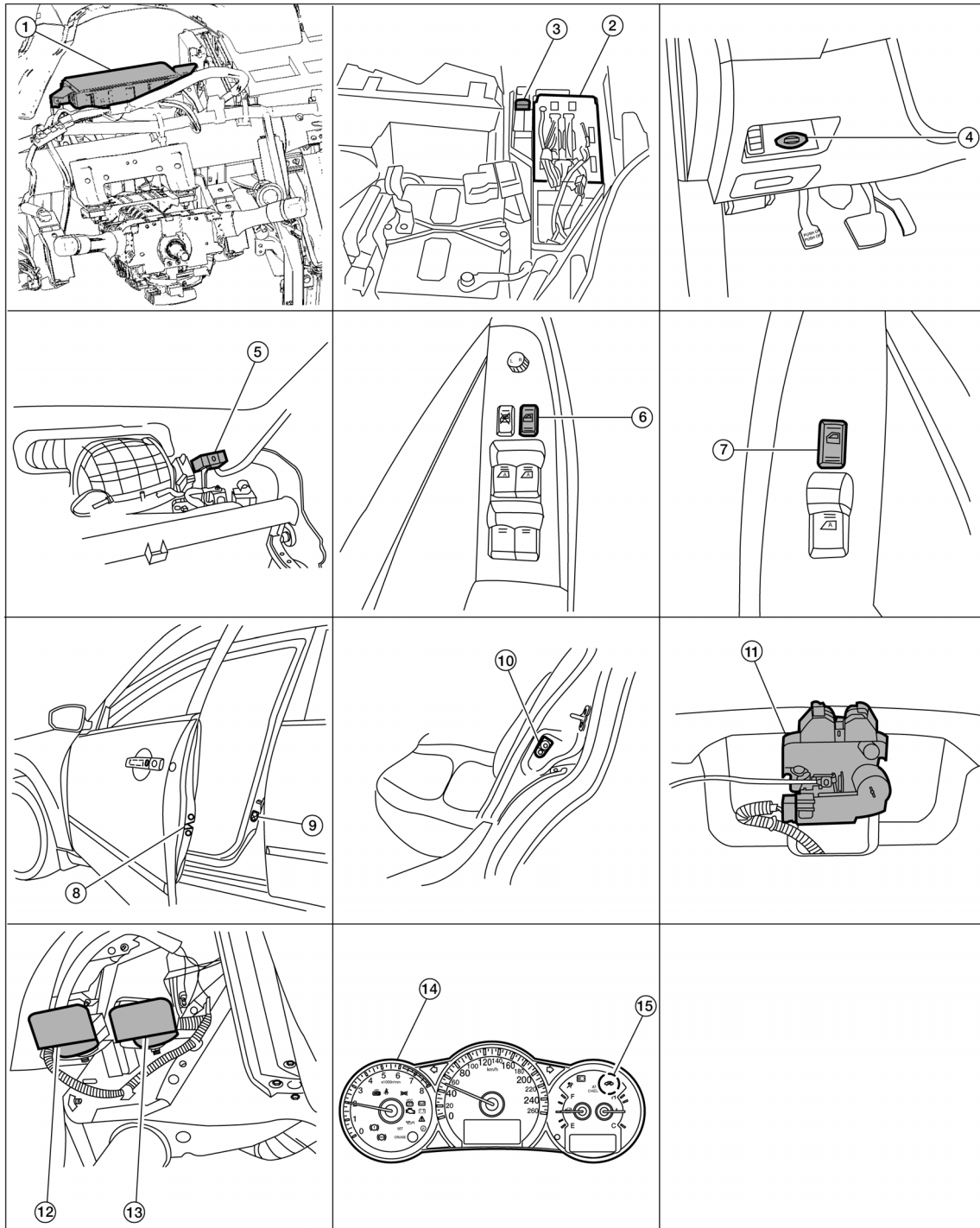
VEHICLE SECURITY SYSTEM

< SYSTEM DESCRIPTION >

[SEDAN]

Component Parts Location

INFOID:00000006389627



AWK1A16372Z

- | | | |
|--|--|---|
| 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. Front door lock assembly LH (key cyl- inder switch) D10 | 9. Front door switch LH B8 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:000000006389628

| Component | Reference |
|-----------------------------|-------------------------|
| BCM | SEC-238 |
| Horn relay | SEC-355 |
| Security indicator | SEC-359 |
| Door switch | DLK-286 |
| Door lock actuator | DLK-330 |
| Trunk lid lock assembly | DLK-336 |
| Door key cylinder switch | DLK-303 |
| Door lock and unlock switch | DLK-290 |

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DIAGNOSIS SYSTEM (BCM)

[SEDAN]

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM) COMMON ITEM

COMMON ITEM : Diagnosis Description

INFOID:000000006928505

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:000000006928506

ECU IDENTIFICATION

Displays the BCM part No.

SELF-DIAG RESULT

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

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[SEDAN]

INTELLIGENT KEY

INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)

INFOID:000000006949976

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"> • MODE1: 1 minute • MODE2: 5 minutes • MODE3: 30 seconds • MODE4: 2 minutes |
| 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"> • MODE1: 0.5 sec. • MODE2: Non-operation • MODE3: 1.5 sec. |
| 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"> • MODE1: 3 sec. • MODE2: Non-operation • MODE3: 5 sec. |
| 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"> • MODE1: 0.5 sec. • MODE2: 1.5 sec. • MODE3: OFF: No delay |
| 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"> • LOCK ONLY: Door lock operation only • UNLOCK ONLY: Door unlock operation only • LOCK/UNLOCK: Lock/unlock operation • OFF: Non-operation |
| 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"> • Horn chirp: Sound horn • Buzzer: Sound Intelligent Key warning buzzer • OFF: Non-operation |
| 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 [BCS-67, "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. |
| 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"> • Take away warning chime sounds when "TAKE OUT" on CONSULT screen is touched. • Key warning chime sounds when "KEY" on CONSULT screen is touched. • OFF position warning chime sounds when "KNOB" on CONSULT screen is touched. |
| INDICATOR | This test is able to check warning lamp operation. <ul style="list-style-type: none"> • "KEY" Warning lamp illuminates when "KEY ON" on CONSULT screen is touched. • "KEY" Warning lamp blinks when "KEY IND" on CONSULT screen is touched. |
| 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"> • Engine start information displays when "BP N" on CONSULT screen is touched. • Engine start information displays when "BP I" on CONSULT screen is touched. • Key ID warning displays when "ID NG" on CONSULT screen is touched. • P position warning displays when "SFT P" on CONSULT screen is touched. • Intelligent Key insert information displays when "INSRT" on CONSULT screen is touched. • Intelligent Key low battery warning displays when "BATT" on CONSULT screen is touched. • Take away through window warning displays when "NO KY" on CONSULT screen is touched. • Take away warning display when "OUTKEY" on CONSULT screen is touched. • OFF position warning display when "LK WN" on CONSULT screen is touched. |
| 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:000000006928508

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:000000006928509

DATA MONITOR

DIAGNOSIS SYSTEM (BCM)

[SEDAN]

< SYSTEM DESCRIPTION >

| 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. | A |
| CONFIRM ID4 | | B |
| CONFIRM ID3 | | C |
| CONFIRM ID2 | | D |
| CONFIRM ID1 | | E |
| TP 4 | Indicates the number of ID which has been registered. | F |
| TP 3 | | G |
| TP 2 | | H |
| TP 1 | | I |
| PUSH SW | Indicates [ON/OFF] condition of push-button ignition switch. | J |
| KEY SW -SLOT | Indicates [ON/OFF] condition of key slot. | K |

ACTIVE TEST

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

SEC

U1000 CAN COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description

INFOID:000000006389634

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

DTC Logic

INFOID:000000006389635

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">• Transmission• Receiving (ECM)• Receiving (VDC/TCS/ABS)• Receiving (METER/M&A)• Receiving (TCM)• Receiving (IPDM E/R) |

Diagnosis Procedure

INFOID:000000006389636

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)

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

U1010 CONTROL UNIT (CAN)

DTC Logic

INFOID:000000006389637

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:000000006389638

1. REPLACE BCM

When DTC U1010 is detected, replace BCM.

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

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SEC

B2013 ID DISCORD, IMMU-STRG

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

B2013 ID DISCORD, IMMU-STRG

Description

INFOID:000000006389639

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:000000006389640

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">Electronic steering column lock |

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:000000006389641

1. PERFORM INITIALIZATION

Perform initialization with CONSULT. Re-register all Intelligent Keys.
For initialization and registration of Intelligent Key. Refer to "CONSULT Operation Manual".

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:000000006389642

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:000000006389643

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"> • Harness or connectors (electronic steering column lock circuit is open or shorted) • Electronic steering column lock • BCM |

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.

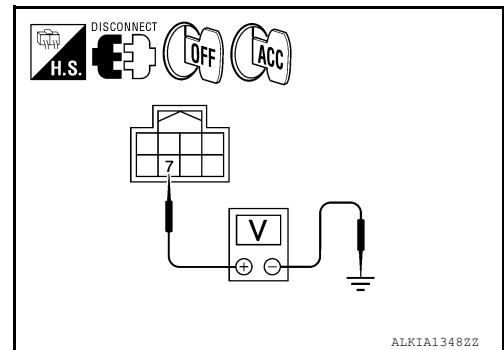
Diagnosis Procedure

INFOID:000000006389644

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.



ALKIA1348ZZ

| 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?

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SEC

B2014 CHAIN OF STRG-IMMU

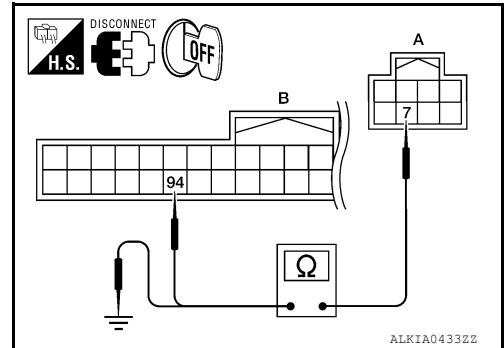
[SEDAN]

< 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.

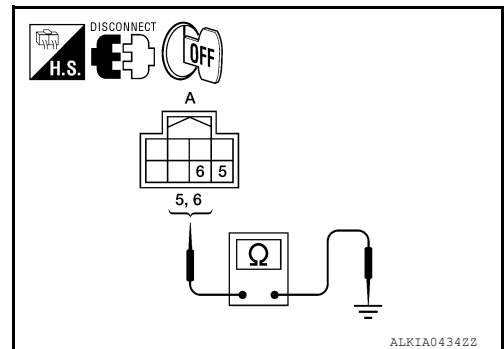
| Electronic steering column lock | | Ground | Continuity |
|---------------------------------|----------|--------|------------|
| Connector | Terminal | | |
| A: M32 | 7 | Ground | No |

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.

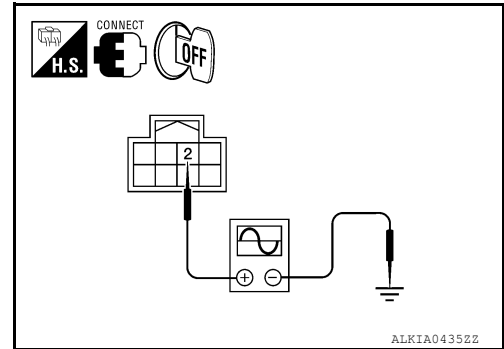
B2014 CHAIN OF STRG-IMMU

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

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 | <p>JMKIA0066GB</p> |
| | | | For 15 seconds after unlock | Battery voltage |
| | | | 15 seconds or later after unlock. | 0 V |

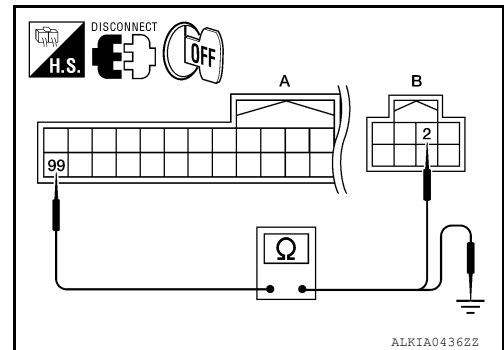
Steering is locked : Opening the door when ignition switch is ON to OFF.
Steering is unlocked : Ignition switch is OFF to ACC.

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:000000006389645

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:000000006389646

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">• IPDM E/R |

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:000000006389647

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:000000006389648

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:000000006389649

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">• Harness or connector (power supply circuit)• IPDM E/R• Battery |

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:000000006389650

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:000000006389651

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:000000006389652

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">• Steering lock or unlock• Feedback of steering lock status from IPDM E/R (CAN) | <ul style="list-style-type: none">• Harness or connectors [electronic steering column lock circuit (BCM side) is open or shorted]• Harness or connectors [electronic steering column lock circuit (IPDM E/R side) is open or shorted.]• Electronic steering column lock• IPDM E/R |

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:000000006389653

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

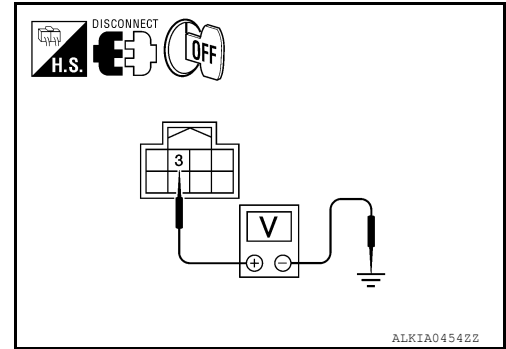
1. Turn ignition switch OFF.
2. Disconnect electronic steering column lock harness connector and IPDM E/R harness connector.

B210A STEERING LOCK CONDITION SWITCH

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

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



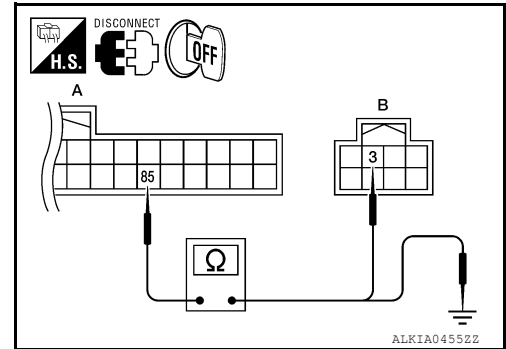
| Electronic steering column lock | | Ground | Voltage [V] |
|---------------------------------|----------|--------|-----------------|
| Connector | Terminal | | |
| M32 | 3 | Ground | Battery voltage |

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

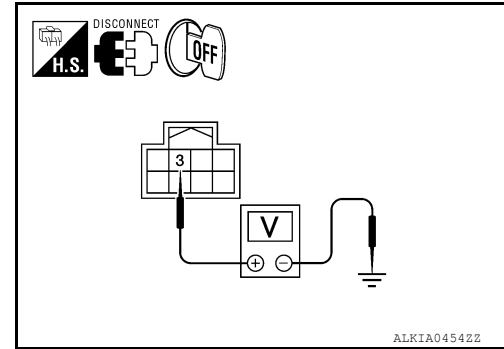
1. Connect IPDM E/R harness connector.
2. Disconnect BCM harness connector.

B210A STEERING LOCK CONDITION SWITCH

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

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



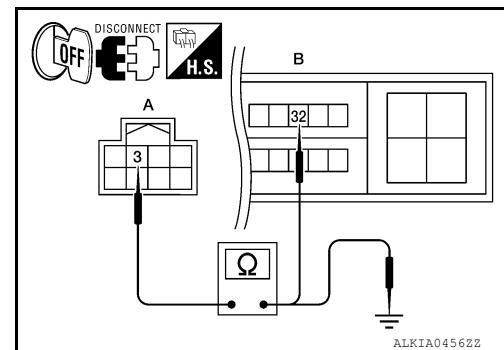
| Electronic steering column lock | | Ground | Voltage [V] |
|---------------------------------|----------|--------|-----------------|
| Connector | Terminal | | |
| M32 | 3 | Ground | Battery voltage |

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

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

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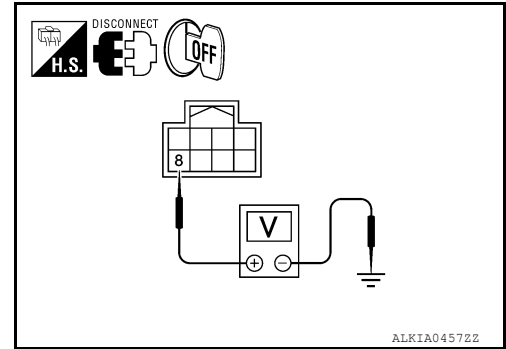
SEC

B210A STEERING LOCK CONDITION SWITCH

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

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



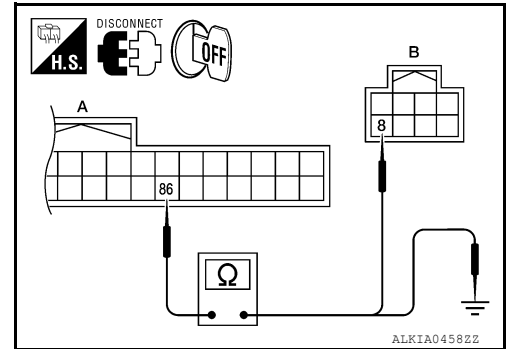
| Electronic steering column lock | | Ground | Voltage [V] |
|---------------------------------|----------|--------|-----------------|
| Connector | Terminal | | |
| M32 | 8 | Ground | Battery voltage |

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

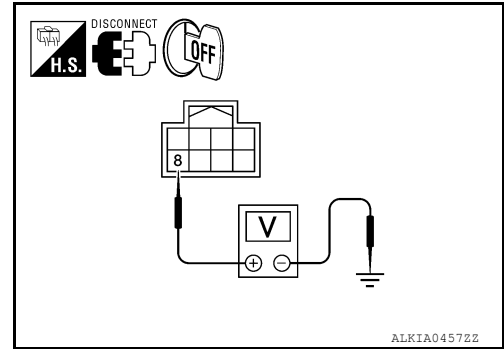
1. Connect IPDM E/R harness connector.
2. Disconnect BCM harness connector.

B210A STEERING LOCK CONDITION SWITCH

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

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



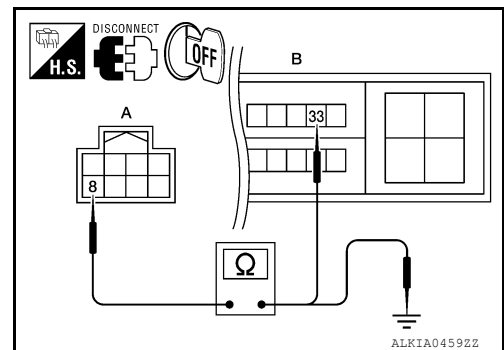
| Electronic steering column lock | | Ground | Voltage [V] |
|---------------------------------|----------|--------|-----------------|
| Connector | Terminal | | |
| M32 | 8 | Ground | Battery voltage |

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:000000006389654

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:000000006389655

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">• Starter control relay ON/OFF signal from BCM• Clutch interlock or shift transmission range switch input signal | <ul style="list-style-type: none">• IPDM E/R |

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:000000006389656

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:000000006389657

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:000000006389658

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">• Starter control relay ON/OFF signal from BCM• Clutch interlock or shift transmission range switch input signal | <ul style="list-style-type: none">• IPDM E/R |

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:000000006389659

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

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

B210D STARTER RELAY

Description

INFOID:000000006389660

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:000000006389661

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">• Starter control relay ON/OFF signal from BCM• Clutch interlock or shift transmission range switch input | <ul style="list-style-type: none">• IPDM E/R |

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.

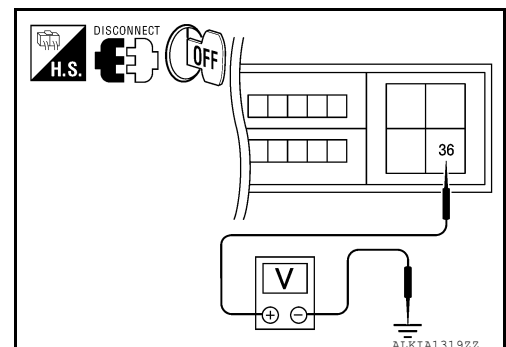
Diagnosis Procedure

INFOID:000000006389662

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.

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B210E STARTER RELAY

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

B210E STARTER RELAY

Description

INFOID:000000006389663

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:000000006389664

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">• Starter control relay ON/OFF signal from BCM• Clutch interlock or shift transmission range switch input | <ul style="list-style-type: none">• 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 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:000000006389665

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

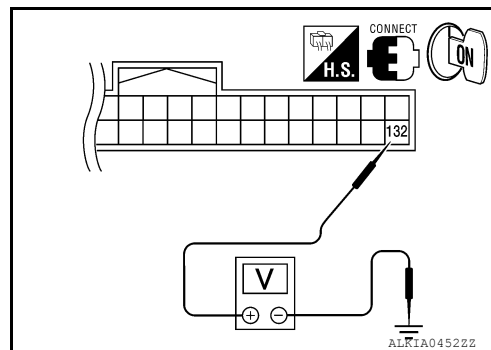
1. Turn ignition switch OFF.
2. Disconnect BCM harness connector.

B210E STARTER RELAY

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

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 |

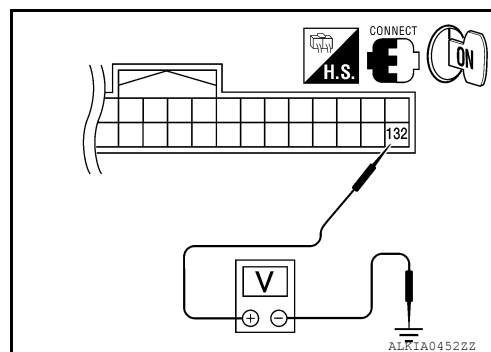
Is the inspection result normal?

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

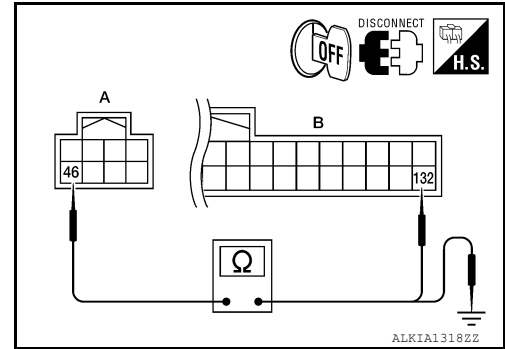
1. Disconnect IPDM E/R harness connector.

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.

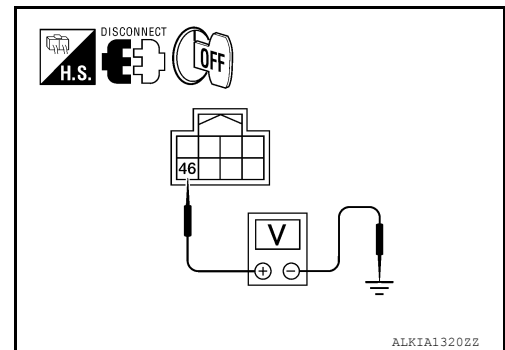
| IPDM E/R | | Ground | Continuity |
|-----------|----------|--------|------------|
| Connector | Terminal | | |
| A: E17 | 46 | Ground | No |

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:000000006389666

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:000000006389667

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">• Clutch interlock input signal (M/T models)• Shift transmission range switch input signal (CVT models)• Shift position signal from BCM (CAN) | <ul style="list-style-type: none">• Harness or connectors [Transmission range switch circuit is open or shorted (CVT models)] or (Clutch interlock switch circuit is open or shorted.)• Clutch interlock switch (M/T models)• Transmission range switch (CVT models) |

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:000000006389668

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 (VQ35DE) | 20 | E18 | 72 | Yes |
| F25 (QR25DE) | 2 | | | |

4. Check continuity between TCM harness connector and ground.

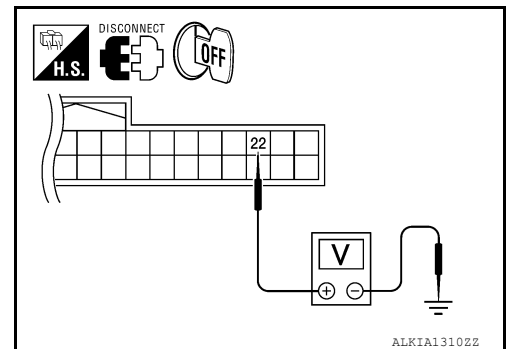
| TCM | | Ground | Continuity |
|--------------|----------|--------|------------|
| Connector | Terminal | | |
| F16 (VQ35DE) | 20 | Ground | No |
| F25 (QR25E) | 2 | | |

Is the inspection result normal?

- YES >> GO TO 8.
 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.



B210F TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

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

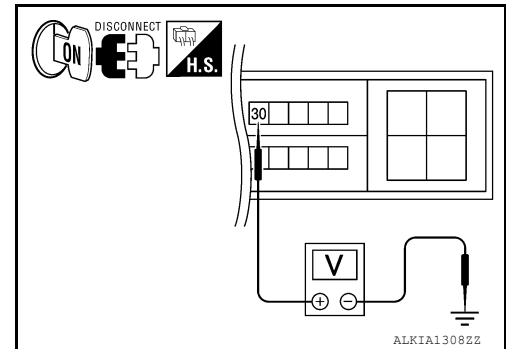
Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 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 | |

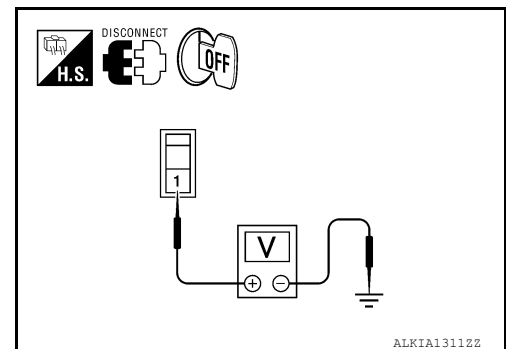
Is the inspection result normal?

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.

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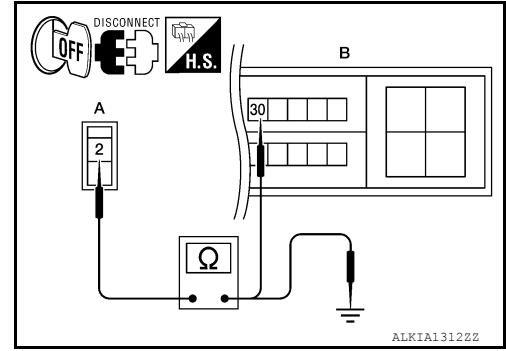
B210F TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

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-273, "Component Inspection"](#).

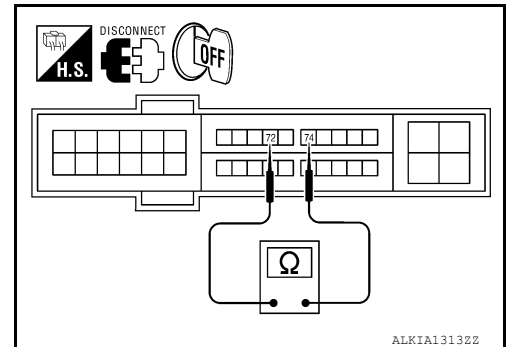
Is the inspection result normal?

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.

B210F TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

11. CHECK TRANSMISSION RANGE SWITCH CIRCUIT FOR SHORT

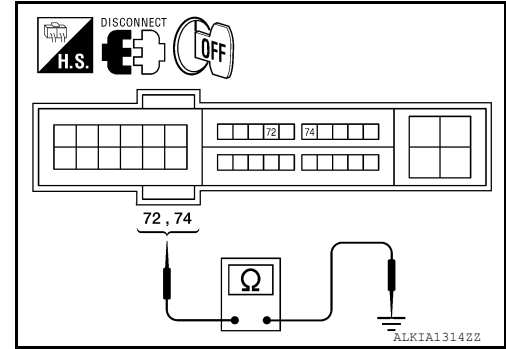
Check continuity between IPDM E/R harness connector terminals 72, 74 and ground.

| IPDM E/R | | Ground | Continuity |
|-----------|----------|--------|------------|
| Connector | Terminal | | |
| F10 | 72 | Ground | No |
| | 74 | | |

Is the inspection result normal?

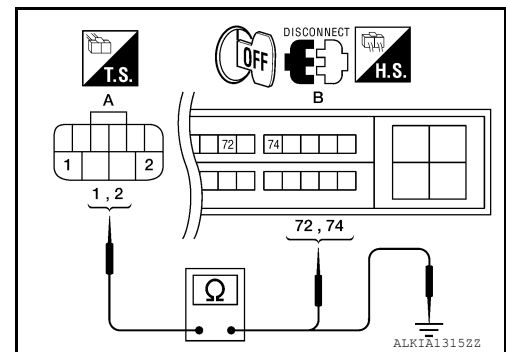
YES >> Replace the IPDM E/R. Refer to [PCS-45, "Removal and Installation"](#).

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:000000006389669

1. CHECK CLUTCH INTERLOCK SWITCH

1. Turn ignition switch OFF.
2. Disconnect clutch interlock switch harness connector.

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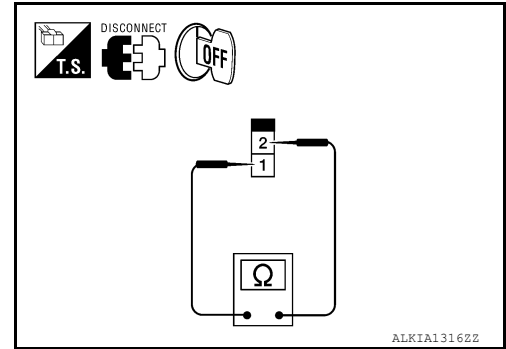
SEC

B210F TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

- Check continuity between clutch interlock switch under the following conditions.



| Clutch interlock switch | | Condition | Continuity |
|-------------------------|---|----------------------------|------------|
| Terminal | | | |
| 1 | 2 | Clutch pedal Not depressed | No |
| | | Clutch pedal 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:000000006389670

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:000000006389671

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">• Clutch interlock input signal (M/T models)• Shift NP switch input signal (CVT models) | <ul style="list-style-type: none">• Harness or connectors [Transmission range switch circuit is open or shorted (CVT models)] or (Clutch interlock switch circuit is open or shorted.)• Clutch inter lock switch (M/T models)• Transmission range switch (CVT models) |

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:000000006389672

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 (VQ35DE) | 20 | E18 | 72 | Yes |
| F25 (QR25DE) | 2 | | | |

4. Check continuity between TCM harness connector and ground.

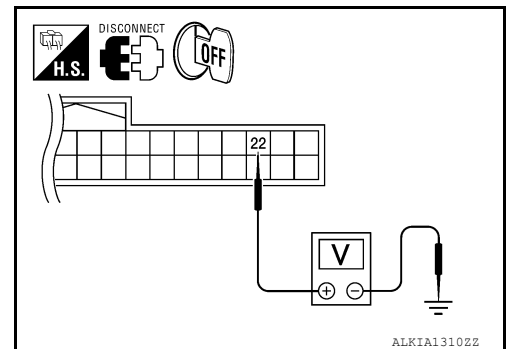
| TCM | | Ground | Continuity |
|--------------|----------|--------|------------|
| Connector | Terminal | | |
| F16 (VQ35DE) | 20 | Ground | No |
| F25 (QR25DE) | 2 | | |

Is the inspection result normal?

- YES >> GO TO 8.
 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.



B2110 TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

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

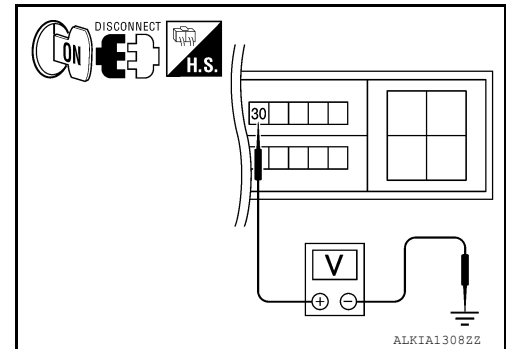
Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 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 | |

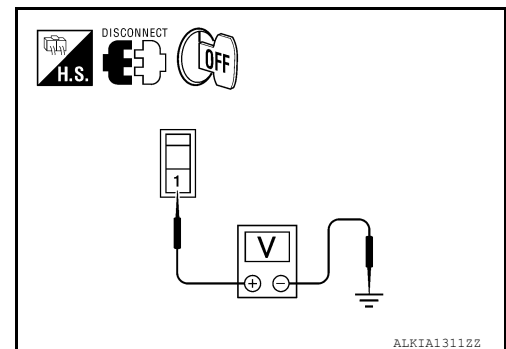
Is the inspection result normal?

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.

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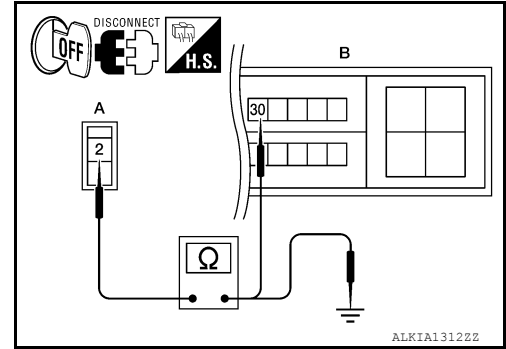
B2110 TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

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-279, "Component Inspection"](#).

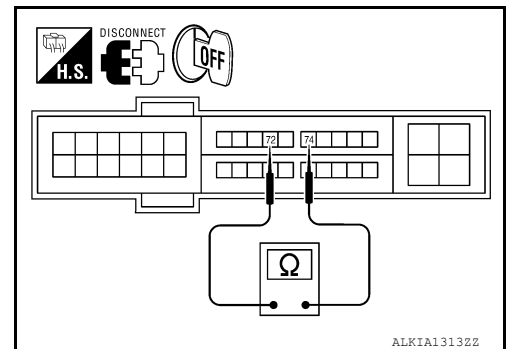
Is the inspection result normal?

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.

B2110 TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

11. CHECK TRANSMISSION RANGE SWITCH CIRCUIT FOR SHORT

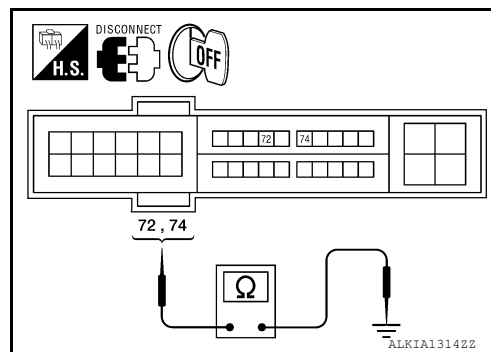
Check continuity between IPDM E/R harness connector terminals 72, 74 and ground.

| IPDM E/R | | Ground | Continuity |
|-----------|----------|--------|------------|
| Connector | Terminal | | |
| F10 | 72 | Ground | No |
| | 74 | | |

Is the inspection result normal?

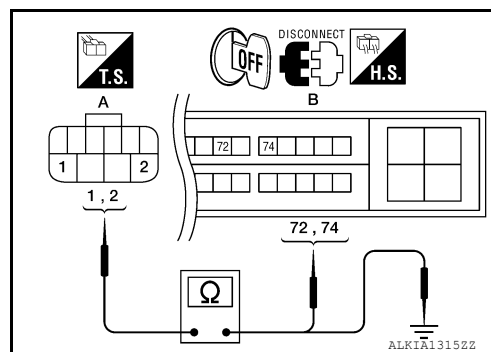
YES >> Replace the IPDM E/R. Refer to [PCS-45, "Removal and Installation"](#).

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:000000006389673

1. CHECK CLUTCH INTERLOCK SWITCH

1. Turn ignition switch OFF.
2. Disconnect clutch interlock switch harness connector.

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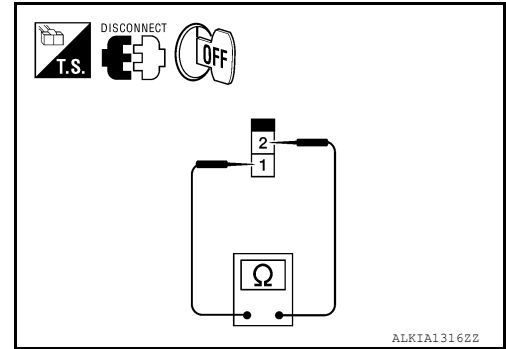
SEC

B2110 TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

- 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:000000006389674

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:000000006389675

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">• Harness or connectors (The key slot circuit is open or shorted)• Key slot• BCM |
| 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:000000006389676

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

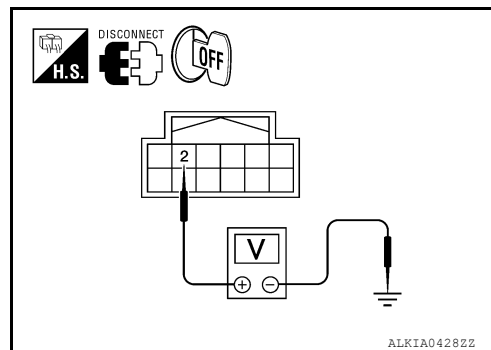
1. Turn ignition switch OFF.
2. Disconnect key slot harness connector.

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 |

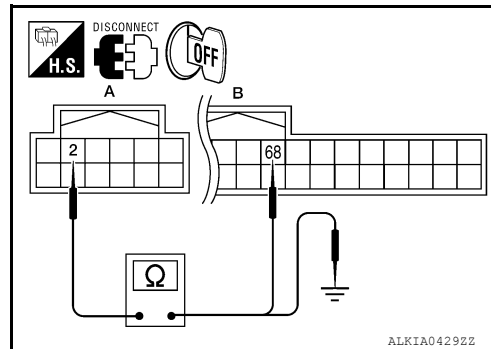
Is the inspection result normal?

YES >> Replace key slot.

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

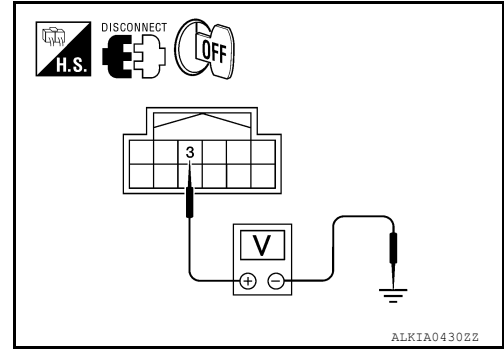
1. Turn ignition switch OFF.

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.



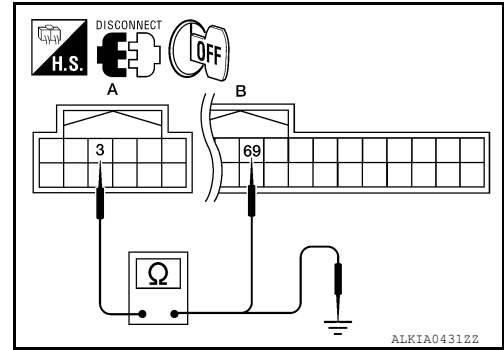
| Key slot | | Ground | Continuity |
|-----------|----------|--------|------------|
| Connector | Terminal | | |
| M40 | 3 | Ground | Yes |

Is the inspection result normal?

- YES >> Replace key slot.
 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

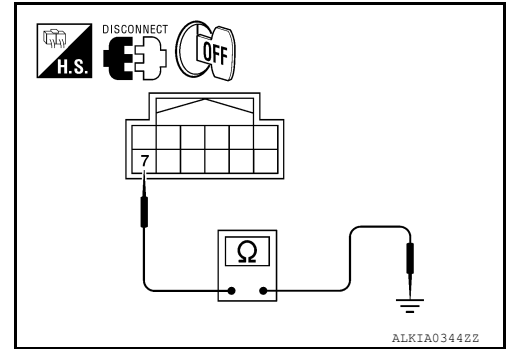
1. Turn ignition switch OFF.
2. Disconnect key slot harness connector.

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:000000006389677

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:000000006389678

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:000000006389679

1.PERFORM INITIALIZATION

Perform initialization with CONSULT. Re-register all Intelligent Keys. For initialization and registration of Intelligent Key. Refer to "CONSULT Operation Manual.

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
 - Perform initialization again

SEC

B2192, P1611 ID DISCORD, IMMUECM

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

B2192, P1611 ID DISCORD, IMMUECM

Description

INFOID:000000006389680

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:000000006389681

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, IMMUECM | The ID verification results between BCM and ECM are NG. The registration is necessary. | <ul style="list-style-type: none">• BCM• 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-286, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000006389682

1. PERFORM INITIALIZATION

Perform initialization with CONSULT. Re-register all Intelligent Keys.
For initialization and registration of Intelligent Key. Refer to "CONSULT Operation Manual".

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
 - Perform initialization again
 - Replace ECM

B2193, P1612 CHAIN OF ECM-IMMU

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

B2193, P1612 CHAIN OF ECM-IMMU

Description

INFOID:000000006389683

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:000000006389684

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">• Harness or connectors (The CAN communication line is open or shorted)• BCM• ECM |
| 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:000000006389685

1. REPLACE BCM

1. Replace BCM.
2. Perform initialization with CONSULT.
For initialization, refer to "CONSULT Operation Manual".

Does the engine start?

- YES >> BCM is malfunctioning.
 - Replace BCM.
 - Perform initialization again.
- NO >> ECM is malfunctioning.
 - Replace ECM.
 - Perform ECM re-communicating function.

B2195 ANTI-SCANNING

Description

INFOID:000000006389686

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:000000006389687

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:000000006389688

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

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

B2555 STOP LAMP

Description

INFOID:000000006931288

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:000000006931289

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">• Fuse• Stop lamp switch• Stop lamp relay-1 (with CVT)• Harness or connectors |

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-289, "Diagnosis Procedure \(With CVT\)"](#) or [SEC-291, "Diagnosis Procedure \(With M/T\)"](#).

NO >> Inspection End.

Diagnosis Procedure (With CVT)

INFOID:000000006931290

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

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

| 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 E-57 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:000000006931291

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

[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.

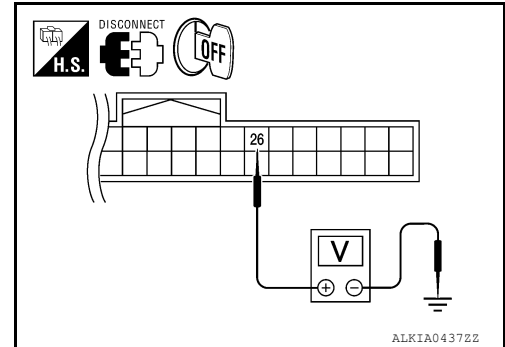
Component Inspection

STOP LAMP SWITCH

Revision: June 2012

SEC-292

2011 Altima GCC



ALKIA04372Z

INFOID:000000006931292

B2555 STOP LAMP

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

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

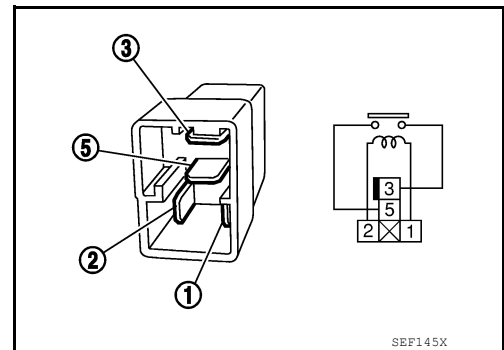
1. CHECK STOP LAMP RELAY-1

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.



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B2556 PUSH-BUTTON IGNITION SWITCH

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

B2556 PUSH-BUTTON IGNITION SWITCH

Description

INFOID:000000006389693

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:000000006389694

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">• Harness or connectors (Push-button ignition switch circuit is shorted.)• Push-button ignition switch |

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.

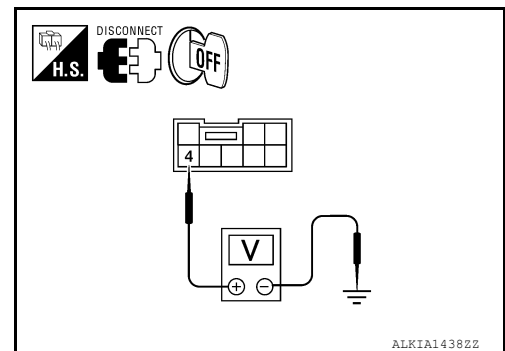
Diagnosis Procedure

INFOID:000000006389695

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"](#).

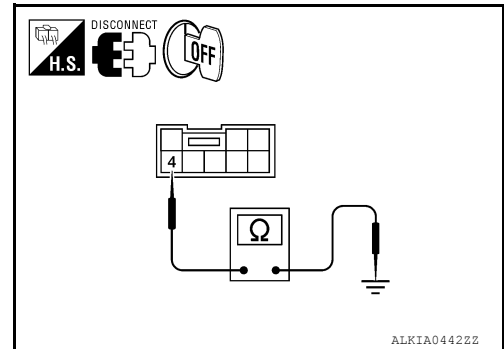
3.CHECK INTERMITTENT INCIDENT

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:000000006389696

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

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

B2557 VEHICLE SPEED

Description

INFOID:000000006389697

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:000000006389698

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">• One is 10km/h or more and the other is 4km/h or less. | <ul style="list-style-type: none">• Wheel sensor• Unified meter• ABS actuator and electric unit (control unit) |

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:000000006389699

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:000000006389700

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:000000006389701

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:000000006389702

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

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

B2601 SHIFT POSITION

Description

INFOID:000000006389703

BCM confirms the shift position with the following 2 signals.

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

DTC Logic

INFOID:000000006389704

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">• Harness or connectors (CVT shift selector circuit is open or shorted.)• CVT shift selector (park position switch) |

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:000000006389705

Regarding Wiring Diagram information, refer to [SEC-427, "Wiring Diagram"](#).

1. CHECK CVT SHIFT SELECTOR POWER SUPPLY

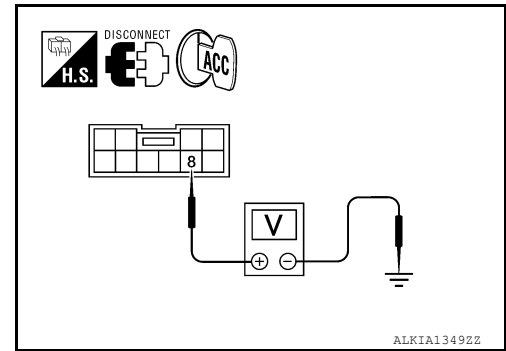
1. Turn ignition switch to ACC.
2. Disconnect CVT shift selector (park position switch) harness connector.

B2601 SHIFT POSITION

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

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



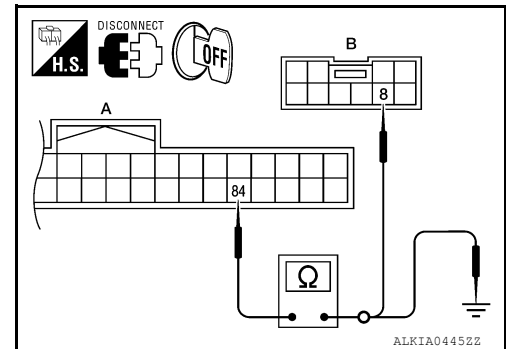
| CVT shift selector (park position switch) | | Ground | Voltage [V] |
|---|----------|--------|-----------------|
| Connector | Terminal | | |
| M23 | 8 | Ground | Battery voltage |

Is the inspection result normal?

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

2.CHECK CVT SHIFT SELECTOR POWER SUPPLY CIRCUIT

1. Disconnect BCM harness connector.
2. 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 |

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.
 NO >> Repair harness or connector.

3.CHECK CVT SHIFT SELECTOR CIRCUIT (BCM)

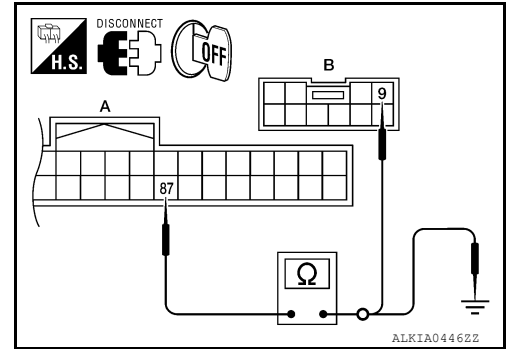
1. Disconnect BCM harness connector and IPDM E/R harness connector.

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 |

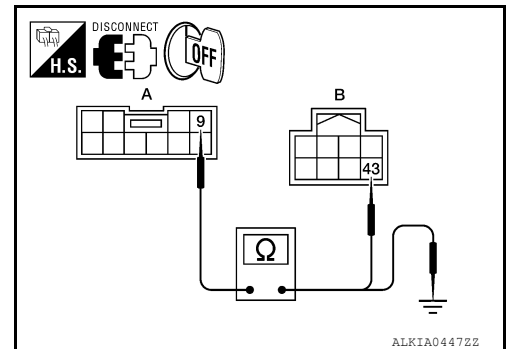
Is the inspection result normal?

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-240, "Removal and Installation"](#) (RE0F09B), or [TM-404, "Removal and Installation"](#) (RE0F10A).

6.CHECK INTERMITTENT INCIDENT

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

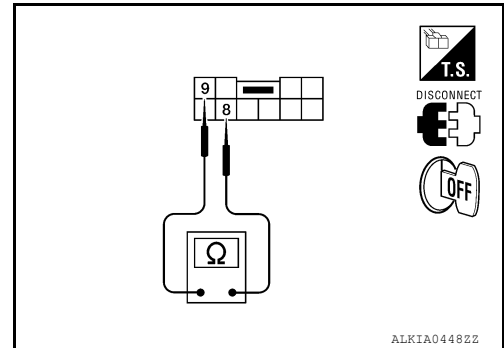
>> Inspection End.

Component Inspection

INFOID:000000006389706

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-240, "Removal and Installation"](#) (RE0F09B), or [TM-404, "Removal and Installation"](#) (RE0F10A).

B2602 SHIFT POSITION

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

B2602 SHIFT POSITION

Description

INFOID:000000006389707

BCM confirms the shift position with the following 2 signals.

- CVT selector lever
- Speed signal from meter

DTC Logic

INFOID:000000006389708

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">• Shift position is in P position• Vehicle speed is 4km/h (2 MPH) or more• Ignition switch is in the ON position | <ul style="list-style-type: none">• Harness or connectors (CVT drive circuit is open or shorted)• CVT shift selector (park position switch)• Combination meter |

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:000000006389709

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

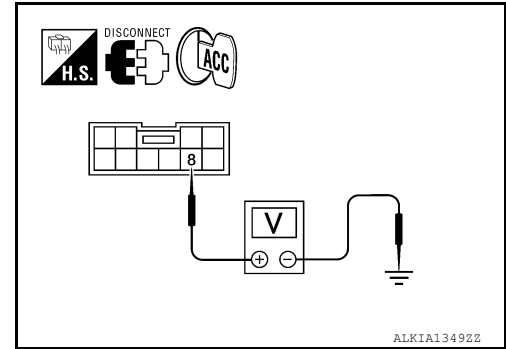
1. Turn ignition switch to ACC.
2. Disconnect CVT shift selector (park position switch) harness connector.

B2602 SHIFT POSITION

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

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



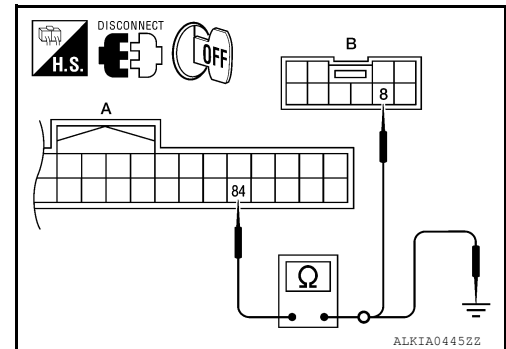
| CVT shift selector (park position switch) | | Ground | Voltage [V] |
|---|----------|--------|-----------------|
| Connector | Terminal | | |
| M23 | 8 | Ground | Battery voltage |

Is the inspection result normal?

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

3.CHECK CVT SHIFT SELECTOR POWER SUPPLY CIRCUIT

1. Disconnect BCM harness connector.
2. 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 |

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.
 NO >> Repair harness or connector.

4.CHECK CVT SHIFT SELECTOR CIRCUIT

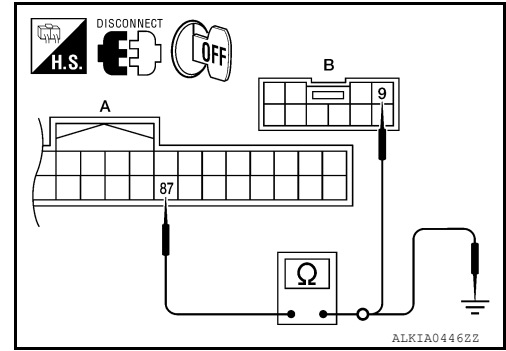
1. Disconnect BCM harness connector.

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-240, "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:000000006389710

BCM confirms the shift position with the following 2 signals.

- CVT selector lever
- P/N position switch

DTC Logic

INFOID:000000006389711

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">• Transmission range switch: approx. 0V• CVT shift selector (park position switch): approx 0V | <ul style="list-style-type: none">• Harness or connector (CVT shift selector circuit is open or shorted.)• Harness or connectors [Transmission range switch circuit is open or shorted.]• CVT shift selector (park position switch)• Transmission range switch |

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:000000006389712

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

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

| 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 | | |

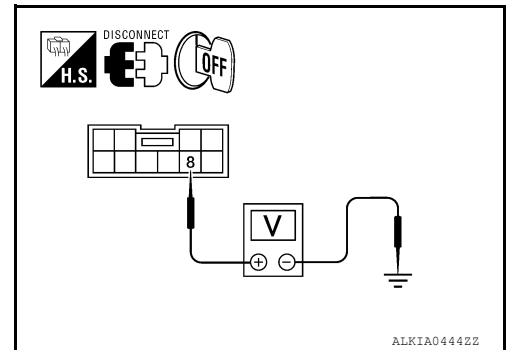
Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3. CHECK CVT SHIFT SELECTOR POWER SUPPLY

1. Turn ignition switch OFF.
2. Disconnect CVT shift selector (park position switch) harness connector.
3. 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 |

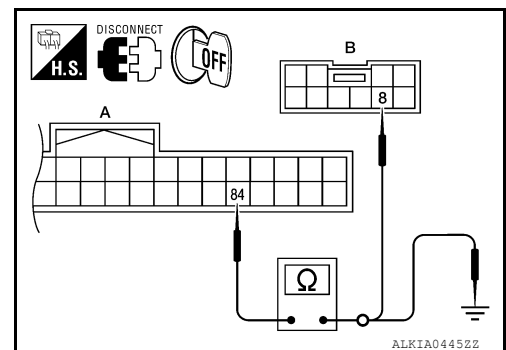
Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4. CHECK CVT SHIFT SELECTOR POWER SUPPLY CIRCUIT

1. Disconnect BCM harness connector.
2. 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

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

| 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 |

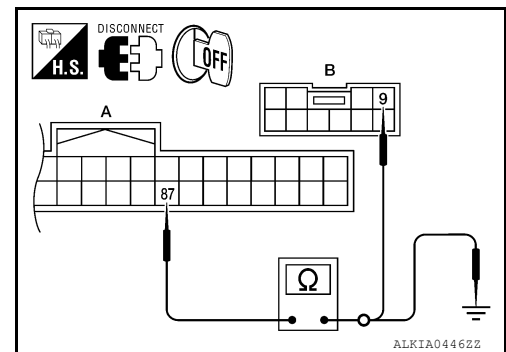
Is the inspection result normal?

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-240, "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

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

B2604 PNP SWITCH

Description

INFOID:000000006389713

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:000000006389714

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">• P/N switch indicates vehicle is in P or N shift position. Signal from TCM indicates vehicle is in forward or reverse gear.• P/N switch indicates vehicle is in forward or reverse gear. Signal from TCM indicates vehicle is in P or N. | <ul style="list-style-type: none">• Harness or connectors [The transmission range switch circuit is open or shorted.]• Transmission range switch• TCM |

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:000000006389715

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.

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SEC

B2605 PNP SWITCH

Description

INFOID:000000006389716

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:000000006389717

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"> • N position input signal exists. Shift position signal from IPDM E/R does not exist. • N position input signal does not exist. Shift position signal from IPDM E/R exists. | <ul style="list-style-type: none"> • Harness or connectors [The transmission range switch circuit is open or shorted.] • Transmission range switch • 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 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:000000006389718

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.

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SEC

B2606 STEERING LOCK RELAY

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

B2606 STEERING LOCK RELAY

Description

INFOID:000000006389719

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:000000006389720

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">• Electronic steering column lock ON signal transmitted by IPDM E/R• The electronic steering column lock status feedback | <ul style="list-style-type: none">• Steering lock relay (in IPDM E/R) |

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:000000006389721

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:000000006389722

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:000000006389723

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">• BCM request for electronic steering column lock power supply (ON/OFF)• IPDM E/R status of electronic steering column lock power supply (ON/OFF) | <ul style="list-style-type: none">• Harness or connectors (electronic steering column lock power supply circuit is open or shorted)• Steering lock relay (in IPDM E/R) |

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:000000006389724

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

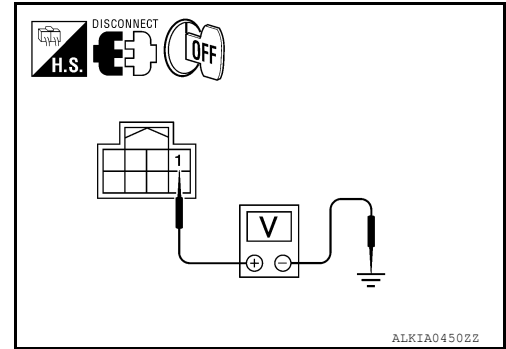
1. Turn ignition switch OFF.
2. Disconnect electronic steering column lock harness connector.

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 |

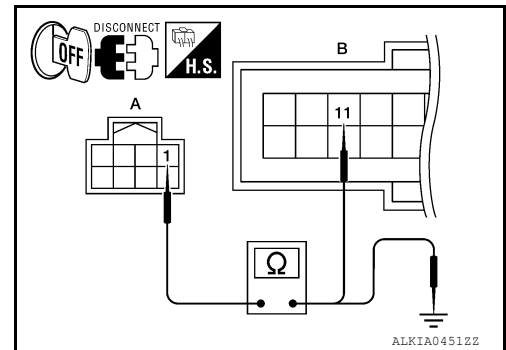
Is the inspection result normal?

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:000000006389725

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:000000006389726

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"> • Harness or connectors (starter relay circuit is open or shorted.) • IPDM E/R |

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

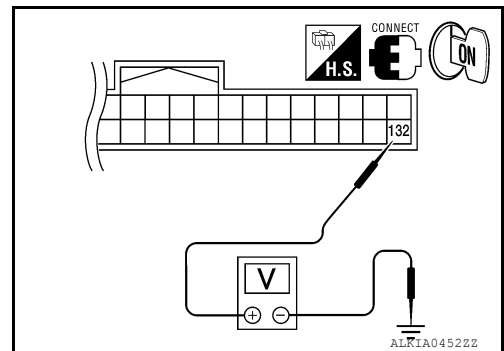
INFOID:000000006389727

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 |

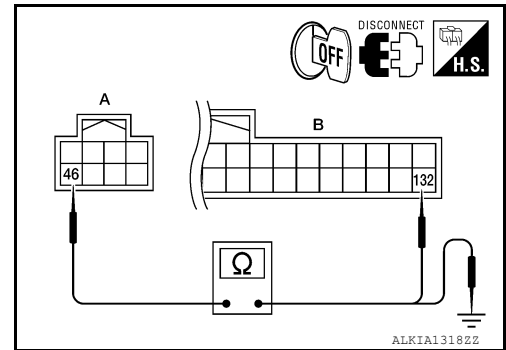
Is the measurement value within the specification?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK STARTER RELAY CIRCUIT

- Turn ignition switch OFF.
- Disconnect BCM harness connector M21 and IPDM E/R harness connector E17.
- 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 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

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

B2609 STEERING STATUS

Description

INFOID:000000006389728

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:000000006389729

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">• Harness or connectors [electronic steering column lock circuit (BCM side) is open or shorted]• Harness or connectors [electronic steering column lock circuit (IPDM E/R side) is open or shorted.]• Electronic steering column lock• IPDM E/R |

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:000000006389730

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]

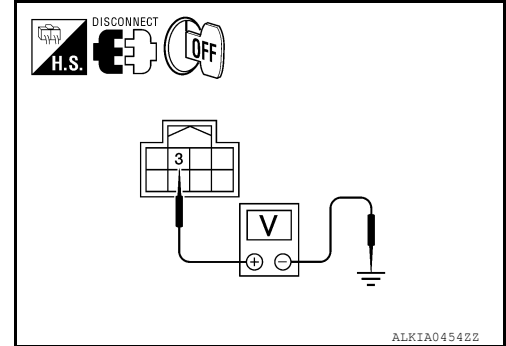
< DTC/CIRCUIT DIAGNOSIS >

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.



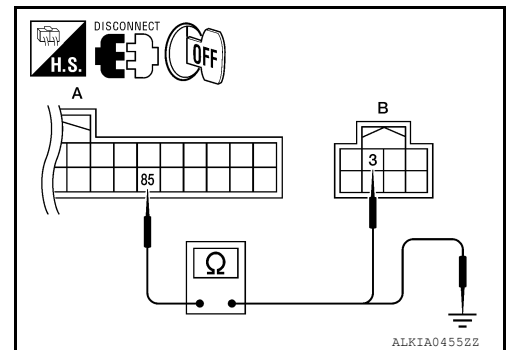
| Electronic steering column lock | | Ground | Voltage [V] |
|---------------------------------|----------|--------|-----------------|
| Connector | Terminal | | |
| M32 | 3 | Ground | Battery voltage |

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.

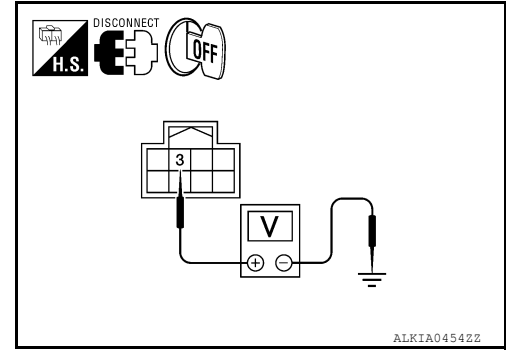
4. CHECK IPDM E/R OUTPUT SIGNAL

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.



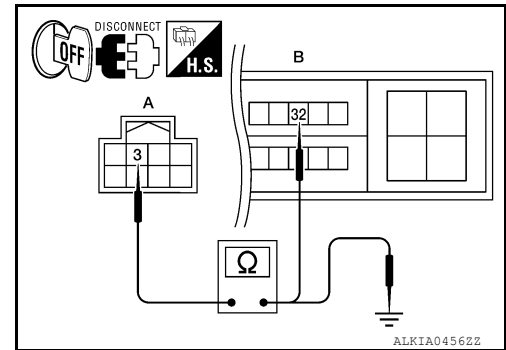
| Electronic steering column lock | | Ground | Voltage [V] |
|---------------------------------|----------|--------|-----------------|
| Connector | Terminal | | |
| M32 | 3 | Ground | Battery voltage |

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.

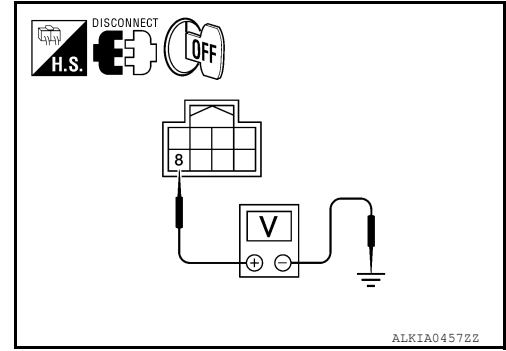
7.CHECK BCM OUTPUT SIGNAL

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.



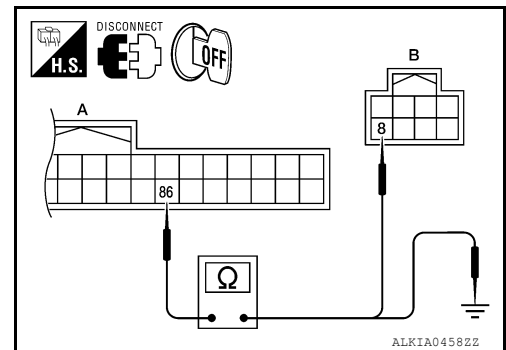
| Electronic steering column lock | | Ground | Voltage [V] |
|---------------------------------|----------|--------|-----------------|
| Connector | Terminal | | |
| M32 | 8 | Ground | Battery voltage |

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

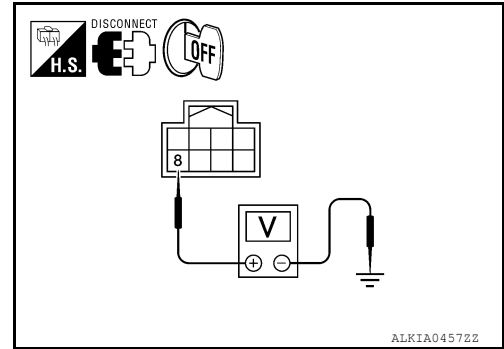
1. Connect IPDM E/R harness connector.
2. Disconnect BCM harness connector M19.

B2609 STEERING STATUS

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

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



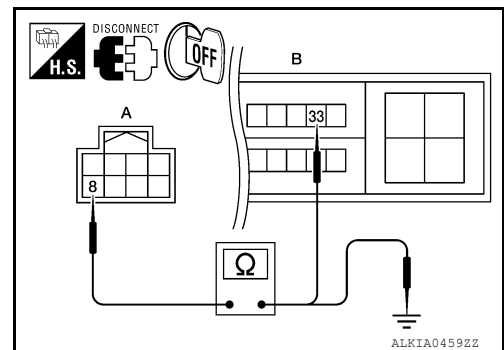
| Electronic steering column lock | | Ground | Voltage [V] |
|---------------------------------|----------|--------|-----------------|
| Connector | Terminal | | |
| M32 | 8 | Ground | Battery voltage |

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.

B260B ELECTRONIC STEERING COLUMN LOCK

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

B260B ELECTRONIC STEERING COLUMN LOCK

Description

INFOID:000000006389731

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

DTC Logic

INFOID:000000006389732

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:000000006389733

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:000000006389734

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

DTC Logic

INFOID:000000006389735

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:000000006389736

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.

A
B
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SEC

B260D ELECTRONIC STEERING COLUMN LOCK

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

B260D ELECTRONIC STEERING COLUMN LOCK

Description

INFOID:000000006389737

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:000000006389738

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:000000006389739

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

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

B260F ENGINE STATUS

Description

INFOID:000000006389740

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

DTC Logic

INFOID:000000006389741

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:000000006389742

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-331, "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:000000006389743

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

DTC Logic

INFOID:000000006389744

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:000000006389745

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-331, "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:000000006389746

When clutch interlock switch turns ON, BCM detects that clutch pedal is being depressed and permits to start the engine.

DTC Logic

INFOID:000000006389747

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"> Clutch interlock switch Harness or connector (Clutch interlock switch circuit open or shorted) |

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:000000006389748

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.

| (+) | | (-) | Voltage (V) (Approx.) |
|-------------------------|----------|--------|--------------------------|
| Clutch interlock switch | | | |
| 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:000000006389749

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:000000006389750

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:000000006389751

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:000000006389752

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

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

B26EA KEY REGISTRATION

Description

INFOID:000000006389753

When the registered Intelligent Key is carried, the door lock/unlock operation and the push-button ignition switch operation become possible.

DTC Logic

INFOID:000000006389754

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">• Improper registration operation• Intelligent Key• BCM |

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

Is DTC detected?

- YES >> Go to [SEC-330, "Diagnosis Procedure"](#).
NO >> Inspection End

Diagnosis Procedure

INFOID:000000006389755

1. PERFORM INITIALIZATION

1. Perform initialization using CONSULT. Reregister all Intelligent Keys.
For initialization and registration of Intelligent Key, refer to CONSULT Operation Manual.
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 Operation Manual.
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

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

B2612 STEERING STATUS

Description

INFOID:000000006389756

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:000000006389757

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">• Steering lock or unlock• Feedback of steering lock status from IPDM E/R (CAN) | <ul style="list-style-type: none">• Harness or connectors [electronic steering column lock circuit (BCM side) is open or shorted]• Harness or connectors [electronic steering column lock circuit (IPDM E/R side) is open or shorted.]• Electronic steering column lock• IPDM E/R |

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:000000006389758

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]

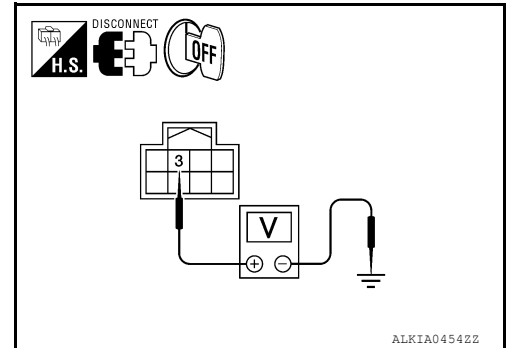
< DTC/CIRCUIT DIAGNOSIS >

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 |

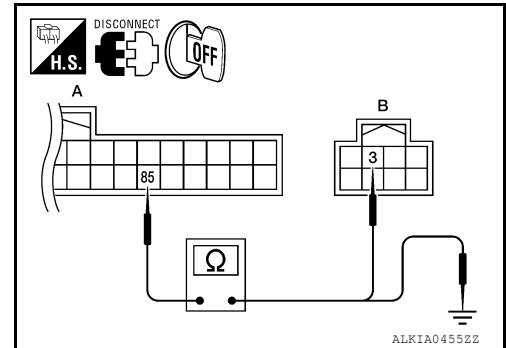
Is the inspection result normal?

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

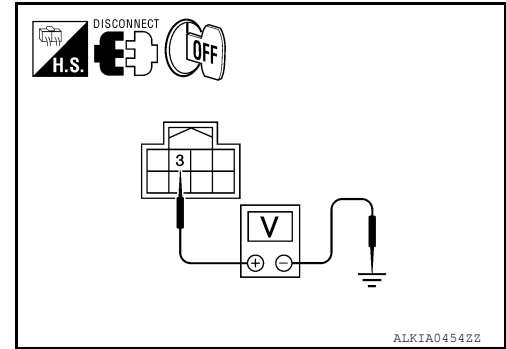
1. Connect IPDM E/R harness connector.
2. Disconnect BCM harness connector.

B2612 STEERING STATUS

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

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



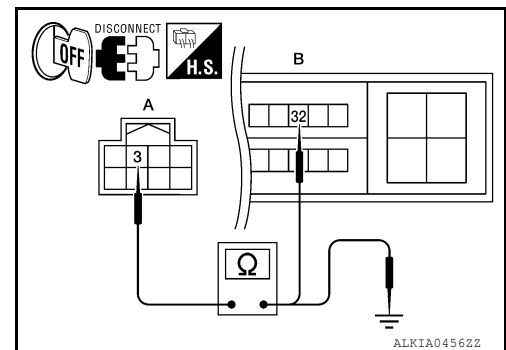
| Electronic steering column lock | | Ground | Voltage [V] |
|---------------------------------|----------|--------|-----------------|
| Connector | Terminal | | |
| M32 | 3 | Ground | Battery voltage |

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

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

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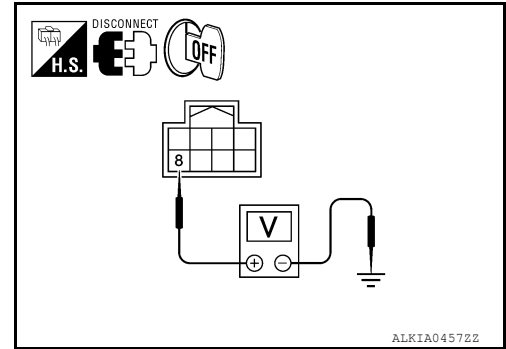
SEC

B2612 STEERING STATUS

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

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



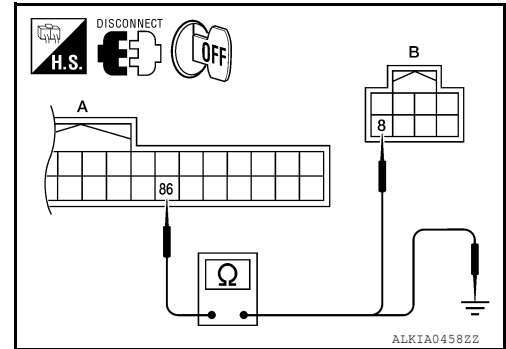
| Electronic steering column lock | | Ground | Voltage [V] |
|---------------------------------|----------|--------|-----------------|
| Connector | Terminal | | |
| M32 | 8 | Ground | Battery voltage |

Is the inspection result normal?

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

8.CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-I

1. Disconnect BCM harness connector.
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

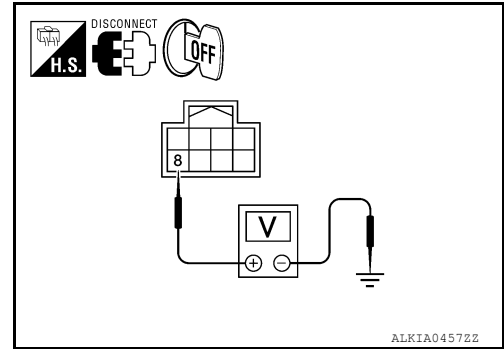
1. Connect IPDM E/R harness connector.
2. Disconnect BCM harness connector.

B2612 STEERING STATUS

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

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



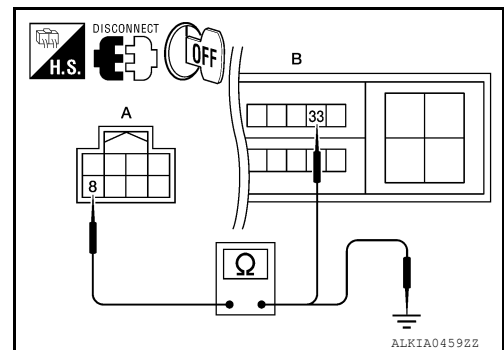
| Electronic steering column lock | | Ground | Voltage [V] |
|---------------------------------|----------|--------|-----------------|
| Connector | Terminal | | |
| M32 | 8 | Ground | Battery voltage |

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:000000006389759

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:000000006389760

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">• An immediate operation of starter relay is requested by BCM, but there is no response for more than 1 second• BCM is not commanding starter relay activation, but BCM detects starter relay output is active | <ul style="list-style-type: none">• Harness or connectors (Starter relay circuit is open or shorted.)• 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 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

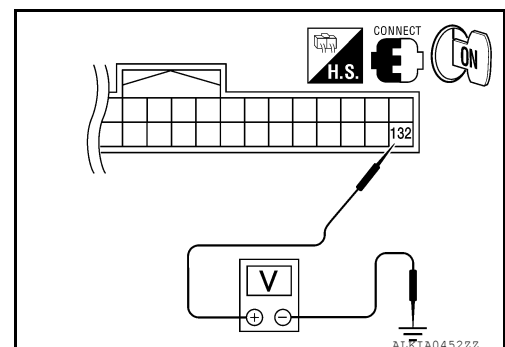
Diagnosis Procedure

INFOID:000000006389761

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]

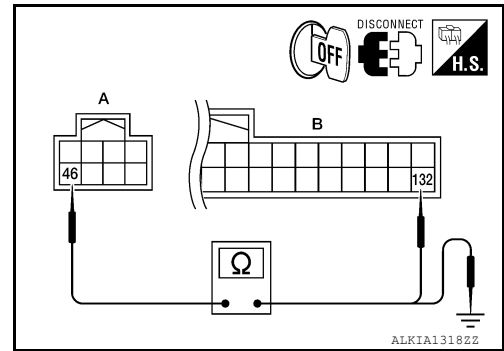
| BCM | | Ground | Transmission type | Condition | Voltage (V) |
|-----------|----------|--------|-----------------------------|--|-----------------|
| Connector | Terminal | | | | |
| M21 | 132 | Ground | CVT: Select lever in Park | Ignition switch cranking or request to start | Battery voltage |
| | | | | 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:000000006389762

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:000000006389763

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:000000006389764

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:000000006389765

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:000000006389766

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">• Push-button ignition switch status• Push-button ignition switch status from IPDM E/R (CAN) | <ul style="list-style-type: none">• Harness or connectors (Push-button ignition switch circuit is open or shorted)• Between BCM and push-button ignition switch• Between IPDM E/R and push-button ignition switch |

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

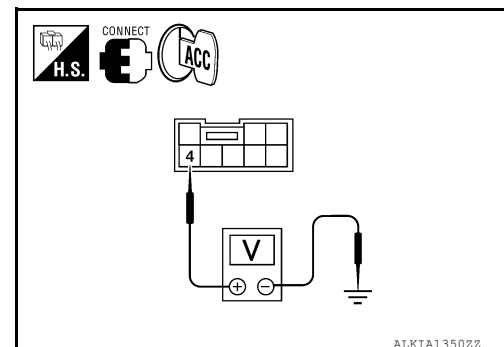
Diagnosis Procedure

INFOID:000000006389767

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

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

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

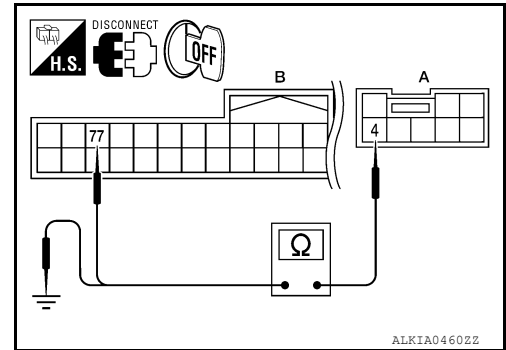
Is the inspection result normal?

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 |

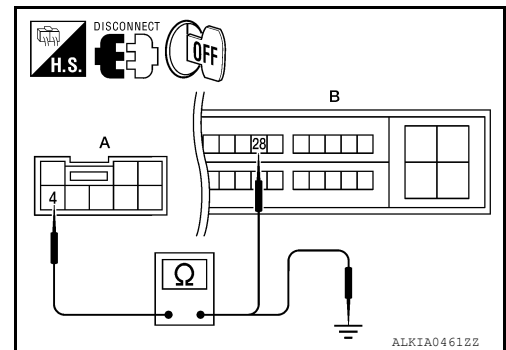
Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

3. CHECK PUSH-BUTTON IGNITION SWITCH

1. Disconnect IPDM E/R harness connector.
2. Check continuity between push-button ignition switch harness connector M38 (A) terminal 4 and IPDM E/R harness connector E18 (B) terminal 28.



| Push-button ignition switch | | IPDM E/R | | Continuity |
|-----------------------------|----------|-----------|----------|------------|
| Connector | Terminal | Connector | Terminal | |
| A: M38 | 4 | B: E18 | 28 | Yes |

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

B261A PUSH-BUTTON IGNITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

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

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair harness or connector.

4.CHECK INTERMITTENT INCIDENT

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

>> Inspection End

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B261E VEHICLE TYPE

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

B261E VEHICLE TYPE

Description

INFOID:000000006389768

There are two types of vehicles.

- HEV
- Conventional

DTC Logic

INFOID:000000006389769

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:000000006389770

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

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM : Diagnosis Procedure

INFOID:000000006389771

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?

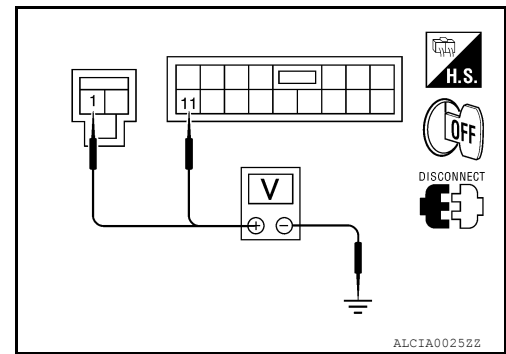
YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

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

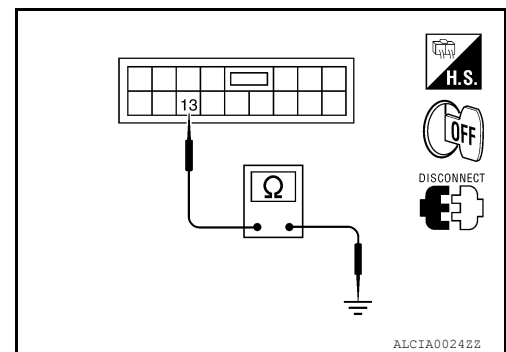
Check continuity between BCM harness connector and ground.

| BCM | | Ground | Continuity |
|-----------|----------|--------|------------|
| Connector | Terminal | | |
| M17 | 13 | | Yes |

Does continuity exist?

YES >> Inspection End.

NO >> Repair or replace harness.



BCM : Special Repair Requirement

INFOID:000000006389772

1. REQUIRED WORK WHEN REPLACING BCM

Initialize control unit. Refer to [BCS-3. "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

>> Work End.

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

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) : Di-

POWER SUPPLY AND GROUND CIRCUIT

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

INFOID:00000006389773

agnosis Procedure

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 |

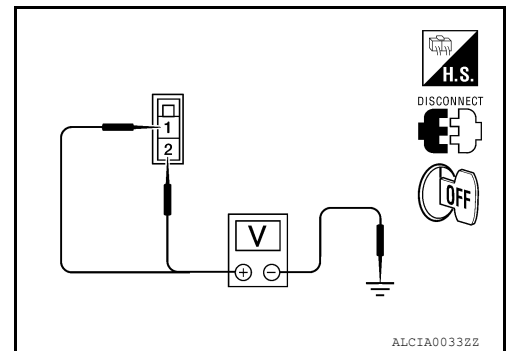
Is the fuse blown?

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

2. CHECK POWER SUPPLY CIRCUIT

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

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



Is the measurement value normal?

- YES >> GO TO 3
 NO >> Repair harness or connector.

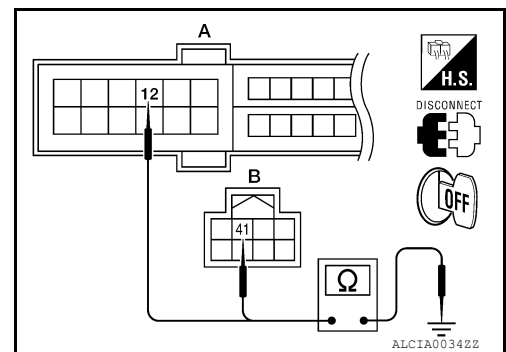
3. CHECK GROUND CIRCUIT

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

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

KEY SLOT

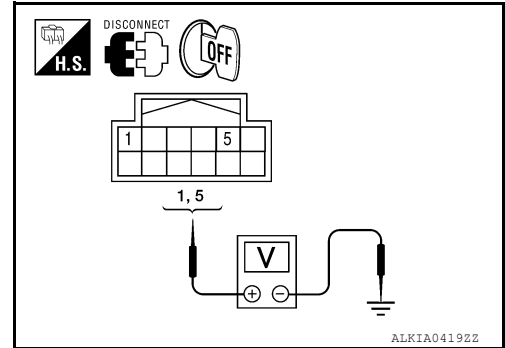
Diagnosis Procedure

INFOID:000000006389774

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 | | |

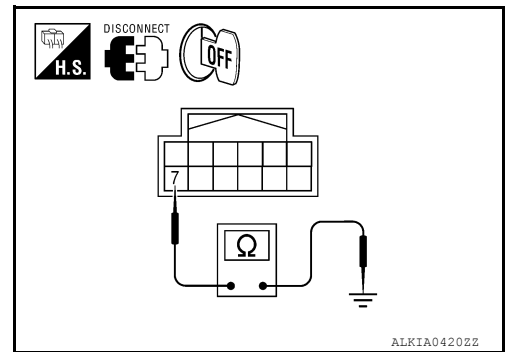
Is the inspection result normal?

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"](#).

KEY SLOT

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

>> Inspection End

KEY SLOT ILLUMINATION

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

KEY SLOT ILLUMINATION

Description

INFOID:000000006389775

Blinks when Intelligent Key insertion is required.

Component Function Check

INFOID:000000006389776

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"](#).

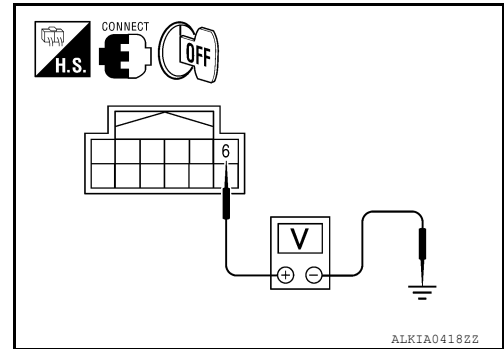
Diagnosis Procedure

INFOID:000000006389777

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.



| 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

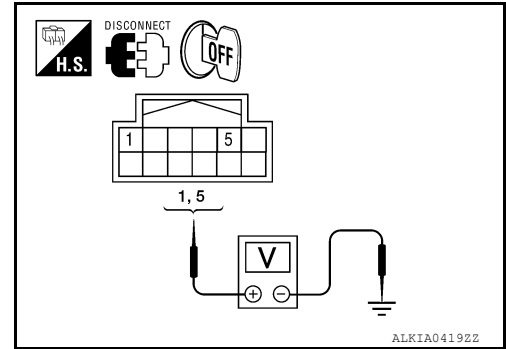
1. Turn ignition switch OFF.
2. Disconnect key slot connector.

KEY SLOT ILLUMINATION

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

3. Check voltage between slot connector and ground.



| Terminals | | Voltage (V) (Approx.) |
|--------------------|----------|--------------------------|
| (+) | (-) | |
| Key slot connector | Terminal | Battery voltage |
| M40 | 1 | |
| | 5 | |

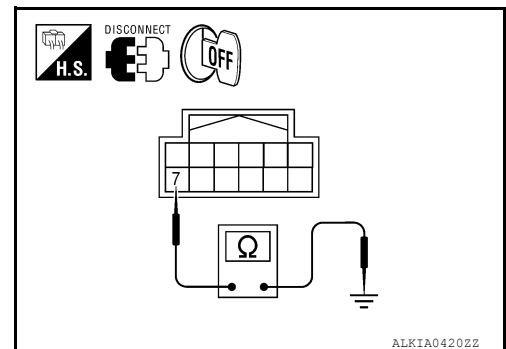
Is the inspection result normal?

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 |

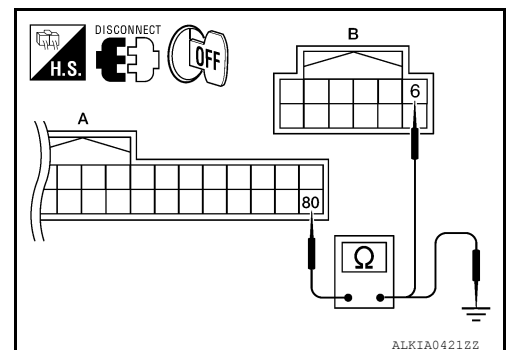
Is the inspection result normal?

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 >

[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:000000006389778

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:000000006389779

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 \(With LH Anti-Pinch Only\)"](#).

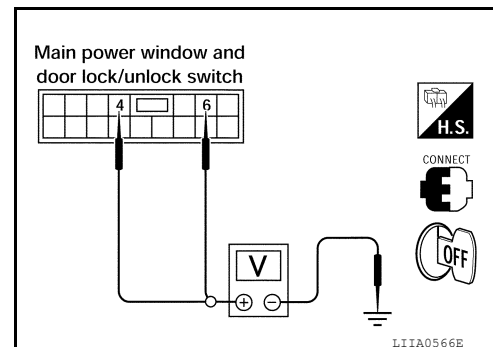
Diagnosis Procedure (With LH and RH Anti-Pinch)

INFOID:000000006389780

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 | Lock | 0 |
| | 6 | Neutral / Unlock | 5 |
| | | Unlock | 0 |
| | | Neutral / Lock | 5 |

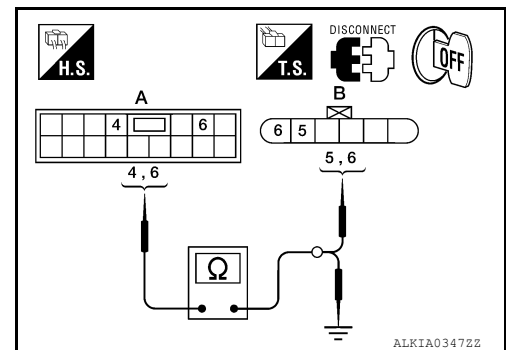
Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to [PWC-295, "Removal and Installation"](#). After that, Refer to [PWC-195, "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 | | No |
| | 6 | | |

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

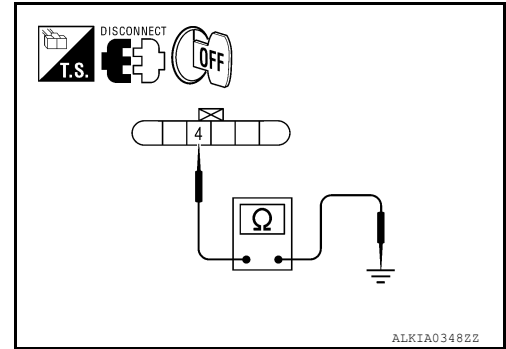
3.CHECK DOOR KEY CYLINDER SWITCH GROUND CIRCUIT

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-457. "FRONT DOOR LOCK : Removal and Installation"](#). After that, Refer to [DLK-230. "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

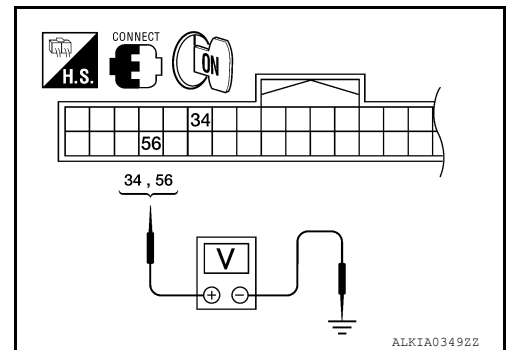
Diagnosis Procedure (With LH Anti-Pinch Only)

INFOID:000000006389781

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 |
| | 34 | 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 [DLK-457, "FRONT DOOR LOCK : Removal and Installation"](#). After that, Refer to [DLK-230, "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 |

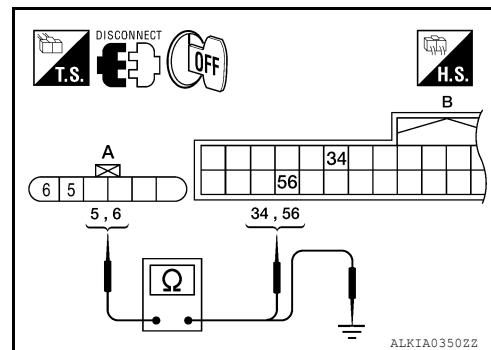
Is the inspection result normal?

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

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

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-457, "FRONT DOOR LOCK : Removal and Installation"](#). After that, Refer to [DLK-230, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

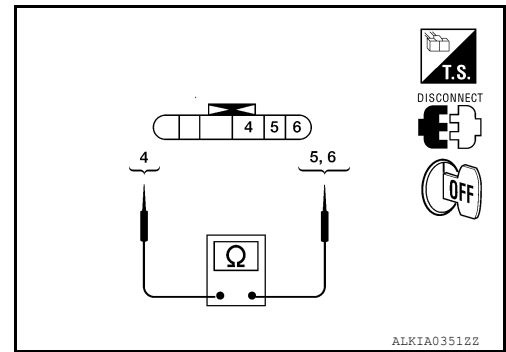
Component Inspection

INFOID:000000006389782

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-457, "FRONT DOOR LOCK : Removal and Installation"](#). After that, refer to [SEC-354, "Special Repair Requirement"](#).

Special Repair Requirement

INFOID:000000006389783

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to [DLK-230, "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

< DTC/CIRCUIT DIAGNOSIS >

[SEDAN]

HORN

Description

INFOID:000000006389784

Horn (high/low) is located inside of front bumper and operates when theft warning system is in alarm phase.

Component Function Check

INFOID:000000006389785

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:000000006389786

Regarding Wiring Diagram information, refer to [SEC-413, "Wiring Diagram"](#).

1.CHECK HORN FUNCTION

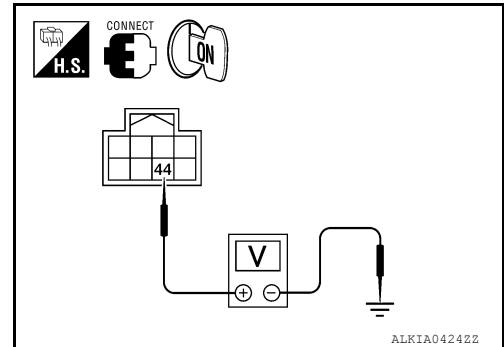
Check horn function with horn switch

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 | 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.

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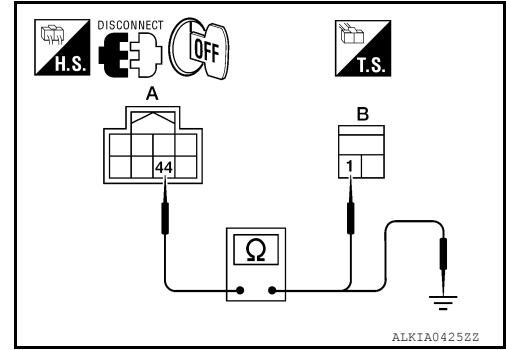
SEC

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:000000006389787

Headlamp lighting when theft warning system is alarm phase.

Component Function Check

INFOID:000000006389788

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:000000006389789

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

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

WARNING LAMP

Description

INFOID:000000006389790

- 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:000000006389791

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:000000006389792

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

[SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

VEHICLE SECURITY INDICATOR

Description

INFOID:000000006389793

- 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:000000006389794

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:000000006389795

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:000000006931299

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 | A |
| | Power door lock switch LOCK | ON | |
| CDL UNLOCK SW | Other than power door lock switch UNLOCK | OFF | B |
| | Power door lock switch UNLOCK | ON | |
| KEY CYL LK-SW | Other than driver door key cylinder LOCK position | OFF | C |
| | Driver door key cylinder LOCK position | ON | |
| KEY CYL UN-SW | Other than driver door key cylinder UNLOCK position | OFF | D |
| | Driver door key cylinder UNLOCK position | ON | |
| HAZARD SW | When hazard switch is not pressed | OFF | E |
| | When hazard switch is pressed | ON | |
| REAR DEF SW | When rear window defogger switch is pressed | ON | F |
| FAN ON SIG | When AUTO switch or fan switch is pressed | ON | G |
| AIR COND SW | When A/C switch is pressed | ON | H |
| TR CANCEL SW | Trunk lid opener cancel switch OFF | OFF | I |
| | Trunk lid opener cancel switch ON | ON | |
| TR/BD OPEN SW | Trunk lid opener switch OFF | OFF | J |
| | While the trunk lid opener switch is turned ON | ON | |
| TRNK/HAT MNTR | Trunk lid closed | OFF | K |
| | Trunk lid opened | ON | |
| RKE-LOCK | When LOCK button of Intelligent Key is not pressed | OFF | L |
| | When LOCK button of Intelligent Key is pressed | ON | |
| RKE-UNLOCK | When UNLOCK button of Intelligent Key is not pressed | OFF | M |
| | When UNLOCK button of Intelligent Key is pressed | ON | |
| RKE-TR/BD | When TRUNK OPEN button of Intelligent Key is not pressed | OFF | N |
| | When TRUNK OPEN button of Intelligent Key is pressed | ON | |
| RKE-PANIC | When PANIC button of Intelligent Key is not pressed | OFF | O |
| | 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 | P |
| | 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 | |

SEC

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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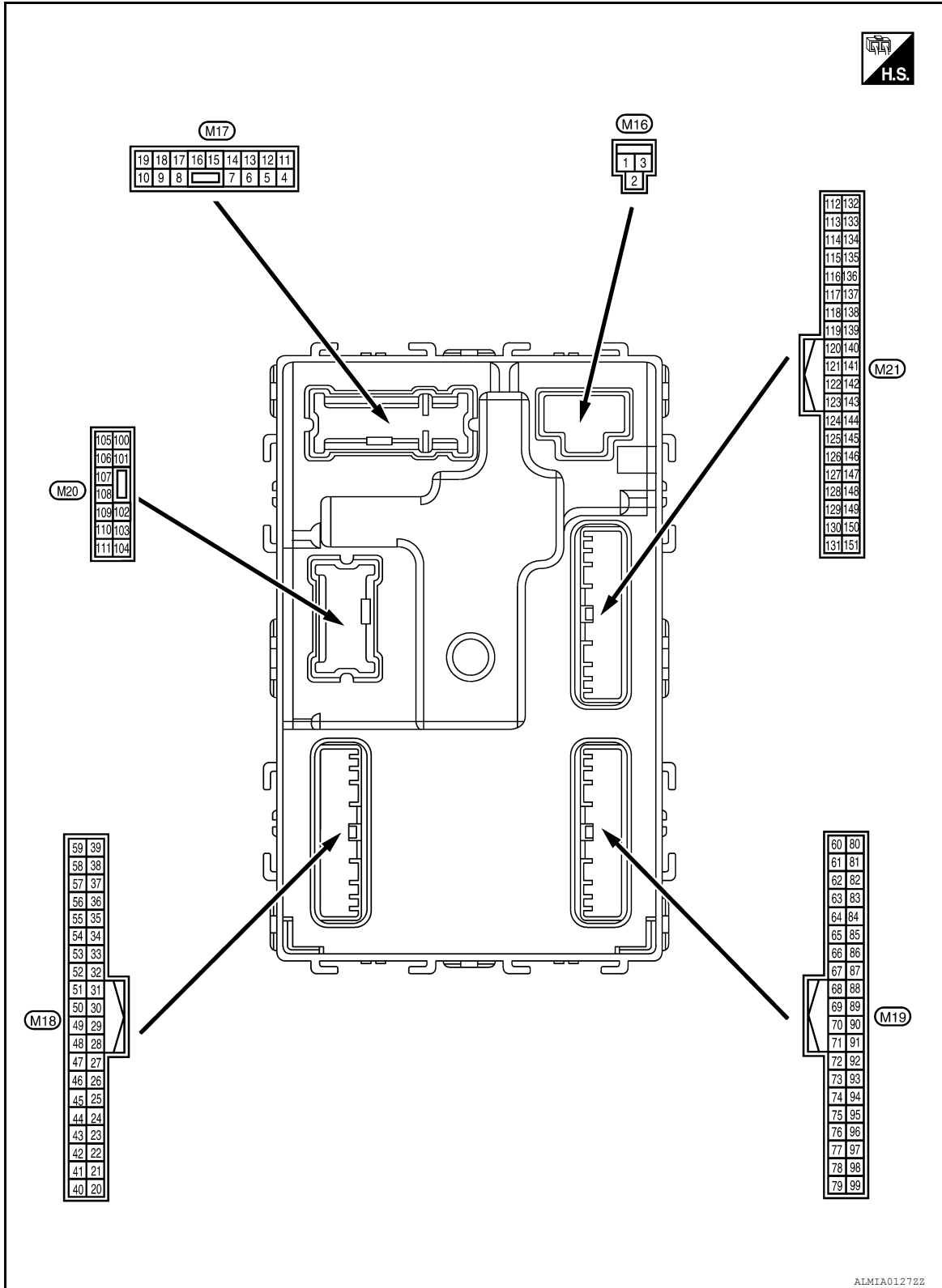
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

Terminal Layout

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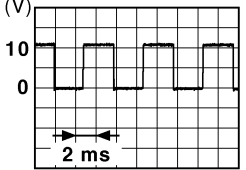
Physical Values

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

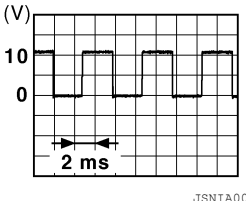
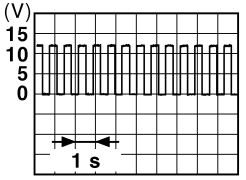
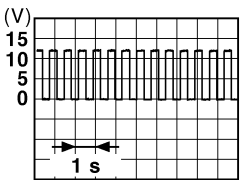
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|------------------------------|--------|---|------------------|--|---|---|
| | | Signal name | Input/ Output | | | |
| (+) | (-) | | | | | |
| 1 (W/B) | Ground | Battery power supply | Input | Ignition switch OFF | | Battery 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 ¹ (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 ¹ (O/W) | Ground | Engine switch (push switch) illumination ground | Input | Tail lamp | OFF | 0V |
| | | | | | ON | <p>NOTE: When the illumination brightening/dimming level is in the neutral position</p>  <p style="text-align: center;">(V)</p> <p style="text-align: center;">10 0</p> <p style="text-align: center;">2 ms</p> <p style="text-align: right; font-size: small;">JSNIA0010GB</p> |

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

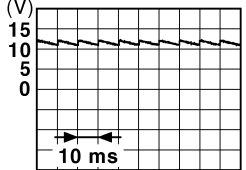
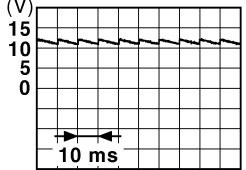
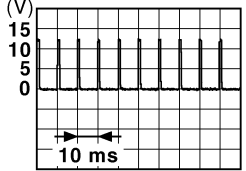
[SEDAN]

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|------------------------------|--------|---|------------------|-------------------------|---------------------------------------|---|
| (+) | (-) | Signal name | Input/ Output | | | |
| 14 ^B (R/Y) | Ground | Engine switch (push switch) illumination ground | Input | Tail lamp | OFF | 0V |
| | | | | | ON | NOTE: When the illumination brightening/dimming level is in the neutral position  |
| 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 |  |
| 18 (G/Y) | Ground | Turn signal (LH) | Output | Ignition switch ON | Turn signal switch OFF | 0V |
| | | | | | Turn signal switch LH |  |
| 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 ² (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 |  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) |  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 ³ (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 ³ (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 |  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 ³ (GR/ R) | Ground | Unlock switch signal | Input | Door lock/unlock switch | Unlock | Battery voltage |
| | | | | | Lock | 0V |

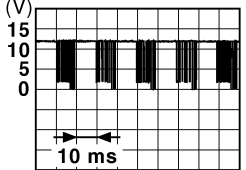
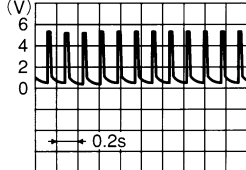

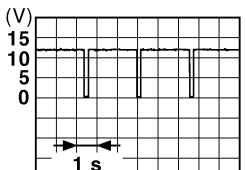
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BCM (BODY CONTROL MODULE)

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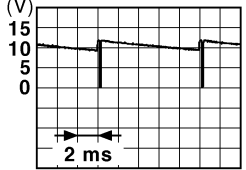
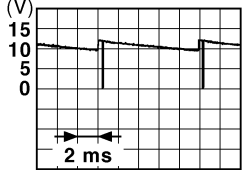
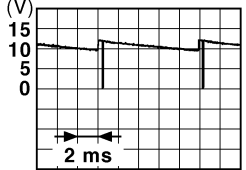


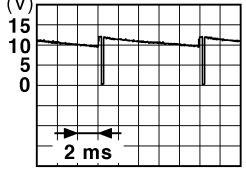
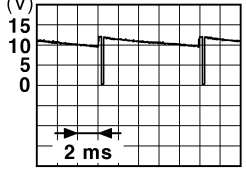
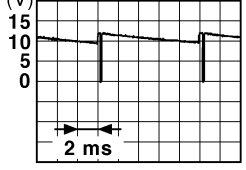
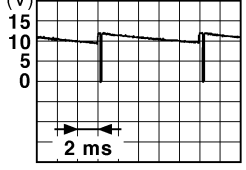
[SEDAN]

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|------------------------------|--------|--|------------------|--|--|--|
| (+) | (-) | Signal name | Input/ Output | | | |
| 40 ⁴ (Y/G) | Ground | Power window serial link | Input/ Output | Ignition switch ON | |  <small>JPMIA0013GB</small> 10.2V |
| | | | | 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 |  <small>OCC3881D</small> |
| | | | | | When receiving the signal from the transmitter |  <small>OCC3880D</small> |
| 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 |  <small>JPMIA0014GB</small> 11.3V |
| | | | | | 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 | Output | Combination switch (Wiper intermittent dial 4) | All switch OFF | |
| | | | | Lighting switch 1ST | Lighting switch high-beam | |
| | | | | Lighting switch 2ND | Turn signal switch RH | |
| | | | |  | | |
| | | | | | 0V | |
| 51 (L/W) | Ground | Combination switch OUTPUT 1 | Output | Combination switch | 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"> • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 • Wiper intermittent dial 6 • Wiper intermittent dial 7 | |  |
| | | | |  | | |
| | | | | | 0V | |
| 52 (G/B) | Ground | Combination switch OUTPUT 2 | Output | Combination switch | 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"> • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6 | |  |
| | | | |  | | |
| | | | | | 0V | |
| 53 (LG/ R) | Ground | Combination switch OUTPUT 3 | Output | Combination switch (Wiper intermittent dial 4) | All switch OFF | |
| | | | | Front wiper switch INT | Front wiper switch LO | |
| | | | |  | | |
| | | | |  | | |
| | | | | | 0V | |
| 54 (G/Y) | Ground | Combination switch OUTPUT 4 | Output | Combination switch (Wiper intermittent dial 4) | All switch OFF | |
| | | | | Front fog lamp switch ON | Lighting switch 2ND | |
| | | | |  | | |
| | | | |  | | |
| | | | | | 0V | |
| 55 (BR/ W) | Ground | Front blower monitor | Input | Front blower motor switch | ON | |
| | | | | OFF | Battery voltage | |
| | | | | | 0V | |

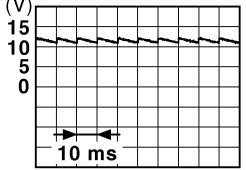
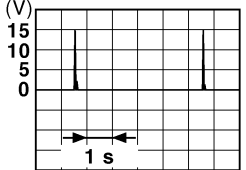
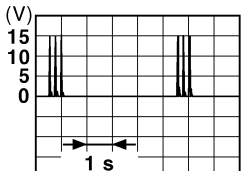
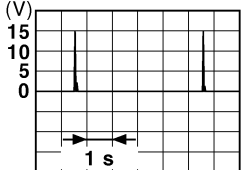
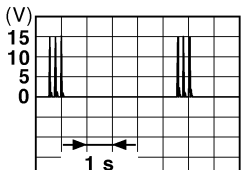
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BCM (BODY CONTROL MODULE)

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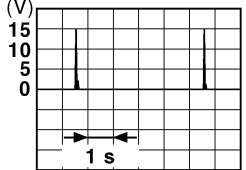
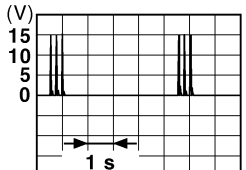
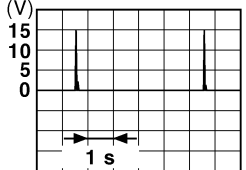
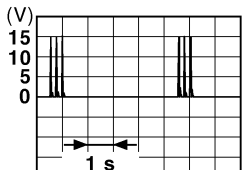
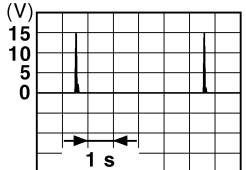
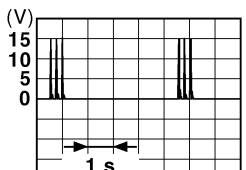
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| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|------------------------------|--------|--|------------------|---|--|---|
| | | Signal name | Input/ Output | | | |
| (+) | (-) | | | | | |
| 56 ³ (L/B) | Ground | Front door lock assembly LH (key cylinder switch) (lock) | Input | Front door lock assembly LH (key cylinder switch) | OFF (neutral) | Battery voltage |
| | | | | | ON (lock) | 0V |
| 57 (W) | Ground | Tire pressure warning check switch | Input | — | — | Battery voltage |
| 58 (SB) | Ground | Front door LH switch | Input | Front door LH switch | OFF (front door LH CLOSE) |  <p style="text-align: right; font-size: small;">JPMIA0011GB 11.8V</p> |
| | | | | | ON (front door LH OPEN) | 0V |
| 59 (G/R) | Ground | Rear window defogger relay | Output | Rear window defogger | Active | Battery voltage |
| | | | | | Not activated | 0V |
| 60 (B/R) | Ground | Front console antenna 2 (-) | Output | Ignition switch OFF | When Intelligent Key is in the passenger compartment |  <p style="text-align: right; font-size: small;">JMKIA0062GB</p> |
| | | | | | When Intelligent Key is not in the passenger compartment |  <p style="text-align: right; font-size: small;">JMKIA0063GB</p> |
| 61 (W/R) | Ground | Center console antenna 2 (+) | Output | Ignition switch OFF | When Intelligent Key is in the passenger compartment |  <p style="text-align: right; font-size: small;">JMKIA0062GB</p> |
| | | | | | When Intelligent Key is not in the passenger compartment |  <p style="text-align: right; font-size: small;">JMKIA0063GB</p> |

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 | When Intelligent Key is in the antenna detection area  <small>JMKIA0062GB</small> |
| | | | | When Intelligent Key is not in the antenna detection area |  <small>JMKIA0063GB</small> |
| 63 (LG) | Ground | Front outside handle RH antenna (+) | Output | When the front door RH request switch is operat- ed with ignition switch OFF | When Intelligent Key is in the antenna detection area  <small>JMKIA0062GB</small> |
| | | | | When Intelligent Key is not in the antenna detection area |  <small>JMKIA0063GB</small> |
| 64 (V) | 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  <small>JMKIA0062GB</small> |
| | | | | When Intelligent Key is not in the antenna detection area |  <small>JMKIA0063GB</small> |

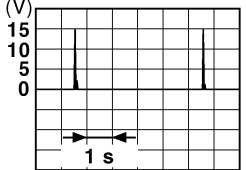
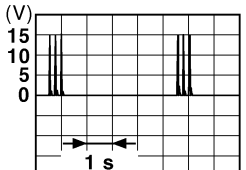
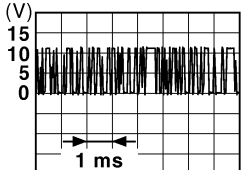
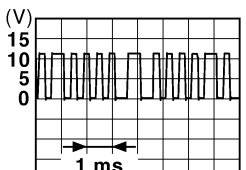
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

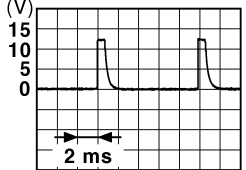
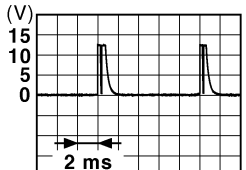
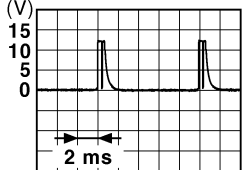
[SEDAN]

| 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 |  <small>JMKIA0062GB</small> |
| | | | | When Intelligent Key is not in the antenna detection area |  <small>JMKIA0063GB</small> | |
| 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 control | Output | Ignition switch | OFF or ACC | 0V |
| | | | | ON | | Battery voltage |
| 71 (L/O) | Ground | Remote keyless entry receiver signal | Input/ Output | During waiting | |  <small>JMKIA0064GB</small> |
| | | | | When operating either button on Intelligent Key |  <small>JMKIA0065GB</small> | |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) |
|------------------------------|--------|-------------------------------|------------------|---|--|
| (+) | (-) | Signal name | Input/ Output | | |
| 75 (R/Y) | Ground | Combination switch INPUT 5 | Input | All switch OFF (Wiper intermittent dial 4) |  <p style="text-align: right; font-size: small;">JPMA0041GB</p> <p style="text-align: center;">1.4V</p> |
| | | | | Front fog lamp switch ON (Wiper intermittent dial 4) |  <p style="text-align: right; font-size: small;">JPMA0037GB</p> <p style="text-align: center;">1.3V</p> |
| | | | | Any of the conditions below with all switch OFF | <ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7  <p style="text-align: right; font-size: small;">JPMA0040GB</p> <p style="text-align: center;">1.3V</p> |

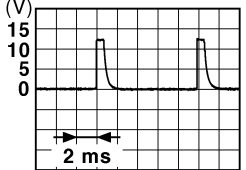
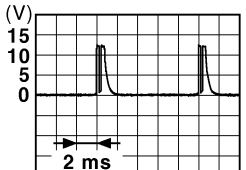

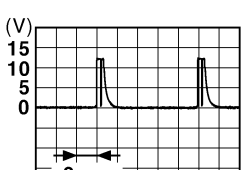
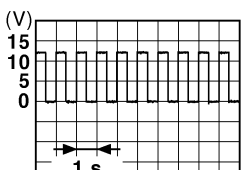
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BCM (BODY CONTROL MODULE)

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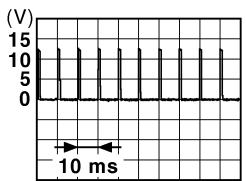
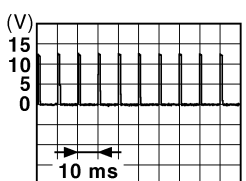
[SEDAN]

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) | |
|------------------------------|--------|--------------------------------|------------------|--------------------------------|---|---|
| (+) | (-) | Signal name | Input/ Output | | | |
| 76 (R/G) | Ground | Combination switch INPUT 3 | Input | Combination switch | All switch OFF (Wiper intermittent dial 4) |  <small>JPMIA0041GB</small> 1.4V |
| | | | | | Lighting switch high-beam (Wiper intermittent dial 4) |  <small>JPMIA0036GB</small> 1.3V |
| | | | | | Lighting switch 2ND (Wiper intermittent dial 4) |  <small>JPMIA0037GB</small> 1.3V |
| | | | | | Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 |  <small>JPMIA0040GB</small> 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 |  <small>JPMIA0015GB</small> 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 control | Output | Ignition switch | OFF | 0V |
| | | | | | ACC or ON | Battery voltage |
| 84 ⁵ (Y/R) | Ground | CVT shift selector | Output | — | | Battery voltage |
| 85 (L/O) | Ground | Electronic steering column lock condition No. 1 | Input | Electronic steering column lock | Lock status | 0V |
| | | | | | Unlock status | Battery voltage |
| 86 (G/R) | Ground | Electronic steering column lock condition No. 2 | Input | Electronic steering column lock | Lock status | Battery voltage |
| | | | | | Unlock status | 0V |
| 87 ⁵ (G/B) | Ground | Selector lever P position switch | Input | Selector lever | P position | 0V |
| | | | | | Any position other than P | Battery voltage |
| 88 (P/L) | Ground | Front door RH request switch | Input | Front door RH request switch | ON (pressed) | 0V |
| | | | | | OFF (not pressed) |  <p style="text-align: right; font-size: small;">JPMIA0016GB 1.0V</p> |
| 89 (B/W) | Ground | Front door LH request switch | Input | Front door LH request switch | ON (pressed) | 0V |
| | | | | | OFF (not pressed) |  <p style="text-align: right; font-size: small;">JPMIA0016GB 1.0V</p> |
| 90 (Y) | Ground | Blower fan motor relay control | Output | Ignition switch | OFF or ACC | 0V |
| | | | | | ON | Battery voltage |
| 91 (L/R) | Ground | Remote keyless entry receiver power supply | 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 |

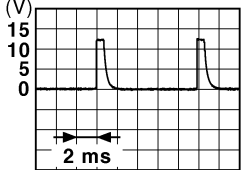

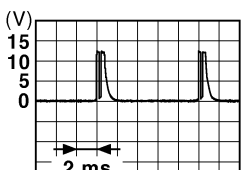
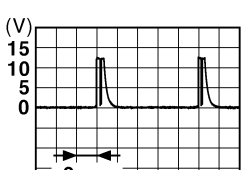
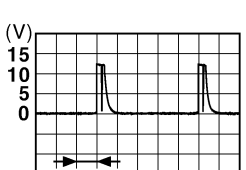
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

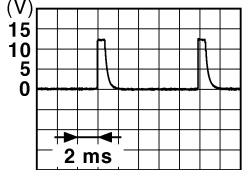
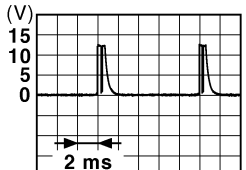
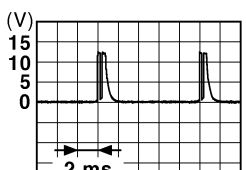
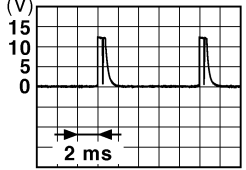
[SEDAN]

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) |
|------------------------------|--------|-------------------------------|------------------|------------------------|---|
| (+) | (-) | Signal name | Input/ Output | | |
| 95 (R/W) | Ground | Combination switch INPUT 1 | Input | All switch OFF |  1.4V |
| | | | | Turn signal switch LH |  1.3V |
| | | | | Turn signal switch RH |  1.3V |
| | | | | Front wiper switch LO |  1.3V |
| | | | | Front washer switch ON |  1.3V |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) | |
|------------------------------|--------|-------------------------------|------------------|-----------------------|---|---|
| (+) | (-) | Signal name | Input/ Output | | | |
| 96 (P/B) | Ground | Combination switch INPUT 4 | Input | Combination switch | All switch OFF (Wiper intermittent dial 4) |  <p style="text-align: right; font-size: small;">JPMIA0041GB</p> <p style="text-align: center;">1.4V</p> |
| | | | | | Lighting switch AUTO (Wiper intermittent dial 4) |  <p style="text-align: right; font-size: small;">JPMIA0038GB</p> <p style="text-align: center;">1.3V</p> |
| | | | | | Lighting switch 1ST (Wiper intermittent dial 4) |  <p style="text-align: right; font-size: small;">JPMIA0036GB</p> <p style="text-align: center;">1.3V</p> |
| | | | | | Any of the conditions below with all switch OFF | <ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6  <p style="text-align: right; font-size: small;">JPMIA0039GB</p> <p style="text-align: center;">1.3V</p> |

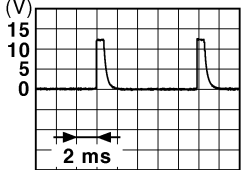

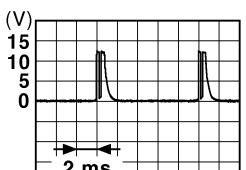
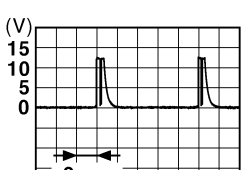
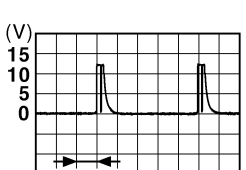
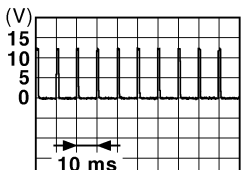
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) | |
|------------------------------|--------|-------------------------------|------------------|--|--|---|
| (+) | (-) | Signal name | Input/ Output | | | |
| 97 (R/B) | Ground | Combination switch INPUT 2 | Input | Combination switch (Wiper intermittent dial 4) | All switch OFF |  <small>JPMIA0041GB</small> 1.4V |
| | | | | | Lighting switch flash-to-pass |  <small>JPMIA0037GB</small> 1.3V |
| | | | | | Lighting switch 2ND |  <small>JPMIA0036GB</small> 1.3V |
| | | | | | Front wiper switch INT |  <small>JPMIA0038GB</small> 1.3V |
| | | | | | Front wiper switch HI |  <small>JPMIA0040GB</small> 1.3V |
| | | | | | Pressed | 0 V |
| 98 (G/O) | Ground | Hazard switch | Input | Hazard switch | Not pressed  <small>JPMIA0012GB</small> 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 | <p style="text-align: right; font-size: small;">JMKIA0066GB</p> |
| | | | | | 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 | <p style="text-align: right; font-size: small;">JMKIA0062GB</p> |
| | | | | | When Intelligent Key is not in the passenger compart- ment | <p style="text-align: right; font-size: small;">JMKIA0063GB</p> |

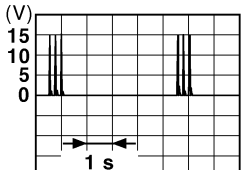
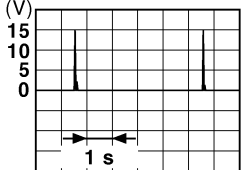
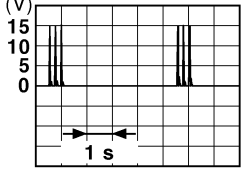
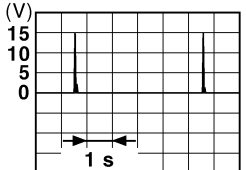
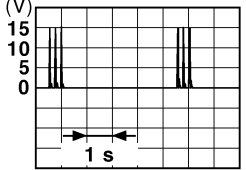
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

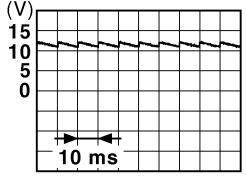
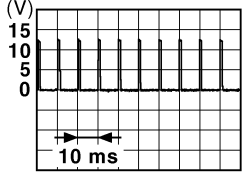
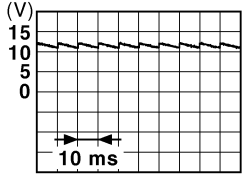
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| Terminal No. (Wire color) | | Description | | Condition | Value (Approx.) |
|------------------------------|--------|------------------------------|------------------|--|---|
| (+) | (-) | Signal name | Input/ Output | | |
| 115 (W) | Ground | Trunk room antenna 1 (+) | Output | | |
| | | | | When Intelligent Key is not in the passenger compart- ment  <small>JMKIA0063GB</small> | |
| 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  <small>JMKIA0062GB</small> |
| | | | | When Intelligent Key is not in the antenna detection area  <small>JMKIA0063GB</small> | |
| 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  <small>JMKIA0062GB</small> |
| | | | | When Intelligent Key is not in the antenna detection area  <small>JMKIA0063GB</small> | |

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) |  <p style="text-align: center;">11.8V</p> |
| | | | | | 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) |  <p style="text-align: center;">1.0V</p> |
| 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 ¹ (R/W) | Ground | Rear door RH switch | Input | Rear door RH switch | OFF (when rear door RH closes) |  <p style="text-align: center;">11.8V</p> |
| | | | | | ON (when rear door RH opens) | 0V |

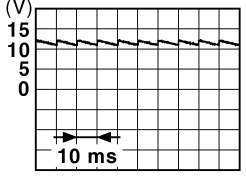
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|------------------------------|--------|---------------------|------------------|------------------------------|--------------------------------|---|
| (+) | (-) | Signal name | Input/ Output | | | |
| 149 ¹ (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:000000006931302

| 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"> • Starter control relay signal • Starter relay status signal |
| B2562: LO VOLTAGE | <ul style="list-style-type: none"> • Inhibit engine cranking • Inhibit electronic steering column lock | 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"> • Selector lever P position switch signal • P range signal (CAN) |
| B2602: SHIFT POSITION | Inhibit electronic steering column lock | 5 seconds after the following BCM recognition conditions are fulfilled <ul style="list-style-type: none"> • Ignition switch is in the ON position • Selector lever P position switch signal: Except P position (battery voltage) • Vehicle speed: 4 /h or more |

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"> • Ignition switch is in the ON position • Selector lever P position switch signal: Except P position (battery voltage) • Selector lever P/N position signal: Except P and N positions (0 V) |
| 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"> • Status 1 <ul style="list-style-type: none"> - Ignition switch is in the ON position - Selector lever P/N position signal: P and N position (battery voltage) - P range signal or N range signal (CAN): ON • Status 2 <ul style="list-style-type: none"> - Ignition switch is in the ON position - Selector lever P/N position signal: Except P and N positions (0 V) - P range signal and N range signal (CAN): OFF |
| 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"> • Ignition switch is in the ON position <ul style="list-style-type: none"> - Power position: IGN - Selector lever P/N position signal: Except P and N positions (0 V) - Interlock/transmission switch signal (CAN): OFF • Status 2 <ul style="list-style-type: none"> - Ignition switch is in the ON position - Selector lever P/N position signal: P or N position (battery voltage) - transmission switch signal (CAN): ON |
| 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"> • Electronic steering column lock relay signal (Request signal) • Electronic steering column lock relay signal (Condition signal) |
| 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"> • Electronic steering column lock relay signal (Request signal) • Electronic steering column lock relay signal (Condition signal) |
| B2608: STARTER RELAY | Inhibit engine cranking | 500 ms after the following signal communication status becomes consistent <ul style="list-style-type: none"> • Starter motor relay control signal • Starter relay status signal (CAN) |
| B2609: S/L STATUS | <ul style="list-style-type: none"> • Inhibit engine cranking • Inhibit electronic steering column lock | When the following electronic steering column lock conditions agree <ul style="list-style-type: none"> • BCM electronic steering column lock control status • Electronic steering column lock condition No. 1 signal status • Electronic steering column lock condition No. 2 signal status |
| B260A: IGNITION RELAY | Inhibit engine cranking | 500 ms after the following conditions are fulfilled <ul style="list-style-type: none"> • IGN relay (IPDM E/R) control signal: OFF (Battery voltage) • Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) • Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal) |
| 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"> • Power position changes to ACC • Receives engine status signal (CAN) |
| B2612: S/L STATUS | <ul style="list-style-type: none"> • Inhibit engine cranking • Inhibit electronic steering column lock | When any of the following conditions is fulfilled <ul style="list-style-type: none"> • Electronic steering column lock unit status signal (CAN) is received normally • 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) |
| B2617: STARTER RELAY CIRC | Inhibit engine cranking | 1 second after the starter motor relay control inside BCM becomes normal |

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BCM (BODY CONTROL MODULE)

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[SEDAN]

| 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"> • Power position changes to ACC • Receives engine status signal (CAN) |
| B26E8: CLUTCH SW | Inhibit engine cranking | When any of the following BCM recognition conditions are fulfilled <ul style="list-style-type: none"> • Status 1 <ul style="list-style-type: none"> - Clutch switch signal (CAN from ECM): ON - Clutch interlock switch signal: OFF (0 V) • Status 2 <ul style="list-style-type: none"> - Clutch switch signal (CAN from ECM): OFF - Clutch interlock switch signal: OFF (Battery voltage) |
| B26E9: S/L STATUS | <ul style="list-style-type: none"> • Inhibit engine cranking • Inhibit electronic steering column lock | 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"> • Steering condition No 1 signal: LOCK (0V) • Steering condition No 2 signal: LOCK (Battery voltage) |

DTC Inspection Priority Chart

INFOID:000000006931303

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"> • B2562: LOW VOLTAGE |
| 2 | <ul style="list-style-type: none"> • U1000: CAN COMM CIRCUIT • U1010: CONTROL UNIT (CAN) |
| 3 | <ul style="list-style-type: none"> • B2190: NATS ANTENNA AMP • B2191: DIFFERENCE OF KEY • B2192: ID DISCORD BCM-ECM • B2193: CHAIN OF BCM-ECM • B2195: ANTI SCANNING |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

| Priority | DTC | | |
|----------|---|---|---|
| 4 | <ul style="list-style-type: none"> • B2013: ID DISCORD BCM-S/L • B2014: CHAIN OF S/L-BCM • B2553: IGNITION RELAY • B2555: STOP LAMP • B2556: PUSH-BTN IGN SW • B2557: VEHICLE SPEED • B2560: STARTER CONT RELAY • B2601: SHIFT POSITION • B2602: SHIFT POSITION • B2603: SHIFT POSI STATUS • B2604: PNP SW • B2605: PNP SW • B2606: S/L RELAY • B2607: S/L RELAY • B2608: STARTER RELAY • B2609: S/L STATUS • B260A: IGNITION RELAY • B260B: STEERING LOCK UNIT • B260C: STEERING LOCK UNIT • B260D: STEERING LOCK UNIT • B260F: ENG STATE SIG LOST • B2611: ACC RELAY • B2612: S/L STATUS • B2614: ACC RELAY CIRC • B2615: BLOWER RELAY CIRC • B2616: IGN RELAY CIRC • B2617: STARTER RELAY CIRC • B2618: BCM • B2619: BCM • B261A: PUSH-BTN IGN SW • B261E: VEHICLE TYPE • B26E1: ENG STATE NO RECIV • B26E8: CLUTCH SW • B26E9: S/L STATUS • B26EA: KEY REGISTRATION • C1729: VHCL SPEED SIG ERR • U0415: VEHICLE SPEED SIG | <p style="text-align: right;">A</p> <p style="text-align: right;">B</p> <p style="text-align: right;">C</p> <p style="text-align: right;">D</p> <p style="text-align: right;">E</p> <p style="text-align: right;">F</p> <p style="text-align: right;">G</p> <p style="text-align: right;">H</p> <p style="text-align: right;">I</p> <p style="text-align: right;">J</p> | |
| | 5 | <ul style="list-style-type: none"> • C1704: LOW PRESSURE FL • C1705: LOW PRESSURE FR • C1706: LOW PRESSURE RR • C1707: LOW PRESSURE RL • C1708: [NO DATA] FL • C1709: [NO DATA] FR • C1710: [NO DATA] RR • C1711: [NO DATA] RL • C1712: [CHECKSUM ERR] FL • C1713: [CHECKSUM ERR] FR • C1714: [CHECKSUM ERR] RR • C1715: [CHECKSUM ERR] RL • C1716: [PRESSDATA ERR] FL • C1717: [PRESSDATA ERR] FR • C1718: [PRESSDATA ERR] RR • C1719: [PRESSDATA ERR] RL • C1720: [CODE ERR] FL • C1721: [CODE ERR] FR • C1722: [CODE ERR] RR • C1723: [CODE ERR] RL • C1724: [BATT VOLT LOW] FL • C1725: [BATT VOLT LOW] FR • C1726: [BATT VOLT LOW] RR • C1727: [BATT VOLT LOW] RL • C1734: CONTROL UNIT | <p style="text-align: right;">L</p> <p style="text-align: right;">M</p> <p style="text-align: right;">N</p> <p style="text-align: right;">O</p> <p style="text-align: right;">P</p> |
| | 6 | <ul style="list-style-type: none"> • B2622: INSIDE ANTENNA • B2623: INSIDE ANTENNA | <p style="text-align: right;">SEC</p> |

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

DTC Index

INFOID:000000006931304

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 | — | — | — | BCS-32 |
| U1010: CONTROL UNIT (CAN) | — | — | — | BCS-33 |
| U0415: VEHICLE SPEED SIG | — | — | — | BCS-34 |
| B2013: ID DISCORD BCM-S/L | × | — | — | SEC-36 (Coupe), SEC-250 (Sedan) |
| B2014: CHAIN OF S/L-BCM | × | — | — | SEC-37 (Coupe), SEC-251 (Sedan) |
| B2190: NATS ANTENNA AMP | × | — | — | SEC-65 (Coupe), SEC-281 (Sedan) |
| B2191: DIFFERENCE OF KEY | × | — | — | SEC-69 (Coupe), SEC-285 (Sedan) |
| B2192: ID DISCORD BCM-ECM | × | — | — | SEC-70 (Coupe), SEC-286 (Sedan) |
| B2193: CHAIN OF BCM-ECM | × | — | — | SEC-71 (Coupe), SEC-287 (Sedan) |
| B2195: ANTI-SCANNING | — | — | — | SEC-72 |
| B2553: IGNITION RELAY | — | — | — | PCS-59 |
| B2555: STOP LAMP | — | — | — | SEC-73 (Coupe), SEC-289 (Sedan) |
| B2556: PUSH-BTN IGN SW | — | × | — | SEC-78 (Coupe), SEC-294 (Sedan) |
| B2557: VEHICLE SPEED | × | × | — | SEC-80 (Coupe), SEC-296 (Sedan) |
| B2560: STARTER CONT RELAY | × | × | — | SEC-81 (Coupe), SEC-297 (Sedan) |
| B2562: LOW VOLTAGE | — | — | — | BCS-35 |
| B2601: SHIFT POSITION | × | × | — | SEC-82 (Coupe), SEC-298 (Sedan) |
| B2602: SHIFT POSITION | × | × | — | SEC-86 (Coupe), SEC-302 (Sedan) |
| B2603: SHIFT POSI STATUS | × | × | — | SEC-89 (Coupe), SEC-305 (Sedan) |
| B2604: PNP SW | × | × | — | SEC-92 (Coupe), SEC-308 (Sedan) |
| B2605: PNP SW | × | × | — | SEC-94 (Coupe), SEC-310 (Sedan) |
| B2606: S/L RELAY | × | × | — | SEC-96 (Coupe), SEC-312 (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 | × | × | — | SEC-97 (Coupe), SEC-313 (Sedan) | A |
| B2608: STARTER RELAY | × | × | — | SEC-99 (Coupe), SEC-315 (Sedan) | B |
| B2609: S/L STATUS | × | × | — | SEC-101 (Coupe), SEC-317 (Sedan) | C |
| B260A: IGNITION RELAY | × | × | — | PCS-61 | |
| B260B: STEERING LOCK UNIT | — | × | — | SEC-106 (Coupe), SEC-322 (Sedan) | D |
| B260C: STEERING LOCK UNIT | — | × | — | SEC-107 (Coupe), SEC-323 (Sedan) | E |
| B260D: STEERING LOCK UNIT | — | × | — | SEC-108 (Coupe), SEC-324 (Sedan) | |
| B260F: ENG STATE SIG LOST | × | × | — | SEC-109 (Coupe), SEC-325 (Sedan) | F |
| B2611: ACC RELAY | — | — | — | PCS-62 | |
| B2612: S/L STATUS | × | × | — | SEC-110 (Coupe), SEC-331 (Sedan) | G |
| B2614: ACC RELAY CIRC | — | × | — | PCS-64 | |
| B2615: BLOWER RELAY CIRC | — | × | — | PCS-67 | H |
| B2616: IGN RELAY CIRC | — | × | — | PCS-70 | |
| B2617: STARTER RELAY CIRC | × | × | — | SEC-115 (Coupe), SEC-336 (Sedan) | I |
| B2618: BCM | × | × | — | PCS-73 | |
| B2619: BCM | × | × | — | SEC-117 (Coupe), SEC-338 (Sedan) | J |
| B261A: PUSH-BTN IGN SW | — | × | — | SEC-118 (Coupe), SEC-339 (Sedan) | SEC |
| B261E: VEHICLE TYPE | × | × (Turn ON for 15 seconds) | — | SEC-121 | |
| B2622: INSIDE ANTENNA | — | — | — | DLK-279 | L |
| B2623: INSIDE ANTENNA | — | — | — | DLK-282 | |
| B26E1: ENG STATE NO RES | × | × | — | SEC-326 | |
| B26E8: CLUTCH SW | × | × | — | SEC-123 | M |
| B26E9: S/L STATUS | × | × (Turn ON for 15 seconds) | — | SEC-125 | |
| B26EA: KEY REGISTRATION | × | × (Turn ON for 15 seconds) | — | SEC-126 | N |
| C1704: LOW PRESSURE FL | — | — | × | WT-8 | |
| C1705: LOW PRESSURE FR | — | — | × | WT-8 | O |
| C1706: LOW PRESSURE RR | — | — | × | WT-8 | |
| C1707: LOW PRESSURE RL | — | — | × | WT-8 | P |
| C1708: [NO DATA] FL | — | — | × | WT-13 | |
| C1709: [NO DATA] FR | — | — | × | WT-13 | |
| C1710: [NO DATA] RR | — | — | × | WT-13 | |
| C1711: [NO DATA] RL | — | — | × | WT-13 | |
| C1712: [CHECKSUM ERR] FL | — | — | × | WT-15 | |

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 | — | — | × | WT-15 |
| C1714: [CHECKSUM ERR] RR | — | — | × | WT-15 |
| C1715: [CHECKSUM ERR] RL | — | — | × | WT-15 |
| C1716: [PRESSDATA ERR] FL | — | — | × | WT-17 |
| C1717: [PRESSDATA ERR] FR | — | — | × | WT-17 |
| C1718: [PRESSDATA ERR] RR | — | — | × | WT-17 |
| C1719: [PRESSDATA ERR] RL | — | — | × | WT-17 |
| C1720: [CODE ERR] FL | — | — | × | WT-15 |
| C1721: [CODE ERR] FR | — | — | × | WT-15 |
| C1722: [CODE ERR] RR | — | — | × | WT-15 |
| C1723: [CODE ERR] RL | — | — | × | WT-15 |
| C1724: [BATT VOLT LOW] FL | — | — | × | WT-15 |
| C1725: [BATT VOLT LOW] FR | — | — | × | WT-15 |
| C1726: [BATT VOLT LOW] RR | — | — | × | WT-15 |
| C1727: [BATT VOLT LOW] RL | — | — | × | WT-15 |
| C1729: VHCL SPEED SIG ERR | — | — | × | WT-18 |
| C1734: CONTROL UNIT | — | — | × | WT-19 |

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:000000006931277

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 |

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

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

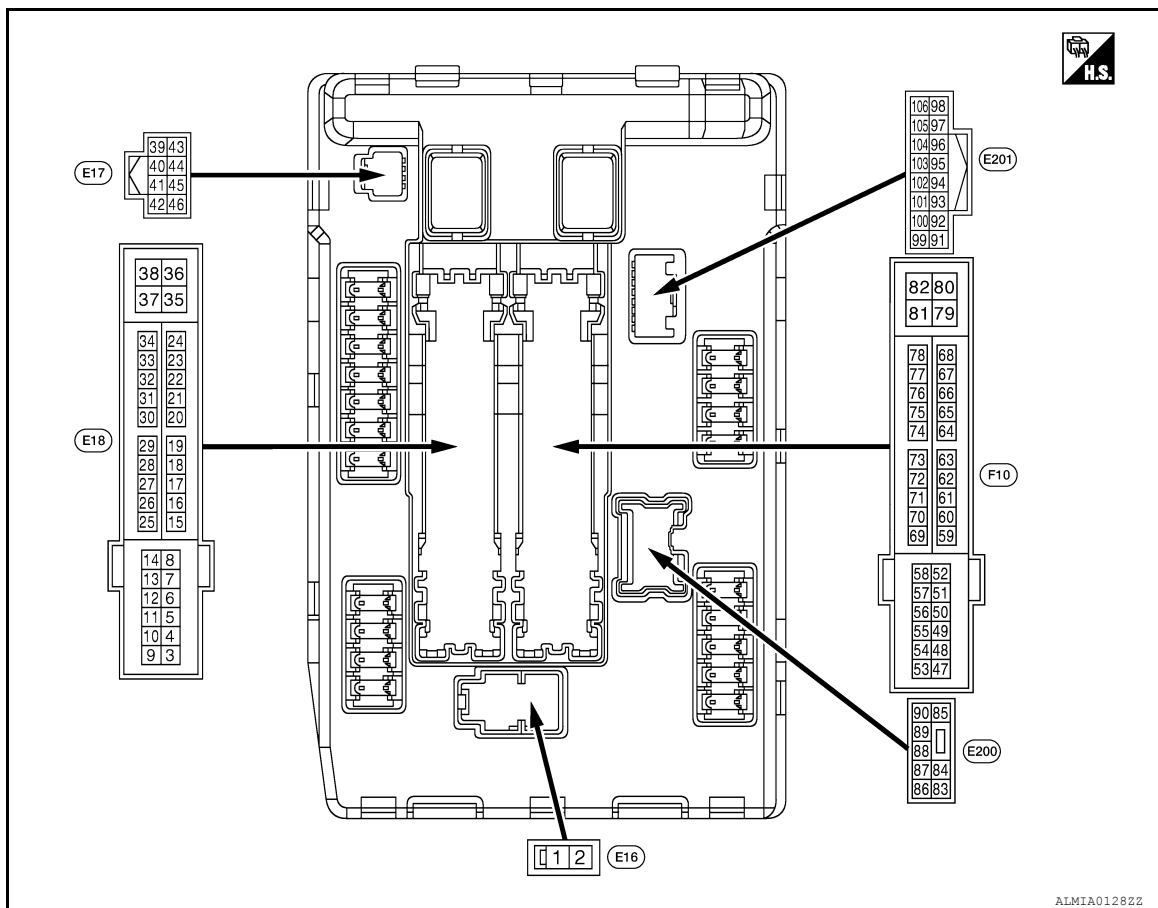
| Monitor Item | Condition | Value/Status |
|--------------|---|--------------|
| ST/INHI RLY | Ignition switch ON | Off |
| | At engine cranking | ST →INHI |
| | The status of starter relay or starter control relay cannot be recognized by the battery voltage malfunction, etc. when the starter relay is ON and the starter control relay is OFF | UNKWN |
| DETENT SW | Ignition switch ON <ul style="list-style-type: none"> • Press the selector button with CVT selector lever in P position • CVT selector lever in any position other than P | Off |
| | Release the CVT selector button with CVT selector lever in P position NOTE: 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"> • Open the driver door after the ignition switch is turned OFF (for a few seconds) • Press the push-button ignition switch when the steering lock is activated • Depress the clutch pedal when the steering lock is activated | 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"> • Panic alarm is activated • Horn is activated with VEHICLE SECURITY (THEFT WARNING) SYSTEM | 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 OFF | Front wiper switch OFF | 0 V |
| | | | | Ignition switch ON | Front wiper switch LO | Battery voltage |
| 5 (Y) | Ground | Front wiper HI | Output | Ignition switch OFF | Front wiper switch OFF | 0 V |
| | | | | Ignition switch ON | Front wiper switch HI | Battery voltage |
| 7 (GR) | Ground | Tail, license plate lamps & interior lamps | Output | Ignition switch OFF | Lighting switch OFF | 0 V |
| | | | | Ignition switch ON | 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 |
| | | | | <ul style="list-style-type: none"> Ignition switch ON Ignition switch OFF (More than a few seconds after turning ignition switch OFF) | | 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 | | | |
| + | - | | | | | |
| 11 (O) | Ground | Electronic steering column lock power supply | Output | Ignition switch OFF | A few seconds after opening the driver door | Battery voltage |
| | | | | Ignition switch LOCK | Press the push-button ignition 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"> • Approximately 1 second after turning the ignition switch ON • Engine running | | Battery voltage |
| 15 (W) | Ground | Ignition relay-1 power supply | Output | Ignition switch OFF | | 0 V |
| | | | | Ignition switch ON | | Battery voltage |
| 16 (L/Y) | 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 supply | 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 sensor ground | — | Ignition switch ON | | 0V |
| 23 (B/R) | Ground | Refrigerant pressure sensor | — | <ul style="list-style-type: none"> • Ignition switch ON (READY) • Both A/C switch and blower motor switch ON (electric compressor operates) | | 1.0 - 4.0V |
| 24 (BR/W) | Ground | Refrigerant pressure sensor power supply | — | Ignition switch ON | | 5V |
| 25 (GR) | Ground | Ignition relay-1 power supply | 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 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 |

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 (O/L) | 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 (R/W) | 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 (G/B) | Ground | CVT shift selector (Detention switch) | Input | Ignition switch ON | Battery voltage | |
| | | | | <ul style="list-style-type: none"> • Press the CVT selector button (CVT selector lever P) • CVT selector lever in any position other than P • Release the CVT selector button (CVT selector lever P) | 0 V | |
| 44 (G/W) coupe (W) sedan | Ground | Horn relay control | Input | The horn is deactivated | Battery voltage | |
| | | | | The horn is activated | 0 V | |
| 45 (L/O) | 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 >

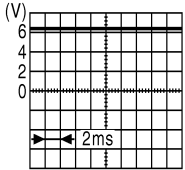
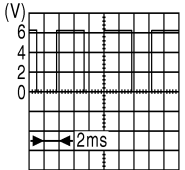
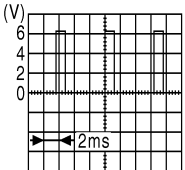
[SEDAN]

| 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 |
| | | | | <ul style="list-style-type: none"> • 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 |
| | | | | <ul style="list-style-type: none"> • Ignition switch ON • Ignition switch OFF (More than a few seconds after turning ignition switch OFF) | Battery voltage |
| 54 (GR) | Ground | Throttle control motor re- lay power supply | Output | Ignition switch OFF (For a few seconds after turning ignition switch OFF) | 0 V |
| | | | | <ul style="list-style-type: none"> • 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 |
| | | | | <ul style="list-style-type: none"> • 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 re- lay control | Output | Ignition switch ON → OFF | 0 - 1.0 V ↓ Battery voltage ↓ 0 V |
| | | | | Ignition switch ON | 0 - 1.0 V |
| 72 (W) (with QR25DE) 72 (BR) (with VQ35DE) | Ground | Transmission range switch signal | Input | Ignition switch ON | CVT selector lever in P or N position |
| | | | | Ignition switch OFF | CVT selector lever in any position other than P or N position |

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 command signal | Output | Ignition switch ON | |  <small>JPMIA0001GB</small> 6.3 V |
| | | | | 40% is set on "Active test", "ALTERNATOR DUTY" of "ENGINE" | |  <small>JPMIA0002GB</small> 3.8 V |
| | | | | 80% is set on "Active test", "ALTERNATOR DUTY" of "ENGINE" | |  <small>JPMIA0003GB</small> 1.4 V |
| 77 (GR) | Ground | Fuel pump relay control | Output | <ul style="list-style-type: none"> • Approximately 1 second after turning the ignition switch ON • Engine running | | 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:000000006931279

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"> • Signals cooling fans ON when the ignition switch is turned ON • Signals cooling fans OFF when the ignition switch is turned OFF |
| 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"> • Turns ON the headlamp low relay when the ignition switch is turned ON • Turns OFF the headlamp low relay when the ignition switch is turned OFF • Headlamp high relay OFF |
| <ul style="list-style-type: none"> • Parking lamps • License plate lamps • Illumination • Tail lamps | <ul style="list-style-type: none"> • Turns ON the tail lamp relay when the ignition switch is turned ON • Turns OFF the tail lamp relay when the ignition switch is turned OFF |
| Front wiper | <ul style="list-style-type: none"> • 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. • 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. |

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:000000006931280

| CONSULT display | Fail-safe | TIME ^{NOTE} | | Refer to |
|--|-----------|----------------------|--------|-------------------------|
| | | | | |
| No DTC is detected. further testing may be required. | — | — | — | — |
| U1000: CAN COMM CIRCUIT | × | CRNT | 1 – 39 | PCS-17 |
| B2098: IGN RELAY ON | × | CRNT | 1 – 39 | PCS-18 |
| B2099: IGN RELAY OFF | — | CRNT | 1 – 39 | PCS-19 |
| B2108: STRG LCK RELAY ON | — | CRNT | 1 – 39 | SEC-255 |
| B2109: STRG LCK RELAY OFF | — | CRNT | 1 – 39 | SEC-256 |
| B210A: STRG LCK STATE SW | — | CRNT | 1 – 39 | SEC-257 |
| B210B: START CONT RLY ON | — | CRNT | 1 – 39 | SEC-262 |
| B210C: START CONT RLY OFF | — | CRNT | 1 – 39 | SEC-263 |

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

< ECU DIAGNOSIS INFORMATION >

[SEDAN]

| CONSULT display | Fail-safe | TIME ^{NOTE} | | Refer to |
|--|-----------|----------------------|--------|-------------------------|
| B210D: STARTER RELAY ON | — | CRNT | 1 – 39 | SEC-264 |
| B210E: STARTER RELAY OFF | — | CRNT | 1 – 39 | SEC-266 |
| B210F: INTRLCK/TRANSMISSION RANGE SW ON | — | CRNT | 1 – 39 | SEC-269 |
| B2110: INTRLCK/TRANSMISSION RANGE SW OFF | — | CRNT | 1 – 39 | SEC-275 |

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]

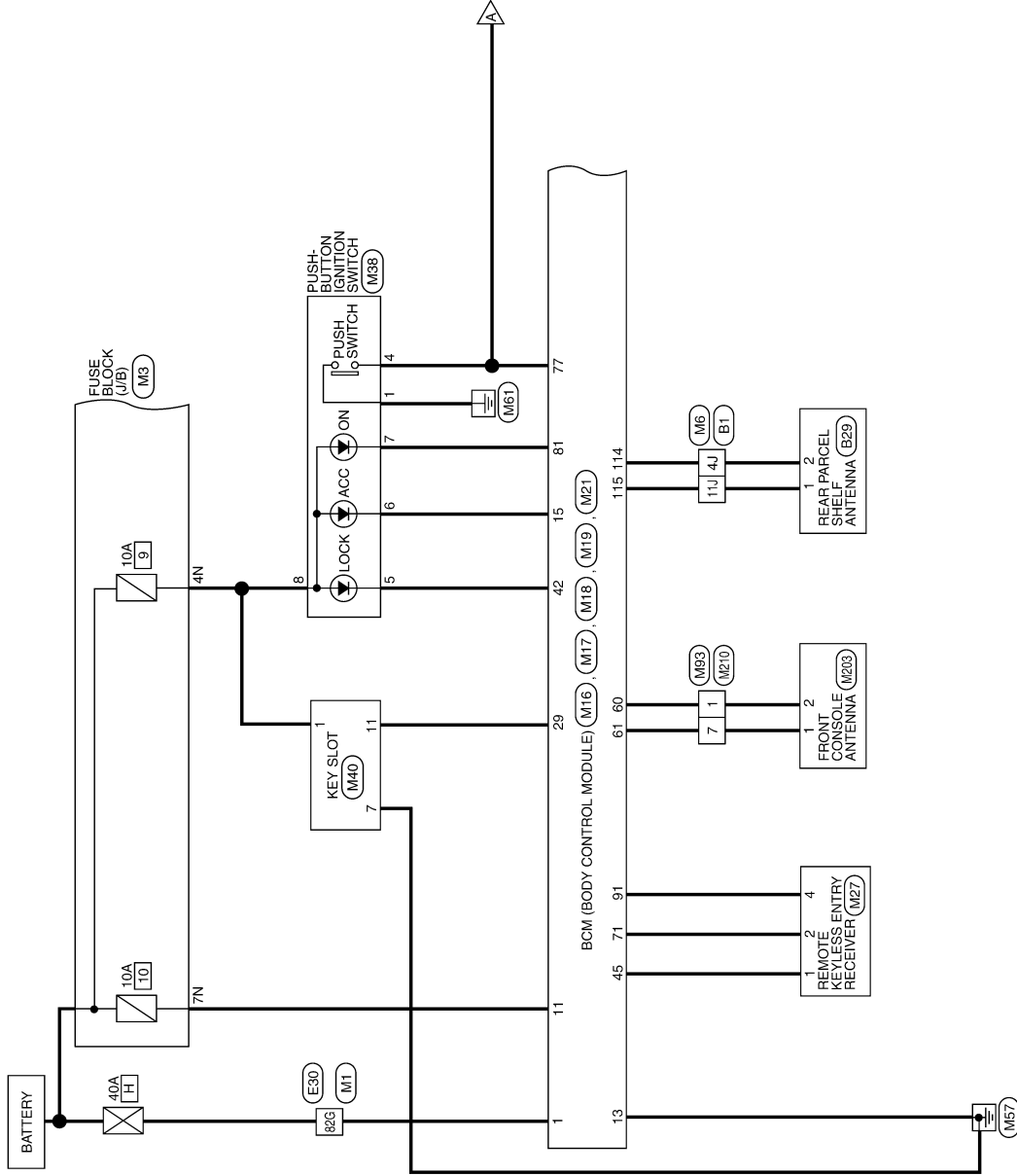
WIRING DIAGRAM

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

Wiring Diagram

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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION



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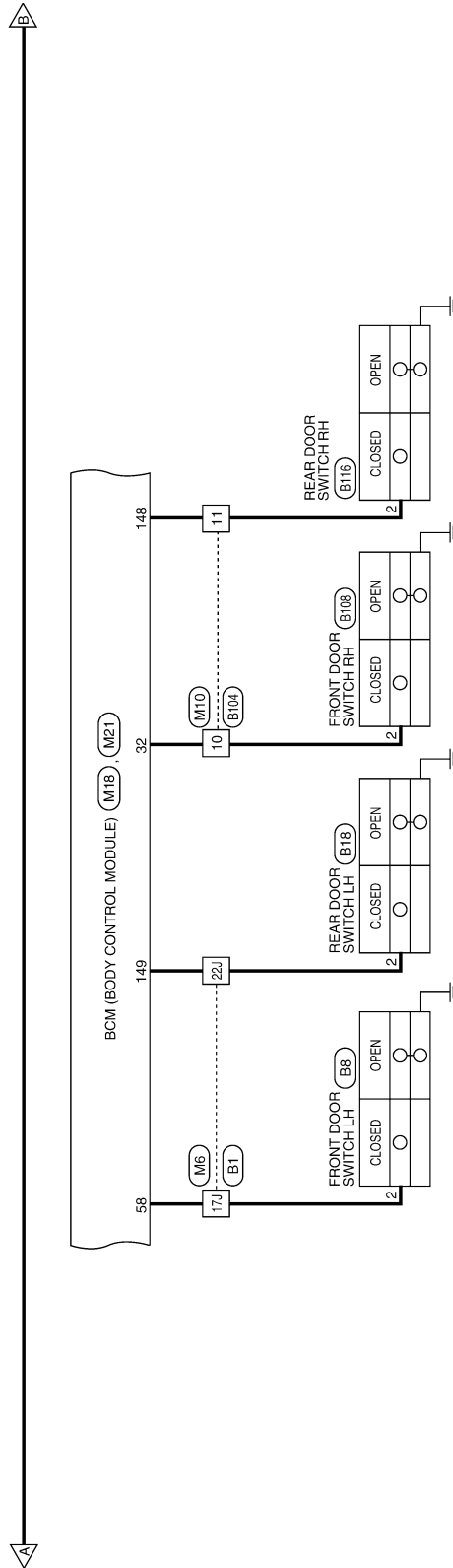
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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

[SEDAN]

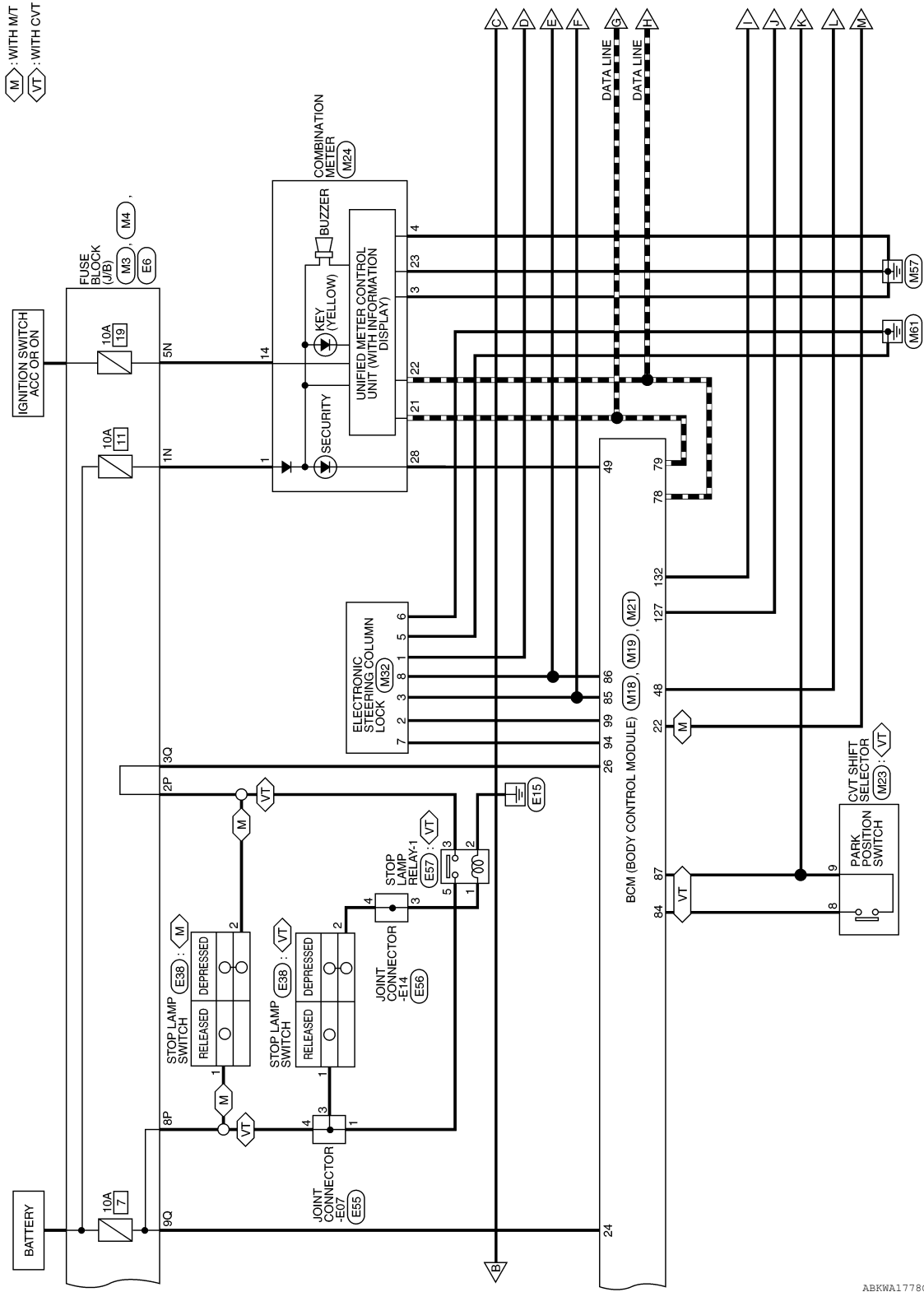


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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

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ABKWA1778GB

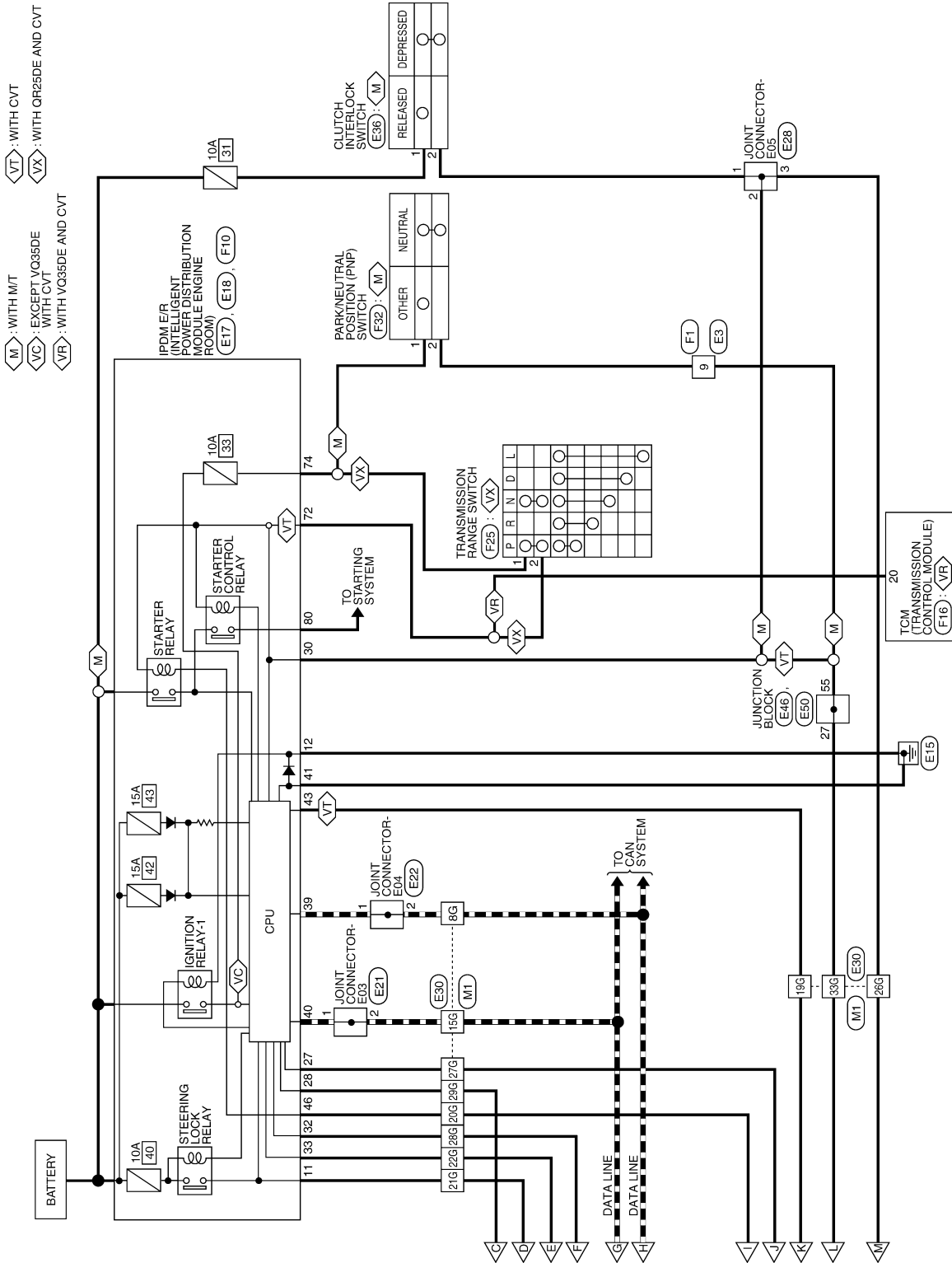
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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

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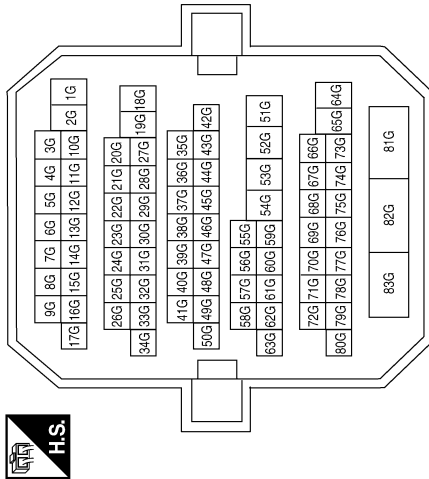
INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

[SEDAN]

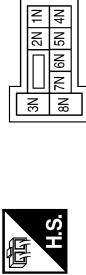
INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION CONNECTORS

| | |
|-----------------|--------------|
| Connector No. | M1 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



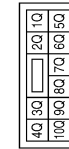
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 8G | P | - |
| 15G | L | - |
| 19G | G/B | - |
| 20G | R | - |
| 21G | P/L | - |
| 22G | G/R | - |
| 26G | R/Y | - |
| 27G | BR/W | - |
| 28G | L/O | - |
| 29G | BR | - |
| 33G | R/G | - |
| 82G | W/B | - |

| | |
|-----------------|------------------|
| 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 | - |

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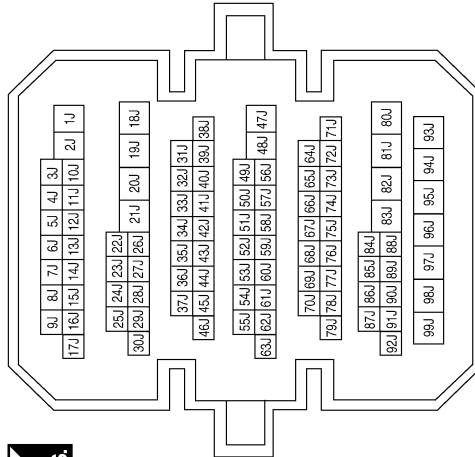
SEC

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

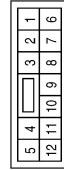
[SEDAN]

| | |
|-----------------|--------------|
| Connector No. | M6 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 4J | B | - |
| 11J | W | - |
| 17J | SB | - |
| 22J | R/B | - |

| | |
|-----------------|--------------|
| Connector No. | M10 |
| Connector Name | WIRE TO WIRE |
| Connector Color | BROWN |



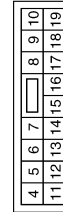
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 10 | R/B | - |
| 11 | R/W | - |

| | |
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| 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 |

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 |

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|-----------------|---------------------------|
| 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 | RW | 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 |

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|-----------------|--------------------|
| 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 | BRW | IGN_USM_CONT1 |
| 132 | R | ST_CONT_USM |
| 148 | R/W | RR_DOOR_SW |
| 149 | R/B | RL_DOOR_SW |

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| Connector No. | M21 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Color | GRAY |



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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 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 |

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

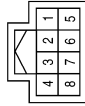
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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

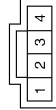
[SEDAN]

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| Connector No. | M32 |
| Connector Name | ELECTRONIC STEERING COLUMN LOCK |
| Connector Color | WHITE |



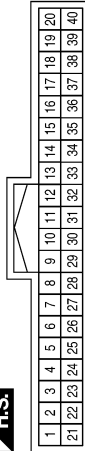
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------------------|
| 1 | P/L | S/L_12V_MECHANICAL (V1) |
| 2 | L/Y | S/L_COM |
| 3 | L/O | S/L_CONDITION_1 |
| 5 | B | GND |
| 6 | B | GND |
| 7 | G/Y | S/L_12V_CPU (V2) |
| 8 | G/R | S/L_CONDITION_2 |

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| Connector No. | M27 |
| Connector Name | REMOTE KEYLESS ENTRY RECEIVER |
| Connector Color | BLACK |



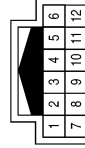
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | P | GND |
| 2 | L/O | SIGNAL |
| 4 | L/R | 12V |

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|-----------------|-------------------|
| Connector No. | M24 |
| Connector Name | COMBINATION METER |
| Connector Color | WHITE |



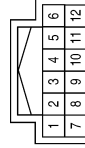
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|---------------|
| 1 | W/L | BAT |
| 3 | B | GND (POWER) |
| 4 | B | GND (ILL) |
| 14 | V/Y | ACC |
| 21 | L | CAN-H |
| 22 | P | CAN-L |
| 23 | B | GND (CIRCUIT) |
| 28 | L/O | SECURITY |

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| Connector No. | M93 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



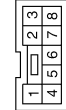
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | B/R | - |
| 7 | W/R | - |

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| 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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| 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+ |

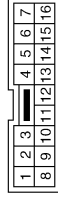
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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

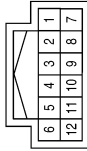
[SEDAN]

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| Connector No. | E3 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 9 | BR | - |

| | |
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| Connector No. | M210 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



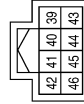
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | B/R | - |
| 7 | W/R | - |

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| 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. | 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 | - |

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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

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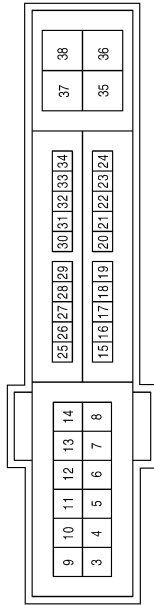
[SEDAN]

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| 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 |

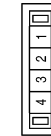


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| Connector No. | E28 |
| Connector Name | JOINT CONNECTOR-E05 |
| Connector Color | WHITE |



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

| | |
|-----------------|---------------------|
| Connector No. | E22 |
| Connector Name | JOINT CONNECTOR-E04 |
| Connector Color | WHITE |



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

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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

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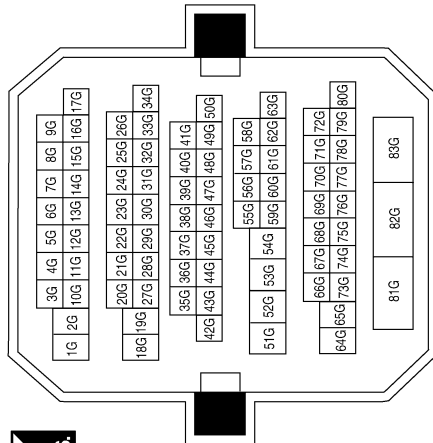
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|-----------------|-------------------------|
| Connector No. | E36 |
| Connector Name | CLUTCH INTERLOCK SWITCH |
| Connector Color | BROWN |



| 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 |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 27 | BR | - |

| | |
|-----------------|-----------------------------|
| Connector No. | E38 |
| Connector Name | STOP LAMP SWITCH (WITH M/T) |
| Connector Color | BLACK |



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

| | |
|-----------------|-----------------------------|
| Connector No. | E38 |
| Connector Name | STOP LAMP SWITCH (WITH CVT) |
| Connector Color | WHITE |



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

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| | |
|-----------------|----------------|
| Connector No. | E50 |
| Connector Name | JUNCTION BLOCK |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 55 | BR | - |

| | |
|-----------------|---------------------|
| 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. | E56 |
| Connector Name | JOINT CONNECTOR-E14 |
| Connector Color | WHITE |



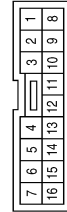
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 3 | LG | - |
| 4 | LG | - |

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|-----------------|-------------------|
| Connector No. | E57 |
| Connector Name | STOP LAMP RELAY-1 |
| Connector Color | BLUE |



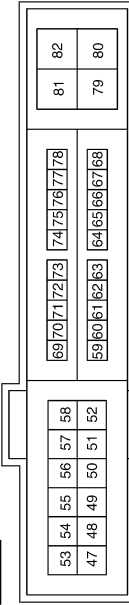
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | LG | - |
| 2 | B | - |
| 3 | Y | - |
| 5 | W | - |

| | |
|-----------------|--------------|
| Connector No. | F1 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 9 | W | - |

| | |
|-----------------|--|
| 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 |

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM >

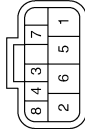
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| Connector No. | F32 |
| Connector Name | PARK/NEUTRAL POSITION SWITCH |
| Connector Color | BLACK |



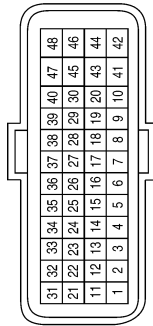
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | L | - |
| 2 | W | - |

| | |
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| Connector No. | F25 |
| Connector Name | TRANSMISSION RANGE SWITCH |
| Connector Color | BLACK |



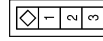
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | L | IGN P N |
| 2 | W | P N OUTPUT |

| | |
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| Connector No. | F16 |
| Connector Name | TCM (TRANSMISSION CONTROL MODULE) |
| Connector Color | BLACK |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 20 | W | ST RLY |

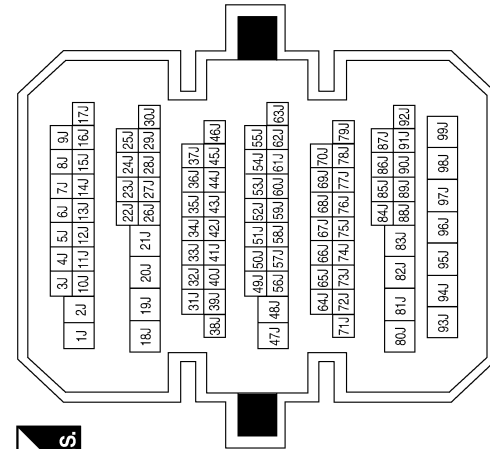
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| Connector No. | B8 |
| Connector Name | FRONT DOOR SWITCH LH |
| Connector Color | WHITE |



| 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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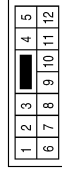
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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

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| Connector No. | B104 |
| Connector Name | WIRE TO WIRE |
| Connector Color | BROWN |



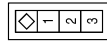
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 10 | GR | - |
| 11 | B | - |

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| Connector No. | B29 |
| Connector Name | REAR PARCEL SHELF ANTENNA |
| Connector Color | GRAY |



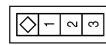
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | W | ANT+ |
| 2 | V | ANT- |

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| Connector No. | B18 |
| Connector Name | REAR DOOR SWITCH LH |
| Connector Color | WHITE |



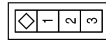
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|--------------|
| 2 | BR | DOOR SW (RL) |

| | |
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| 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 |



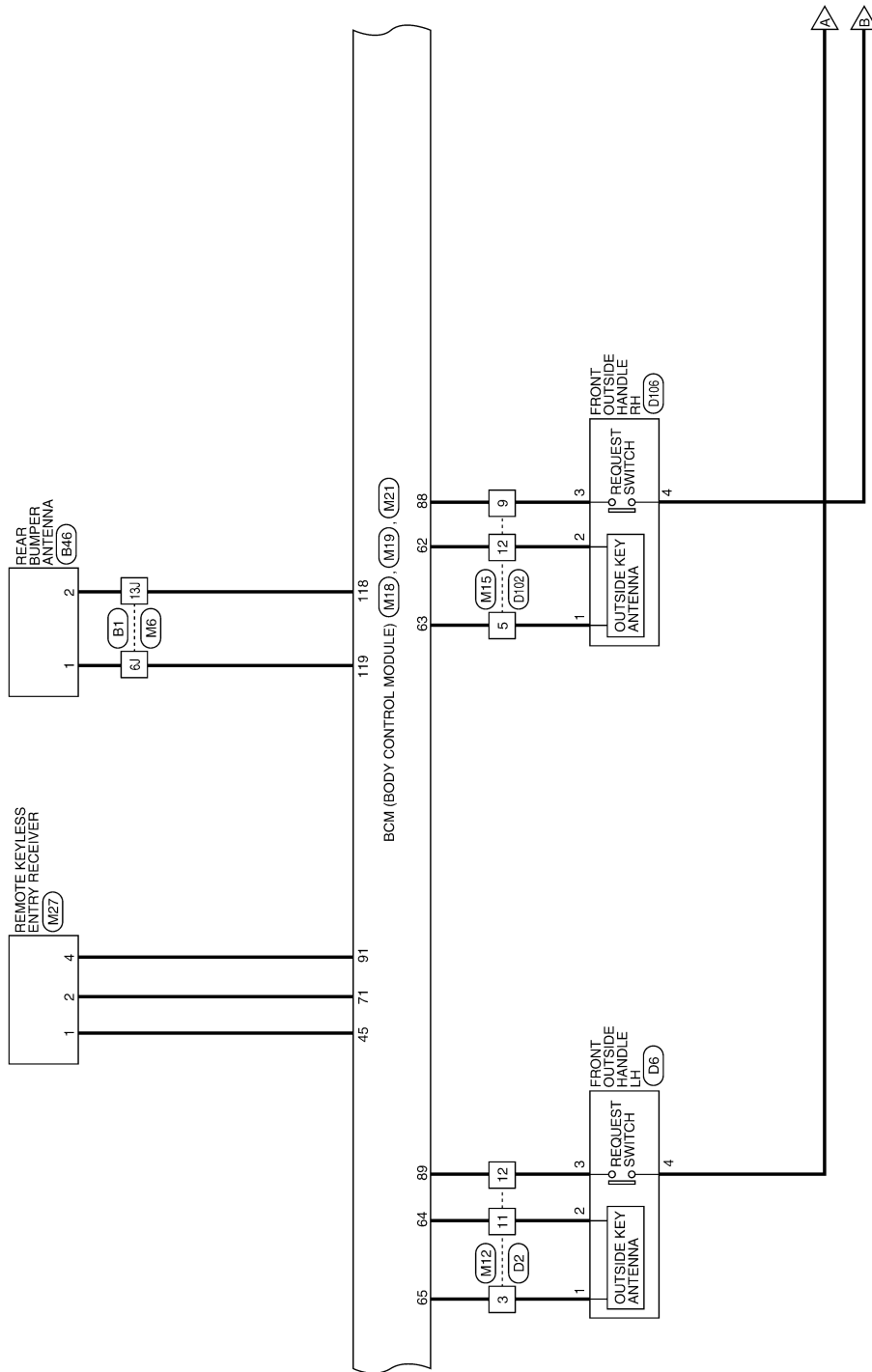
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|--------------|
| 2 | GR | DOOR SW (AS) |

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VEHICLE SECURITY SYSTEM

< WIRING DIAGRAM >

[SEDAN]

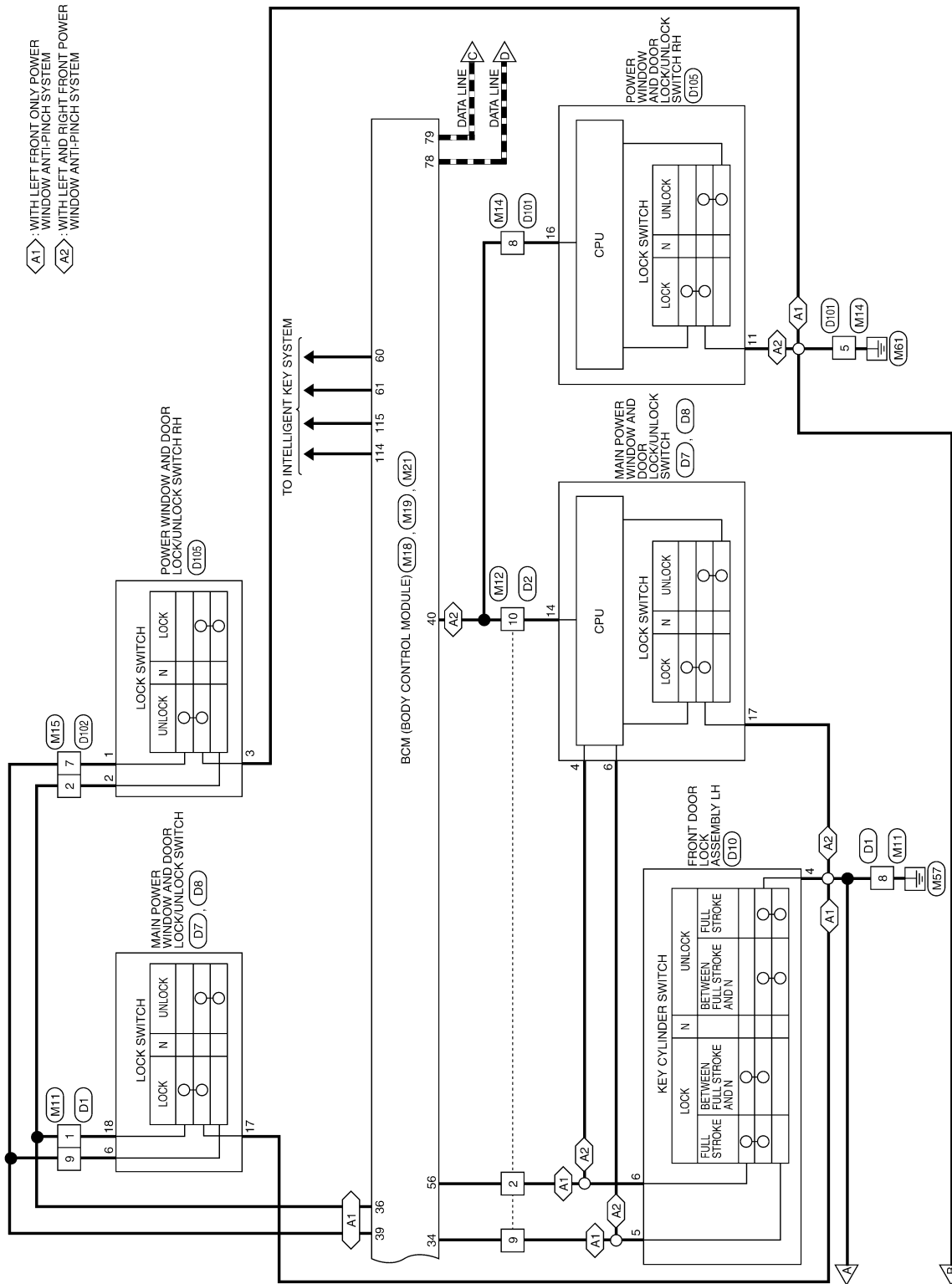


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VEHICLE SECURITY SYSTEM

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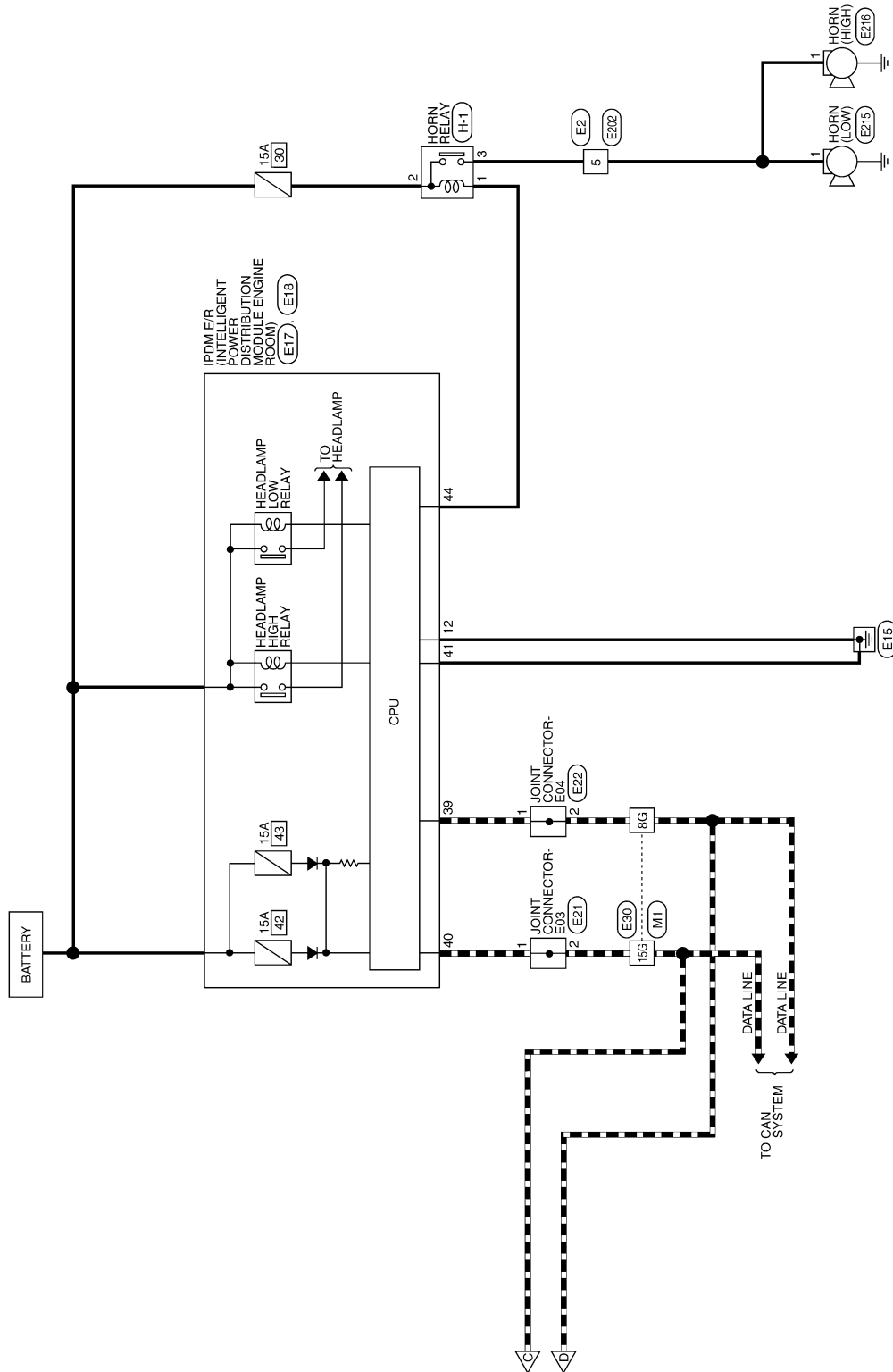
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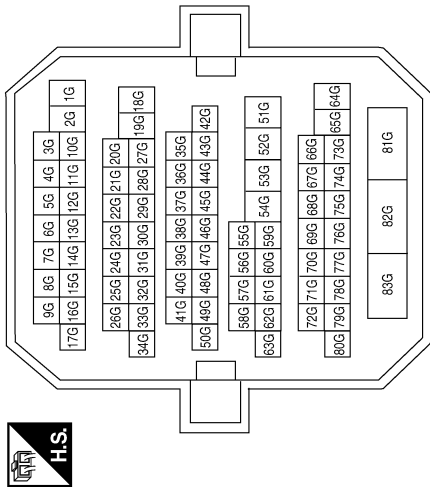
VEHICLE SECURITY SYSTEM

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[SEDAN]

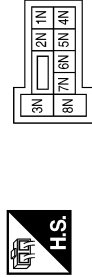
VEHICLE SECURITY SYSTEM CONNECTORS

| | |
|-----------------|--------------|
| Connector No. | M1 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



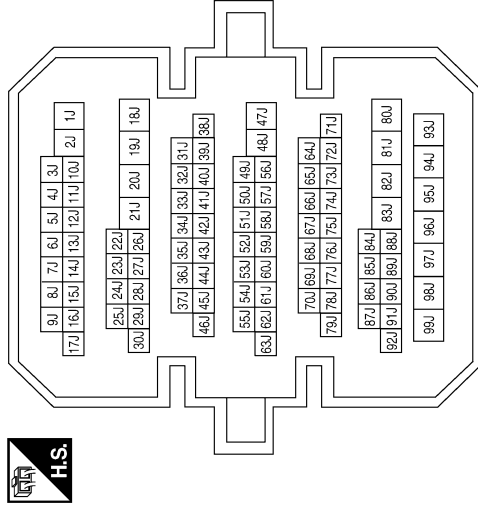
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 8G | P | - |
| 15G | L | - |
| 82G | W/B | - |

| | |
|-----------------|------------------|
| Connector No. | M3 |
| Connector Name | FUSE BLOCK (J/B) |
| Connector Color | WHITE |



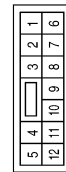
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1N | W/L | - |
| 4N | G/Y | - |
| 7N | Y/R | - |

| | |
|-----------------|--------------|
| 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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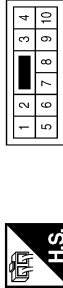
SEC

VEHICLE SECURITY SYSTEM

< WIRING DIAGRAM >

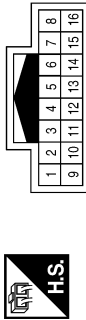
[SEDAN]

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| Connector No. | M14 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



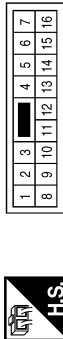
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 5 | B | - |
| 8 | Y/G | - |

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| Connector No. | M12 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



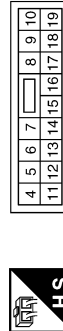
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 2 | L/B | - |
| 3 | P | - |
| 9 | L/R | - |
| 10 | Y/G | - |
| 11 | V | - |
| 12 | B/W | - |

| | |
|-----------------|--------------|
| Connector No. | M11 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | GR | - |
| 8 | B | - |
| 9 | GR/R | - |

| | |
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| 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 |

| | |
|-----------------|---------------------------|
| 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. | M15 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 2 | G/R | - |
| 5 | LG | - |
| 7 | GR/R | - |
| 9 | P/L | - |
| 12 | B/Y | - |


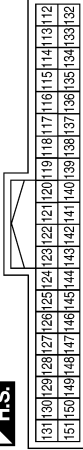
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VEHICLE SECURITY SYSTEM

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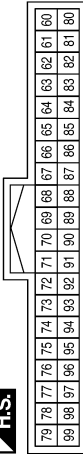
[SEDAN]

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| Connector No. | M21 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Color | GRAY |


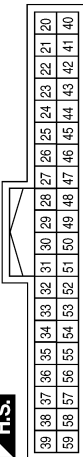
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-----------------|
| 114 | B | TRUNK_ANT_1_B |
| 115 | W | TRUNK_ANT_1_A |
| 118 | L/O | BACK_DOOR_ANT_B |
| 119 | BR/W | BACK_DOOR_ANT_A |
| 130 | Y/G | TRUNK_SW |
| 148 | R/W | RR_DOOR_SW |
| 149 | R/B | RL_DOOR_SW |

| | |
|-----------------|---------------------------|
| Connector No. | M19 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Color | BLACK |

| 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 |

| | |
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| Connector No. | M18 |
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Color | GREEN |

| 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 |

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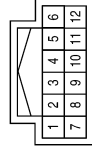
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VEHICLE SECURITY SYSTEM

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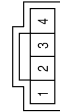
[SEDAN]

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| Connector No. | M40 |
| Connector Name | KEY SLOT |
| Connector Color | WHITE |



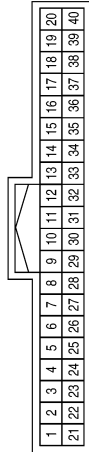
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | G/Y | B+ |
| 7 | B | GND |
| 11 | Y | CARD SW 1 |

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| Connector No. | M27 |
| Connector Name | REMOTE KEYLESS ENTRY RECEIVER |
| Connector Color | BLACK |



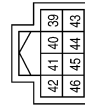
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | P | GND |
| 2 | L/O | SIGNAL |
| 4 | L/R | 12V |

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|-----------------|-------------------|
| Connector No. | M24 |
| Connector Name | COMBINATION METER |
| Connector Color | WHITE |



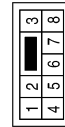
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | W/L | BAT |
| 28 | L/O | SECURITY |

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| 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 |

| | |
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| Connector No. | E2 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 5 | O | - |

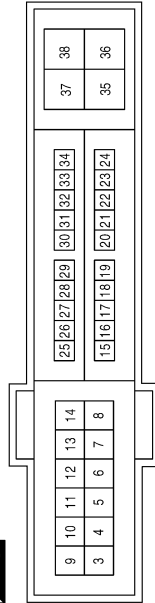
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VEHICLE SECURITY SYSTEM

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| 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) |

| | |
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| Connector No. | E21 |
| Connector Name | JOINT CONNECTOR-E03 |
| Connector Color | WHITE |



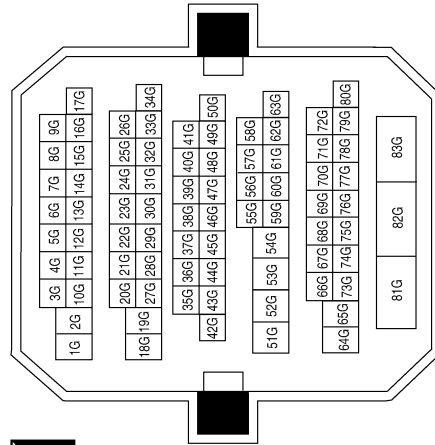
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| Terminal No. | Color of Wire | Signal Name |
| 1 | L | - |
| 2 | L | - |

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| Connector No. | E22 |
| Connector Name | JOINT CONNECTOR-E04 |
| Connector Color | WHITE |



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

| | |
|-----------------|--------------|
| Connector No. | E30 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



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| Terminal No. | Color of Wire | Signal Name |
| 8G | P | - |
| 15G | L | - |
| 82G | LG | - |

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VEHICLE SECURITY SYSTEM

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[SEDAN]

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| Connector No. | E216 |
| Connector Name | HORN (HIGH) |
| Connector Color | BLACK |



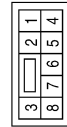
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | G | - |

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| Connector No. | E215 |
| Connector Name | HORN (LOW) |
| Connector Color | BLACK |



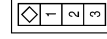
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | G | - |

| | |
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| Connector No. | E202 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



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

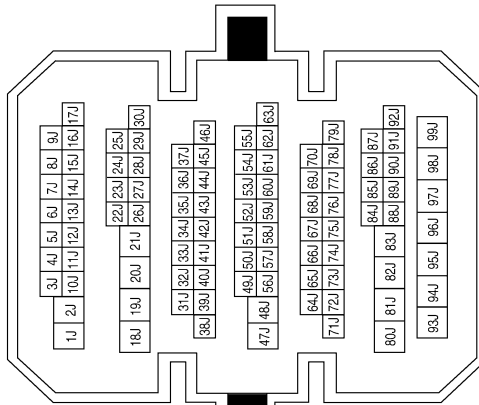
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| Connector No. | B8 |
| Connector Name | FRONT DOOR SWITCH LH |
| Connector Color | WHITE |



| 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 |



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VEHICLE SECURITY SYSTEM

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[SEDAN]

| | |
|-----------------|---------------------|
| Connector No. | B46 |
| Connector Name | REAR BUMPER ANTENNA |
| Connector Color | GRAY |



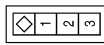
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | L | ANT+ |
| 2 | LG | ANT- |

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| Connector No. | B28 |
| Connector Name | TRUNK LAMP SWITCH AND TRUNK RELEASE SOLENOID |
| Connector Color | WHITE |



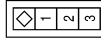
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | W | - |
| 2 | B | - |

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| Connector No. | B18 |
| Connector Name | REAR DOOR SWITCH LH |
| Connector Color | WHITE |



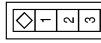
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|--------------|
| 2 | BR | DOOR SW (RL) |

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| Connector No. | B116 |
| Connector Name | REAR DOOR SWITCH RH |
| Connector Color | WHITE |



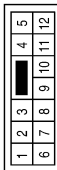
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|--------------|
| 2 | B | DOOR SW (RR) |

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| 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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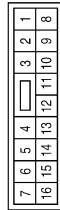
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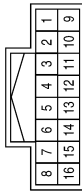
[SEDAN]

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| Connector No. | D1 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



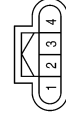
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | GR | - |
| 8 | B | - |
| 9 | GR/R | - |

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| Connector No. | D2 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



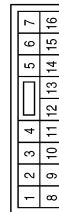
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 2 | L/B | - |
| 3 | P | - |
| 9 | L/R | - |
| 10 | GR | - |
| 11 | V | - |
| 12 | GR | - |

| | |
|-----------------|----------------------------|
| Connector No. | D6 |
| Connector Name | FRONT OUTSIDE HANDLE LH |
| Connector Color | BLACK |



| 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 |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|---|
| 4 | L/B | 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 |

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| Connector No. | D8 |
| Connector Name | MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 17 | B | GND |
| 18 | GR | LOCK |

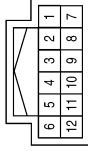
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VEHICLE SECURITY SYSTEM

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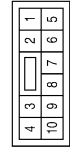
[SEDAN]

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| Connector No. | D102 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



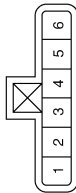
| Terminal No. | Color of Wire | Signal Name |
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| 2 | GR | - |
| 5 | R | - |
| 7 | GR/R | - |
| 9 | GR | - |
| 12 | L | - |

| | |
|-----------------|--------------|
| 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 | L/R | DOOR_KEY/C_UNLOCK_SW |
| 6 | L/B | DOOR_KEY/C_LOCK_SW |

| | |
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| 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- |

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| 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 |

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|-----------------|--|
| 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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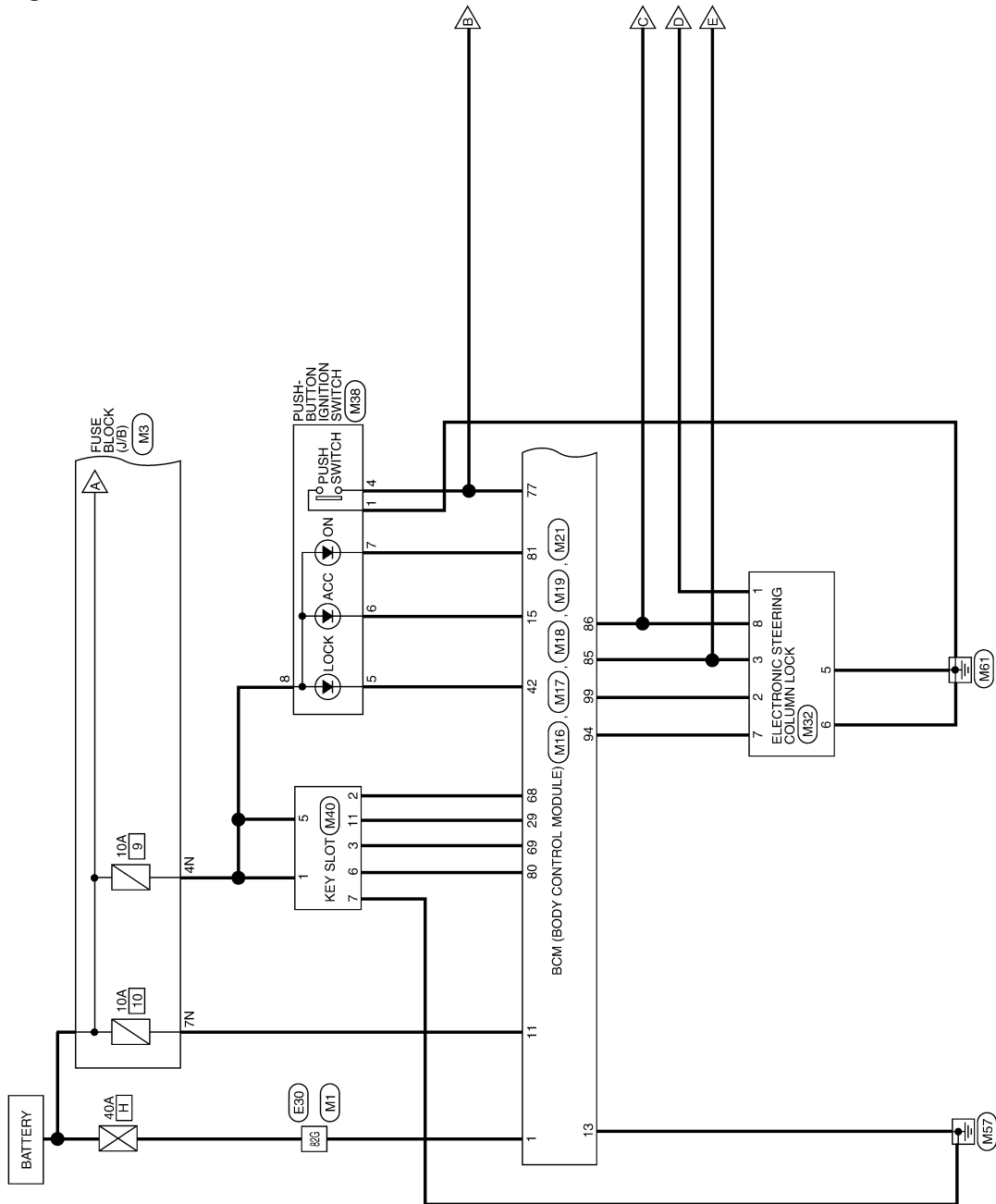
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Wiring Diagram

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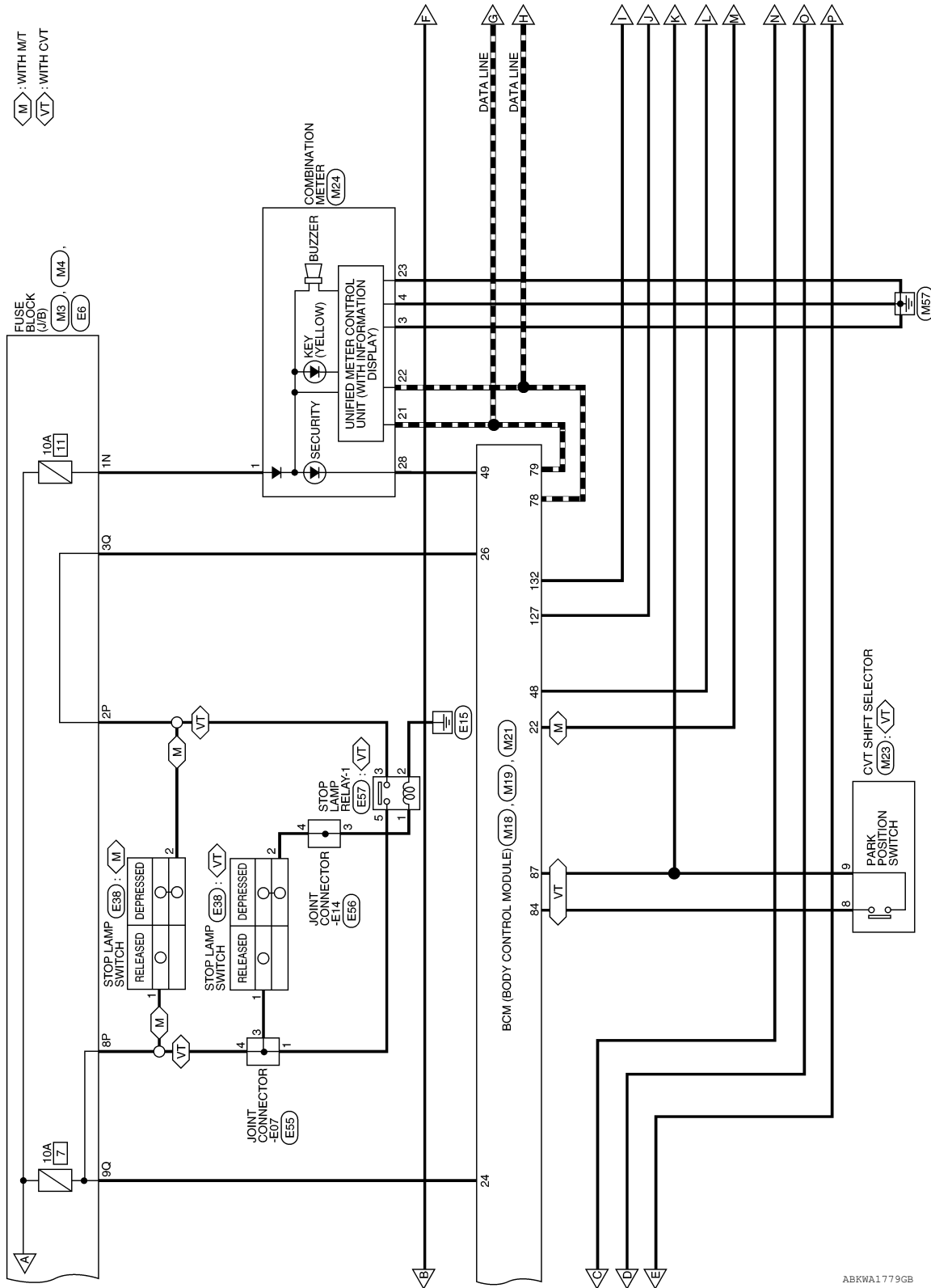


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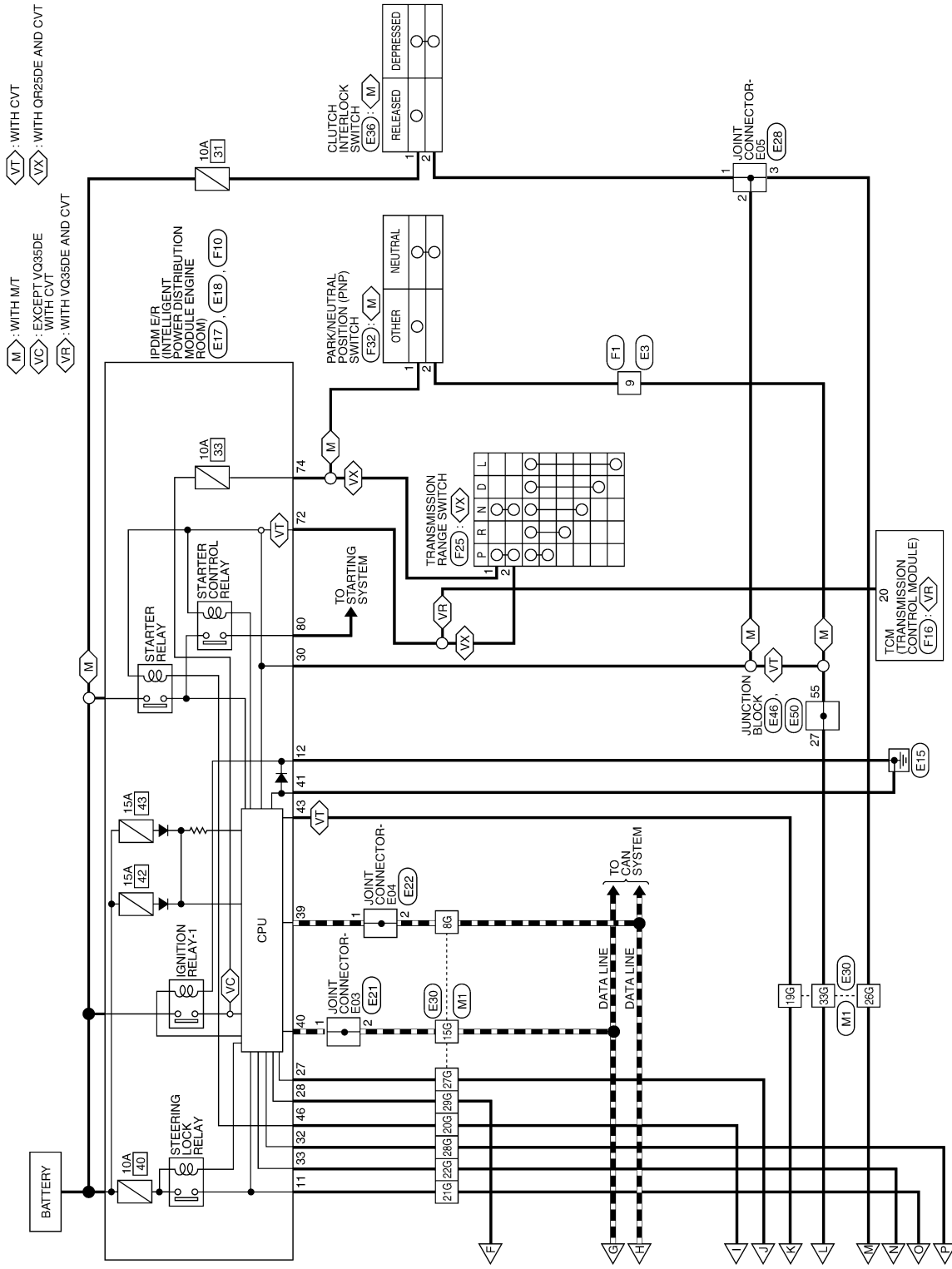
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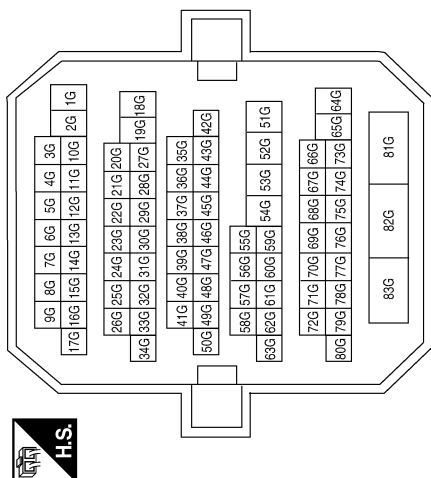
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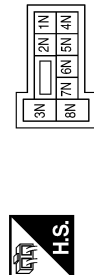
NVIS CONNECTORS

| | |
|-----------------|---------------|
| Connector No. | M1 |
| Connector Name | WIRES TO WIRE |
| Connector Color | WHITE |



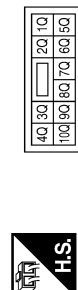
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 8G | P | - |
| 15G | L | - |
| 19G | G/B | - |
| 20G | R | - |
| 21G | P/L | - |
| 22G | G/R | - |
| 26G | R/Y | - |
| 27G | BR/W | - |
| 28G | L/O | - |
| 29G | BR | - |
| 33G | R/G | - |
| 82G | W/B | - |

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|-----------------|------------------|
| 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 | - |

| | |
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| Connector No. | M4 |
| Connector Name | FUSE BLOCK (J/B) |
| Connector Color | WHITE |



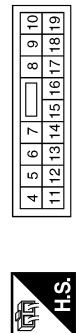
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 3Q | O/L | - |
| 9Q | R/W | - |

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| 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 |

| | |
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| 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 |



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|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 79 | 78 | 77 | 76 | 75 | 74 | 73 | 72 | 71 | 70 | 69 | 68 | 67 | 66 | 65 | 64 | 63 | 62 | 61 | 60 |
| 89 | 88 | 87 | 86 | 85 | 84 | 83 | 82 | 81 | 80 | 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 |

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|-----------------|--------------------|
| 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 |



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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 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 |

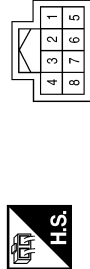
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|---------------|
| 127 | BRW | IGN_USM_CONT1 |
| 132 | R | ST_CONT_USM |

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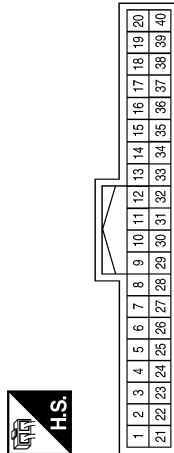
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| Connector No. | M32 |
| Connector Name | ELECTRONIC STEERING COLUMN LOCK |
| Connector Color | WHITE |



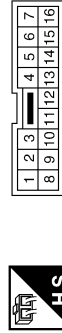
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------------------|
| 1 | P/L | S/L_12V_MECHANICAL (V1) |
| 2 | L/Y | S/L_COM |
| 3 | L/O | S/L_CONDITION_1 |
| 5 | B | GND |
| 6 | B | GND |
| 7 | G/Y | S/L_12V_CPU (V2) |
| 8 | G/R | S/L_CONDITION_2 |

| 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 |

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| Connector No. | M24 |
| Connector Name | COMBINATION METER |
| Connector Color | WHITE |

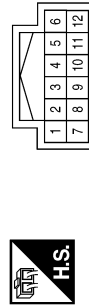


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| Connector No. | E3 |
| Connector Name | WIRE TO WIRE |
| Connector Color | WHITE |



| 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. | 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 | - |

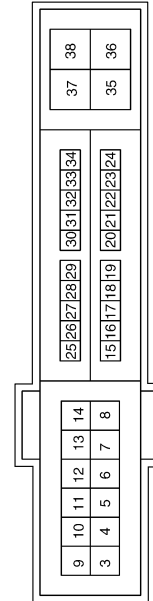
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| Connector No. | E21 |
| Connector Name | JOINT CONNECTOR-E03 |
| Connector Color | WHITE |



| 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 |



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| Connector No. | E22 |
| Connector Name | JOINT CONNECTOR-E04 |
| Connector Color | WHITE |



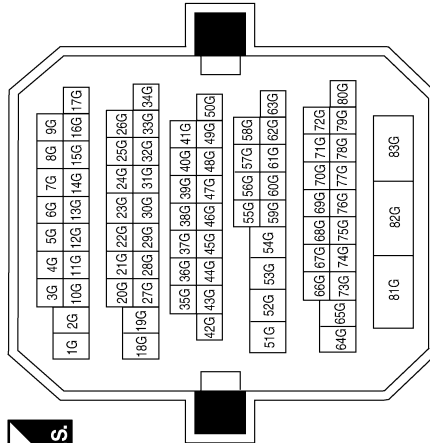
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | P | - |
| 2 | P | - |

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|-----------------|---------------------|
| 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 |



| 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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| | |
|-----------------|----------------|
| Connector No. | E46 |
| Connector Name | JUNCTION BLOCK |
| Connector Color | WHITE |



| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 27 | BR | - |

| | |
|-----------------|-----------------------------|
| Connector No. | E38 |
| Connector Name | STOP LAMP SWITCH (WITH M/T) |
| Connector Color | BLACK |



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

| | |
|-----------------|-----------------------------|
| Connector No. | E38 |
| Connector Name | STOP LAMP SWITCH (WITH CVT) |
| Connector Color | WHITE |



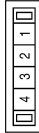
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | R | - |
| 2 | LG | - |

| | |
|-----------------|---------------------|
| 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 |



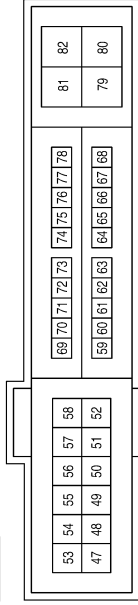
| Terminal No. | Color of Wire | Signal Name |
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| 55 | BR | - |

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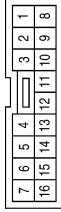
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| Connector No. | F10 |
| Connector Name | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Color | WHITE |



| 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 |



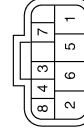
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | LG | - |
| 2 | B | - |
| 3 | Y | - |
| 5 | W | - |

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| Connector No. | F32 |
| Connector Name | PARK/NEUTRAL POSITION (PNP) SWITCH |
| Connector Color | BLACK |



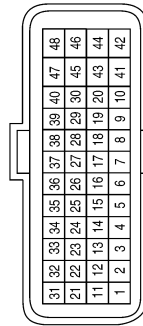
| Terminal No. | Color of Wire | Signal Name |
|--------------|---------------|-------------|
| 1 | L | - |
| 2 | W | - |

| | |
|-----------------|---------------------------|
| 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 |

AAKIA0633GB

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION SYMPTOMS

< SYMPTOM DIAGNOSIS >

[SEDAN]

SYMPTOM DIAGNOSIS

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION SYMPTOMS

Symptom Table

INFOID:000000006389809

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 | BCS-36 |
| | IPDM E/R | PCS-20 |
| 2. Check push button ignition switch | | SEC-339 |
| 3. Check Intermittent Incident | | GI-42 |

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VEHICLE SECURITY SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[SEDAN]

VEHICLE SECURITY SYSTEM SYMPTOMS

Symptom Table

INFOID:000000006389810

| Procedure | | Diagnostic procedure | Refer to page |
|-----------|--|--|---|
| Symptom | | | |
| 1 | Vehicle security system cannot be set by | Door switch | Check door switch DLK-286 |
| | | Trunk | Check trunk room lamp switch DLK-318 |
| | | Door outside key | Check key cylinder switch DLK-303 |
| | | Intelligent Key | Check Intelligent Key. DLK-350 |
| | | — | Check Intermittent Incident GI-42 |
| | Security indicator does not turn ON. | | Check vehicle security indicator SEC-359 |
| | | Check Intermittent Incident GI-42 | |
| 2 | * Vehicle security system does not sound alarm when | Any door is opened. | Check door switch DLK-286 |
| | | | Check Intermittent Incident GI-42 |
| 3 | Vehicle security alarm does not activate. | Horn alarm | Check horn SEC-355 |
| | | | Check Intermittent Incident GI-42 |
| | Head lamp alarm | Check head lamp alarm SEC-357 | |
| | | Check Intermittent Incident GI-42 | |
| 4 | Vehicle security system cannot be canceled by | Door outside key | Check key cylinder switch SEC-350 |
| | | | Check Intermittent Incident GI-42 |
| | Intelligent Key | Check Intelligent Key DLK-350 | |
| | | Check Intermittent Incident GI-42 | |

*: 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:000000006389811

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 | SEC-359 |
| 2. Check Intermittent Incident | GI-42 |

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< PRECAUTION >

PRECAUTION

PRECAUTIONS

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

INFOID:000000006389812

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.

Precautions Necessary for Steering Wheel Rotation After Battery Disconnect

INFOID:000000006934927

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

[SEDAN]

< PRECAUTION >

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:000000006934928

- 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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SEC

PREPARATION

< PREPARATION >

[SEDAN]

PREPARATION

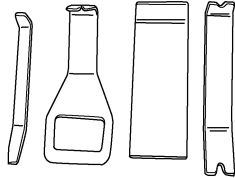
PREPARATION

Special Service Tools

INFOID:000000006389814

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 |



AWJIA04832Z

KEY SLOT

< REMOVAL AND INSTALLATION >

[SEDAN]

REMOVAL AND INSTALLATION

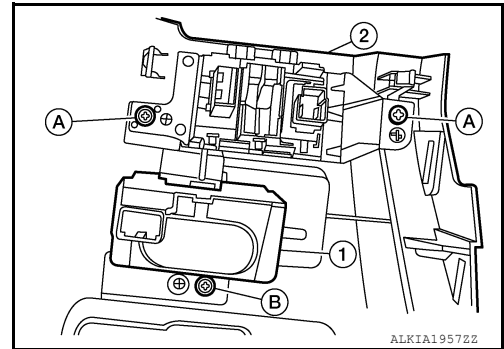
KEY SLOT

Removal and Installation

INFOID:000000006389815

REMOVAL

1. Remove the instrument lower panel LH. Refer to [IP-19. "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.

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SEC

PUSH BUTTON IGNITION SWITCH

< REMOVAL AND INSTALLATION >

[SEDAN]

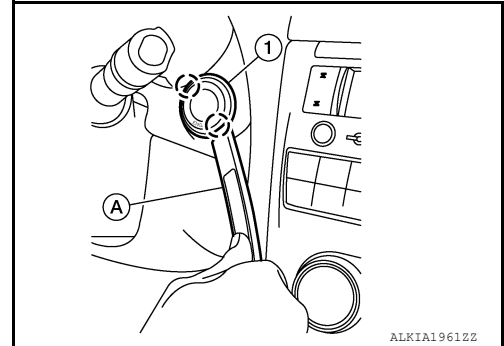
PUSH BUTTON IGNITION SWITCH

Removal and Installation

INFOID:000000006389816

REMOVAL

1. Remove the push button ignition switch (1) from cluster lid A using suitable tool (A).
 - ○: Pawl
2. Disconnect the electrical harness connector and remove the push button ignition switch.



INSTALLATION

Installation is in the reverse order of removal.