

SECTION **SEC**

SECURITY CONTROL SYSTEM

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DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[COUPE]

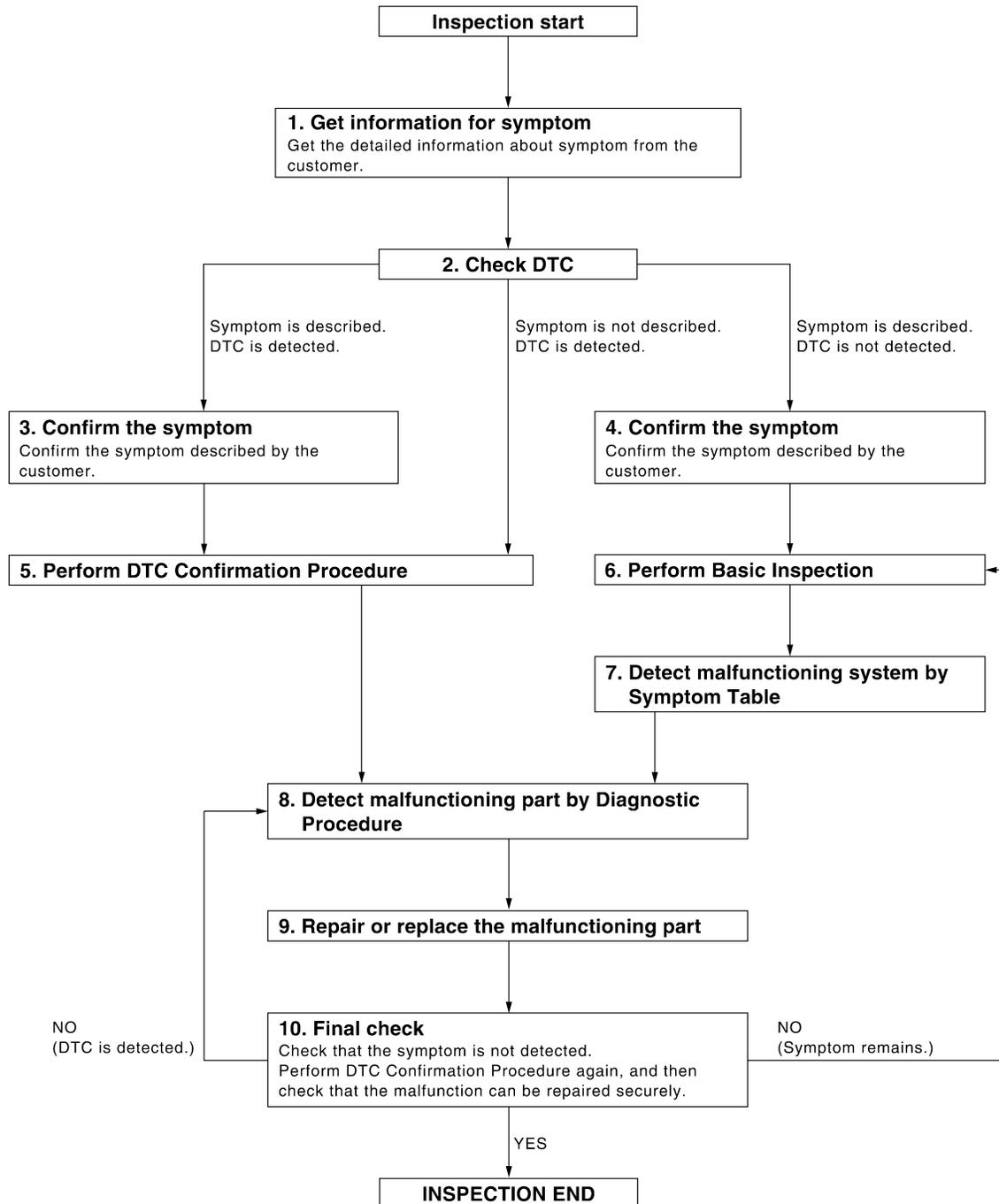
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000004205986

OVERALL SEQUENCE



DETAILED FLOW

ALKIA0246GB

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-III.
2. Perform the following procedure if DTC is displayed.
 - Record DTC and freeze frame data (Print them out with CONSULT-III.)
 - 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-III to the vehicle in "Data Monitor" mode and check real time diagnosis results.

Verify relation ship 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-III to the vehicle in "Data Monitor" mode and check real time diagnosis results.

Verify relation ship 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-III connected to the vehicle, and check diagnostic results in real time.

If two or more DTCs are detected, refer to [SEC-386. "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 [SEC-13. "Basic Inspection"](#).

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-204. "Symptom Table"](#).
- Vehicle security system: [SEC-205. "Symptom Table"](#).

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DIAGNOSIS AND REPAIR WORKFLOW

[COUPE]

< BASIC INSPECTION >

- Nissan vehicle immobilizer system-NATS: [SEC-206. "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-III.

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

INFOID:000000004206166

The engine start function, door lock function, power distribution system and NATS-IVIS/NMS in the Intelligent Key system are closely related to each other regarding control. Narrow down the functional area in question by performing basic inspection to identify which function is malfunctioning. The vehicle security function can operate only when the door lock and power distribution system are operating normally. Therefore, it is easy to identify any factor unique to the vehicle security system by performing the vehicle security operation check after basic inspection.

1.CHECK DOOR LOCK OPERATION

1. Check the door lock for normal operation with the Intelligent Key controller and door request switch. Successful door lock operation with the Intelligent Key and request SW indicates that the remote keyless entry receiver is functioning normally. Identify the malfunctioning point by referring to the DLK section if the door cannot be unlocked.

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

YES >> GO TO 2

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

2.CHECK ENGINE STARTING

1. Checks that the engine starts when operating the Intelligent Key inserted into the key slot.

Does the engine start?

YES >> GO TO 3

NO >> Refer to [SEC-204, "Symptom Table"](#).

3.CHECK STEERING LOCKING

1. Does the steering lock when operating door switch after switching the power supply from ON position (or ACC position) to LOCK position? If door switch is malfunctioning, BCM cannot lock the steering. If BCM does not detect DTC, steering lock unit is normal.

Does steering lock?

YES >> GO TO 4

NO >> Refer to [DLK-69, "Component Function Check"](#).

4.CHECK POWER SUPPLY INDICATOR SWITCHING

1. Press push-button ignition switch and position indicator will switch from LOCK, ACC to ON gradually when steering is locked. Checks that the position indicator is illuminated at different positions of the circuit.

Is each position indicator illuminating?

YES >> GO TO 5

NO >> Refer to [PCS-80, "Component Function Check"](#).

5.CHECK VEHICLE SECURITY SYSTEM

1. Check the vehicle security system for normal operation. The vehicle security function can operate only when the door lock and power distribution functions are operating normally. Therefore, it is easy to identify any factor unique to the vehicle security by performing the vehicle security operation check after this basic inspection.

>> Refer to [SEC-13, "Vehicle Security Operation Check"](#).

Vehicle Security Operation Check

INFOID:000000004206167

1.INSPECTION START

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

NOTE:

Before starting operation check, open front windows.

PRE-INSPECTION FOR DIAGNOSTIC

[COUPE]

< BASIC INSPECTION >

>> GO TO 2

2. CHECK SECURITY INDICATOR LAMP

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

Security indicator lamp should illuminate.

OK >> GO TO 3

NG >> Perform diagnosis and repair. Refer to [SEC-124. "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.

Do alarm function properly.

OK >> GO TO 4

NG >> Check the following.

- The vehicle security system does not phase in alarm mode. Refer to [SEC-205. "Symptom Table"](#).
- Alarm (horn, headlamp and hazard lamp) do not operate. Refer to [SEC-205. "Symptom Table"](#).

4. CHECK ALARM CANCEL OPERATION

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

Alarm (horn, headlamp and hazard lamp) should stop.

OK >> Inspection End.

NG >> Check door lock function. Refer to [DLK-25. "INTELLIGENT KEY : System Description"](#).

INSPECTION AND ADJUSTMENT
ECM RE-COMMUNICATING FUNCTION

A

ECM RE-COMMUNICATING FUNCTION : Description

INFOID:000000004205987

B

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.

C

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

NOTE:

- When registering new Key IDs or replacing the ECM that is not brand new, refer to CONSULT-III 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.

D

ECM RE-COMMUNICATING FUNCTION : Special Repair Requirement

INFOID:000000004205988

E

1. PERFORM ECM RE-COMMUNICATING FUNCTION

F

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.

G

Can engine be started?

H

- YES >> Procedure is completed.
NO >> Initialize control unit. Refer to CONSULT-III Operation Manual.

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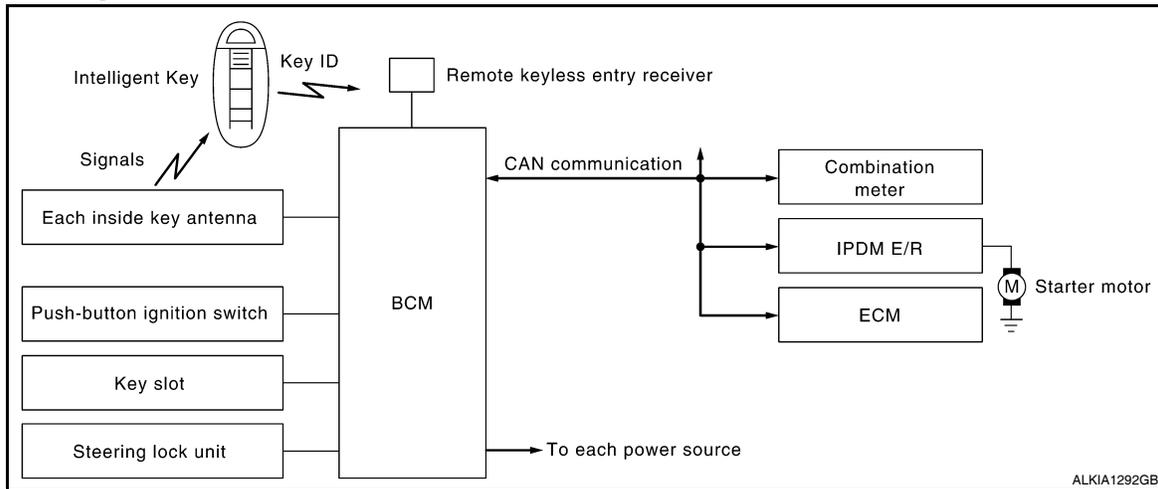
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P

FUNCTION DIAGNOSIS

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

System Diagram



System Description

INFOID:000000004205990

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 Steering lock unit Starter relay (IPDM E/R) Starter control relay (IPDM E/R) Starter motor KEY warning lamp
CVT device (CVT models)	P range		
PNP 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

[COUPE]

< FUNCTION DIAGNOSIS >

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

NOTE:

- Refer to [DLK-25, "INTELLIGENT KEY : 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 lock unlock signal to steering lock unit and IPDM E/R if the verification results are OK.
- IPDM E/R turns the steering lock relay ON and supplies power to the steering lock unit.
- 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 steering lock unit.
- 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-22, "System Description"](#).

BATTERY SAVER SYSTEM

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

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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

[COUPE]

< FUNCTION DIAGNOSIS >

- 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 steering lock unit 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

< FUNCTION DIAGNOSIS >

[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	B
Engine stall return operation while driving	—	P position	1	C

*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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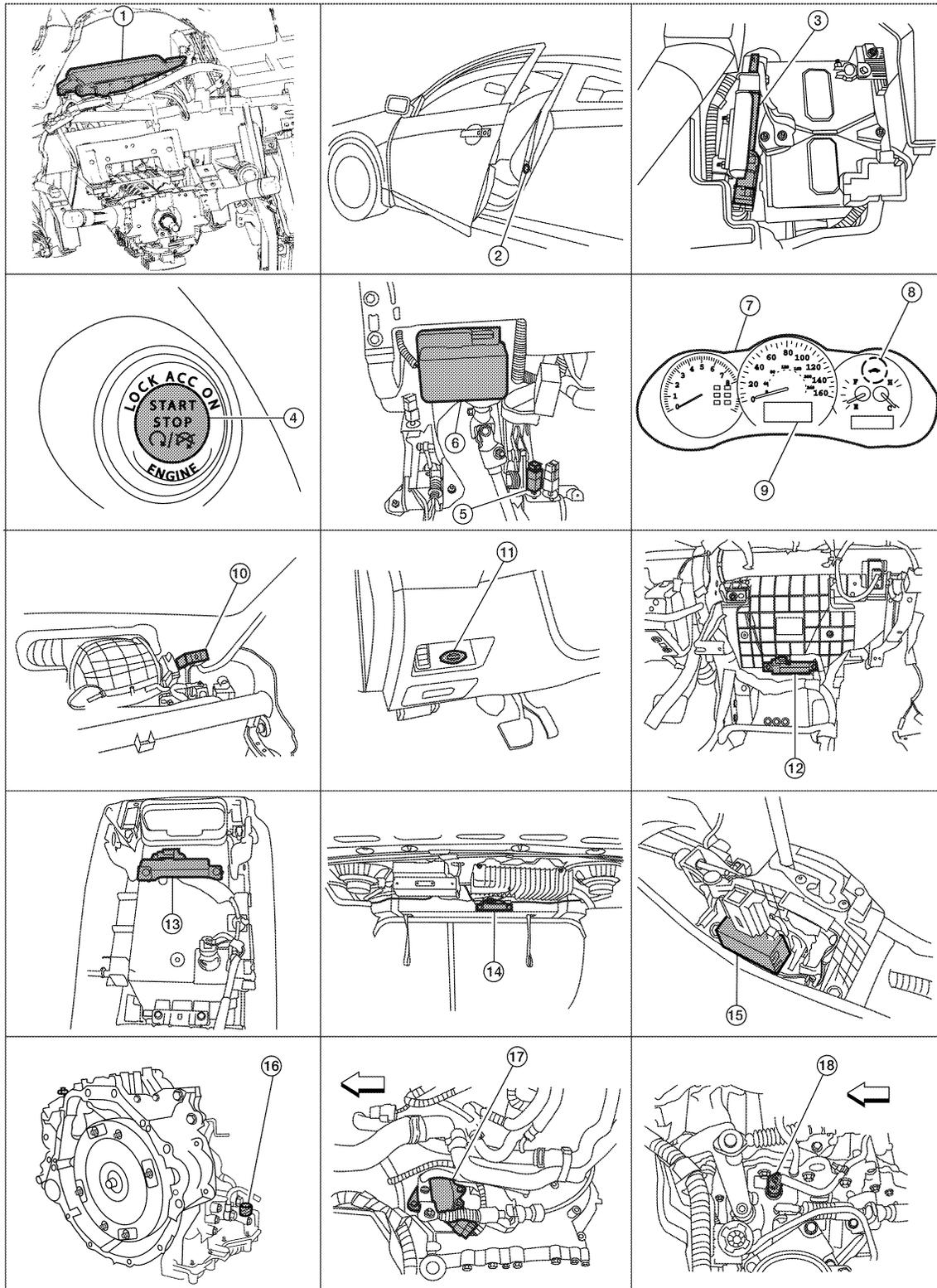
INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< FUNCTION DIAGNOSIS >

[COUPE]

Component Parts Location

INFOID:000000004205991



ALKIA1299ZZ

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

[COUPE]

< FUNCTION DIAGNOSIS >

- | | | | |
|--|--|--|---|
| 1. Body control module M16, M17, M18, M19, M21
(view with instrument panel removed) | 2. Door switch LH B8
RH B108 | 3. ECM E10 | A |
| 4. Push button ignition switch M38 | 5. Stop lamp switch E38
(view with lower driver instrument panel removed) | 6. Electronic steering column lock M32
(steering column) | B |
| 7. Combination meter M24 | 8. Security indicator lamp | 9. Information display | C |
| 10. Remote keyless entry receiver M27
(view with instrument panel removed) | 11. Key slot M40 | 12. Instrument panel antenna M49
(view with instrument panel removed) | D |
| 13. Front console antenna M203
(bottom view of console) | 14. Rear parcel shelf antenna B29 | 15. CVT device (park position switch) M23
(with CVT) | E |
| 16. Park neutral position switch connector
(TCM connector) F16
(with CVT/VQ) | 17. Park neutral position switch F25
(with CVT/QR) | 18. Park neutral position switch F32
(with M/T) | F |

Component Description

INFOID:000000004205992

Component	Reference
BCM	SEC-107
Steering lock unit	SEC-97
Push-button ignition switch	SEC-108
Door switch	DLK-69
CVT device (park position switch)	SEC-76
Inside key antenna	DLK-59
Remote keyless entry receiver	DLK-112
Stop lamp switch	SEC-70
Park/neutral position switch	SEC-84
Clutch switch	SEC-54
Steering lock relay	SEC-88
Starter relay	SEC-91
Starter control relay	SEC-75
Security indicator	SEC-124
Key warning lamp	SEC-123

SEC

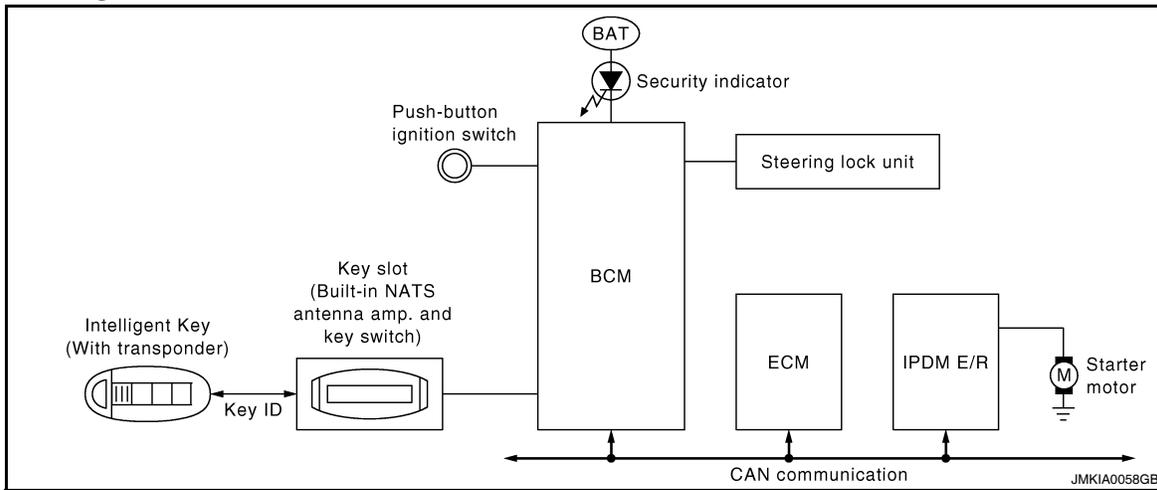
NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

< FUNCTION DIAGNOSIS >

[COUPE]

NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

System Diagram



System Description

INFOID:000000004205994

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 Steering lock unit Starter relay (IPDM E/R) Starter control relay (IPDM E/R) Starter motor KEY warning lamp Security indicator lamp
CVT device (CVT models)	P range		
PNP 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-III Operation Manual.

NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

[COUPE]

< FUNCTION DIAGNOSIS >

- 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-10. "Work Flow"](#). A
- If ECM other than Genuine NISSAN is installed, the engine cannot be started. For ECM replacement procedure, refer to [SEC-15. "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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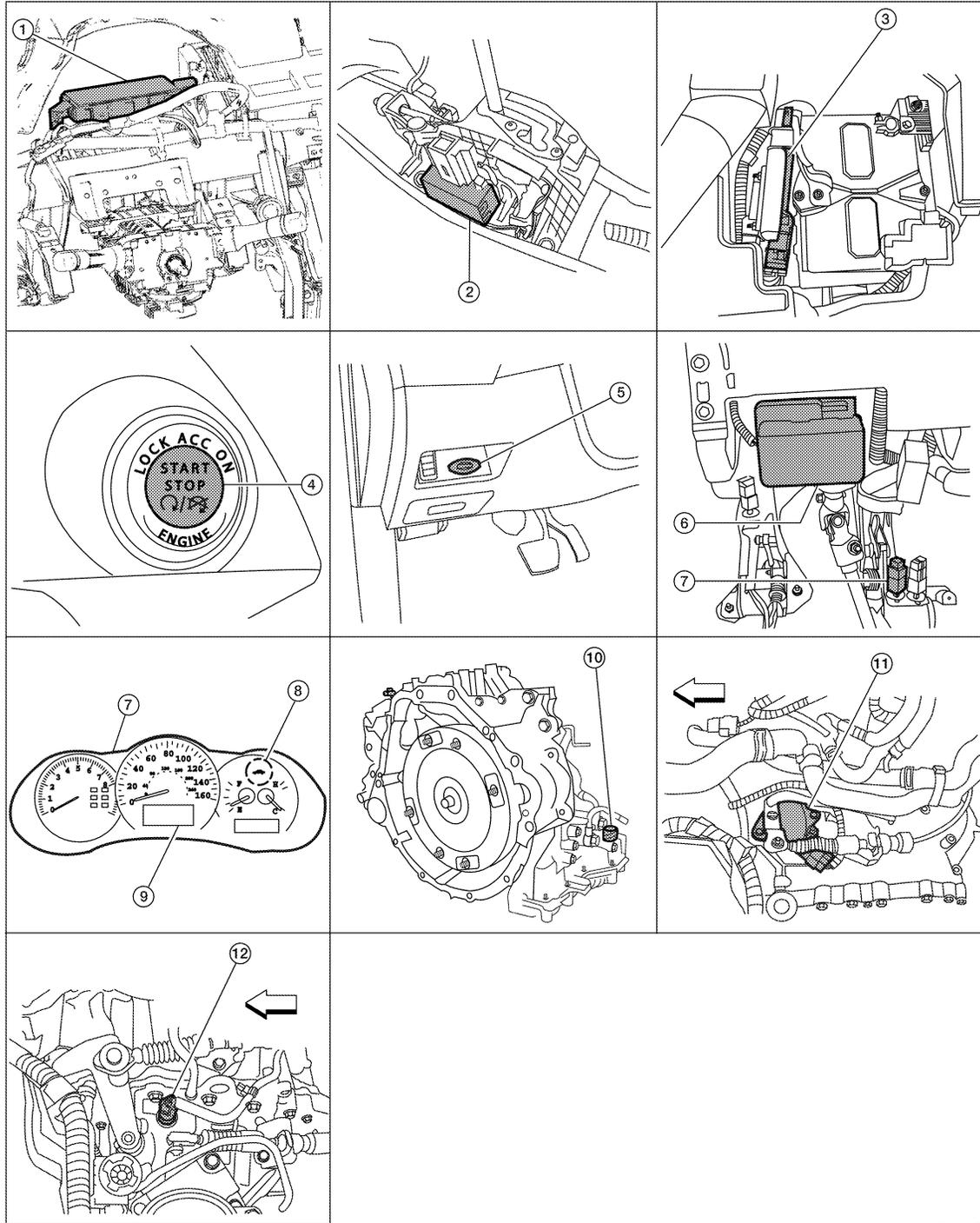
NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

< FUNCTION DIAGNOSIS >

[COUPE]

Component Parts Location

INFOID:000000004205995



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- | | | |
|--|--|---|
| 1. Body control module M16, M17, M18, M19, M21
(view with instrument panel removed) | 2. CVT device (park position switch) M23
(with CVT) | 3. ECM E10 M23 |
| 4. Push button ignition switch M38 | 5. Key slot M40 | 6. Electronic steering column lock M32
(steering column) |
| 7. Stop lamp switch E38
(view with lower LH instrument panel removed) | 8. Security indicator lamp | 9. Information display |
| 10. Park neutral position switch connector (TCM connector) F16
(with CVT/VQ) | 11. Park neutral position switch F25
(with CVT/QR) | 12. Park neutral position switch F32
(with M/T) |

NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

< FUNCTION DIAGNOSIS >

[COUPE]

Component Description

INFOID:000000004205996

Component	Reference
BCM	SEC-107
Steering lock unit	SEC-97
Push-button ignition switch	SEC-108
Door switch	DLK-69
CVT device (park position switch)	SEC-76
Inside key antenna	DLK-59
Remote keyless entry receiver	DLK-112
Stop lamp switch	SEC-70
Park/neutral position switch	SEC-84
Clutch switch	SEC-54
Steering lock relay	SEC-88
Starter relay	SEC-91
Starter control relay	SEC-75
Security indicator	SEC-124
Key warning lamp	SEC-123

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VEHICLE SECURITY SYSTEM

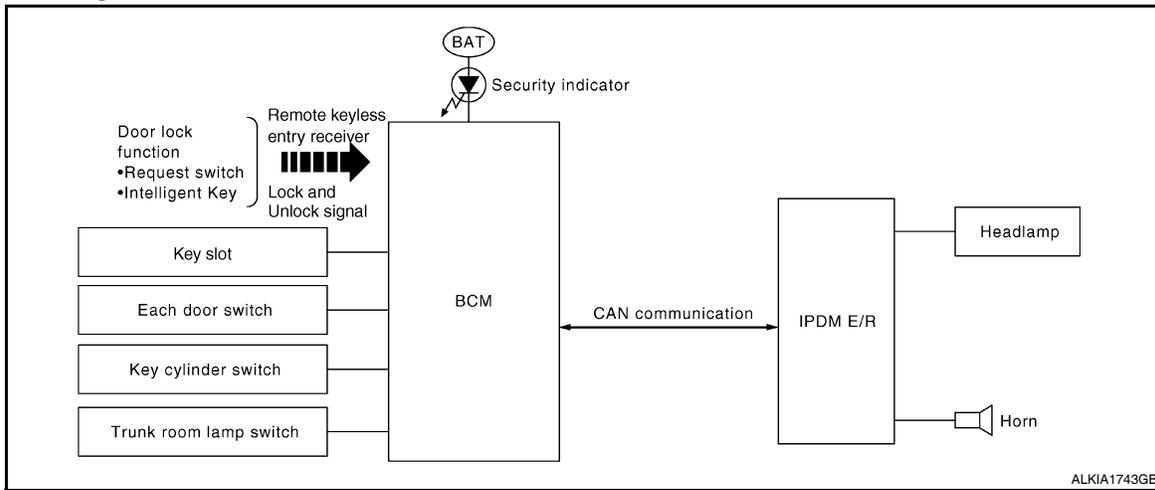
< FUNCTION DIAGNOSIS >

[COUPE]

VEHICLE SECURITY SYSTEM

System Diagram

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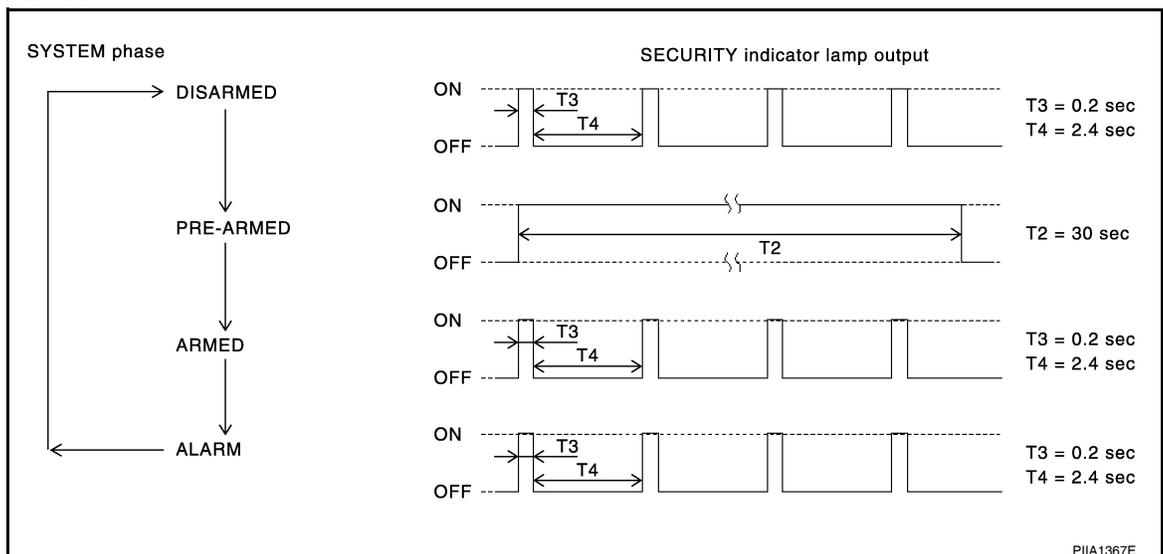
System Description

INFOID:000000004205998

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		
Key slot	Intelligent Key sensing		

OPERATION FLOW



SETTING THE VEHICLE SECURITY SYSTEM

Initial Condition

- Ignition switch is in OFF position.

VEHICLE SECURITY SYSTEM

[COUPE]

< FUNCTION DIAGNOSIS >

Disarmed Phase

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

Pre-armed Phase and Armed Phase

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

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

CANCELING THE SET VEHICLE SECURITY SYSTEM

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

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

CANCELING THE ALARM OPERATION OF THE VEHICLE SECURITY SYSTEM

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

ACTIVATING THE ALARM OPERATION OF THE VEHICLE SECURITY SYSTEM

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

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

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

PANIC ALARM OPERATION

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

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

The headlamp flashes and the horn sounds intermittently.

The alarm automatically turns off after 50 seconds or when BCM receives any signal from Intelligent Key.

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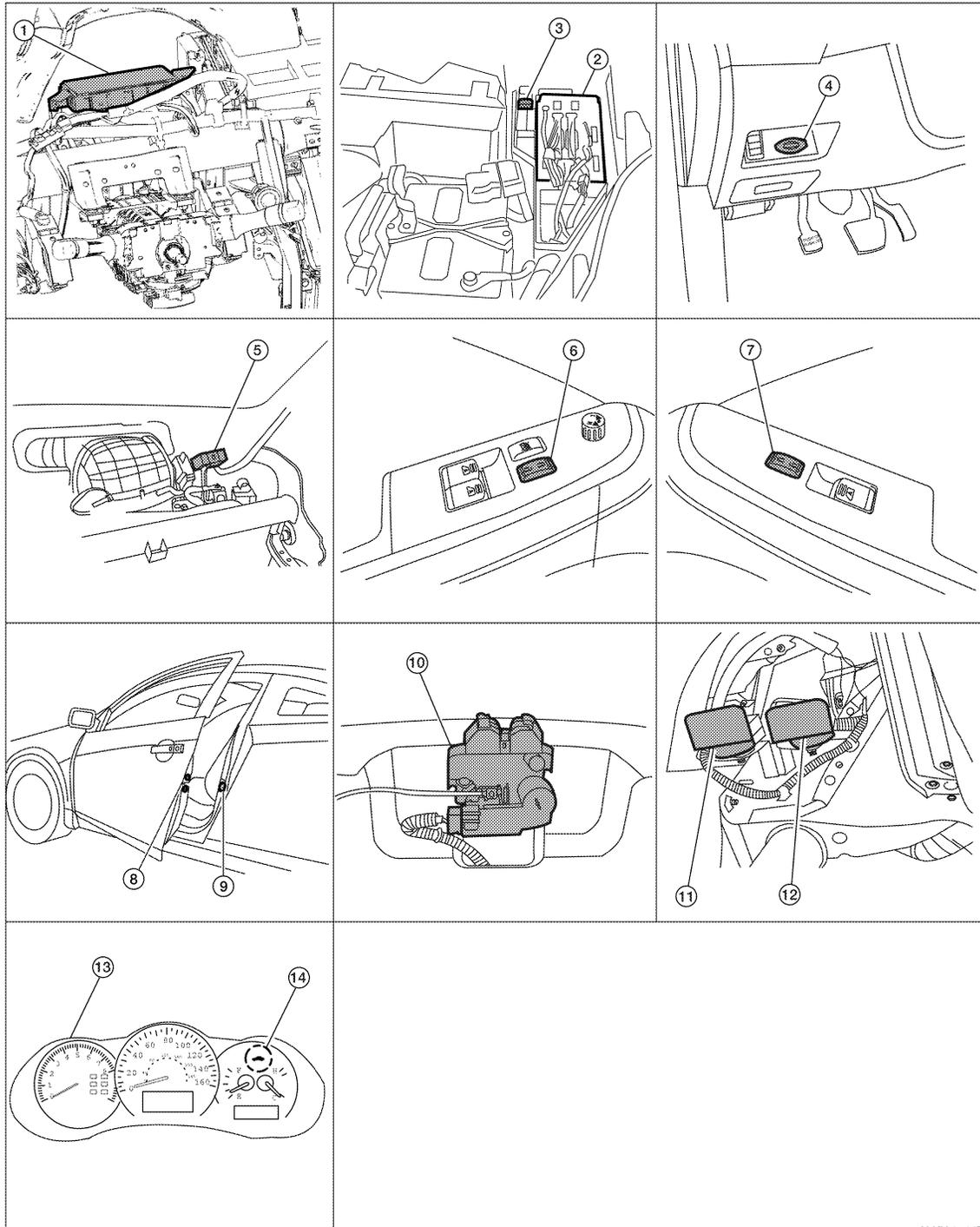
VEHICLE SECURITY SYSTEM

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< FUNCTION DIAGNOSIS >

Component Parts Location

INFOID:000000004205999



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

< FUNCTION DIAGNOSIS >

[COUPE]

- | | | |
|---|--|----------------------|
| 10. Trunk lamp switch and trunk release solenoid T4 | 11. Horn (low) E215
(view with front fender protector LH removed) | 12. Horn (high) E216 |
| 13. Combination meter M24 | 14. Security indicator lamp | |

Component Description

INFOID:000000004206000

Component	Reference
BCM	SEC-26
Horn relay	SEC-120
Security indicator	SEC-124
Door switch	DLK-69
Door lock actuator	DLK-103
Trunk lid lock assembly	DLK-105
Door key cylinder switch	DLK-81
Door lock and unlock switch	DLK-72
Key slot	DLK-79
Remote keyless entry receiver	DLK-112

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SEC

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

[COUPE]

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM : Diagnosis Description

INFOID:000000004501247

BCM CONSULT-III FUNCTION

CONSULT-III 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	MUTI REMOTE ENT	×	×	×
Exterior lamp	HEADLAMP	×	×	×
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-III Function

INFOID:000000004501248

ECU IDENTIFICATION

Displays the BCM part No.

SELF-DIAG RESULT

Refer to [BCS-91, "DTC Index"](#).

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

[COUPE]

INTELLIGENT KEY

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

INFOID:000000004501249

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"> • MODE 1: 1 minute • MODE 2: 5 minutes • MODE 3: 30 seconds • MODE 4: 2 minutes
LOCK/UNLOCK BY I-KEY	Door lock/unlock function by door request switch (driver side, passenger side and trunk) mode can be changed to operate (ON) or not operate (OFF) with 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 opener 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"> • 0.5 sec. • 1.5 sec. • OFF: Non-operation
PW DOWN SET	Unlock button pressing time on Intelligent Key button to lower front windows can be selected from the following with this mode. <ul style="list-style-type: none"> • 3 sec. • 5 sec. • OFF: Non-operation
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"> • 0.5 sec. • 1.5 sec. • 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.
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.
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 AND 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 operate during the times below. <ul style="list-style-type: none"> • 70 msec • 100 msec • 200 msec
INSIDE ANT DIAGNOSIS	This function allows inside key antenna self-diagnosis.

SELF-DIAG RESULT

Refer to [BCS-91, "DTC Index"](#).

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

[COUPE]

DATA MONITOR

Monitor Item	Condition
REQ SW-DR	Indicates [ON/OFF] condition of door request switch (driver side).
REQ SW-AS	Indicates [ON/OFF] condition of door request switch (passenger side).
REQ SW-BD/TR	Indicates [ON/OFF] condition of trunk opener request switch.
PUSH SW	Indicates [ON/OFF] condition of push button ignition switch.
IGN RLY2-F/B	Indicates [ON/OFF] condition of ignition relay 2.
ACC RLY1-F/B	Indicates [ON/OFF] condition of accessory relay.
CLUTCH SW	NOTE: This item is displayed, but cannot be monitored.
BRAKE SW 1	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 from IPDM E/R via CAN.
IGN RLY1-F/B	Indicates [ON/OFF] condition of ignition relay 1 from IPDM E/R via CAN.
DETE SW -IPDM	Indicates [ON/OFF] condition of P position from TCM via CAN.
SFT PN -IPDM	Indicates [ON/OFF] condition of P or N position from TCM via CAN.
SFT P -MET	Indicates [ON/OFF] condition of P position from TCM via CAN.
SFT N -MET	Indicates [ON/OFF] condition of N position from IPDM E/R via CAN.
ENGINE STATE	Indicates [STOP/START/CRANK/RUN] condition of engine states from ECM via CAN.
S/L LOCK-IPDM	Indicates [ON/OFF] condition of steering lock (LOCK) request from IPDM E/R via CAN.
S/L UNLOCK-IPDM	Indicates [ON/OFF] condition of steering lock (UNLOCK) request from IPDM E/R via CAN.
S/L RELAY-REQ	Indicates [ON/OFF] condition of steering lock relay from IPDM E/R via CAN.
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.
PRMT RKE STRT	NOTE: This item is displayed, but cannot be monitored.
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.
RKE OPE COUN2	NOTE: This item is displayed, but cannot be monitored.
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.

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

[COUPE]

Monitor Item	Condition
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.

ACTIVE TEST

Test item	Description
BATTERY SAVER	This test is able to check interior room lamp operation. The interior room lamp will be activated after "ON" on CONSULT-III screen is touched.
PW REMOTO DOWN SET	This test is able to check power window down operation. The power window down will be activated after "ON" on CONSULT-III screen is touched.
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation. Intelligent Key warning buzzer sounds when "ON" on CONSULT-III screen is touched.
INSIDE BUZZER	This test is able to check warning chime by combination meter operation. <ul style="list-style-type: none"> • Take out warning chime sounds when "TAKE OUT" on CONSULT-III screen is touched. • Key warning chime sounds when "KEY WARN" on CONSULT-III screen is touched. • P position warning chime sounds when "P RNG WARN" on CONSULT-III screen is touched. • ACC warning chime sounds when "ACC WARN" on CONSULT-III 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 IND ON" on CONSULT-III screen is touched. • "KEY" Warning lamp flashes when "KEY IND FSH" on CONSULT-III screen is touched.
INT LAMP	This test is able to check interior room lamp operation. The interior room lamp will be activated after "ON" on CONSULT-III screen is touched.
LCD	This test is able to check meter display information <ul style="list-style-type: none"> • Engine start information displays when "BRAKE/P" on CONSULT-III screen is touched. • Engine start information displays when "BRAKE/P/ON" on CONSULT-III screen is touched. • Key ID warning displays when "KEY ID NG" on CONSULT-III screen is touched. • Steering lock information displays when "STLCK RELES" on CONSULT-III screen is touched. • P position warning displays when "P RNG IND" on CONSULT-III screen is touched. • Intelligent Key insert information displays when "INSERT KEY" on CONSULT-III screen is touched. • Intelligent Key low battery warning displays when "KEY BAT LOW" on CONSULT-III screen is touched. • Take away window warning displays when "TK AWAY WDW" on CONSULT-III screen is touched. • Take away warning display when "TAKE AWAY" on CONSULT-III screen is touched. • OFF position warning display when "IGN OFF WARN" on CONSULT-III screen is touched.
TRUNK/GLASS HATCH	This test is able to check trunk lid opener actuator open operation. This actuator opens when "ON" on CONSULT-III screen is touched.
FLASHER	This test is able to check security hazard lamp operation. The hazard lamps will be activated after "ON" on CONSULT-III screen is touched.
HORN	This test is able to check horn operation. The horn will be activated after "ON" on CONSULT-III screen is touched.
P RANGE	This test is able to check CVT device power supply CVT device power is supplied when "ON" on CONSULT-III 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-III 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-III screen is touched.
ACC INDICATOR	This test is able to check ACC indicator in push-ignition switch operation. LOCK indicator in push-ignition switch illuminates when "ON" on CONSULT-III screen is touched.
IGNITION ON IND	This test is able to check IGNITION ON indicator in push-ignition switch operation. LOCK indicator in push-ignition switch illuminates when "ON" on CONSULT-III screen is touched.
KEY SLOT ILLUMI	This test is able to check key slot illumination operation. Key slot illumination flash when "ON" on CONSULT-III screen is touched.

THEFT ALM

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DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

[COUPE]

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

INFOID:000000004501250

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-III 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 -RR	Indicates [ON/OFF] condition of rear door request switch (passenger side).
REQ SW -RL	Indicates [ON/OFF] condition of rear door request switch (driver 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.
DOOR SW-BK	NOTE: This is displayed even when it is not equipped.
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.
KEY CYL SW-TR	NOTE: This is displayed even when it is not equipped.
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	Description
THEFT IND	This test is able to check security indicator lamp operation. The lamp will be turned on when "ON" on CONSULT-III 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-III screen is touched.
HEADLAMP(HI)	This test is able to check vehicle security lamp operation. The headlamps will be activated for 0.5 seconds after "ON" on CONSULT-III screen is touched.
FLASHER	This test is able to check vehicle security hazard lamp operation. The hazard lamps will be activated after "ON" on CONSULT-III screen is touched.

IMMU

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

[COUPE]

IMMU : CONSULT-III Function (BCM - IMMU)

INFOID:000000004501251

DATA MONITOR

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

ACTIVE TEST

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

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SEC

COMPONENT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description

INFOID:000000004501291

CAN (Controller Area Network) is a serial communication line for real time applications. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Modern vehicle is equipped with many electronic control unit, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN-H line, CAN-L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only. CAN Communication Signal Chart, refer to [LAN-25, "CAN Communication Signal Chart"](#).

DTC Logic

INFOID:000000004206007

DTC DETECTION LOGIC

CONSULT-III 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 (MULTI AV) • Receiving (IPDM E/R)

Diagnosis Procedure

INFOID:000000004206008

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-8, "CAN Communication Control Circuit"](#).
 NO >> Refer to [GI-42, "Intermittent Incident"](#).

U1010 CONTROL UNIT (CAN)

< COMPONENT DIAGNOSIS >

[COUPE]

U1010 CONTROL UNIT (CAN)

DTC Logic

INFOID:000000004206009

DTC DETECTION LOGIC

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

Diagnosis Procedure

INFOID:000000004206010

1. REPLACE BCM

When DTC U1010 is detected, replace BCM.

>> Replace BCM. Refer to [BCS-96, "Removal and Installation"](#).

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B2013 ID DISCORD, IMMU-STRG

[COUPE]

< COMPONENT DIAGNOSIS >

B2013 ID DISCORD, IMMU-STRG

Description

INFOID:000000004206023

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

DTC Logic

INFOID:000000004206024

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.	• Steering wheel lock unit

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-III.

Is DTC detected?

- YES >> Refer to [SEC-38. "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206025

1. PERFORM INITIALIZATION

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

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

- YES >> Steering lock unit was unregistered.
NO >> Replace steering wheel lock unit.

B2014 CHAIN OF STRG-IMMU

< COMPONENT DIAGNOSIS >

[COUPE]

B2014 CHAIN OF STRG-IMMU

Description

INFOID:000000004206026

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

DTC Logic

INFOID:000000004206027

DTC DETECTION LOGIC

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

Is DTC detected?

- YES >> Refer to [SEC-39, "Diagnosis Procedure"](#).
 NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206028

1.CHECK STEERING LOCK UNIT POWER SUPPLY

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

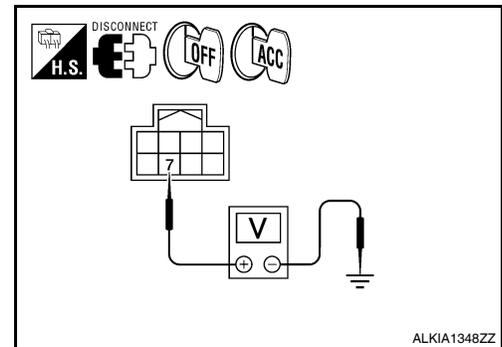
Steering lock unit		Ground	Ignition switch position	Voltage [V]
Connector	Terminal			
M32	7	Ground	OFF → ACC	Battery voltage
			OFF or ON	0

Is the inspection result normal?

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

2.CHECK STEERING LOCK UNIT POWER SUPPLY CIRCUIT

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



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B2014 CHAIN OF STRG-IMMU

[COUPE]

< COMPONENT DIAGNOSIS >

- Check continuity between steering lock unit harness connector M32 (A) terminal 7 and BCM harness connector M19 (B) terminal 94.

Steering lock unit		BCM		Continuity
Connector	Terminal	connector	Terminal	
A: M32	7	B: M19	94	Yes

- Check continuity between steering lock unit harness connector M32 (A) terminal 7 and ground.

Steering lock unit		Ground	Continuity
Connector	Terminal		
A: M32	7	Ground	No

Is the inspection result normal?

YES >> GO TO 6

NO >> Repair harness or connector.

3. CHECK STEERING LOCK UNIT GROUND CIRCUIT

- Turn ignition switch OFF.
- Check continuity between steering lock unit and ground.

Steering lock unit		Ground	Continuity
Connector	Terminal		
M32	5	Ground	Yes
	6		

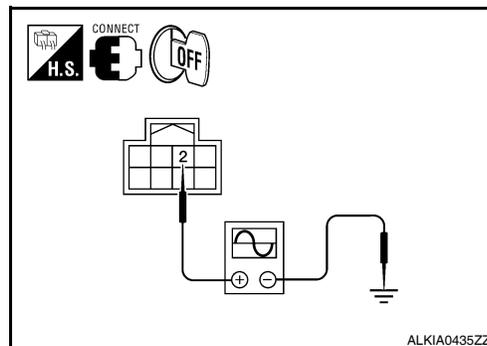
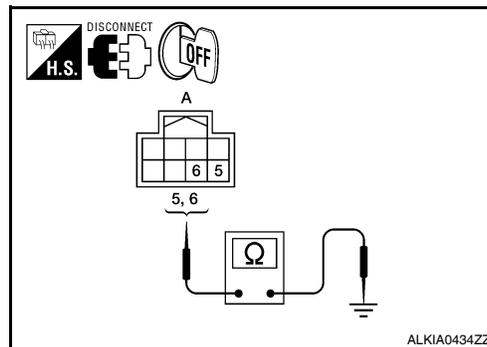
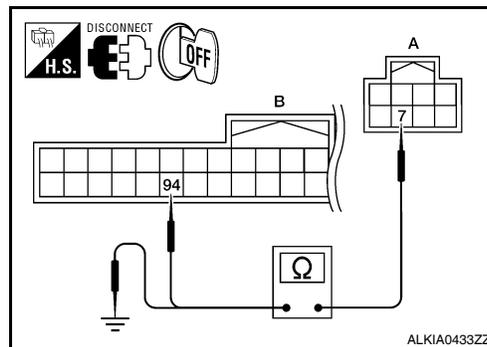
Is the inspection result normal?

YES >> GO TO 4

NO >> Repair harness or connector.

4. CHECK STEERING LOCK UNIT COMMUNICATION SIGNAL

- Connect steering lock unit harness connector.
- Using an oscilloscope, read voltage signal between steering lock unit harness connector and ground.



B2014 CHAIN OF STRG-IMMU

< COMPONENT DIAGNOSIS >

[COUPE]

Steering lock unit		Ground	Steering lock unit condition	Value
Connector	Terminal			
M32	2	Ground	Lock	Battery voltage
			Lock or unlock	<p style="text-align: right; font-size: small;">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 result normal?

- YES >> Replace steering lock unit.
- NO >> GO TO 5

5.CHECK STEERING LOCK UNIT COMMUNICATION CIRCUIT

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

BCM		Steering lock unit		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

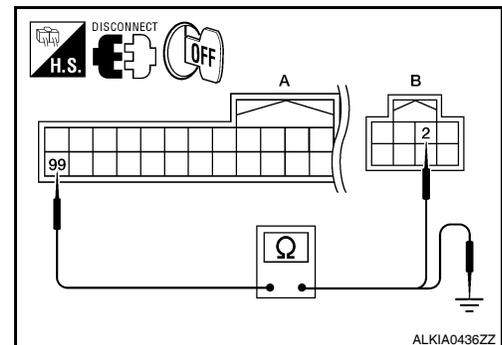
Is the inspection result normal?

- 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

< COMPONENT DIAGNOSIS >

[COUPE]

B2108 STEERING LOCK RELAY

Description

INFOID:000000004206101

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:000000004206102

DTC DETECTION LOGIC

NOTE:

- If DTC B2108 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-36, "DTC Logic"](#).
- If DTC B2108 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-37, "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-III.

Is DTC detected?

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

Diagnosis Procedure

INFOID:000000004206103

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-48, "Removal and Installation"](#).
NO >> Check the following.
 - Harness for open or short between IPDM E/R and battery
 - Fuse

B2109 STEERING LOCK RELAY

< COMPONENT DIAGNOSIS >

[COUPE]

B2109 STEERING LOCK RELAY

Description

INFOID:000000004206104

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:000000004206105

DTC DETECTION LOGIC

NOTE:

- If DTC B2109 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-36, "DTC Logic"](#).
- If DTC B2109 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-37, "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-III.

Is DTC detected?

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

Diagnosis Procedure

INFOID:000000004206106

1.CHECK POWER SUPPLY CIRCUIT

Check IPDM E/R power supply circuit. Refer to [PCS-23, "Diagnosis Procedure"](#).

Is the inspection result 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 result normal?

- YES >> Replace IPDM E/R. Refer to [PCS-48, "Removal and Installation"](#).
NO >> Check the following.
 - Harness for open or short between IPDM E/R and battery
 - Fuse

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B210A STEERING LOCK CONDITION SWITCH

< COMPONENT DIAGNOSIS >

[COUPE]

B210A STEERING LOCK CONDITION SWITCH

Description

INFOID:000000004206107

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:000000004206108

DTC DETECTION LOGIC

NOTE:

- If DTC B210A is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-36, "DTC Logic"](#).
- If DTC B210A is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-37, "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 [steering lock unit circuit (BCM side) is open or shorted]• Harness or connectors [steering lock unit circuit (IPDM E/R side) is open or shorted.]• Steering lock unit• 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-III.

Is DTC detected?

- YES >> Refer to [SEC-44, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206109

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 steering lock unit harness connector and IPDM E/R harness connector.

B210A STEERING LOCK CONDITION SWITCH

[COUPE]

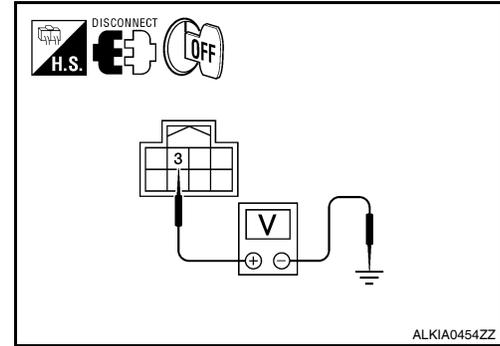
< COMPONENT DIAGNOSIS >

3. Check voltage between steering lock unit harness connector and ground.

Steering lock unit		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 STEERING LOCK UNIT CIRCUIT-I

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

BCM		Steering lock unit		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.

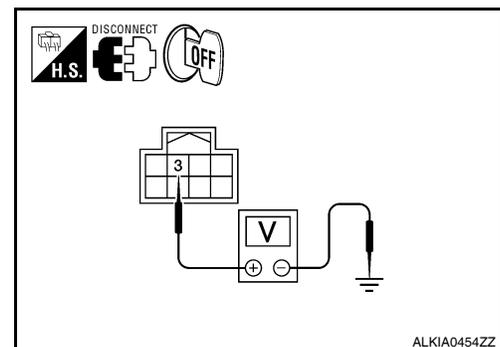
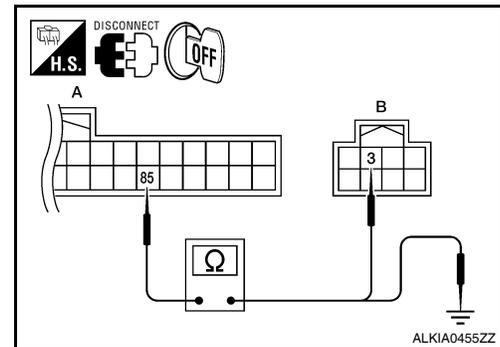
4.CHECK IPDM E/R OUTPUT SIGNAL

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

Steering lock unit		Ground	Voltage [V]
Connector	Terminal		
M32	3	Ground	Battery voltage

Is the inspection result normal?

- YES >> Replace steering lock unit.
NO >> GO TO 5



5.CHECK STEERING LOCK UNIT CIRCUIT-II

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SEC

B210A STEERING LOCK CONDITION SWITCH

[COUPE]

< COMPONENT DIAGNOSIS >

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

Steering lock unit		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: M32	3	B: E18	32	Yes

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

Steering lock unit		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 steering lock unit harness connector and IPDM E/R harness connector E5.
3. Check voltage between steering lock unit harness connector and ground.

Steering lock unit		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 STEERING LOCK UNIT CIRCUIT-I

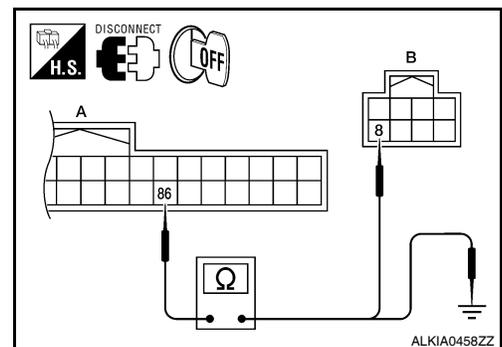
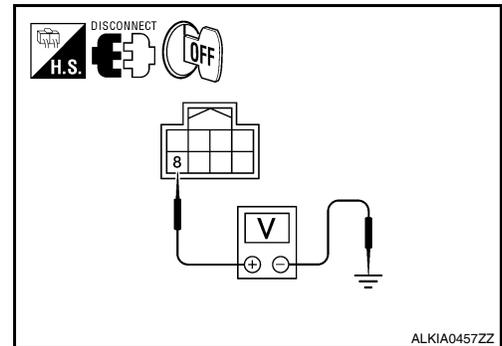
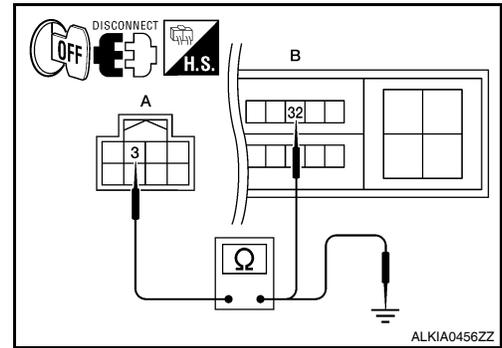
1. Disconnect BCM harness connector M122.
2. Check continuity between BCM harness connector M19 (A) terminal 86 and steering lock unit harness connector M32 (B) terminal 8.

BCM		Steering lock unit		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?



B210A STEERING LOCK CONDITION SWITCH

[COUPE]

< COMPONENT DIAGNOSIS >

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

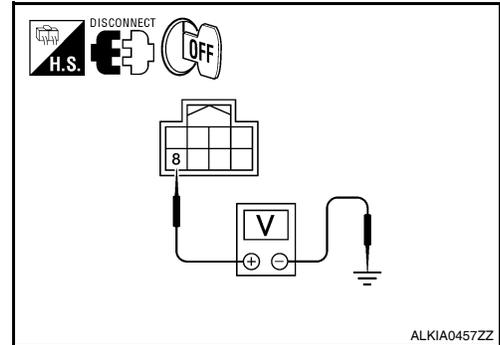
9. CHECK IPDM E/R OUTPUT SIGNAL

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

Steering lock unit		Ground	Voltage [V]
Connector	Terminal		
M32	8	Ground	Battery voltage

Is the inspection result normal?

- YES >> Replace steering lock unit.
- NO >> GO TO 10

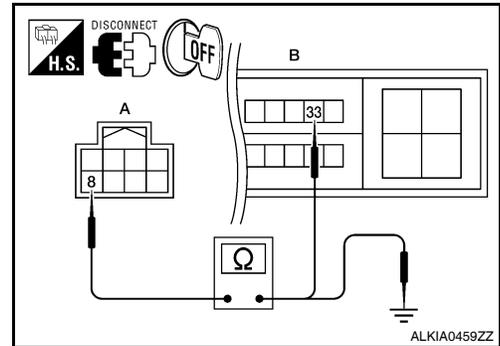


10. CHECK STEERING LOCK UNIT CIRCUIT-II

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

Steering lock unit		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: M32	8	B: E18	33	Yes

2. Check continuity between steering lock unit harness connector and ground.



Steering lock unit		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.

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SEC

B210B STARTER CONTROL RELAY

< COMPONENT DIAGNOSIS >

[COUPE]

B210B STARTER CONTROL RELAY

Description

INFOID:000000004206110

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:000000004206111

DTC DETECTION LOGIC

NOTE:

- If DTC B210B is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-36, "DTC Logic"](#).
- If DTC B210B is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-37, "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 park neutral position (PNP) 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-III.

Is DTC detected?

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

Diagnosis Procedure

INFOID:000000004206112

1. INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT-III.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**
See [PCS-45, "DTC Index"](#).

Is the DTC B210B displayed again?

- YES >> Replace IPDM E/R. Refer [PCS-48, "Removal and Installation"](#).
NO >> Inspection End.

B210C STARTER CONTROL RELAY

[COUPE]

< COMPONENT DIAGNOSIS >

B210C STARTER CONTROL RELAY

Description

INFOID:000000004206113

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:000000004206114

DTC DETECTION LOGIC

NOTE:

- If DTC B210C is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-36, "DTC Logic"](#).
- If DTC B210C is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-37, "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 park neutral position (PNP) 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-III.

Is DTC detected?

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

Diagnosis Procedure

INFOID:000000004206115

1. INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT-III.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**
See [PCS-45, "DTC Index"](#).

Is the DTC B210C displayed again?

- YES >> Replace IPDM E/R. Refer to [PCS-48, "Removal and Installation"](#).
NO >> Inspection End.

B210D STARTER RELAY

[COUPE]

< COMPONENT DIAGNOSIS >

B210D STARTER RELAY

Description

INFOID:000000004206116

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:000000004206117

DTC DETECTION LOGIC

NOTE:

- If DTC B210D is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-36, "DTC Logic"](#).
- If DTC B210D is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-37, "DTC Logic"](#).
- If DTC B210D is displayed with DTC B2617, first perform the trouble diagnosis for DTC B2617. Refer to [SEC-105, "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 park neutral position (PNP) 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-III.

Is DTC detected?

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

Diagnosis Procedure

INFOID:000000004206118

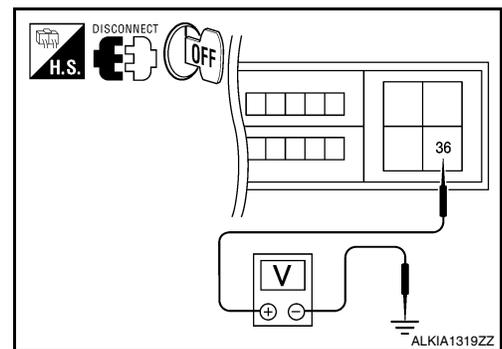
1. CHECK STARTER RELAY POWER SUPPLY CIRCUIT

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

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-48, "Removal and Installation"](#).
NO >> Check harness for open or short between IPDM E/R and battery.



B210E STARTER RELAY

< COMPONENT DIAGNOSIS >

[COUPE]

B210E STARTER RELAY

Description

INFOID:000000004206119

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:000000004206120

DTC DETECTION LOGIC

NOTE:

- If DTC B210E is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-36, "DTC Logic"](#).
- If DTC B210E is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-37, "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 park neutral position (PNP) 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-III.

Is DTC detected?

- YES >> Refer to [SEC-51, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206121

1. INSPECTION START

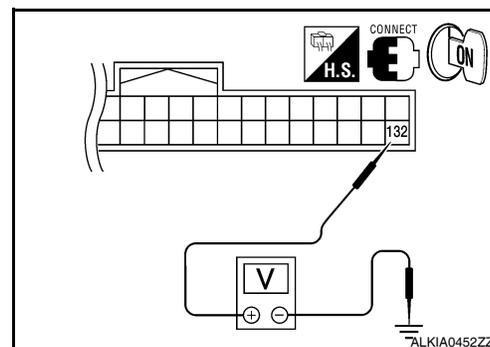
Check which type of transmission the vehicle is equipped with.

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.
3. Check voltage between BCM harness connector and ground.



B210E STARTER RELAY

< COMPONENT DIAGNOSIS >

[COUPE]

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

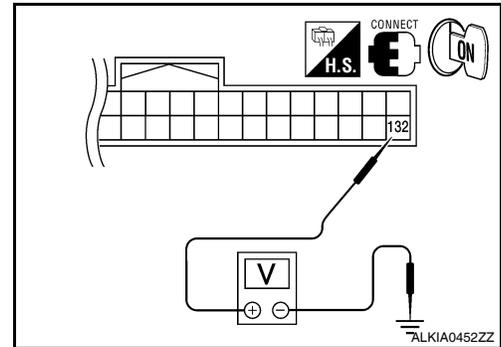
Is the inspection result normal?

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

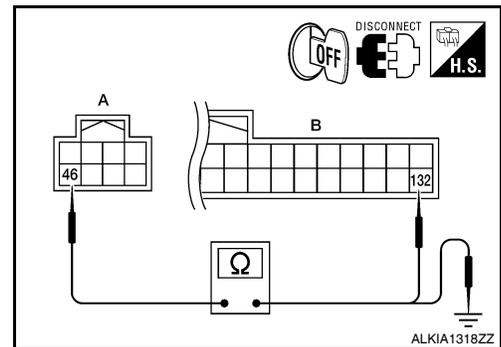
4. CHECK STARTER RELAY OUTPUT SIGNAL CIRCUIT

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

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

3. Check continuity between BCM harness connector and ground.

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



Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-48, "Removal and Installation"](#).

NO >> Repair harness connector.

5. CHECK STARTER RELAY POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R harness connector.

B210E STARTER RELAY

[COUPE]

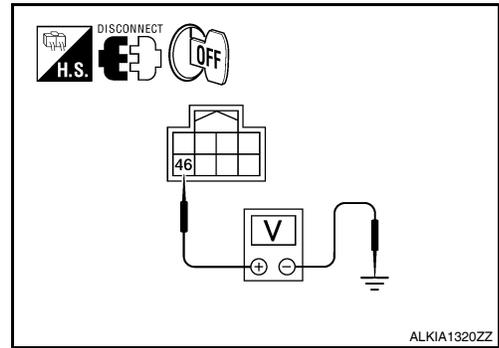
< COMPONENT DIAGNOSIS >

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

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

Is the inspection result normal?

- YES >> Replace IPDM E/R. Refer to [PCS-48. "Removal and Installation"](#).
- NO >> Check harness for open or short between IPDM E/R and battery.



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B210F PNP/CLUTCH INTERLOCK SWITCH

< COMPONENT DIAGNOSIS >

[COUPE]

B210F PNP/CLUTCH INTERLOCK SWITCH

Description

INFOID:000000004206122

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

- Park/neutral position (PNP) switch (CVT models)
- Clutch interlock switch (M/T models)
- Shift position signal from BCM (CAN)

DTC Logic

INFOID:000000004206123

DTC DETECTION LOGIC

NOTE:

- If DTC B210F is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-36, "DTC Logic"](#)
- If DTC B210F is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-36, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B210F	INTER LOCK/PNP 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 PNP switch input signal (CVT models)• Shift position signal from BCM (CAN)	<ul style="list-style-type: none">• Harness or connectors [Park/neutral position (PNP) switch circuit is open or shorted (CVT models)] or (Clutch interlock switch circuit is open or shorted.)• Clutch interlock switch (M/T models)• Park/neutral position (PNP) 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-III.

Is DTC detected?

- YES >> Refer to [SEC-54, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206124

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-91, "DTC Index"](#).

Is the inspection result normal?

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

3. CHECK PNP SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R harness connector.
3. Turn ignition switch ON.

B210F PNP/CLUTCH INTERLOCK SWITCH

[COUPE]

< COMPONENT DIAGNOSIS >

- 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-48. "Removal and Installation"](#).

NO >> (VQ35DE) GO TO 4

NO >> (QR25DE) GO TO 10

4.CHECK PNP SWITCH CIRCUIT

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

TCM		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: F16	20	B: E18	72	Yes

- Check continuity between TCM harness connector and ground.

TCM		Ground	Continuity
Connector	Terminal		
A: F16	20	Ground	No

Is the inspection result normal?

YES >> GO TO 13

NO >> Repair harness or connector.

5.CHECK CLUTCH INTERLOCK SWITCH INPUT SIGNAL (BCM)

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

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

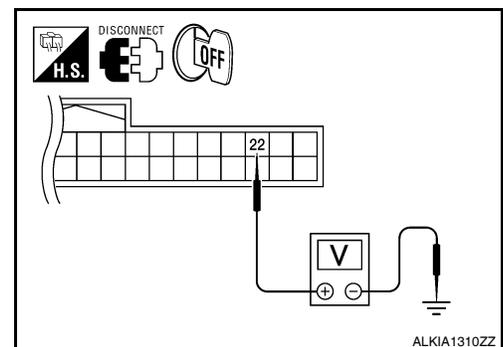
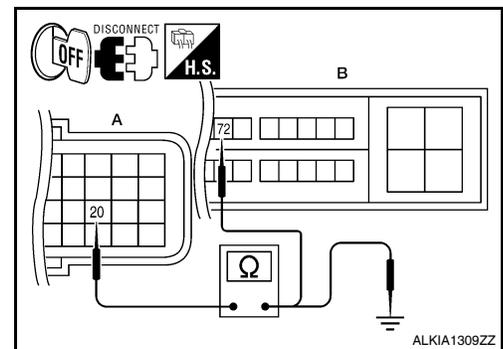
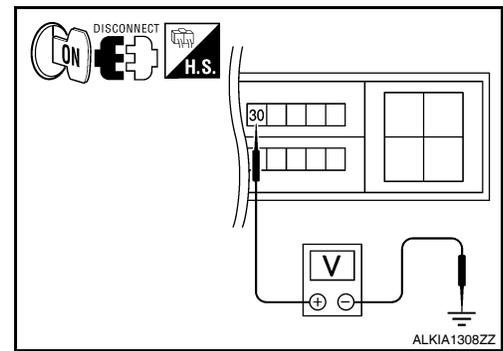
Is the inspection result normal?

YES >> GO TO 6

NO >> GO TO 7

6.CHECK CLUTCH INTERLOCK SWITCH INPUT SIGNAL

- Turn ignition switch OFF.
- Disconnect IPDM E/R harness connector.
- Turn ignition switch ON.



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B210F PNP/CLUTCH INTERLOCK SWITCH

[COUPE]

< COMPONENT DIAGNOSIS >

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-48. "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.
2. Check voltage between clutch interlock switch harness connector and ground.

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

Is the inspection result normal?

YES >> GO TO 8

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

8. CHECK CLUTCH INTERLOCK SWITCH CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> GO TO 9

NO >> Repair harness or connector.

9. CHECK CLUTCH INTERLOCK SWITCH

Refer to [SEC-57. "Component Inspection"](#).

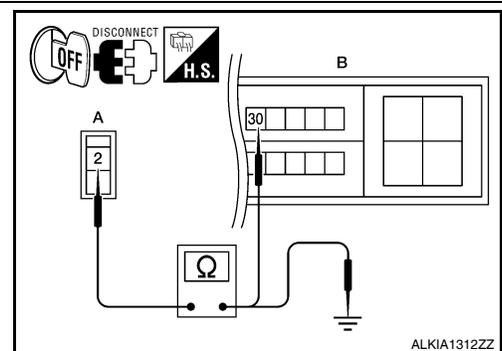
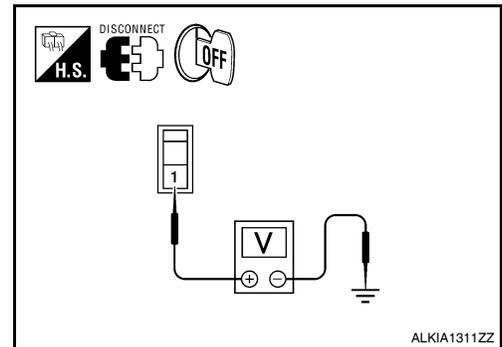
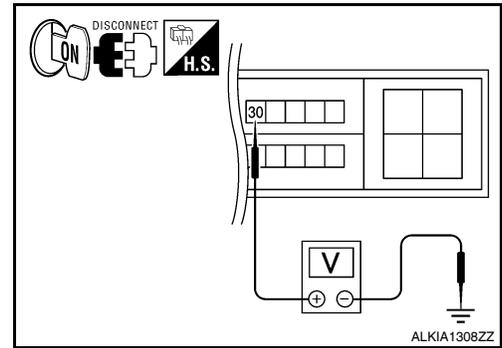
Is the inspection result normal?

YES >> Replace the IPDM E/R. Refer to [PCS-48. "Removal and Installation"](#).

NO >> Replace clutch interlock switch.

10. CHECK PNP SWITCH CIRCUIT FOR CONTINUITY

1. Turn ignition switch OFF.



B210F PNP/CLUTCH INTERLOCK SWITCH

[COUPE]

< COMPONENT DIAGNOSIS >

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

IPDM E/R			Condition	Continuity
Connector	Terminals			
F10	72	74	PNP switch position	Yes
			P or N Other	No

Is the inspection result normal?

- YES >> GO TO 11
NO >> GO TO 12

11.CHECK PNP 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-48. "Removal and Installation"](#).
NO >> Repair or replace harness.

12.CHECK PNP SWITCH INPUT SIGNAL CIRCUIT

- Disconnect PNP switch harness connector.
- Check continuity between PNP switch and IPDM E/R harness connectors.

Park/neutral position switch		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: F25	1	B: F10	74	Yes
	2		72	

- Check continuity between PNP switch harness connector and ground.

Park/neutral position switch		Ground	Continuity
Connector	Terminal		
A: F25	1	Ground	No
	2		

Is the inspection result normal?

- YES >> Replace PNP switch.
NO >> Repair harness or connector.

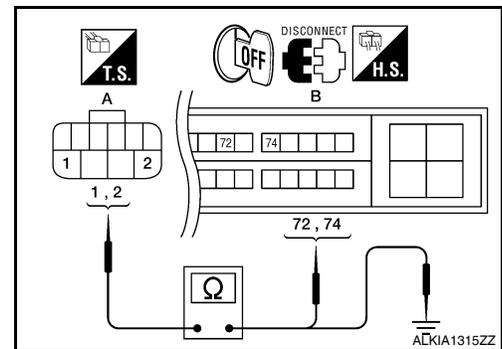
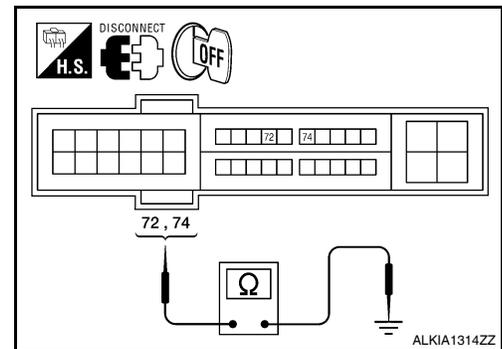
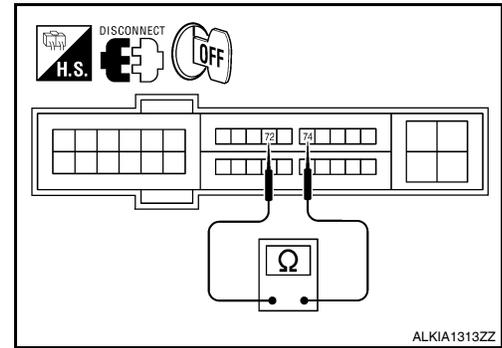
13.CHECK INTERMITTENT INCIDENT

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

- YES >> Inspection End.

Component Inspection

1.CHECK CLUTCH INTERLOCK SWITCH



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B210F PNP/CLUTCH INTERLOCK SWITCH

[COUPE]

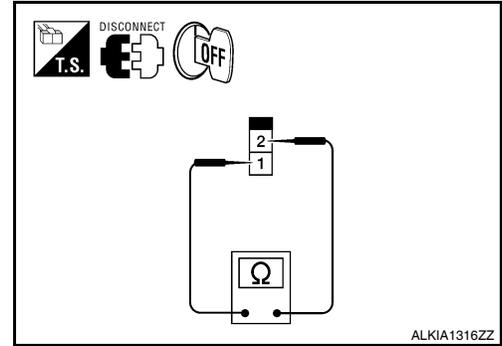
< COMPONENT DIAGNOSIS >

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

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

Is the inspection result normal?

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



B2110 PNP/CLUTCH INTERLOCK SWITCH

< COMPONENT DIAGNOSIS >

[COUPE]

B2110 PNP/CLUTCH INTERLOCK SWITCH

Description

INFOID:000000004206126

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

- Park/neutral position (PNP) switch (CVT models)
- Clutch inter lock switch (M/T models)
- Shift position signal from BCM (CAN)

DTC Logic

INFOID:000000004206127

DTC DETECTION LOGIC

NOTE:

- If DTC B2110 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-36, "DTC Logic"](#).
- If DTC B2110 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-37, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2110	INTER LOCK/PNP 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 [Park/neutral position (PNP) switch circuit is open or shorted (CVT models)] or (Clutch interlock switch circuit is open or shorted.)• Clutch inter lock switch (MT models)• Park/neutral position (PNP) 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-III.

Is DTC detected?

- YES >> Refer to [SEC-59, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206128

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-91, "DTC Index"](#).

Is the inspection result normal?

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

3. CHECK PNP SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R harness connector.
3. Turn ignition switch ON.

B2110 PNP/CLUTCH INTERLOCK SWITCH

[COUPE]

< COMPONENT DIAGNOSIS >

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-48. "Removal and Installation"](#).

NO >> (VQ35DE) GO TO 4

NO >> (QR25DE) GO TO 10

4.CHECK PNP SWITCH CIRCUIT

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

TCM		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: F16	20	B: E18	72	Yes

4. Check continuity between TCM harness connector and ground.

TCM		Ground	Continuity
Connector	Terminal		
A: F16	20	Ground	No

Is the inspection result normal?

YES >> GO TO 13

NO >> Repair harness or connector.

5.CHECK CLUTCH INTERLOCK SWITCH INPUT SIGNAL (BCM)

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

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

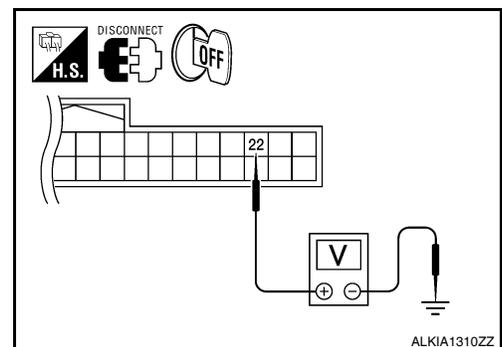
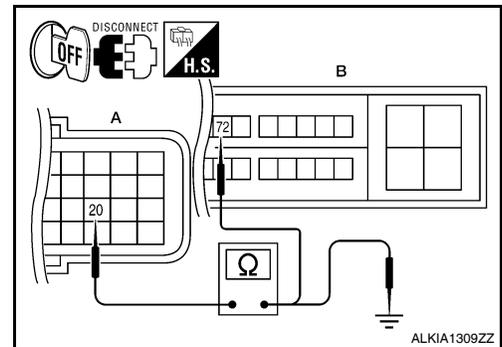
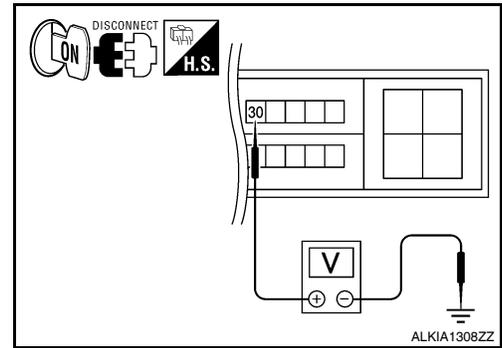
Is the inspection result normal?

YES >> GO TO 6

NO >> GO TO 7

6.CHECK CLUTCH INTERLOCK SWITCH INPUT SIGNAL

- Turn ignition switch OFF.
- Disconnect IPDM E/R harness connector.
- Turn ignition switch ON.



B2110 PNP/CLUTCH INTERLOCK SWITCH

[COUPE]

< COMPONENT DIAGNOSIS >

- 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-48. "Removal and Installation"](#).

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

7. CHECK CLUTCH INTERLOCK SWITCH POWER SUPPLY

- Disconnect clutch interlock switch harness connector.
- 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-62. "Component Inspection"](#).

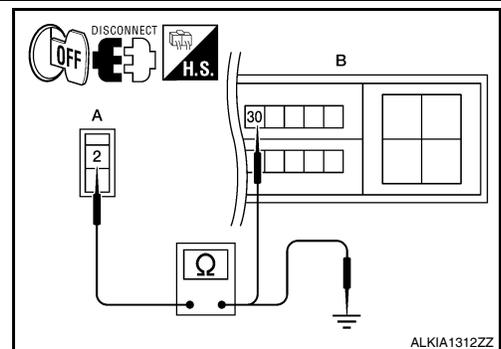
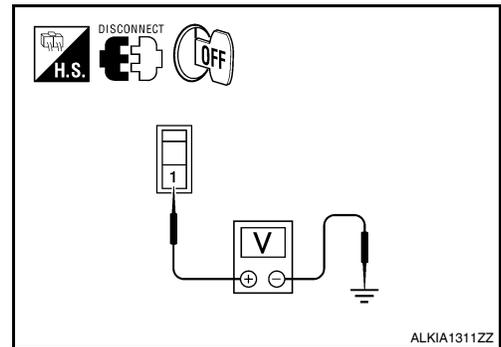
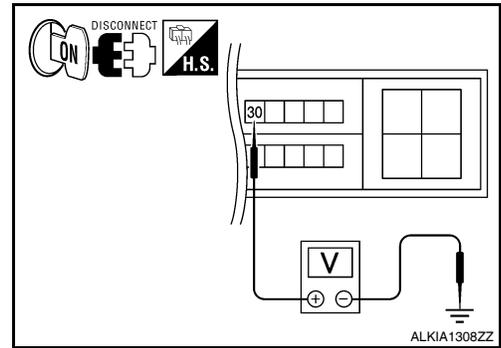
Is the inspection result normal?

YES >> Replace the IPDM E/R. Refer to [PCS-48. "Removal and Installation"](#).

NO >> Replace clutch interlock switch.

10. CHECK PNP SWITCH CIRCUIT FOR CONTINUITY

- Turn ignition switch OFF.



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B2110 PNP/CLUTCH INTERLOCK SWITCH

[COUPE]

< COMPONENT DIAGNOSIS >

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

IPDM E/R			Condition		Continuity
Connector	Terminals		PNP switch position	P or N	Yes
F10	72	74		Other	No

Is the inspection result normal?

- YES >> GO TO 11
NO >> GO TO 12

11.CHECK PNP 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-48. "Removal and Installation"](#).
NO >> Repair or replace harness.

12.CHECK PNP SWITCH INPUT SIGNAL CIRCUIT

- Disconnect PNP switch harness connector.
- Check continuity between PNP switch and IPDM E/R harness connectors.

Park/neutral position switch		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: F25	1	B: F10	74	Yes
	2		72	

- Check continuity between PNP switch harness connector and ground.

Park/neutral position switch		Ground	Continuity
Connector	Terminal		
A: F25	1	Ground	No
	2		

Is the inspection result normal?

- YES >> Replace PNP switch.
NO >> Repair harness or connector.

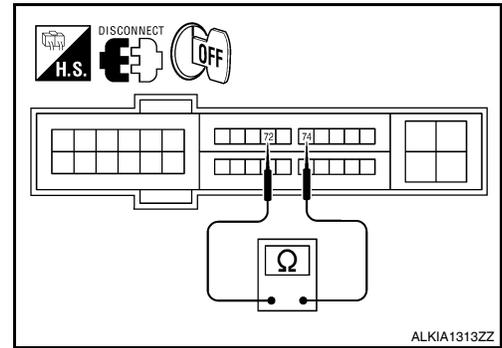
13.CHECK INTERMITTENT INCIDENT

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

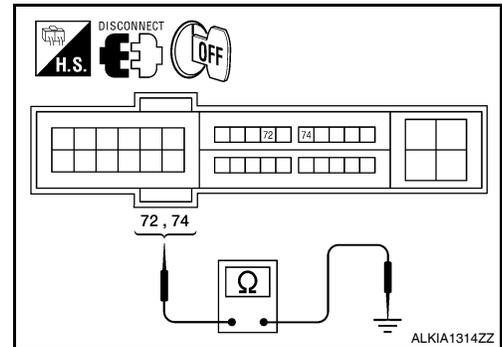
>> Inspection End.

Component Inspection

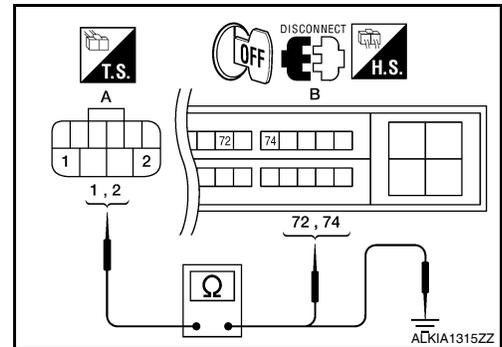
1.CHECK CLUTCH INTERLOCK SWITCH



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B2110 PNP/CLUTCH INTERLOCK SWITCH

[COUPE]

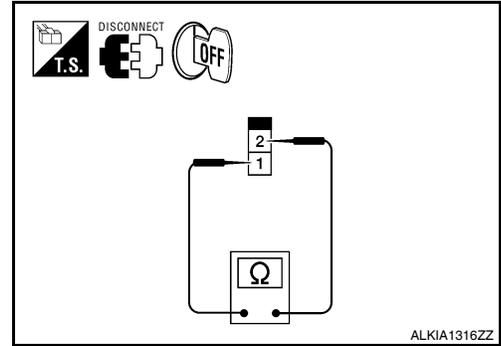
< COMPONENT DIAGNOSIS >

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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B2190, P1610 NATS ANTENNA AMP

< COMPONENT DIAGNOSIS >

[COUPE]

B2190, P1610 NATS ANTENNA AMP

Description

INFOID:000000004206011

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:000000004206012

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-III.

Is DTC detected?

- YES >> Refer to [SEC-64, "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-III.

Is DTC detected?

- YES >> Refer to [SEC-64, "Diagnosis Procedure"](#).
 NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206013

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

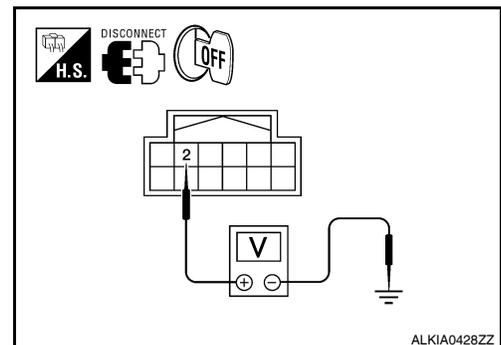
2. CHECK KEY SLOT INPUT SIGNAL

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

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

Is the inspection result normal?

- YES >> Replace key slot. Refer to [SEC-207, "Removal and Installation"](#).
 NO >> GO TO 3



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B2190, P1610 NATS ANTENNA AMP

< COMPONENT DIAGNOSIS >

[COUPE]

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

Key slot		Ground	Continuity
Connector	Terminal		
M40	3	Ground	Yes

Is the inspection result normal?

- YES >> Replace key slot. Refer to [SEC-207. "Removal and Installation"](#).
 NO >> GO TO 6

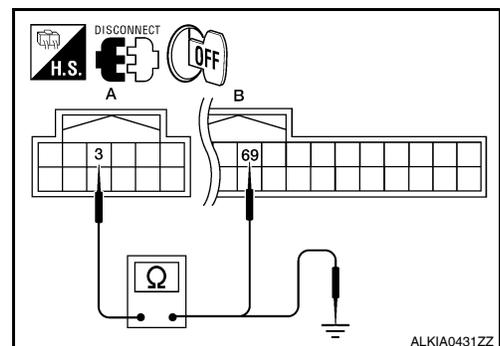
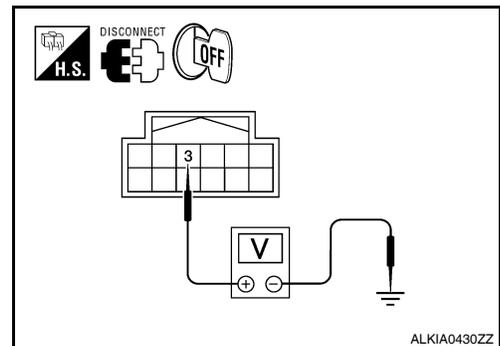
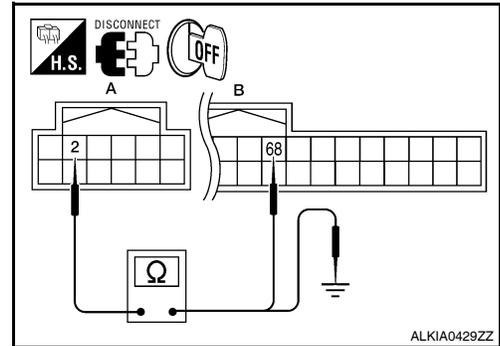
6. CHECK KEY SLOT COMMUNICATION SIGNAL CIRCUIT

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

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

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

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



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B2190, P1610 NATS ANTENNA AMP

[COUPE]

< COMPONENT DIAGNOSIS >

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.
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?

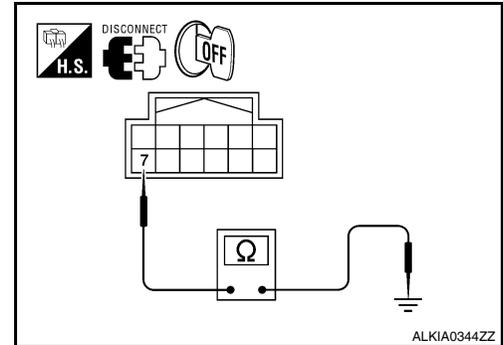
YES >> GO TO 8

NO >> Repair harness or connector.

8. CHECK INTERMITTENT INCIDENT

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

>> Inspection End.



B2191, P1615 DIFFERENCE OF KEY

< COMPONENT DIAGNOSIS >

[COUPE]

B2191, P1615 DIFFERENCE OF KEY

Description

INFOID:000000004206014

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:000000004206015

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

Is DTC detected?

- YES >> Refer to [SEC-67. "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206016

1.PERFORM INITIALIZATION

Perform initialization with CONSULT-III. Re-register all Intelligent Keys. For initialization and registration of Intelligent Key. Refer to CONSULT-III 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. Refer to [BCS-96. "Removal and Installation"](#).
• Perform initialization again.

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B2192, P1611 ID DISCORD, IMMU-ECM

< COMPONENT DIAGNOSIS >

[COUPE]

B2192, P1611 ID DISCORD, IMMU-ECM

Description

INFOID:000000004206017

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:000000004206018

DTC DETECTION LOGIC

NOTE:

- If DTC B2192 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-36, "DTC Logic"](#).
- If DTC B2192 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-37, "DTC Logic"](#).

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

Is DTC detected?

- YES >> Refer to [SEC-68, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206019

1. PERFORM INITIALIZATION

Perform initialization with CONSULT-III. Re-register all Intelligent Keys.

For initialization and registration of Intelligent Key. Refer to CONSULT-III 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. Refer to [BCS-96, "Removal and Installation"](#).
 - Perform initialization again.
 - Replace ECM.

B2193, P1612 CHAIN OF ECM-IMMU

< COMPONENT DIAGNOSIS >

[COUPE]

B2193, P1612 CHAIN OF ECM-IMMU

Description

INFOID:000000004206020

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:000000004206021

DTC DETECTION LOGIC

NOTE:

- If DTC B2193 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-36, "DTC Logic"](#).
- If DTC B2193 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-37, "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-III.

Is DTC detected?

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

Diagnosis Procedure

INFOID:000000004206022

1. REPLACE BCM

1. Replace BCM. Refer to [BCS-96, "Removal and Installation"](#).
2. Perform initialization with CONSULT-III.
For initialization, refer to CONSULT-III Operation Manual".

Does the engine start?

- YES >> BCM is malfunctioning.
 - Replace BCM. Refer to [BCS-96, "Removal and Installation"](#).
 - Perform initialization again.
- NO >> ECM is malfunctioning.
 - Replace ECM.
 - Perform ECM re-communicating function.

B2555 STOP LAMP

[COUPE]

< COMPONENT DIAGNOSIS >

B2555 STOP LAMP

Description

INFOID:000000004206029

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:000000004206030

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2555	STOP LAMP	BCM makes a comparison between the upper voltage and lower voltage of stop lamp switch. It judges from their values to detect the malfunctioning circuit.	<ul style="list-style-type: none"> Harness or connectors (stop lamp switch circuit is open or shorted) Stop lamp switch Fuse

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

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

Is DTC detected?

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

Diagnosis Procedure

INFOID:000000004206031

1. CHECK STOP LAMP SWITCH INPUT SIGNAL

- Turn ignition switch OFF.
- Disconnect BCM harness connector.
- 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 >> Stop lamp switch is OK.
 NO >> GO TO 2

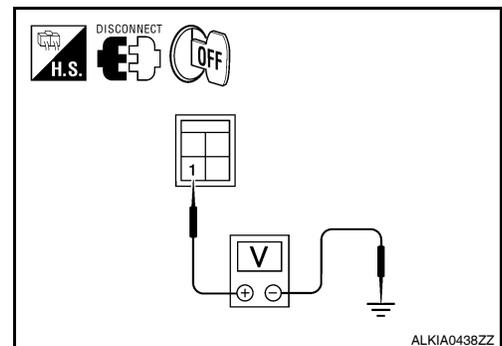
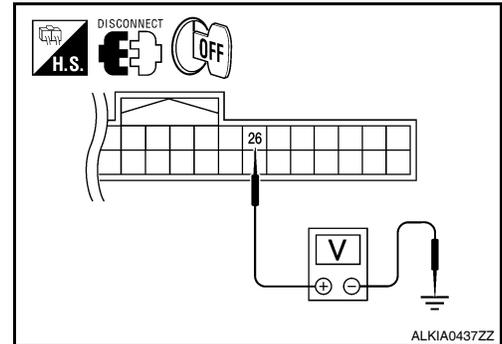
2. CHECK STOP LAMP SWITCH POWER SUPPLY CIRCUIT

- Disconnect stop lamp switch harness connector.
- 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.



B2555 STOP LAMP

[COUPE]

< COMPONENT DIAGNOSIS >

3. CHECK STOP LAMP SWITCH CIRCUIT

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

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

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

Stop lamp switch		Ground	Continuity
Connector	Terminal		
A: 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-71, "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

INFOID:000000004206032

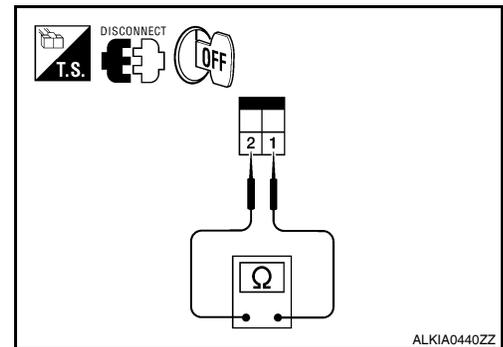
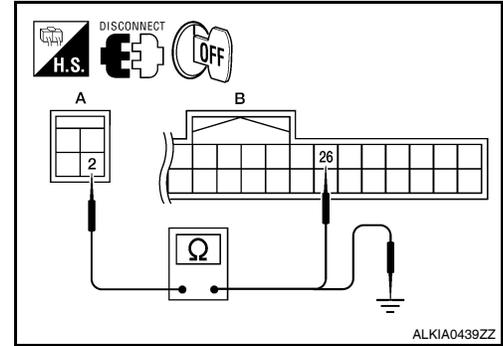
1. CHECK STOP LAMP SWITCH

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

Stop lamp switch		Condition	Continuity
Terminal			
1	2	Not depressed	No
		Depressed	Yes

Is the inspection result normal?

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



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B2556 PUSH-BUTTON IGNITION SWITCH

< COMPONENT DIAGNOSIS >

[COUPE]

B2556 PUSH-BUTTON IGNITION SWITCH

Description

INFOID:000000004206033

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:000000004206034

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-III.

Is DTC detected?

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

Diagnosis Procedure

INFOID:000000004206035

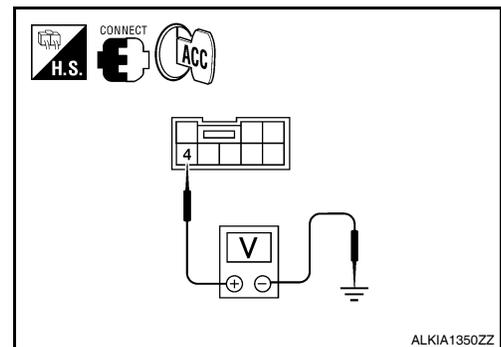
1. CHECK PUSH-BUTTON IGNITION SWITCH INPUT SIGNAL

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 result normal?

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



2. CHECK PUSH-BUTTON IGNITION SWITCH

Refer to [SEC-73, "Component Inspection"](#).

Is the inspection result normal?

- YES >> GO TO 3
NO >> Replace push-button ignition switch. Refer to [SEC-208, "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.

B2556 PUSH-BUTTON IGNITION SWITCH

[COUPE]

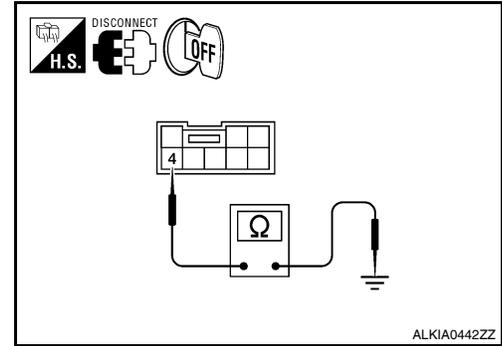
< COMPONENT DIAGNOSIS >

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

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

Is the inspection result normal?

- YES >> Replace BCM. Refer to [BCS-96. "Removal and Installation"](#).
- NO >> Repair harness or connector.

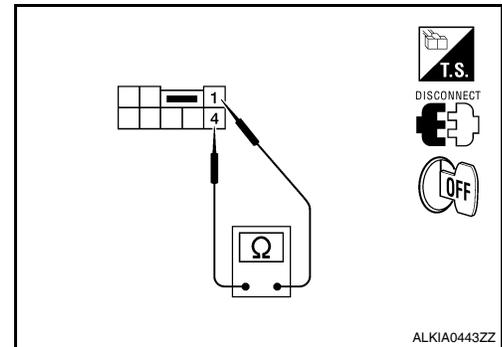


INFOID:000000004206036

Component Inspection

1. CHECK PUSH-BUTTON IGNITION SWITCH

- Turn ignition switch OFF.
- Disconnect push-button ignition switch harness connector.
- 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-208. "Removal and Installation"](#).

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B2557 VEHICLE SPEED

< COMPONENT DIAGNOSIS >

[COUPE]

B2557 VEHICLE SPEED

Description

INFOID:000000004206037

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:000000004206038

DTC DETECTION LOGIC

NOTE:

- If DTC B2557 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-36, "DTC Logic"](#).
- If DTC B2557 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-37, "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-III.

Is DTC detected?

- YES >> Refer to [SEC-74, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206039

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

Check “Self diagnostic result” with CONSULT-III. Refer to [BRC-51, "DTC No. Index"](#) (ABS), [BRC-121, "DTC No. Index"](#) (TCS/ABS) or [BRC-223, "DTC No. Index"](#) (VDS/TCS/ABS).

Is the inspection result normal?

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

2.CHECK UNIFIED METER.

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

>> Inspection End.

B2560 STARTER CONTROL RELAY

[COUPE]

< COMPONENT DIAGNOSIS >

B2560 STARTER CONTROL RELAY

Description

INFOID:000000004206040

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:000000004206041

DTC DETECTION LOGIC

NOTE:

- If DTC B2560 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-36, "DTC Logic"](#).
- If DTC B2560 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-37, "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-III.

Is DTC detected?

- YES >> Refer to [SEC-75, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206042

1. CHECK DTC WITH IPDM E/R

Check "Self diagnostic result" with CONSULT-III. Refer to [PCS-45, "DTC Index"](#).

Is the inspection result normal?

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

2. CHECK INTERMITTENT INCIDENT

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

>> Inspection End.

B2601 SHIFT POSITION

< COMPONENT DIAGNOSIS >

[COUPE]

B2601 SHIFT POSITION

Description

INFOID:000000004206043

BCM confirms the shift position with the following 2 signals.

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

DTC Logic

INFOID:000000004206044

DTC DETECTION LOGIC

NOTE:

- If DTC B2601 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-36, "DTC Logic"](#).
- If DTC B2601 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-37, "DTC Logic"](#).
- If DTC B2601 is displayed with DTC B2605, first perform the trouble diagnosis for DTC B2605. Refer to [SEC-86, "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 device circuit is open or shorted)• CVT device (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-III.
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-III.

Is DTC detected?

- YES >> Refer to [SEC-76, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206045

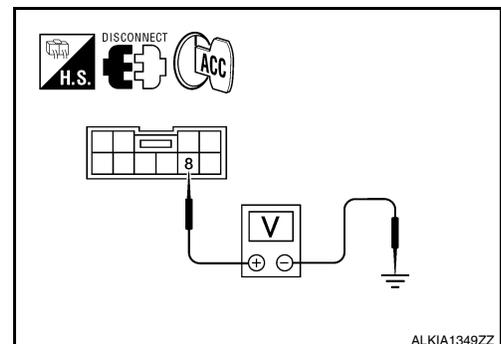
1. CHECK CVT DEVICE POWER SUPPLY

1. Turn ignition switch to ACC.
2. Disconnect CVT device (park position switch) harness connector.
3. Check voltage between CVT device (park position switch) harness connector and ground.

CVT device (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 DEVICE POWER SUPPLY CIRCUIT

1. Disconnect BCM harness connector.

B2601 SHIFT POSITION

[COUPE]

< COMPONENT DIAGNOSIS >

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

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

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

BCM		Ground	Continuity
Connector	Terminal		
A: M19	84	Ground	No

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-96, "Removal and Installation"](#).

NO >> Repair harness or connector.

3. CHECK CVT DEVICE CIRCUIT (BCM)

- Disconnect BCM harness connector and IPDM E/R harness connector.
- Check continuity between BCM harness connector M19 (A) terminal 87 and CVT device (park position switch) harness connector M23 (B) terminal 9.

BCM		CVT device (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

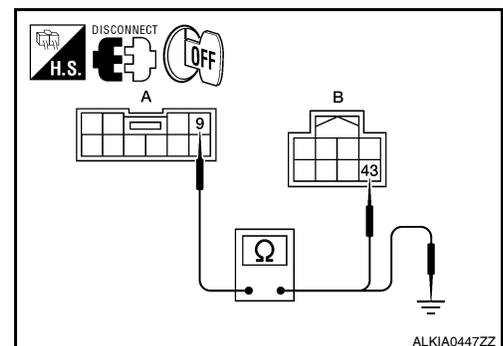
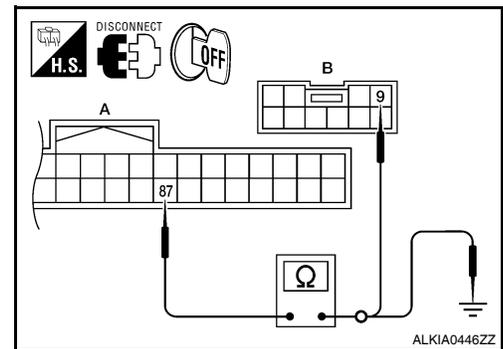
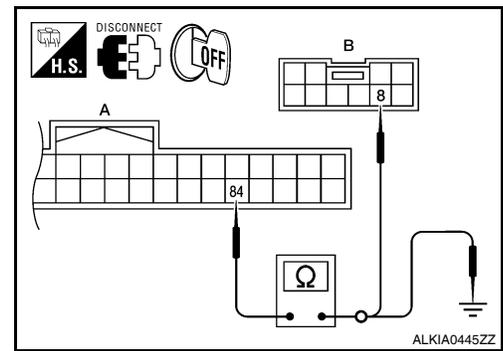
NO >> Repair harness or connector.

4. CHECK CVT DEVICE CIRCUIT (IPDM E/R)

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

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

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



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B2601 SHIFT POSITION

[COUPE]

< COMPONENT DIAGNOSIS >

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

Is the inspection result normal?

YES >> GO TO 5

NO >> Repair harness or connector.

5.CHECK CVT DEVICE

Refer to [SEC-78, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 6

NO >> Replace CVT device. Refer to [TM-255, "Removal and Installation"](#) (RE0F09B) or [TM-431, "Removal and Installation"](#) (RE0F10A).

6.CHECK INTERMITTENT INCIDENT

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

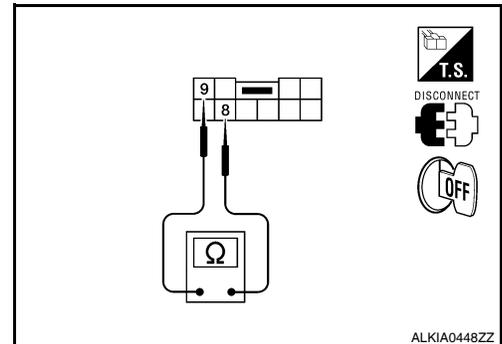
>> Inspection End.

Component Inspection

INFOID:000000004206046

1.CHECK CVT DEVICE (PARK POSITION SWITCH)

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



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CVT device (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 device. Refer to [TM-255, "Removal and Installation"](#) (RE0F09B) or [TM-431, "Removal and Installation"](#) (RE0F10A).

B2602 SHIFT POSITION

< COMPONENT DIAGNOSIS >

[COUPE]

B2602 SHIFT POSITION

Description

INFOID:000000004206047

BCM confirms the shift position with the following 2 signals.

- CVT selector lever
- Speed signal from meter

DTC Logic

INFOID:000000004206048

DTC DETECTION LOGIC

NOTE:

- If DTC B2602 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-36, "DTC Logic"](#).
- If DTC B2602 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-37, "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 device (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-III.

Is DTC detected?

- YES >> Refer to [SEC-79, "Diagnosis Procedure"](#).
 NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206049

1. CHECK DTC WITH "COMBINATION METER"

Check "Self diagnostic result" with CONSULT-III. Refer to [MWI-95, "DTC Index"](#).

Is the inspection result normal?

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

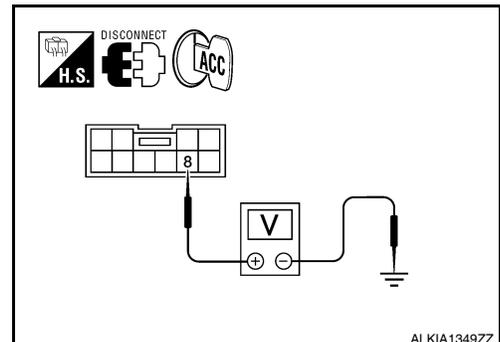
2. CHECK CVT DEVICE POWER SUPPLY

1. Turn ignition switch to ACC.
2. Disconnect CVT device (park position switch) harness connector.
3. Check voltage between CVT device (park position switch) harness connector and ground.

CVT device (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



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B2602 SHIFT POSITION

[COUPE]

< COMPONENT DIAGNOSIS >

3. CHECK CVT DEVICE POWER SUPPLY CIRCUIT

1. Disconnect BCM harness connector.
2. Check continuity between BCM harness connector M19 (A) terminal 84 and CVT device (park position switch) harness connector M23 (B) terminal 8.

BCM		CVT device (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-96, "Removal and Installation"](#).

NO >> Repair harness or connector.

4. CHECK CVT DEVICE CIRCUIT

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

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

3. Check continuity between CVT device (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 DEVICE

Refer to [SEC-78, "Component Inspection"](#).

Is the inspection result normal?

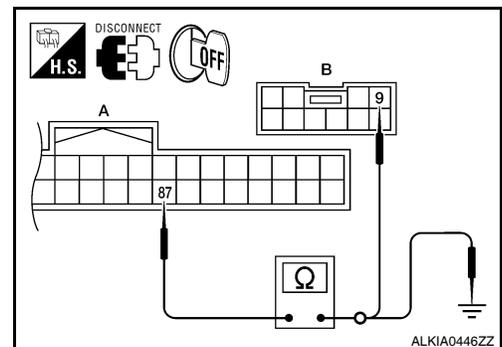
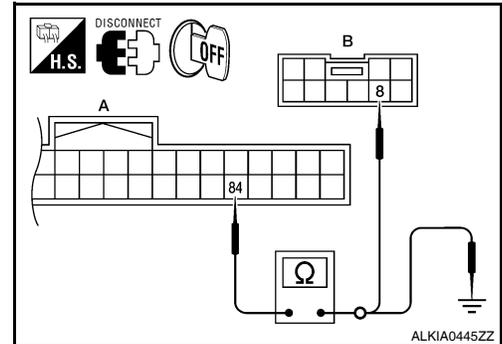
YES >> GO TO 6

NO >> Replace CVT device. Refer to [TM-255, "Removal and Installation"](#) (RE0F09B) or [TM-431, "Removal and Installation"](#) (RE0F10A).

6. CHECK INTERMITTENT INCIDENT

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

>> Inspection End.



B2603 SHIFT POSITION STATUS

< COMPONENT DIAGNOSIS >

[COUPE]

B2603 SHIFT POSITION STATUS

Description

INFOID:000000004206050

BCM confirms the shift position with the following 2 signals.

- CVT selector lever
- P/N position switch

DTC Logic

INFOID:000000004206051

DTC DETECTION LOGIC

NOTE:

- If DTC B2603 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-36, "DTC Logic"](#).
- If DTC B2603 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-37, "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">• Park/neutral position (PNP) switch: approx. 0V• CVT device (park position switch): approx 0V	<ul style="list-style-type: none">• Harness or connector (CVT device circuit is open or shorted.)• Harness or connectors [Park/neutral position (PNP) switch circuit is open or shorted.]• CVT device (park position switch)• Park/neutral position (PNP) 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-III.

Is DTC detected?

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

Diagnosis Procedure

INFOID:000000004206052

1.CHECK DTC WITH IPDM E/R

Check "Self diagnostic result" with CONSULT-III. Refer to [PCS-45, "DTC Index"](#).

Is the inspection result normal?

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

2.CHECK PNP SWITCH CIRCUIT

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

B2603 SHIFT POSITION STATUS

[COUPE]

< COMPONENT DIAGNOSIS >

- Check continuity between TCM harness connector F16 (A) terminal 20 and BCM harness connector M18 (B) terminal 48.

TCM		BCM		Continuity
Connector	Terminal	Connector	Terminal	
A: F16	20	B: M18	48	Yes

- Check continuity between TCM harness connector F16 (A) terminal 20 and ground.

TCM		Ground	Continuity
Connector	Terminal		
A: F16	20	Ground	No

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair harness or connector.

3. CHECK CVT DEVICE POWER SUPPLY

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

CVT device (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 DEVICE POWER SUPPLY CIRCUIT

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

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

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

BCM		Ground	Continuity
Connector	Terminal		
A: M19	84	Ground	No

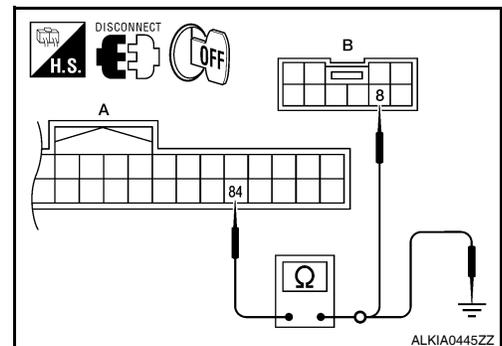
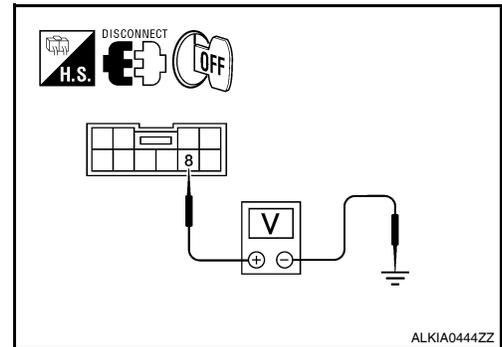
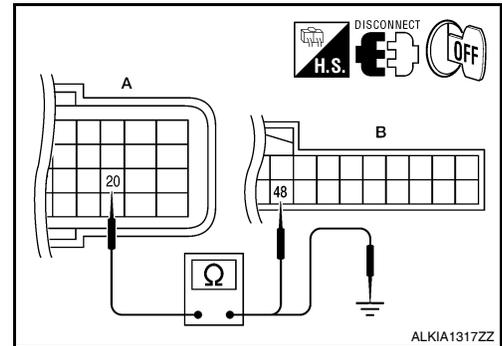
Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-96, "Removal and Installation"](#).

NO >> Repair harness or connector.

5. CHECK CVT DEVICE CIRCUIT

- Disconnect BCM harness connector.



B2603 SHIFT POSITION STATUS

[COUPE]

< COMPONENT DIAGNOSIS >

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

BCM		CVT device (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 6
- NO >> Repair harness or connector.

6. CHECK CVT DEVICE

Refer to [SEC-78. "Component Inspection"](#).

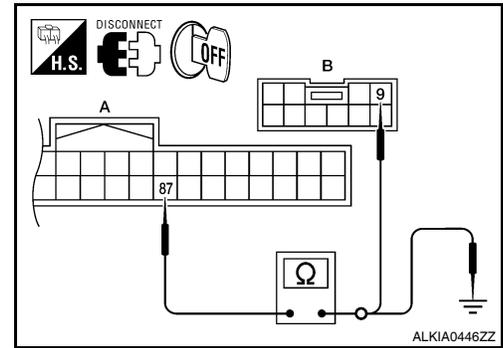
Is the inspection result normal?

- YES >> GO TO 7
- NO >> Replace CVT device. Refer to [TM-255. "Removal and Installation"](#) (RE0F09B) or [TM-431. "Removal and Installation"](#) (RE0F10A).

7. CHECK INTERMITTENT INCIDENT

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

>> Inspection End.



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SEC

B2604 PNP SWITCH

Description

INFOID:000000004206053

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:000000004206054

DTC DETECTION LOGIC

NOTE:

- If DTC B2604 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-36, "DTC Logic"](#).
- If DTC B2604 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-37, "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 park/neutral position (PNP) switch circuit is open or shorted.] • Park/ neutral position (PNP) 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-III.

Is DTC detected?

- YES >> Refer to [SEC-84, "Diagnosis Procedure"](#).
 NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206055

1. CHECK DTC WITH TCM

Check "Self diagnostic result" with CONSULT-III. Refer to [TM-221, "DTC Index"](#) (RE0F09B) or [TM-399, "DTC Index"](#) (RE0F10A).

Is the inspection result normal?

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

2. CHECK PNP SWITCH CIRCUIT

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

B2604 PNP SWITCH

[COUPE]

< COMPONENT DIAGNOSIS >

3. Check continuity between TCM harness connector and BCM harness connector.

TCM		BCM		Continuity
Connector	Terminal	Connector	Terminal	
A: F16	20	B: M18	48	Yes

4. Check continuity between TCM harness connector and ground.

TCM		Ground	Continuity
Connector	Terminal		
A: F16	20	Ground	No

Is the inspection result normal?

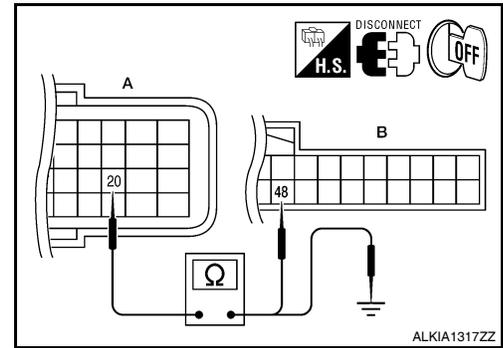
YES >> GO TO 3

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:000000004206056

BCM confirms the shift position with the following 4 signals.

- AT selector lever
- P/N position switch
- P position signal from IPDM E/R (CAN)
- P position signal from TCM (CAN)

DTC Logic

INFOID:000000004206057

DTC DETECTION LOGIC

NOTE:

- If DTC B2605 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-36, "DTC Logic"](#).
- If DTC B2605 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-37, "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 park/neutral position (PNP) switch circuit is open or shorted.] • Park/neutral position (PNP) 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-III.

Is DTC detected?

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

Diagnosis Procedure

INFOID:000000004206058

1. CHECK DTC WITH IPDM E/R

Check "Self diagnostic result" with CONSULT-III. Refer to [PCS-45, "DTC Index"](#).

Is the inspection result normal?

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

2. CHECK PNP SWITCH CIRCUIT

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

B2605 PNP SWITCH

[COUPE]

< COMPONENT DIAGNOSIS >

3. Check continuity between TCM connector and BCM harness connector.

TCM		BCM		Continuity
Connector	Terminal	Connector	Terminal	
A: F16	20	B: M18	48	Yes

4. Check continuity between TCM harness connector and ground.

TCM		Ground	Continuity
Connector	Terminal		
A: F16	20	Ground	No

Is the inspection result normal?

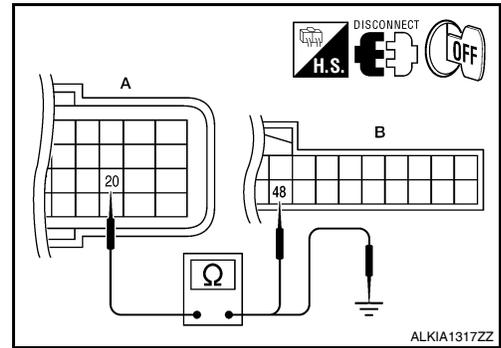
YES >> GO TO 3

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

< COMPONENT DIAGNOSIS >

[COUPE]

B2606 STEERING LOCK RELAY

Description

INFOID:000000004206059

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:000000004206060

DTC DETECTION LOGIC

NOTE:

- If DTC B2606 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-36, "DTC Logic"](#).
- If DTC B2606 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-37, "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">• Steering lock unit ON signal transmitted by IPDM E/R• The steering lock unit 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-III.

Is DTC detected?

- YES >> Refer to [SEC-88, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206061

1. CHECK DTC WITH IPDM E/R

Check "Self diagnostic result" with CONSULT-III. Refer to [PCS-45, "DTC Index"](#).

Is the inspection result normal?

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

2. INTERMITTENT INCIDENT

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

>> Inspection End.

B2607 STEERING LOCK RELAY

< COMPONENT DIAGNOSIS >

[COUPE]

B2607 STEERING LOCK RELAY

Description

INFOID:000000004206062

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

DTC Logic

INFOID:000000004206063

DTC DETECTION LOGIC

NOTE:

- If DTC B2607 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-36, "DTC Logic"](#).
- If DTC B2607 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-37, "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-III.

Is DTC detected?

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

Diagnosis Procedure

INFOID:000000004206064

1. CHECK DTC WITH IPDM E/R

Check "Self diagnostic result" with CONSULT-III. Refer to [PCS-45, "DTC Index"](#).

Is the inspection result normal?

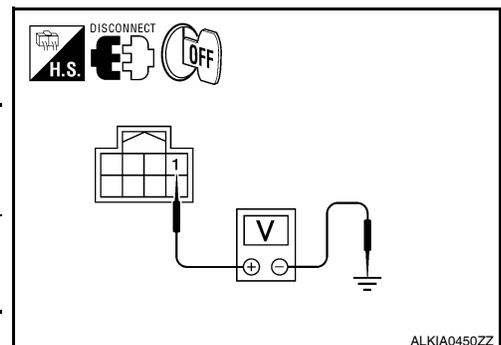
- YES >> GO TO 2
 NO >> Repair or replace malfunctioning parts.

2. CHECK ELECTRONIC STEERING COLUMN LOCK POWER SUPPLY CIRCUIT

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



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B2607 STEERING LOCK RELAY

[COUPE]

< COMPONENT DIAGNOSIS >

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

3. CHECK ELECTRONIC STEERING COLUMN LOCK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R harness connector.
3. 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

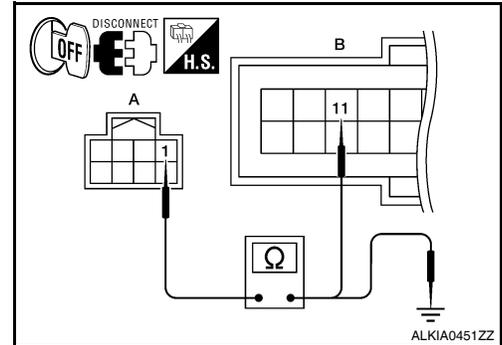
Is the inspection result normal?

- YES >> Replace IPDM E/R. Refer to [PCS-48, "Removal and Installation"](#).
- NO >> Repair harness or connector.

4. CHECK INTERMITTENT INCIDENT

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

>> Inspection End.



B2608 STARTER RELAY

< COMPONENT DIAGNOSIS >

[COUPE]

B2608 STARTER RELAY

Description

INFOID:000000004206065

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:000000004206066

DTC DETECTION LOGIC

NOTE:

- If DTC B2608 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-36. "DTC Logic"](#).
- If DTC B2608 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-37. "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-III.

Is DTC detected?

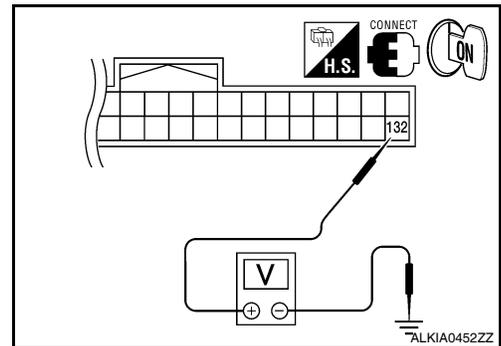
- YES >> Refer to [SEC-91. "Diagnosis Procedure"](#).
 NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206067

1. CHECK STARTER RELAY

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



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

B2608 STARTER RELAY

[COUPE]

< COMPONENT DIAGNOSIS >

Is the measurement value within the specification?

YES >> GO TO 3

NO >> GO TO 2

2. CHECK STARTER RELAY CIRCUIT

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

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

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

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

Is the inspection result normal?

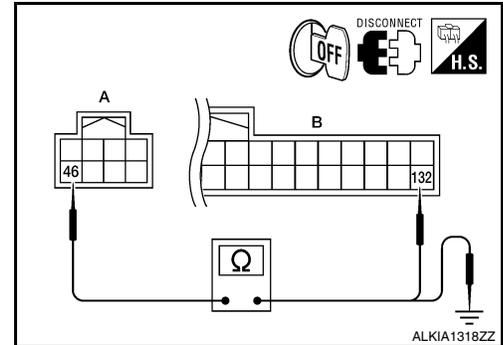
YES >> Replace IPDM E/R. Refer to [PCS-48, "Removal and Installation"](#).

NO >> Repair harness or connector.

3. CHECK INTERMITTENT INCIDENT

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

>> Inspection End.



B2609 STEERING STATUS

< COMPONENT DIAGNOSIS >

[COUPE]

B2609 STEERING STATUS

Description

INFOID:000000004206068

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:000000004206069

DTC DETECTION LOGIC

NOTE:

- If DTC B2609 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-36, "DTC Logic"](#).
- If DTC B2609 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-37, "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-III.

Is DTC detected?

- YES >> Refer to [SEC-93, "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-III.

Is DTC detected?

- YES >> Refer to [SEC-93, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206070

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

B2609 STEERING STATUS

[COUPE]

< COMPONENT DIAGNOSIS >

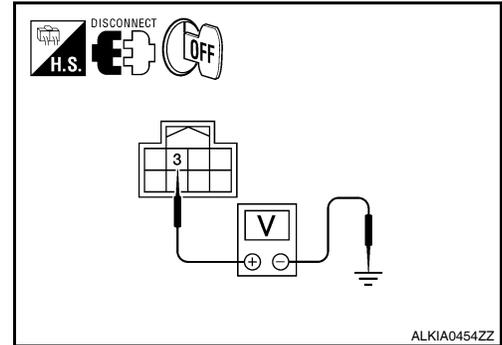
2. CHECK BCM OUTPUT SIGNAL

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



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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.

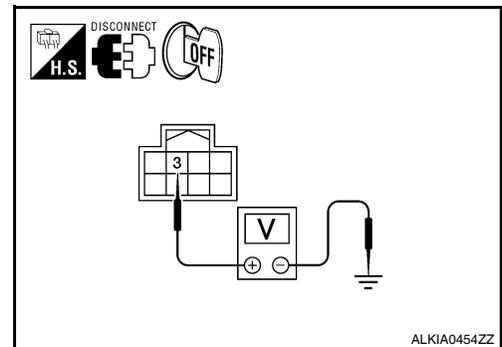
4. CHECK IPDM E/R OUTPUT SIGNAL

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



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5. CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-II

B2609 STEERING STATUS

[COUPE]

< COMPONENT DIAGNOSIS >

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.
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

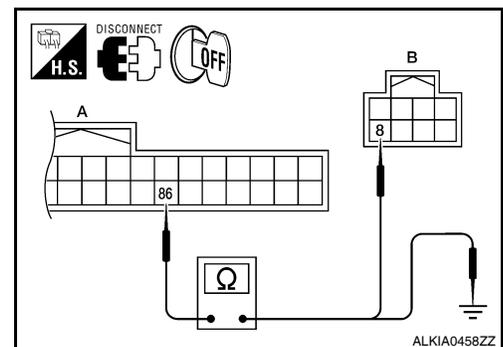
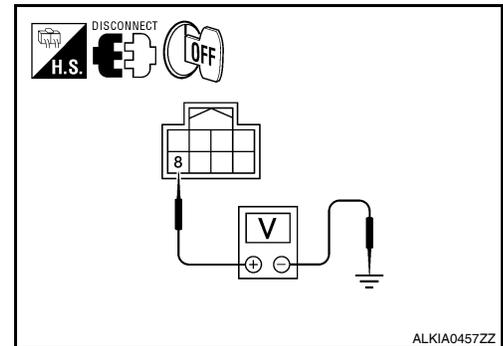
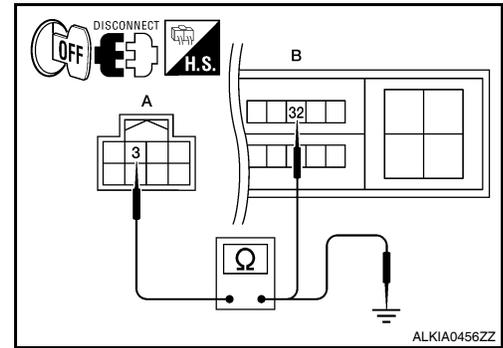
1. Disconnect BCM harness connector M19.
2. Check continuity between BCM harness connector M19 (A) terminal 86 and electronic steering column lock harness connector M32 (B) terminal 8.

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?



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B2609 STEERING STATUS

[COUPE]

< COMPONENT DIAGNOSIS >

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

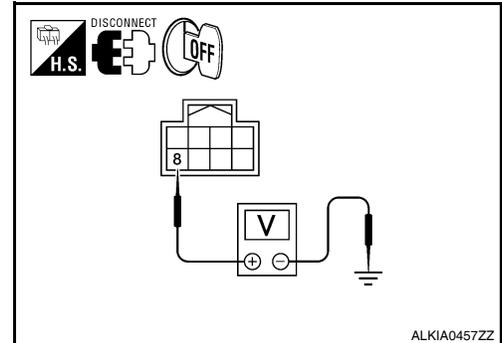
9. CHECK IPDM E/R OUTPUT SIGNAL

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

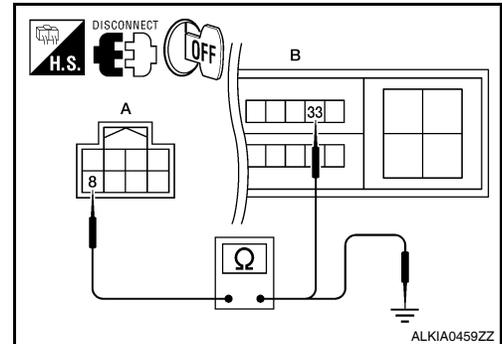


10. CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-II

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 STEERING LOCK UNIT

< COMPONENT DIAGNOSIS >

[COUPE]

B260B STEERING LOCK UNIT

Description

INFOID:000000004206071

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

DTC Logic

INFOID:000000004206072

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B260B	STEERING LOCK UNIT	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-III.

Is DTC detected?

- YES >> Refer to [SEC-97. "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206073

1.INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT-III.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**
See [SEC-97. "DTC Logic"](#).

Is the DTC B260B displayed again?

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

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B260C STEERING LOCK UNIT

< COMPONENT DIAGNOSIS >

[COUPE]

B260C STEERING LOCK UNIT

Description

INFOID:000000004206074

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

DTC Logic

INFOID:000000004206075

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B260C	STEERING LOCK UNIT	BCM detects malfunctioning of electronic steering column lock before steering locking.	<ul style="list-style-type: none">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-III.

Is DTC detected?

- YES >> Refer to [SEC-98, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206076

1. INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT-III.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**
See [SEC-98, "DTC Logic"](#).

Is the DTC B260C displayed again?

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

B260D STEERING LOCK UNIT

< COMPONENT DIAGNOSIS >

[COUPE]

B260D STEERING LOCK UNIT

Description

INFOID:000000004206077

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:000000004206078

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B260D	STEERING LOCK UNIT	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-III.

Is DTC detected?

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

Diagnosis Procedure

INFOID:000000004206079

1. INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT-III.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**
See [SEC-99, "DTC Logic"](#).

Is the DTC B260D displayed again?

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

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B260F ENGINE STATUS

< COMPONENT DIAGNOSIS >

[COUPE]

B260F ENGINE STATUS

Description

INFOID:000000004206080

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

DTC Logic

INFOID:000000004206081

DTC DETECTION LOGIC

NOTE:

- If DTC B260F is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-36, "DTC Logic"](#).
- If DTC B260F is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-37, "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-III.

Is DTC detected?

- YES >> Refer to [SEC-100, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206082

1. INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT-III.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**
See [SEC-100, "DTC Logic"](#).

Is the DTC B260F displayed again?

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

2. REPLACE ECM

1. Replace ECM.
2. Refer to [EC-1048, "BASIC INSPECTION : Special Repair Requirement"](#) (VQ35DE), [EC-24, "BASIC INSPECTION : Special Repair Requirement"](#) (QR25DE California) or [EC-560, "BASIC INSPECTION : Special Repair Requirement"](#) (QR25DE except for California).

>> Inspection End.

B2612 STEERING STATUS

< COMPONENT DIAGNOSIS >

[COUPE]

B2612 STEERING STATUS

Description

INFOID:000000004206086

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:000000004206087

DTC DETECTION LOGIC

NOTE:

- If DTC B2612 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-36, "DTC Logic"](#).
- If DTC B2612 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-37, "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 [steering lock unit circuit (BCM side) is open or shorted]• Harness or connectors [steering lock unit circuit (IPDM E/R side) is open or shorted.]• Steering lock unit• 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-III.

Is DTC detected?

- YES >> Refer 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-III.

Is DTC detected?

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

Diagnosis Procedure

INFOID:000000004206088

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

B2612 STEERING STATUS

[COUPE]

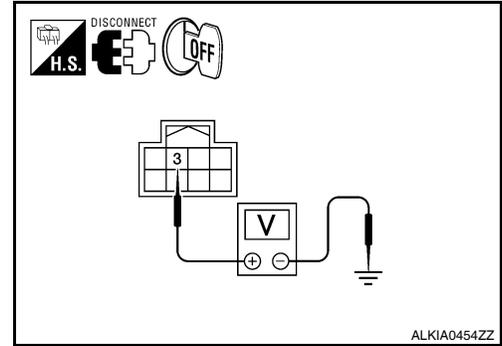
< COMPONENT DIAGNOSIS >

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

Steering lock unit		Ground	Voltage [V]
Connector	Terminal		
M32	3	Ground	Battery voltage

Is the inspection result normal?

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



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3.CHECK STEERING LOCK UNIT CIRCUIT-I

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

BCM		Steering lock unit		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.

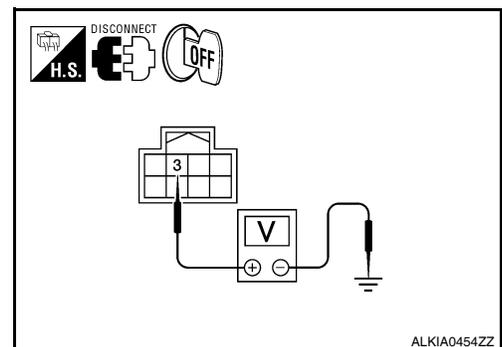
4.CHECK IPDM E/R OUTPUT SIGNAL

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

Steering lock unit		Ground	Voltage [V]
Connector	Terminal		
M32	3	Ground	Battery voltage

Is the inspection result normal?

- YES >> Replace steering lock unit.
NO >> GO TO 5



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5.CHECK STEERING LOCK UNIT CIRCUIT-II

B2612 STEERING STATUS

[COUPE]

< COMPONENT DIAGNOSIS >

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

Steering lock unit		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: M32	3	B: E18	32	Yes

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

Steering lock unit		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 steering lock unit harness connector and IPDM E/R harness connector.
3. Check voltage between steering lock unit harness connector and ground.

Steering lock unit		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 STEERING LOCK UNIT CIRCUIT-I

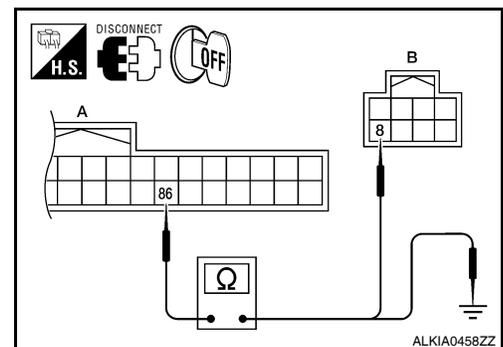
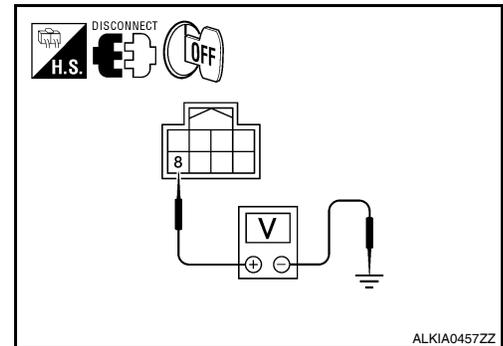
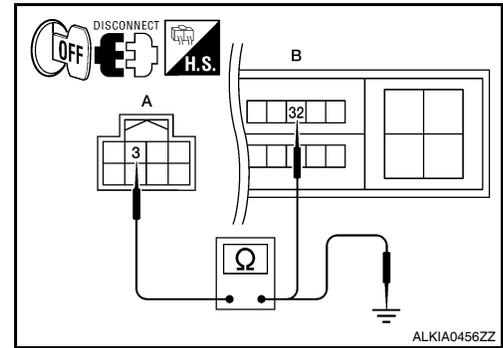
1. Disconnect BCM harness connector.
2. Check continuity between BCM harness connector M19 (A) terminal 86 and steering lock unit harness connector M32 (B) terminal 8.

BCM		Steering lock unit		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?



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B2612 STEERING STATUS

[COUPE]

< COMPONENT DIAGNOSIS >

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

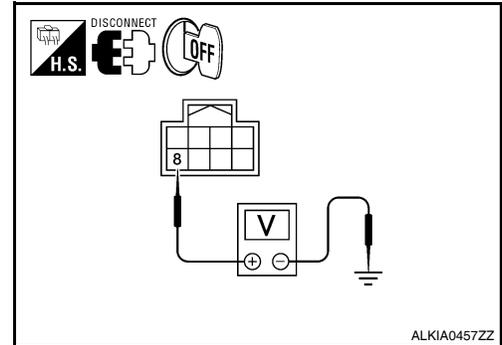
9. CHECK IPDM E/R OUTPUT SIGNAL

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

Steering lock unit		Ground	Voltage [V]
Connector	Terminal		
M32	8	Ground	Battery voltage

Is the inspection result normal?

- YES >> Replace steering lock unit.
 NO >> GO TO 10

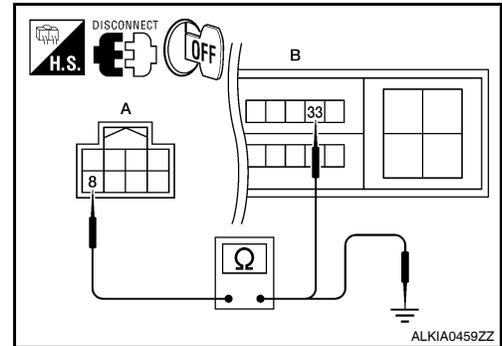


10. CHECK STEERING LOCK UNIT CIRCUIT-II

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

Steering lock unit		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: M32	8	B: E18	33	Yes

2. Check continuity between steering lock unit harness connector and ground.



Steering lock unit		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

< COMPONENT DIAGNOSIS >

[COUPE]

B2617 STARTER RELAY CIRCUIT

Description

INFOID:000000004206089

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:000000004206090

DTC DETECTION LOGIC

NOTE:

- If DTC B2617 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-36, "DTC Logic"](#).
- If DTC B2617 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-37, "DTC Logic"](#).
- If DTC B2617 is displayed with DTC B2611, first perform the trouble diagnosis for DTC B2611. Refer to [PCS-63, "DTC Logic"](#).
- If DTC B2617 is displayed with DTC B210E, first perform the trouble diagnosis for DTC B210E. Refer to [SEC-105, "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-III.

Is DTC detected?

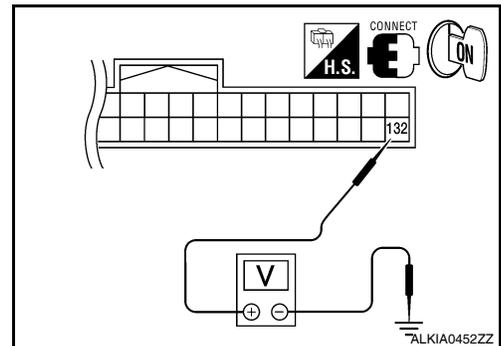
- YES >> Refer to [SEC-105, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206091

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

< COMPONENT 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

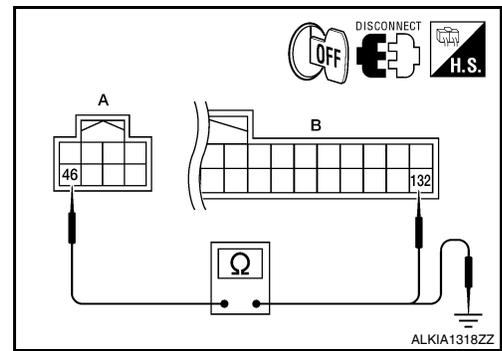
Is the inspection result normal?

- YES >> Replace BCM. Refer to [BCS-96. "Removal and Installation"](#).
- NO >> Repair harness or connector.

3. CHECK INTERMITTENT INCIDENT

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

>> Inspection End.



B2619 BCM

Description

INFOID:000000004206092

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

DTC Logic

INFOID:000000004206093

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 steering lock unit and the feedback for one second or more.	• BCM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

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

Is DTC detected?

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

Diagnosis Procedure

INFOID:000000004206094

1. INSPECTION START

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

Is the DTC B2619 displayed again?

- YES >> Replace BCM. Refer to [BCS-96. "Removal and Installation"](#).
- NO >> Inspection End.

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SEC

B261A PUSH-BUTTON IGNITION SWITCH

< COMPONENT DIAGNOSIS >

[COUPE]

B261A PUSH-BUTTON IGNITION SWITCH

Description

INFOID:000000004206095

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:000000004206096

DTC DETECTION LOGIC

NOTE:

- If DTC B261A is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-36, "DTC Logic"](#).
- If DTC B261A is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-37, "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-III.

Is DTC detected?

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

Diagnosis Procedure

INFOID:000000004206097

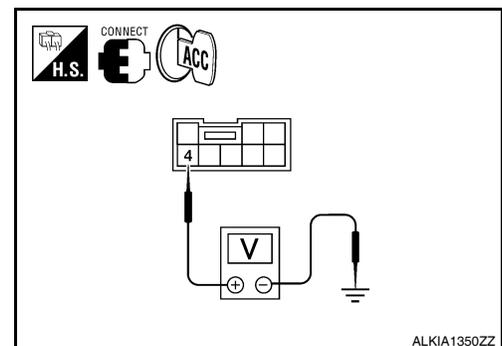
1. CHECK PUSH-BUTTON IGNITION SWITCH OUTPUT SIGNAL 1

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.

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.

B261A PUSH-BUTTON IGNITION SWITCH

[COUPE]

< COMPONENT DIAGNOSIS >

- 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

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

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

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair harness or connector.

3. CHECK PUSH-BUTTON IGNITION SWITCH

- Disconnect IPDM E/R harness connector.
- 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

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

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

Is the inspection result normal?

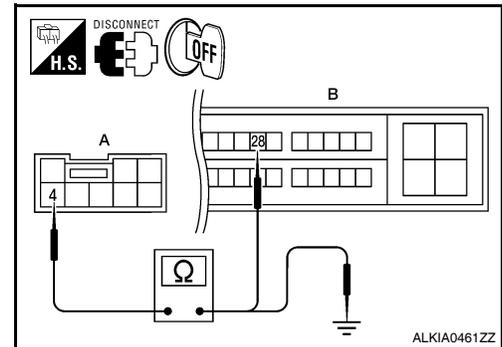
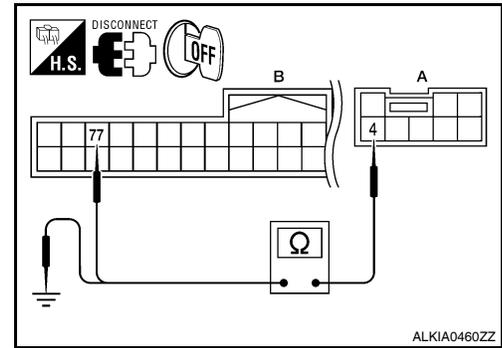
YES >> GO TO 4

NO >> Repair harness or connector.

4. CHECK INTERMITTENT INCIDENT

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

>> Inspection End.



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SEC

B26E1 NO RECEPTION OF ENGINE STATUS SIGNAL

< COMPONENT DIAGNOSIS >

[COUPE]

B26E1 NO RECEPTION OF ENGINE STATUS SIGNAL

Description

INFOID:000000004206083

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

DTC Logic

INFOID:000000004206084

DTC DETECTION LOGIC

NOTE:

- If DTC B26E1 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-36, "DTC Logic"](#).
- If DTC B26E1 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-37, "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-III.

Is DTC detected?

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

Diagnosis Procedure

INFOID:000000004206085

1. INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT-III.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**
See [SEC-110, "DTC Logic"](#).

Is the DTC B26E1 displayed again?

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

2. REPLACE ECM

1. Replace ECM.
2. Refer to [EC-1048, "BASIC INSPECTION : Special Repair Requirement"](#) (VQ35DE), [EC-24, "BASIC INSPECTION : Special Repair Requirement"](#) (QR25DE California), [EC-560, "BASIC INSPECTION : Special Repair Requirement"](#) (QR25DE except California).

>> Inspection End.

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[COUPE]

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM : Diagnosis Procedure

INFOID:000000004501377

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?

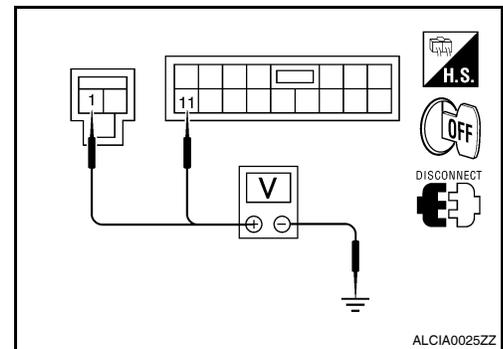
YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

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

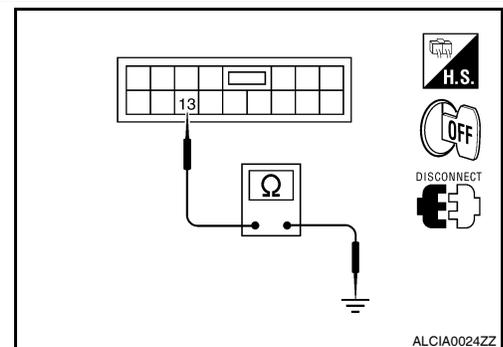
Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M17	13		Yes

Does continuity exist?

YES >> Inspection End.

NO >> Repair or replace harness.



BCM : Special Repair Requirement

INFOID:000000004501378

1. REQUIRED WORK WHEN REPLACING BCM

Initialize control unit. Refer to [BCS-6. "CONFIGURATION \(BCM\) : 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

< COMPONENT DIAGNOSIS >

[COUPE]

agnosis Procedure

INFOID:000000004501379

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

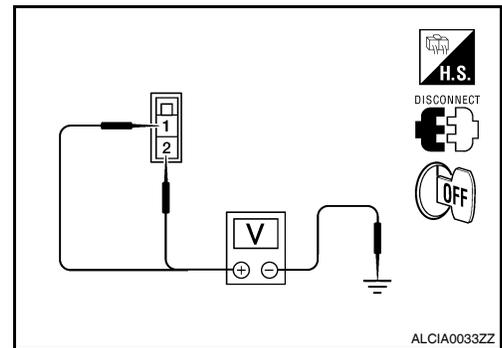
Is the fuse blown?

- 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.

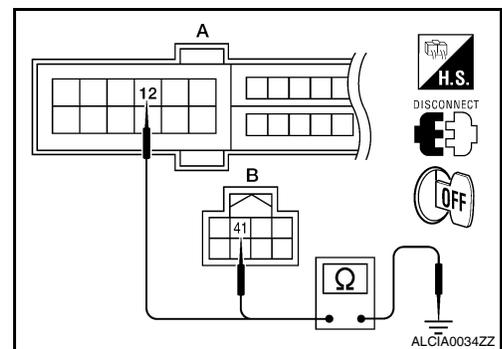
3. CHECK GROUND CIRCUIT

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

< COMPONENT DIAGNOSIS >

[COUPE]

KEY SLOT

Diagnosis Procedure

INFOID:000000004206132

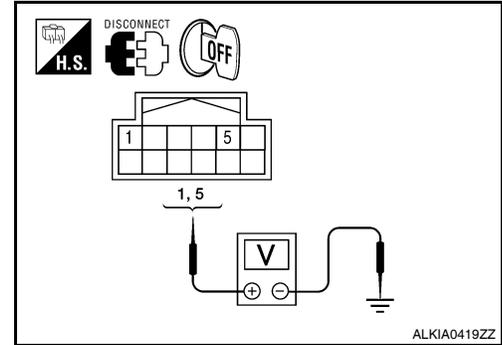
1. CHECK KEY SLOT POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect key slot connector.
3. Check voltage between slot connector and ground.

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

Is the inspection result normal?

- YES >> GO TO 2
NO >> Repair or replace key slot power supply circuit.



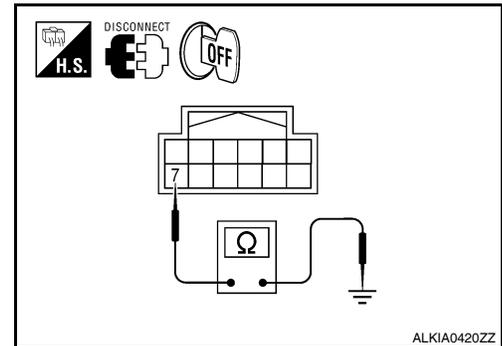
2. CHECK KEY SLOT GROUND CIRCUIT

Check continuity between key slot connector and ground.

Key slot		Ground	Continuity
Connector	Terminal		
M40	7	Ground	Yes

Is the inspection result normal?

- YES >> GO TO 3
NO >> Repair or replace key slot ground circuit.



3. CHECK INTERMITTENT INCIDENT

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

>> Inspection End.

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KEY SLOT ILLUMINATION

< COMPONENT DIAGNOSIS >

[COUPE]

KEY SLOT ILLUMINATION

Description

INFOID:000000004206133

Blinks when Intelligent Key insertion is required.

Component Function Check

INFOID:000000004206134

1.CHECK FUNCTION

Ⓟ With CONSULT-III

Check key slot illumination ("KEY SLOT ILLUMI") Active Test mode.

Is the inspection result normal?

YES >> Key slot function is OK.

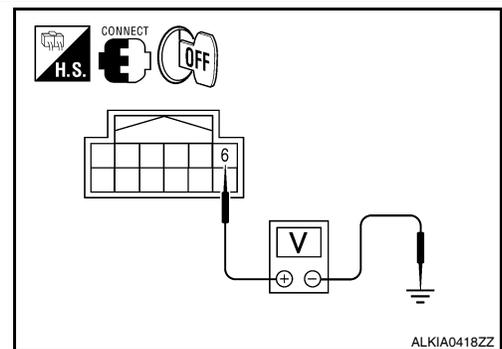
NO >> Refer to [SEC-114. "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000004206135

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	Intelligent Key inserted	OFF	Battery voltage
		Intelligent Key removed	ON	0

Is the inspection result normal?

YES >> GO TO 6

NO >> GO TO 2

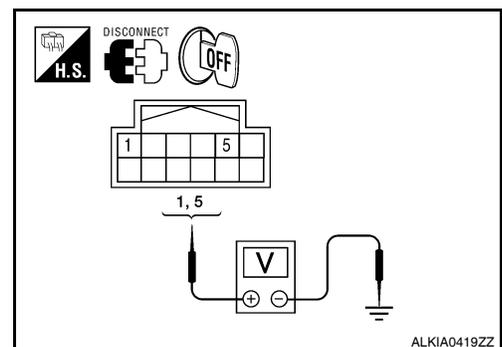
2.CHECK KEY SLOT POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect key slot connector.
3. Check voltage between slot connector and ground.

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

Is the inspection result normal?

YES >> GO TO 3



KEY SLOT ILLUMINATION

[COUPE]

< COMPONENT DIAGNOSIS >

NO >> Repair or replace key slot power supply circuit.

3.CHECK KEY SLOT GROUND CIRCUIT

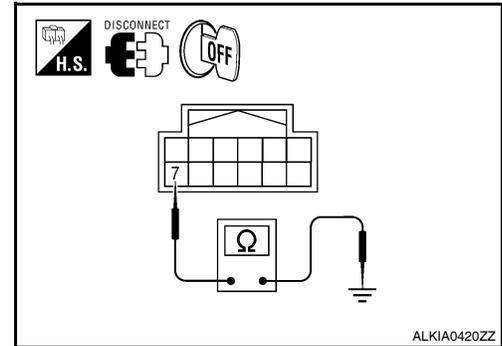
Check continuity between key slot connector and ground.

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.

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 [DLK-83. "Component Inspection"](#).

Is the inspection result normal?

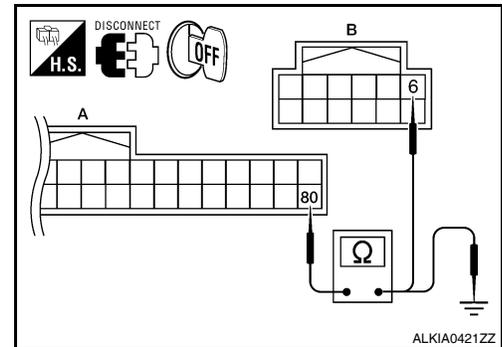
YES >> GO TO 6

NO >> Replace key slot. Refer to [SEC-207. "Removal and Installation"](#).

6.CHECK INTERMITTENT INCIDENT

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

>> Inspection End.



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KEY CYLINDER SWITCH

< COMPONENT DIAGNOSIS >

[COUPE]

KEY CYLINDER SWITCH

Description

INFOID:000000004206136

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 door lock assembly LH (key cylinder switch) transmits the LOCK or UNLOCK signal directly to the BCM.

Component Function Check

INFOID:000000004206137

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-III. Refer to [DLK-276. "DOOR LOCK : CONSULT-III 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-116. "Diagnosis Procedure \(With LH and RH Anti-Pinch\)"](#).

NO >> With LH anti-pinch only, refer to [SEC-117. "Diagnosis Procedure \(With LH Anti-Pinch Only\)"](#).

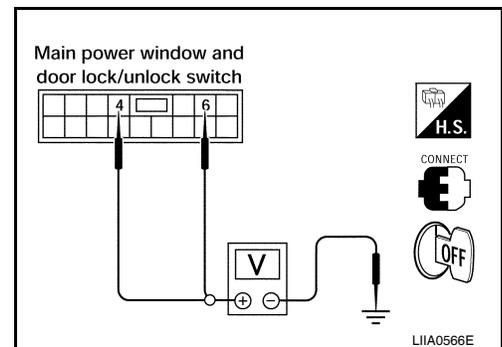
Diagnosis Procedure (With LH and RH Anti-Pinch)

INFOID:000000004206138

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	Ground	
	4	Lock	0
		Neutral / Unlock	Battery voltage
	6	Unlock	0
		Neutral / Lock	Battery voltage



Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to [PWC-91. "Removal and Installation"](#).

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.

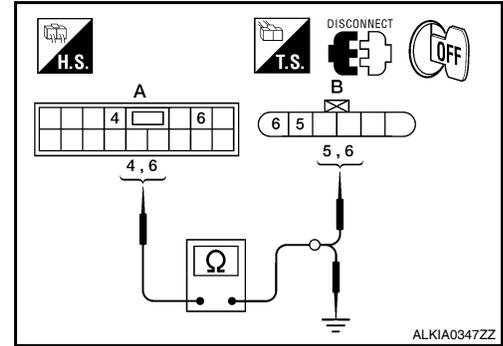
KEY CYLINDER SWITCH

[COUPE]

< COMPONENT DIAGNOSIS >

- 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	4	B: D10	6	Yes
	6		5	



- Check continuity between main power window and door lock/unlock switch connector and ground.

Power window main switch connector	Terminal	Ground	Continuity
A: D7	4	Ground	No
	6		

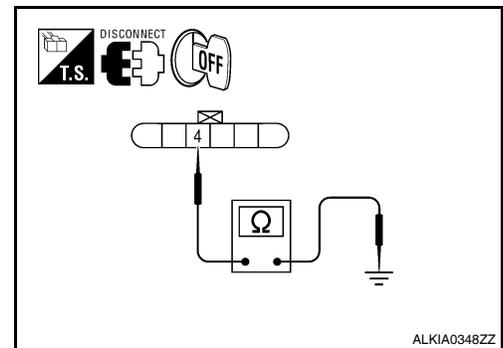
Is the inspection result normal?

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

3.CHECK DOOR KEY CYLINDER SWITCH GROUND CIRCUIT

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.

4.CHECK DOOR KEY CYLINDER SWITCH

Check door key cylinder switch.

Refer to [SEC-118, "Component Inspection"](#).

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to [GI-42, "Intermittent Incident"](#).
- NO >> Replace door lock assembly LH (key cylinder switch). Refer to [DLK-222, "FRONT DOOR LOCK : Removal and Installation"](#).

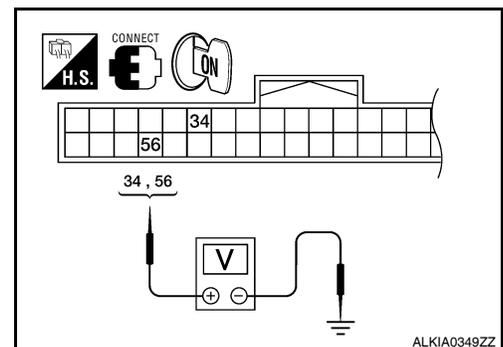
Diagnosis Procedure (With LH Anti-Pinch Only)

INFOID:000000004206139

1.CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

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

Terminals		Key position	Voltage (V) (Approx.)
(+)	(-)		
BCM connector	Terminal	Ground	Lock
	M18		56
34			Unlock
			Neutral / Lock



KEY CYLINDER SWITCH

[COUPE]

< COMPONENT DIAGNOSIS >

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to [PWC-91, "Removal and Installation"](#).

NO >> GO TO 2

2. CHECK DOOR KEY CYLINDER SWITCH GROUND CIRCUIT

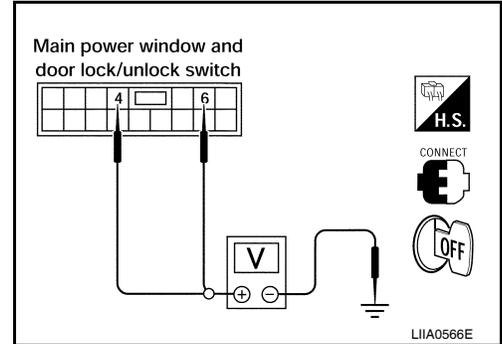
1. Turn ignition switch OFF.
2. Disconnect door lock assembly LH (key cylinder switch) connector.
3. Check continuity between door lock assembly LH (key cylinder switch) connector and ground.

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.

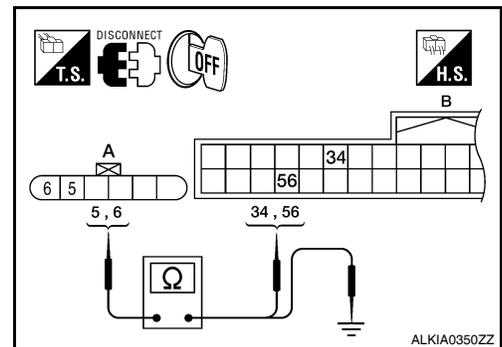


3. CHECK DOOR KEY CYLINDER SIGNAL CIRCUIT

1. Disconnect BCM connector M18.
2. Check continuity between door lock assembly LH (key cylinder switch) connector D(10) terminals 5, 6 and BCM connector M18 (B) terminals 34, 56.

Door lock assembly LH connector	Terminal	BCM connector	Terminal	Continuity
A: D10	5	B: M18	34	Yes
	6		56	

3. Check continuity between door lock assembly LH (key cylinder switch) connector D10 (A) terminals 5, 6 and ground.



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.

4. CHECK DOOR KEY CYLINDER SWITCH

Check door key cylinder switch.

Refer to [SEC-118, "Component Inspection"](#).

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-42, "Intermittent Incident"](#).

NO >> Replace door lock assembly LH (key cylinder switch). Refer to [DLK-222, "FRONT DOOR LOCK: Removal and Installation"](#).

Component Inspection

INFOID:000000004206140

COMPONENT INSPECTION

1. CHECK DOOR KEY CYLINDER SWITCH

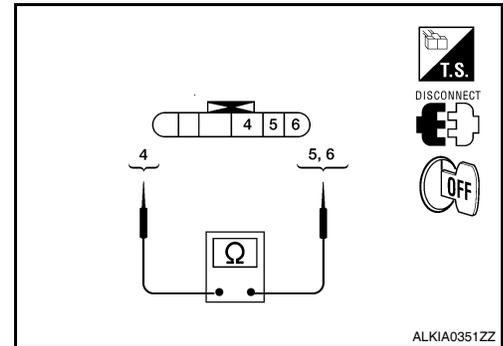
KEY CYLINDER SWITCH

[COUPE]

< COMPONENT DIAGNOSIS >

Check door lock assembly LH (key cylinder switch).

Terminal		Key position	Continuity
Door lock assembly LH (key cylinder switch)			
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 door lock assembly LH (key cylinder switch). Refer to [DLK-222, "FRONT DOOR LOCK : Removal and Installation"](#).

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HORN

[COUPE]

< COMPONENT DIAGNOSIS >

HORN

Description

INFOID:000000004206141

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

Component Function Check

INFOID:000000004206142

1.CHECK FUNCTION

1. Select HORN in "ACTIVE TEST" mode with CONSULT-III.
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-120, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000004206143

1.CHECK HORN FUNCTION

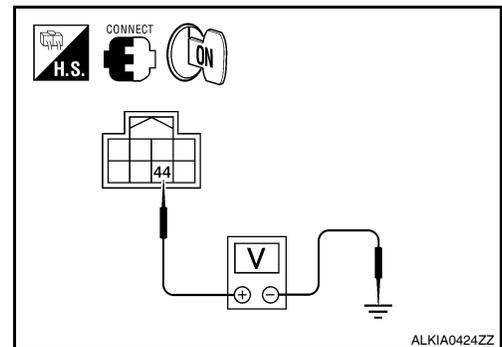
Check horn function with horn switch

Do the horns sound?

- YES >> GO TO 2
 NO >> Refer to [HRN-3, "Wiring Diagram - Coupe"](#).

2.CHECK HORN RELAY POWER SUPPLY

1. Turn ignition switch ON.
2. Perform "ACTIVE TEST" ("HORN") with CONSULT-III.
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 >> Repair or replace harness between IPDM E/R and horn relay.
 NO >> GO TO 3.

3.CHECK HORN RELAY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R and horn relay connector.

HORN

[COUPE]

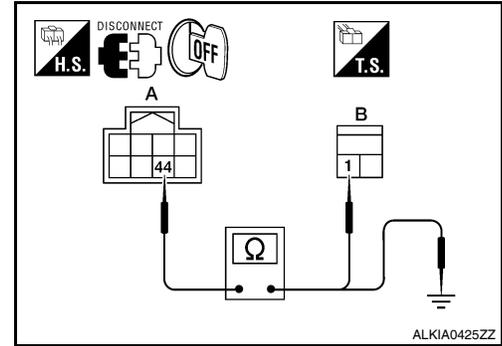
< COMPONENT DIAGNOSIS >

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-48. "Removal and Installation"](#).
 NO >> Repair or replace the malfunctioning part.

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HEADLAMP

Description

INFOID:000000004206144

Headlamp lighting when theft warning system is alarm phase.

Component Function Check

INFOID:000000004206145

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-122, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000004206146

1.CHECK HEADLAMP OPERATION

Refer to [EXL-40, "Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace.

2.CHECK INTER MITTENT INCIDENT

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

Is the inspection result normal?

>> Inspection End.

WARNING LAMP

[COUPE]

< COMPONENT DIAGNOSIS >

WARNING LAMP

Description

INFOID:000000004206147

- 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:000000004206148

1.CHECK FUNCTION

1. Perform "INDICATOR" in the "Active Test" mode with CONSULT-III.
2. Check warning lamp operation.

Test item		Description	
INDICATOR	ON	Warning lamp	ON
	OFF		OFF

Is the inspection result normal?

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

Diagnosis Procedure

INFOID:000000004206149

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.

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VEHICLE SECURITY INDICATOR

< COMPONENT DIAGNOSIS >

[COUPE]

VEHICLE SECURITY INDICATOR

Description

INFOID:000000004206150

- Vehicle security indicator is built in combination meter.
- NVIS (Nissan Vehicle Immobilizer System-NATS) and vehicle security system conditions are indicated by blink or illumination of vehicle security indicator.

Component Function Check

INFOID:000000004206151

1.CHECK FUNCTION

1. Perform "THEFT IND" in the "ACTIVE TEST" mode with CONSULT-III.
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 >> Refer to [SEC-124, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000004206152

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.

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[COUPE]

ECU DIAGNOSIS

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:000000004501292

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 - 7	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 door RH closed	OFF
	Rear door RH opened	ON
DOOR SW-RL	Rear door LH closed	OFF
	Rear door LH opened	ON

BCM (BODY CONTROL MODULE)

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[COUPE]

Monitor Item	Condition	Value/Status
DOOR SW-BK	NOTE: This item is displayed, but cannot be monitored.	OFF
CDL LOCK SW	Other than power door lock switch LOCK	OFF
	Power door lock switch LOCK	ON
CDL UNLOCK SW	Other than power door lock switch UNLOCK	OFF
	Power door lock switch UNLOCK	ON
KEY CYL LK-SW	Other than driver door key cylinder LOCK position	OFF
	Driver door key cylinder LOCK position	ON
KEY CYL UN-SW	Other than driver door key cylinder UNLOCK position	OFF
	Driver door key cylinder UNLOCK position	ON
KEY CYL SW-TR	NOTE: This item is displayed, but cannot be monitored.	OFF
HAZARD SW	When hazard switch is not pressed	OFF
	When hazard switch is pressed	ON
REAR DEF SW	When rear window defogger switch is pressed	ON
TR CANCEL SW	Trunk lid opener cancel switch OFF	OFF
	Trunk lid opener cancel switch ON	ON
TR/BD OPEN SW	Trunk lid opener switch OFF	OFF
	While the trunk lid opener switch is turned ON	ON
TRNK/HAT MNTR	Trunk lid closed	OFF
	Trunk lid opened	ON
RKE-LOCK	When LOCK button of Intelligent Key is not pressed	OFF
	When LOCK button of Intelligent Key is pressed	ON
RKE-UNLOCK	When UNLOCK button of Intelligent Key is not pressed	OFF
	When UNLOCK button of Intelligent Key is pressed	ON
RKE-TR/BD	When TRUNK OPEN button of Intelligent Key is not pressed	OFF
	When TRUNK OPEN button of Intelligent Key is pressed	ON
RKE-PANIC	When PANIC button of Intelligent Key is not pressed	OFF
	When PANIC button of Intelligent Key is pressed	ON
RKE-P/W OPEN	When UNLOCK button of Intelligent Key is not pressed and held	OFF
	When UNLOCK button of Intelligent Key is pressed and held	ON
RKE-MODE CHG	When LOCK/UNLOCK button of Intelligent Key is not pressed and held simultaneously	OFF
	When LOCK/UNLOCK button of Intelligent Key is pressed and held simultaneously	ON
OPTICAL SENSOR	When outside of the vehicle is bright	Close to 5 V
	When outside of the vehicle is dark	Close to 0 V
REQ SW-DR	When driver door request switch is not pressed	OFF
	When driver door request switch is pressed	ON
REQ SW-AS	When passenger door request switch is not pressed	OFF
	When passenger door request switch is pressed	ON
REQ SW-BD/TR	When trunk request switch is not pressed	OFF
	When trunk request switch is pressed	ON
PUSH SW	When engine switch (push switch) is not pressed	OFF
	When engine switch (push switch) is pressed	ON

BCM (BODY CONTROL MODULE)

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[COUPE]

Monitor Item	Condition	Value/Status	
IGN RLY2-F/B	Ignition switch OFF or ACC	OFF	A
	Ignition switch ON	ON	
ACC RLY-F/B	Ignition switch OFF	OFF	B
	Ignition switch ACC or ON	ON	
CLUTCH SW	When the clutch pedal is not depressed	OFF	C
	When the clutch pedal is depressed	ON	
BRAKE SW 1	When the brake pedal is not depressed	ON	D
	When the brake pedal is depressed	OFF	
DETE/CANCL SW	When selector lever is in P position	OFF	E
	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	F
	When selector lever is in P or N position	ON	
S/L-LOCK	Electronic steering column lock LOCK status	OFF	G
	Electronic steering column lock UNLOCK status	ON	
S/L-UNLOCK	Electronic steering column lock UNLOCK status	OFF	H
	Electronic steering column lock LOCK status	ON	
S/L RELAY-F/B	Ignition switch OFF or ACC	OFF	I
	Ignition switch ON	ON	
UNLK SEN-DR	Driver door UNLOCK status	OFF	J
	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	

SEC

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[COUPE]

Monitor Item	Condition	Value/Status
DOOR STAT-DR	Driver door LOCK status	LOCK
	Wait with selective UNLOCK operation (5 seconds)	READY
	Driver door UNLOCK status	UNLK
DOOR STAT-AS	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
PRMT RKE STAT	NOTE: This item is displayed, but cannot be monitored.	RESET
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
RKE OPE COUN2	NOTE: This item is displayed, but cannot be monitored.	Operation frequency of Intelligent Key
CONFIRM ID ALL	The key ID that the key slot receives does not accord with any key ID registered to BCM.	YET
	The key ID that the key slot receives accords with any key ID registered to BCM.	DONE
CONFIRM ID4	The key ID that the key slot receives does not accord with the fourth key ID registered to BCM.	YET
	The key ID that the key slot receives accords with the fourth key ID registered to BCM.	DONE
CONFIRM ID3	The key ID that the key slot receives does not accord with the third key ID registered to BCM.	YET
	The key ID that the key slot receives accords with the third key ID registered to BCM.	DONE
CONFIRM ID2	The key ID that the key slot receives does not accord with the second key ID registered to BCM.	YET
	The key ID that the key slot receives accords with the second key ID registered to BCM.	DONE
CONFIRM ID1	The key ID that the key slot receives does not accord with the first key ID registered to BCM.	YET
	The key ID that the key slot receives accords with the first key ID registered to BCM.	DONE
TP 4	The ID of fourth key is not registered to BCM	YET
	The ID of fourth key is registered to BCM	DONE
TP 3	The ID of third key is not registered to BCM	YET
	The ID of third key is registered to BCM	DONE
TP 2	The ID of second key is not registered to BCM	YET
	The ID of second key is registered to BCM	DONE
TP 1	The ID of first key is not registered to BCM	YET
	The ID of first key is registered to BCM	DONE
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

BCM (BODY CONTROL MODULE)

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[COUPE]

Monitor Item	Condition	Value/Status
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
BUZZER	Tire pressure warning alarm is not sounding	OFF
	Tire pressure warning alarm is sounding	ON

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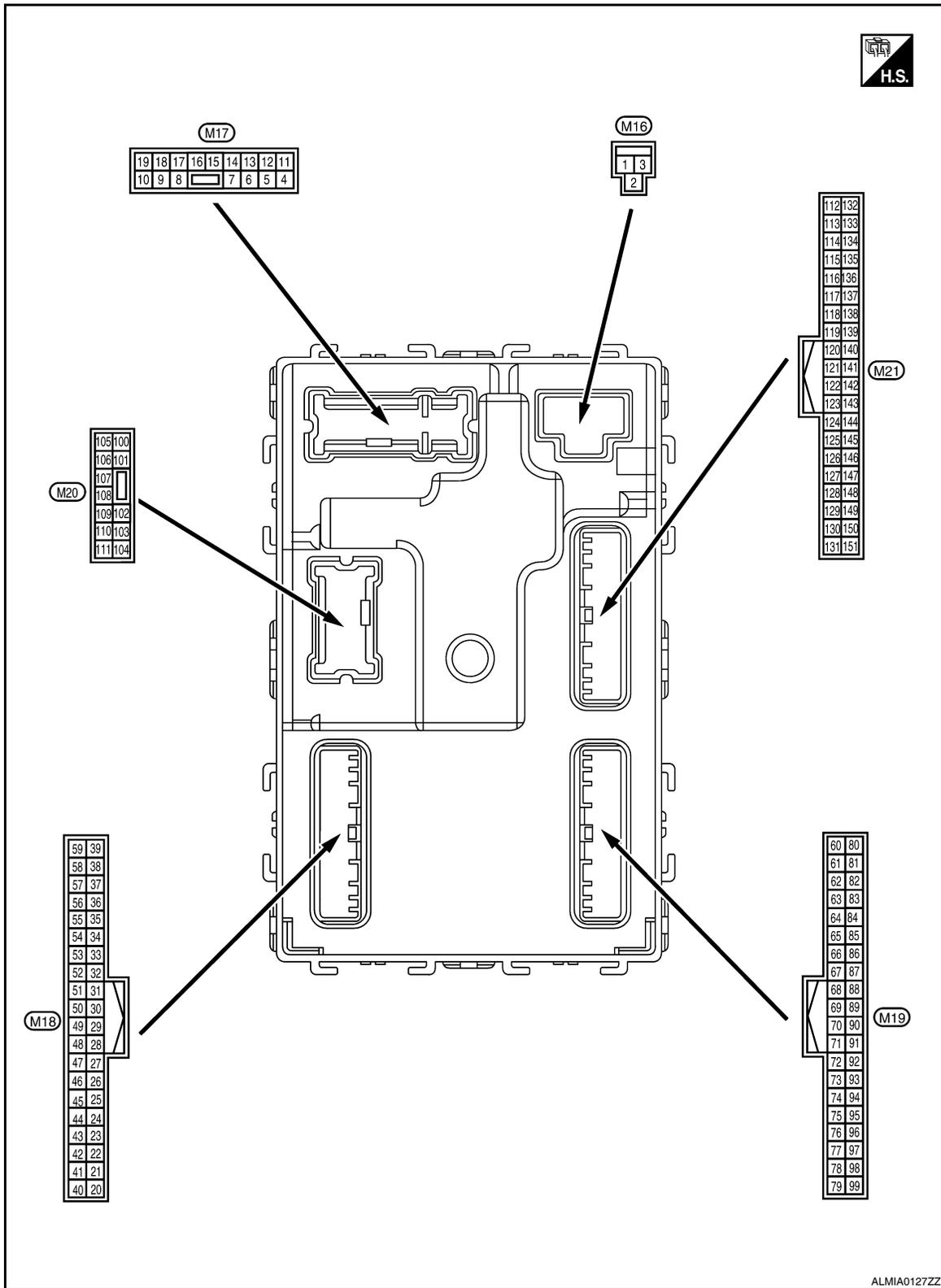
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[COUPE]

Terminal Layout

INFOID:000000004501293



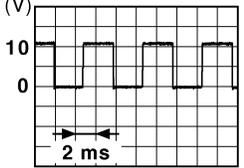
Physical Values

INFOID:000000004501294

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[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 (R/Y)	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: right; font-size: small;">JSNIA0010GB</p>
15 (Y/L)	Ground	ACC indicator lamp	Output	Ignition switch	OFF	Battery voltage
					ACC or ON	0V

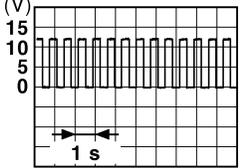
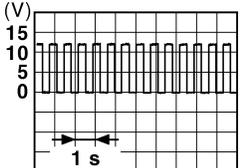
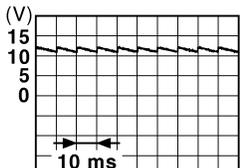
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BCM (BODY CONTROL MODULE)

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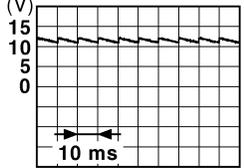
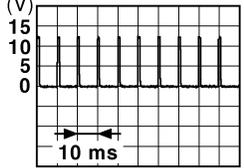
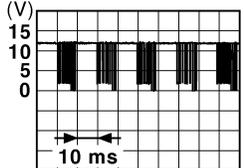
[COUPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
17 (G/B)	Ground	Turn signal (RH)	Output	Ignition switch ON	Turn signal switch OFF	0V
					Turn signal switch RH	 <p style="text-align: center;">6.5 V</p> <p style="text-align: right; font-size: small;">PKID0926E</p>
18 (G/Y)	Ground	Turn signal (LH)	Output	Ignition switch ON	Turn signal switch OFF	0V
					Turn signal switch LH	 <p style="text-align: center;">6.5 V</p> <p style="text-align: right; font-size: small;">PKID0926E</p>
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 vehi- cle is bright	Close to 5V
					When outside of the vehi- cle is dark	Close to 0V
22 (R/Y)	Ground	Clutch interlock switch	Input	Clutch interlock switch	OFF (clutch pedal is not depressed)	0V
					ON (clutch pedal is de- pressed)	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 de- pressed)	0V
					ON (brake pedal is de- pressed)	Battery voltage
27 (G/W)	Ground	Front door lock as- sembly LH (unlock sensor)	Input	Front door LH	LOCK status	 <p style="text-align: center;">11.8V</p> <p style="text-align: right; font-size: small;">JPMIA0011GB</p>
					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

BCM (BODY CONTROL MODULE)

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[COUPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
(+)	(-)					
31 (G)	Ground	Rear window defogger feedback signal	Input	Rear window defogger 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)	 <p style="text-align: right; font-size: small;">JPMIA0011GB</p>
					ON (when front door RH opens)	0V
33 (SB)	Ground	Compressor ON signal	Input	A/C switch	OFF	5V
					ON	0V
34 ² (L/R)	Ground	Front door lock assembly LH (key cylinder switch) (unlock)	Input	Front door lock assembly LH (key cylinder switch)	OFF (neutral)	5V
					ON (unlock)	0V
36 ² (GR)	Ground	Lock switch signal	Input	Door lock/unlock switch	Lock	Battery voltage
					Unlock	0V
37 (O)	Ground	Trunk lid opener cancel switch	Input	Trunk lid opener cancel switch	CANCEL	 <p style="text-align: right; font-size: small;">JPMIA0012GB</p>
					ON	0V
38 (GR/W)	Ground	Rear window defogger ON signal	Input	Rear window defogger switch	OFF	5V
					ON	0V
39 ² (GR/R)	Ground	Unlock switch signal	Input	Door lock/unlock switch	Unlock	Battery voltage
					Lock	0V
40 ³ (Y/G)	Ground	Power window serial link	Input/ Output	Ignition switch ON	 <p style="text-align: right; font-size: small;">JPMIA0013GB</p>	
				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	

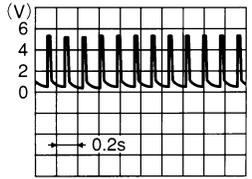
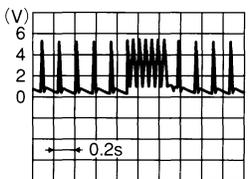
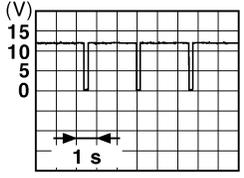
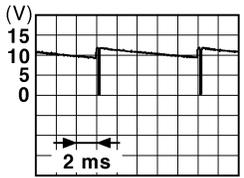
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

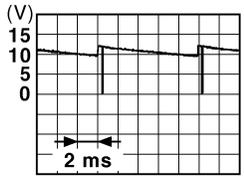
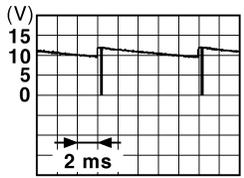
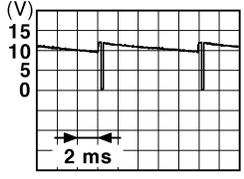
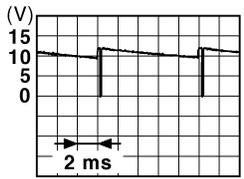
[COUPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
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	
					When receiving the signal from the transmitter	
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	
50 (LG/ B)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper intermittent dial 4)	OFF	Battery voltage
					All switch OFF	0V
					Lighting switch 1ST	
					Lighting switch high-beam	
					Lighting switch 2ND	
Turn signal switch RH						

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[COUPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
(+)	(-)	Signal name	Input/ Output		
51 (L/W)	Ground	Combination switch OUTPUT 1	Output	Combination switch	All switch OFF (Wiper intermittent dial 4) 0V
				Combination switch	Front wiper switch HI (Wiper intermittent dial 4)
				Combination switch	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
					 <p style="text-align: right; font-size: small;">JPMIA0032GB</p>
52 (G/B)	Ground	Combination switch OUTPUT 2	Output	Combination switch	All switch OFF (Wiper intermittent dial 4) 0V
				Combination switch	Front washer switch ON (Wiper intermittent dial 4)
				Combination switch	Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6 10.7V
					 <p style="text-align: right; font-size: small;">JPMIA0033GB</p>
53 (LG/ R)	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper intermittent dial 4)	All switch OFF 0V
				Combination switch (Wiper intermittent dial 4)	Front wiper switch INT
				Combination switch (Wiper intermittent dial 4)	Front wiper switch LO
				Combination switch (Wiper intermittent dial 4)	Lighting switch AUTO 10.7V
					 <p style="text-align: right; font-size: small;">JPMIA0034GB</p>
54 (G/Y)	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper intermittent dial 4)	All switch OFF 0V
				Combination switch (Wiper intermittent dial 4)	Front fog lamp switch ON
				Combination switch (Wiper intermittent dial 4)	Lighting switch 2ND
				Combination switch (Wiper intermittent dial 4)	Lighting switch flash-to-pass
				Combination switch (Wiper intermittent dial 4)	Turn signal switch LH 10.7V
					 <p style="text-align: right; font-size: small;">JPMIA0035GB</p>
55 (BR/ W)	Ground	Front blower monitor	Input	Front blower motor switch	ON Battery voltage
				Front blower motor switch	OFF 0V
56 ² (L/B)	Ground	Front door lock assembly LH (key cylinder switch) (lock)	Input	Front door lock assembly LH (key cylinder switch)	OFF (neutral) 5V
				Front door lock assembly LH (key cylinder switch)	ON (lock) 0V
57 (W)	Ground	Tire pressure warning check switch	Input	—	5V

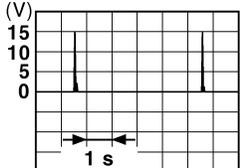
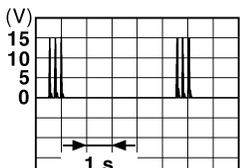
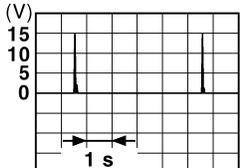
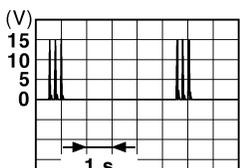
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BCM (BODY CONTROL MODULE)

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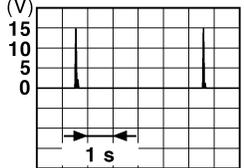
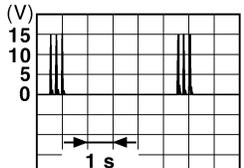
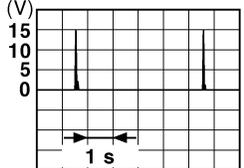
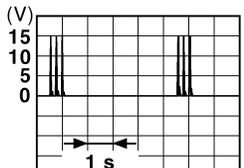
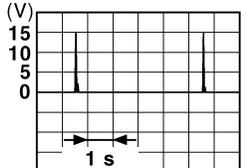
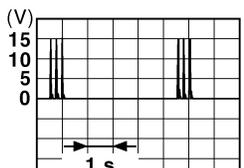
[COUPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
(+)	(-)	Signal name	Input/ Output			
58 (SB)	Ground	Front door LH switch	Input			Front door LH switch
				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>
				Ignition switch OFF	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>
				Ignition switch OFF	When Intelligent Key is not in the passenger compartment	 <p style="text-align: right; font-size: small;">JMKIA0063GB</p>

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[COUPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
(+)	(-)	Signal name	Input/ Output		
62 ⁴ (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  <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>
63 ⁴ (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  <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>
64 ⁴ (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  <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>

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BCM (BODY CONTROL MODULE)

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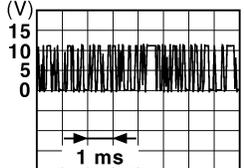
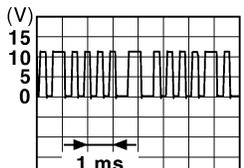
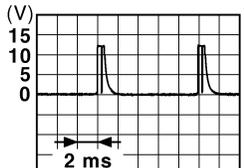
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Terminal No. (Wire color)		Description		Condition	Value (Approx.)
(+)	(-)	Signal name	Input/ Output		
65 ⁴ (P)	Ground	Front outside handle LH antenna (+)	Output	When Intelligent Key is in the antenna detection area	<p style="text-align: right; font-size: small;">JMKIA0062GB</p>
				When the front door LH request switch is operat- ed with ignition switch OFF	<p style="text-align: right; font-size: small;">JMKIA0063GB</p>
66 (R)	Ground	Instrument panel an- tenna (-)	Output	Ignition switch OFF	<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>
67 (G)	Ground	Instrument panel an- tenna (+)	Output	Ignition switch OFF	<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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[COUPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
		Signal name	Input/ Output			
(+)	(-)					
68 (G/O)	Ground	NATS antenna amp (built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent 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 Intelligent 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		 <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>
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;">JPMIA0041GB</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;">JPMIA0037GB</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;">JPMIA0040GB</p> <p style="text-align: center;">1.3V</p>

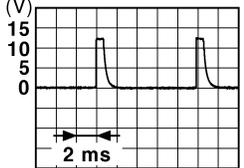
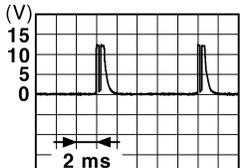
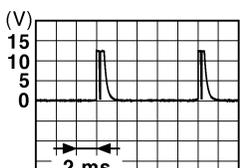
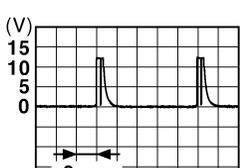
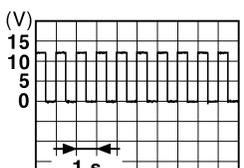
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BCM (BODY CONTROL MODULE)

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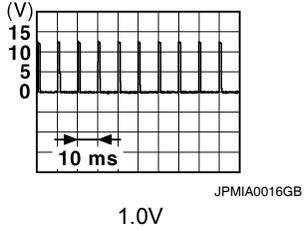
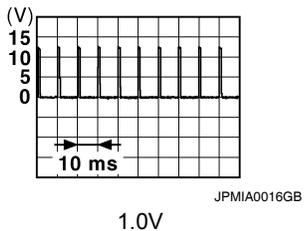
[COUPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
(+)	(-)	Signal name	Input/ Output			
76 (R/G)	Ground	Combination switch INPUT 3	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 high-beam (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMIA0036GB</p> <p style="text-align: center;">1.3V</p>
					Lighting switch 2ND (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMIA0037GB</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 3  <p style="text-align: right; font-size: small;">JPMIA0040GB</p> <p style="text-align: center;">1.3V</p>
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	 <p style="text-align: right; font-size: small;">JPMIA0015GB</p> <p style="text-align: center;">6.5V</p>
					ON	Battery voltage

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[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	0V
					ON	Battery voltage
83 (L)	Ground	ACC relay control	Output	Ignition switch	OFF	0V
					ACC or ON	Battery voltage
84 (Y/R)	Ground	CVT device	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 (G/B)	Ground	Selector lever P position switch	Input	Selector lever	P position	0V
					Any position other than P	Battery voltage
88 ⁴ (P/L)	Ground	Front door RH request switch	Input	Front door RH request switch	ON (pressed)	0V
					OFF (not pressed)	
89 ⁴ (B/W)	Ground	Front door LH request switch	Input	Front door LH request switch	ON (pressed)	0V
					OFF (not pressed)	
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	Steering wheel lock unit power supply	Output	Ignition switch	OFF or ACC	Battery voltage
					ON	0V

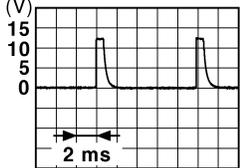
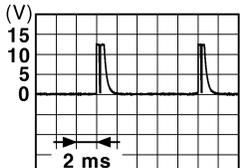
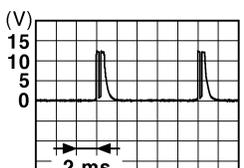
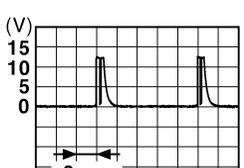
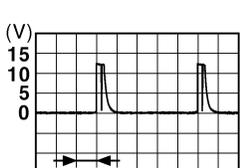
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BCM (BODY CONTROL MODULE)

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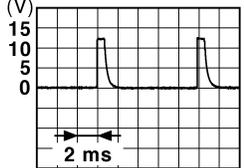
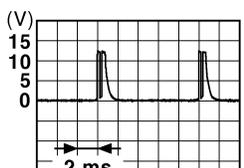
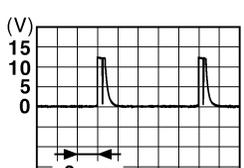
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Terminal No. (Wire color)		Description		Condition	Value (Approx.)
(+)	(-)	Signal name	Input/ Output		
95 (R/W)	Ground	Combination switch INPUT 1	Input	All switch OFF	 1.4V
				Turn signal switch LH	 1.3V
				Turn signal switch RH	 1.3V
				Front wiper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

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[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) <div style="text-align: right;">  <p style="font-size: small; margin: 0;">JPMIA0041GB</p> <p style="margin: 0;">1.4V</p> </div>
				Lighting switch AUTO (Wiper intermittent dial 4)	<div style="text-align: right;">  <p style="font-size: small; margin: 0;">JPMIA0038GB</p> <p style="margin: 0;">1.3V</p> </div>
				Lighting switch 1ST (Wiper intermittent dial 4)	<div style="text-align: right;">  <p style="font-size: small; margin: 0;">JPMIA0036GB</p> <p style="margin: 0;">1.3V</p> </div>
				Any of the conditions below with all switch OFF	<div style="text-align: right;">  <p style="font-size: small; margin: 0;">JPMIA0039GB</p> <p style="margin: 0;">1.3V</p> </div>

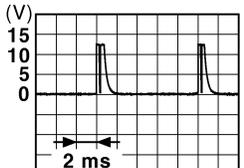
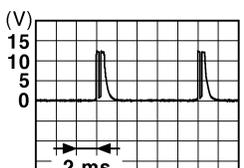
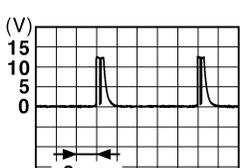
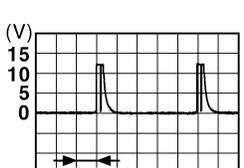
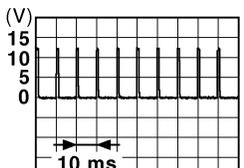
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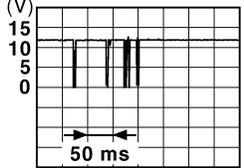
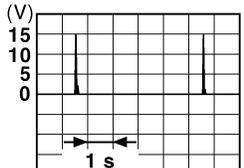
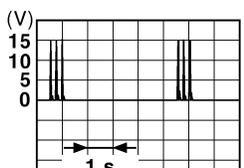
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Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
(+)	(-)	Signal name	Input/ Output			
97 (R/B)	Ground	Combination switch INPUT 2	Input			Combination switch (Wiper intermittent dial 4)
				Lighting switch flash-to-pass	 1.3V	
				Lighting switch 2ND	 1.3V	
				Front wiper switch INT	 1.3V	
				Front wiper switch HI	 1.3V	
				Pressed	0 V	
98 (G/O)	Ground	Hazard switch	Input	Hazard switch	Not pressed  1.1V	

BCM (BODY CONTROL MODULE)

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[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	Rear parcel shelf an- tenna 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>

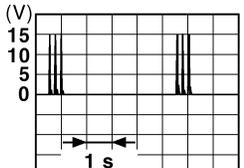
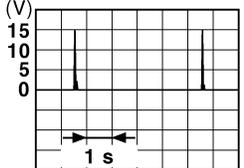
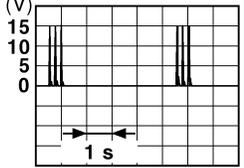
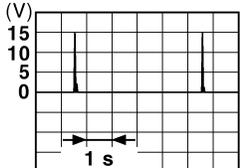
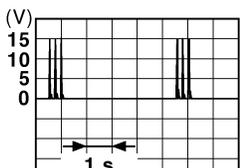
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BCM (BODY CONTROL MODULE)

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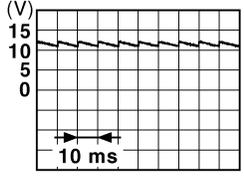
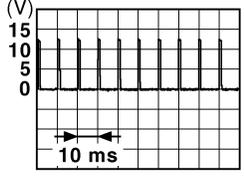
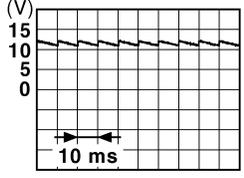
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Terminal No. (Wire color)		Description		Condition	Value (Approx.)
(+)	(-)	Signal name	Input/ Output		
115 (W)	Ground	Rear parcel shelf antenna 1 (+)	Output		
				When Intelligent Key is not in the passenger compartment	<div style="text-align: center;">  <p style="text-align: right; font-size: small;">JMKIA0063GB</p> </div>
118 ⁴ (L/O)	Ground	Rear bumper antenna (-)	Output	When the trunk lid request switch is operated with ignition switch OFF	<div style="text-align: center;">  <p style="text-align: right; font-size: small;">JMKIA0062GB</p> </div>
				When Intelligent Key is not in the antenna detection area	<div style="text-align: center;">  <p style="text-align: right; font-size: small;">JMKIA0063GB</p> </div>
119 ⁴ (BR/W)	Ground	Rear bumper antenna (+)	Output	When the trunk lid request switch is operated with ignition switch OFF	<div style="text-align: center;">  <p style="text-align: right; font-size: small;">JMKIA0062GB</p> </div>
				When Intelligent Key is not in the antenna detection area	<div style="text-align: center;">  <p style="text-align: right; font-size: small;">JMKIA0063GB</p> </div>

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[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: right; margin-right: 50px;">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: right; margin-right: 50px;">1.0V</p>
144 ⁴ (GR)	Ground	Intelligent Key warn- ing buzzer	Output	Request switch buzzer	Sounding	0V
					Not sounding	Battery voltage
144 ⁵ (GR)	Ground	Outside warning buzzer	Output	Outside warning 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: right; margin-right: 50px;">11.8V</p>
					ON (when rear door RH opens)	0V

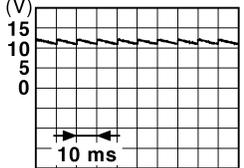
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[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;">JPMIA0011GB</p>
				ON (when rear door LH opens)	0V	

- 1: Sedan only
- 2: With LH front window anti-pinch
- 3: With LH and RH front window anti-pinch
- 4: With Intelligent Key
- 5: Without Intelligent Key

BCM (BODY CONTROL MODULE)

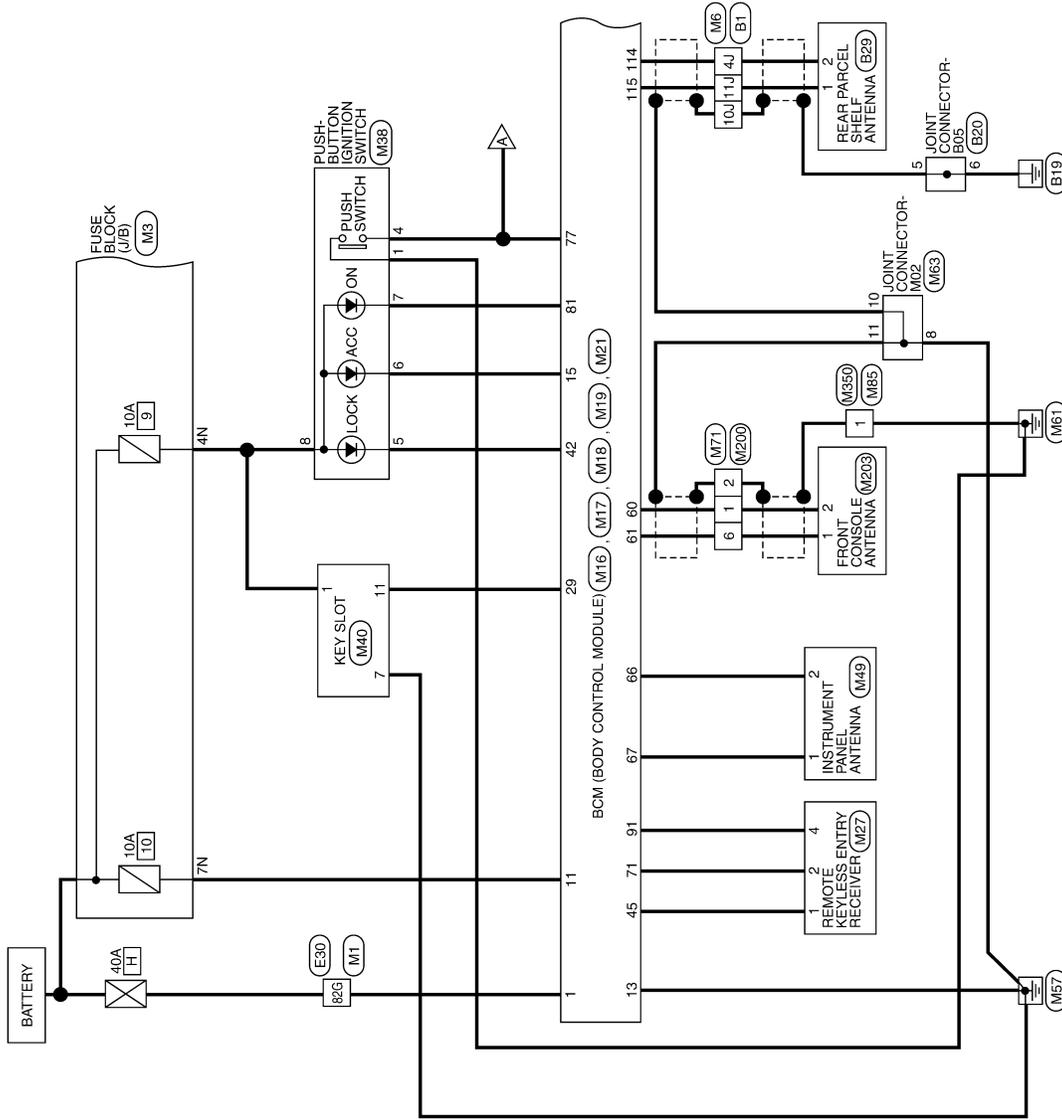
< ECU DIAGNOSIS >

[COUPE]

Wiring Diagram - INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION -

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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION



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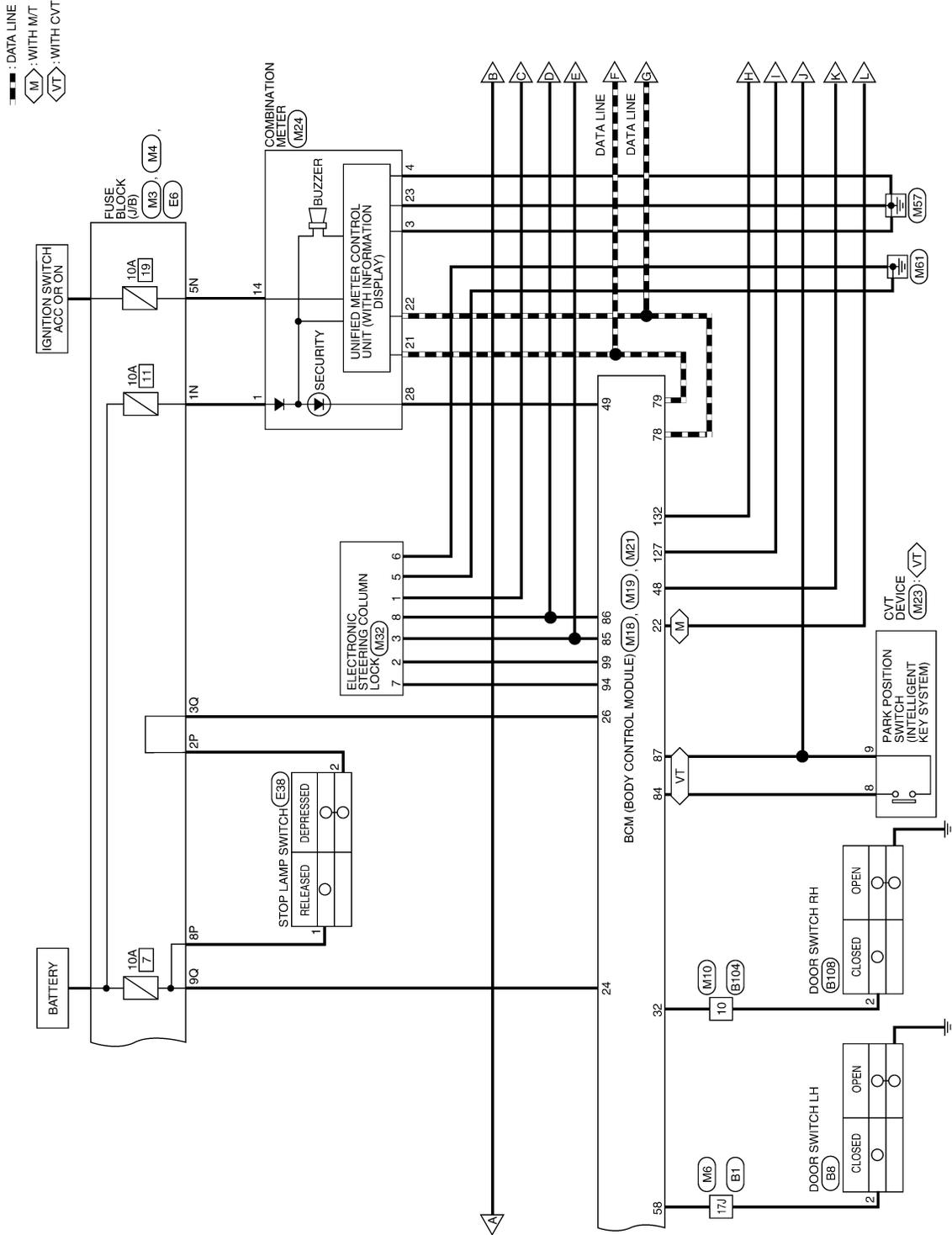
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[COUPE]



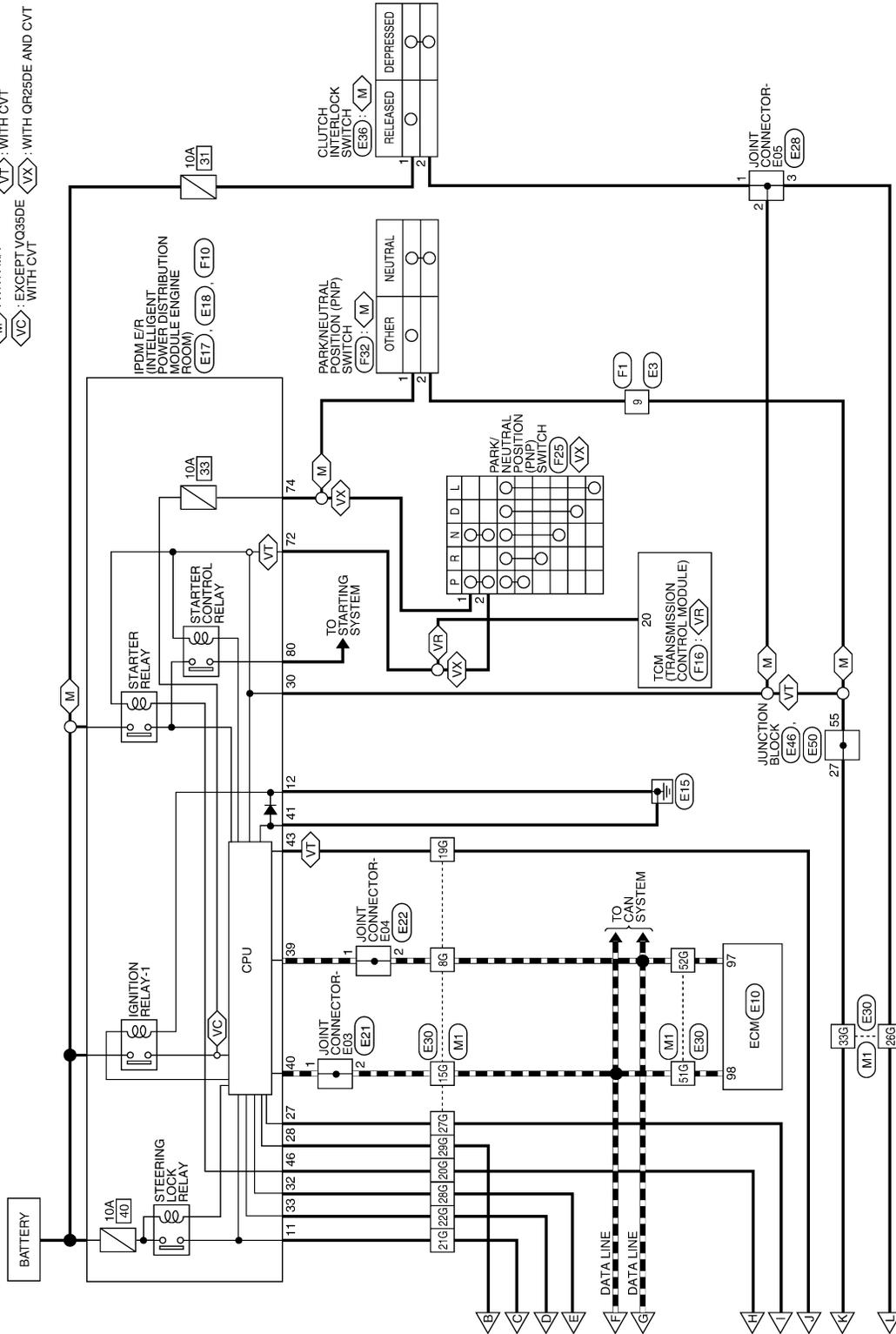
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[COUPE]

- : DATA LINE
- VR : WITH VQ35DE AND CVT
- M : WITH MT
- VT : WITH CVT
- VC : EXCEPT VQ35DE
- VX : WITH QR25DE AND CVT



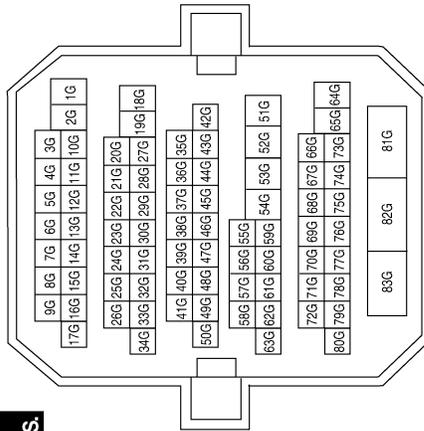
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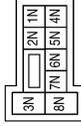
INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION CONNECTORS

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



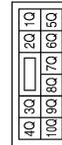
Terminal No.	Color of Wire	Signal Name
8G	P	-
15G	L	-
19G	Y	-
20G	R	-
21G	P/L	-
22G	G/R	-
26G	R/Y	-
27G	BR/W	-
28G	L/O	-
29G	BR	-
33G	R/G	-
51G	L	-
52G	P	-
82G	W/B	-

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	-

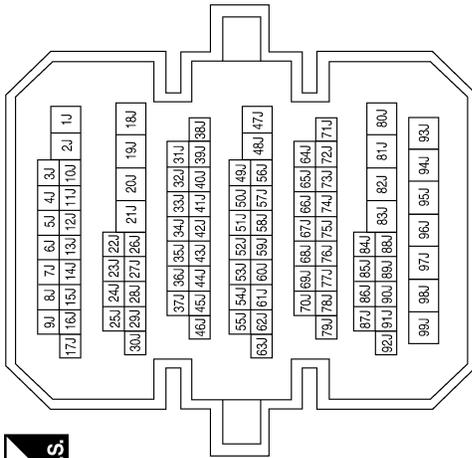
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

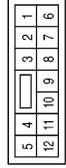
[COUPE]

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



Terminal No.	Color of Wire	Signal Name
4J	B	-
10J	SHIELD	-
11J	W	-
17J	SB	-

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



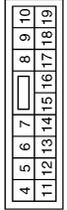
Terminal No.	Color of Wire	Signal Name
10	R/B	-

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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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[COUPE]

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



39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20
59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40

Terminal No.	Color of Wire	Signal Name
22	R/Y	CLUTCH_SW
24	R/W	STOP_LAMP_LOW_SW
26	O/L	STOP_LAMP_HIGH_SW
29	Y	FOB_IN_SW
32	R/B	AS_DOOR_SW
42	R	S/L_LOCK_LED
45	P	GND_RF2_AVL
48	R/G	SHIFT_N/P
49	L/O	IMMO_LED
58	SB	DR_DOOR_SW

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



79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61	60
99	98	97	96	95	94	93	92	91	90	89	88	87	86	85	84	83	82	81	80

Terminal No.	Color of Wire	Signal Name
60	B/R	ROOM_ANT_2_B
61	W/R	ROOM_ANT_2_A
66	R	ROOM_ANT_1_B
67	G	ROOM_ANT_1_A

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.	M21
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GRAY



131	130	129	128	127	126	125	124	123	122	121	120	119	118	117	116	115	114	113	112
151	150	149	148	147	146	145	144	143	142	141	140	139	138	137	136	135	134	133	132

Terminal No.	Color of Wire	Signal Name
114	B	TRUNK_ANT_1_B
115	W	TRUNK_ANT_1_A
127	BR/W	IGN_USM_CONTT1
132	R	ST_CONT_USM

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[COUPE]

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

Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE



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

Connector No.	M23
Connector Name	CVT DEVICE
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.	M38
Connector Name	PUSH-BUTTON IGNITION SWITCH
Connector Color	BROWN



1	2	3		
4	5	6	7	8

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



4	3	2	1
8	7	6	5

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+

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

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



1	2	3	4
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Terminal No.	Color of Wire	Signal Name
1	P	GND
2	L/O	SIGNAL
4	L/R	12V

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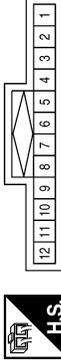
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[COUPE]

Connector No.	M63
Connector Name	JOINT CONNECTOR-M02
Connector Color	BLUE



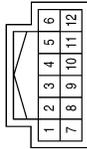
Terminal No.	Color of Wire	Signal Name
8	B	-
10	GR	-
11	GR	-

Connector No.	M49
Connector Name	INSTRUMENT PANEL ANTENNA
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	G	ANT+
2	R	ANT-

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.	M200
Connector Name	WIRE TO WIRE
Connector Color	WHITE



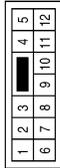
Terminal No.	Color of Wire	Signal Name
1	B/R	-
2	SHIELD	-
6	W/R	-

Connector No.	M85
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	B	-

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



Terminal No.	Color of Wire	Signal Name
1	B/R	-
2	SHIELD	-
6	W/R	-

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[COUPE]

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



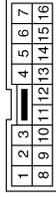
Terminal No.	Color of Wire	Signal Name
1	W/R	ANT+
2	B/R	ANT-

Connector No.	M350
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	B	-

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



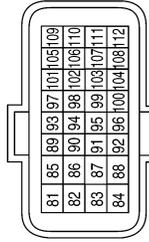
Terminal No.	Color of Wire	Signal Name
9	BR	-

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



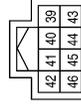
Terminal No.	Color of Wire	Signal Name
2P	LG	-
8P	R	-

Connector No.	E10
Connector Name	ECM
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
97	P	CAN-L
98	L	CAN-H

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	DETENT_SW
46	BR	START_CONT

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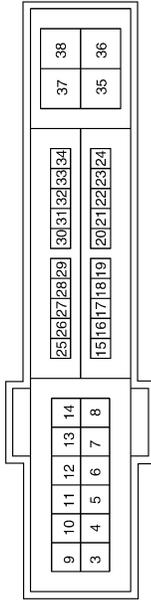
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BCM (BODY CONTROL MODULE)

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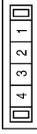
[COUPE]

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



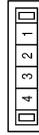
Terminal No.	Color of Wire	Signal Name
O	11	ESCL
B	12	GND(POWER)
W	27	IGN_SIGNAL
SB	28	PUSH_START_SW
R	30	CLUTCH_I/L_SW
P	32	SL_CONDITION_1
G	33	SL_CONDITION_2

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



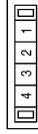
Terminal No.	Color of Wire	Signal Name
1	L	-
2	L	-

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	-

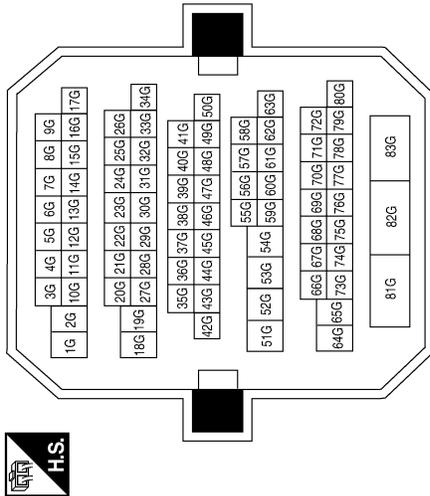
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[COUPE]

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	-
51G	L	-
52G	P	-
82G	LG	-

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



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

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



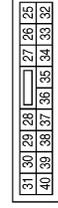
Terminal No.	Color of Wire	Signal Name
1	R	B+
2	LG	HIGH_SW

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



Terminal No.	Color of Wire	Signal Name
1	R	B+
2	LG	HIGH_SW

Connector No.	E46
Connector Name	JUNCTION BLOCK
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
27	BR	-

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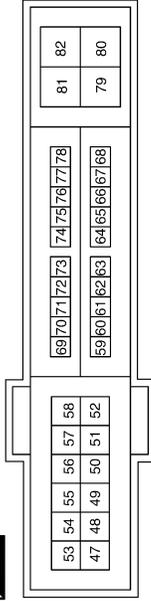
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

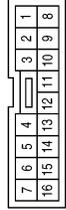
[COUPE]

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	R/B	NPSW
74	Y	START_IG_EGI
80	B/W	STARTER_MOTOR

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



Terminal No.	Color of Wire	Signal Name
9	R/B	-

Connector No.	E50
Connector Name	JUNCTION BLOCK
Connector Color	WHITE

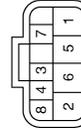


Terminal No.	Color of Wire	Signal Name
55	R/B	-

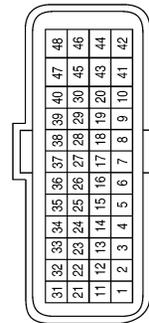
Connector No.	F32
Connector Name	PARK/NEUTRAL POSITION (PNP) SWITCH
Connector Color	BLACK



Connector No.	F25
Connector Name	PARK/NEUTRAL POSITION (PNP) SWITCH
Connector Color	BLACK



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



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

Terminal No.	Color of Wire	Signal Name
1	Y	IGN_P_N
2	R/B	P_N_OUTPUT

Terminal No.	Color of Wire	Signal Name
20	R/B	ST_RLY

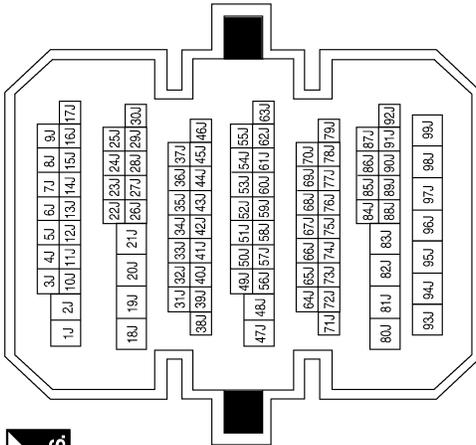
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[COUPE]

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



Terminal No.	Color of Wire	Signal Name
4J	B	
10J	SHIELD	
11J	W	
17J	SB	

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



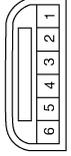
Terminal No.	Color of Wire	Signal Name
1	W	ANT+
2	B	ANT-

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



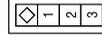
Terminal No.	Color of Wire	Signal Name
2	SB	DOOR SW (DR)

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



Terminal No.	Color of Wire	Signal Name
5	GR	-
6	B	-

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



Terminal No.	Color of Wire	Signal Name
2	R/B	DOOR SW (AS)

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

SEC

BCM (BODY CONTROL MODULE)

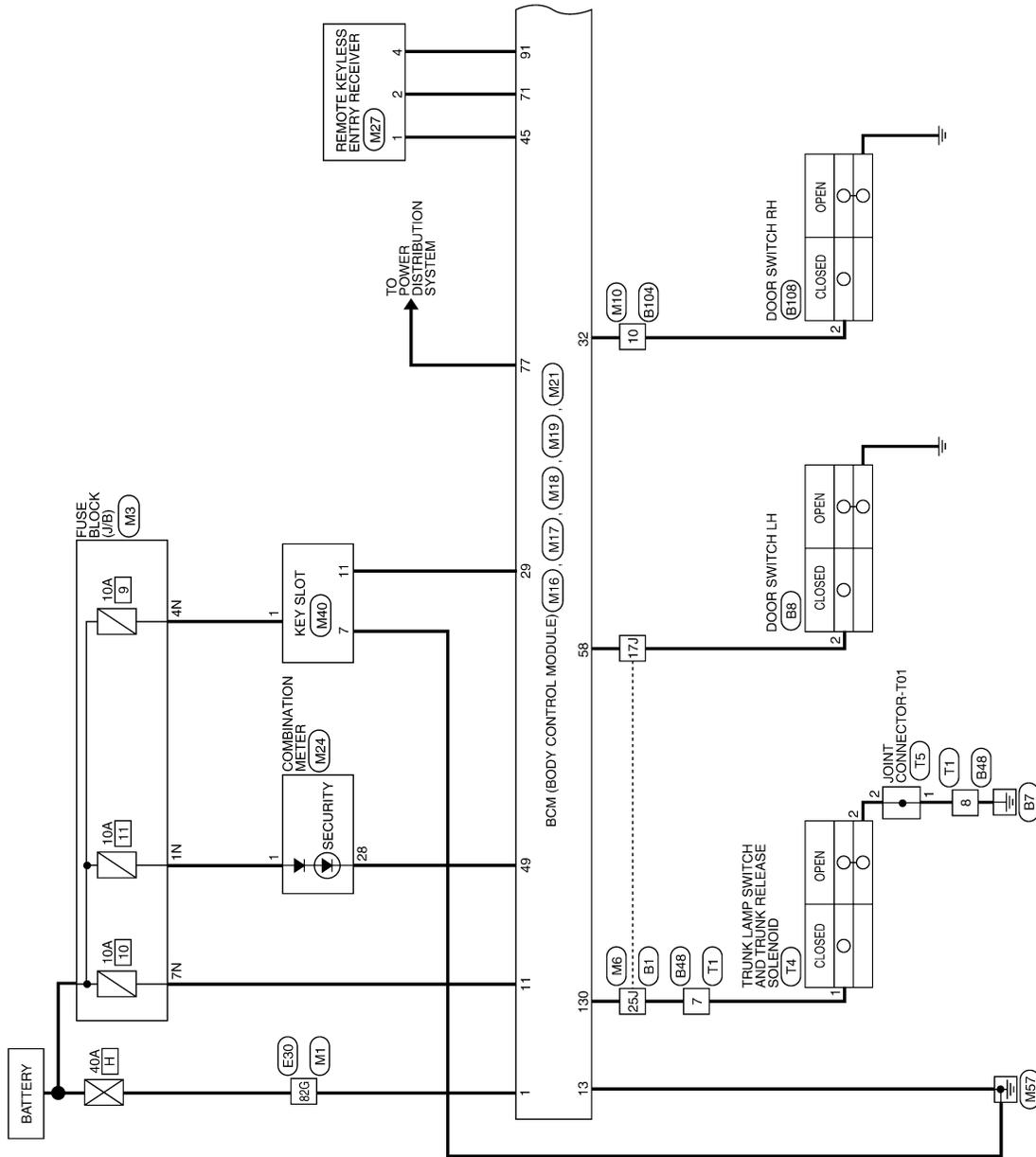
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[COUPE]

Wiring Diagram - VEHICLE SECURITY SYSTEM -

INFOID:000000004206157

VEHICLE SECURITY SYSTEM



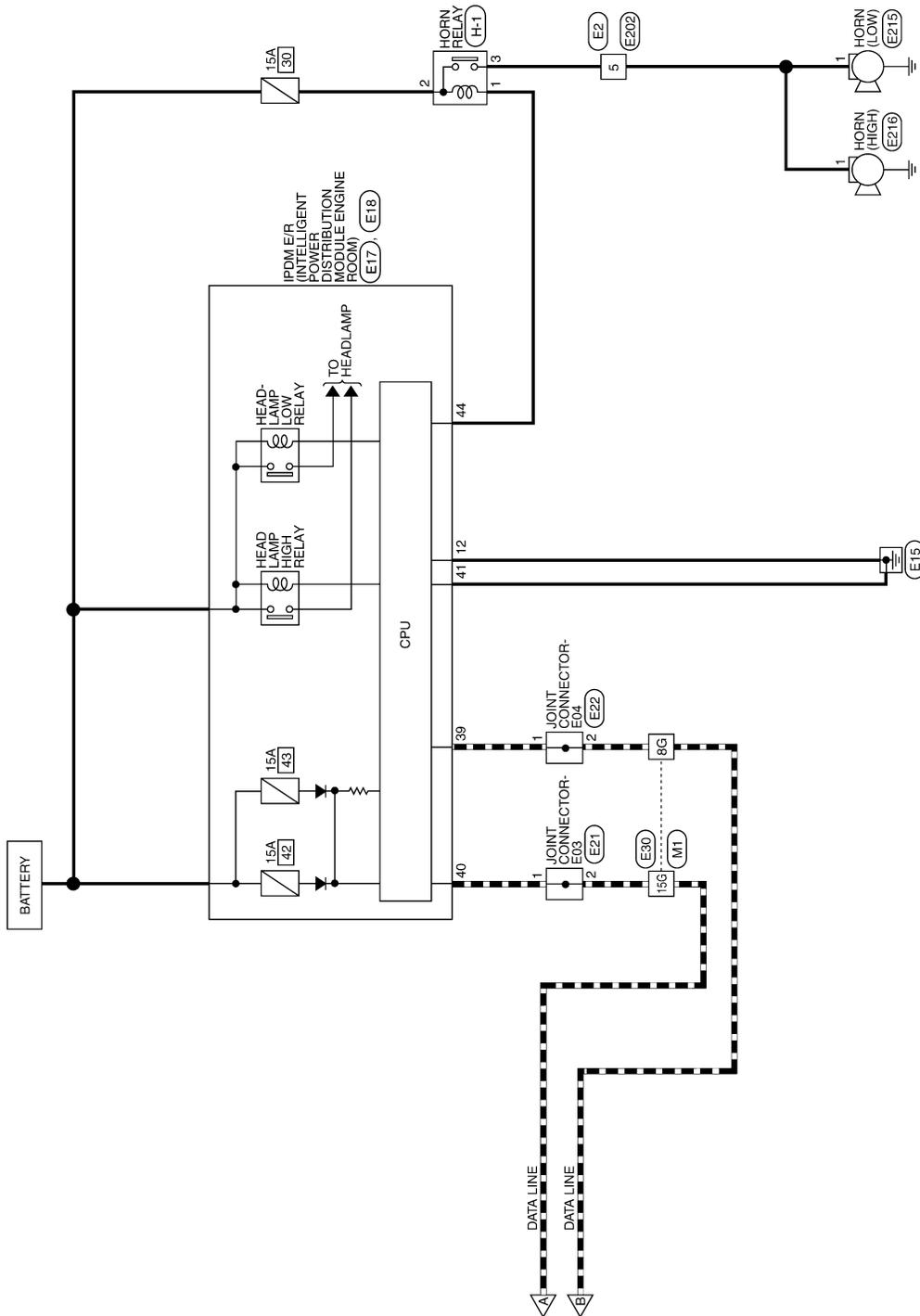
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[COUPE]

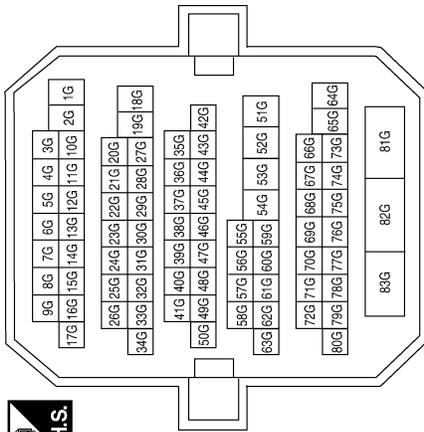
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ABKWA0217GE

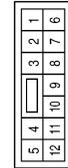
VEHICLE SECURITY SYSTEM CONNECTORS

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



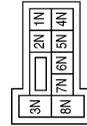
Terminal No.	Color of Wire	Signal Name
8G	P	-
15G	L	-
82G	W/B	-

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



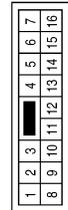
Terminal No.	Color of Wire	Signal Name
10	R/B	-

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

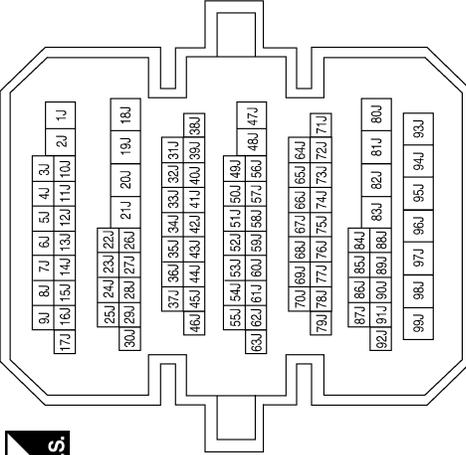


Terminal No.	Color of Wire	Signal Name
1N	W/L	-
4N	G/Y	-
7N	Y/R	-

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



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



Terminal No.	Color of Wire	Signal Name
17J	SB	-
25J	Y/G	-

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

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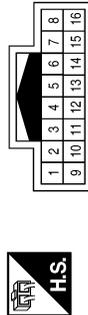
SEC

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

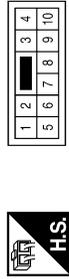
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Connector No.	M12
Connector Name	WIRE TO WIRE
Connector Color	WHITE



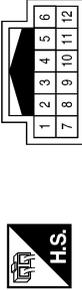
Terminal No.	Color of Wire	Signal Name
2	L/B	-
9	L/R	-
10	Y/G	-

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.	M15
Connector Name	WIRE TO WIRE
Connector Color	WHITE



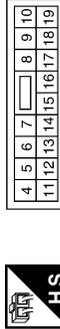
Terminal No.	Color of Wire	Signal Name
2	GR	-
7	GR/R	-

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



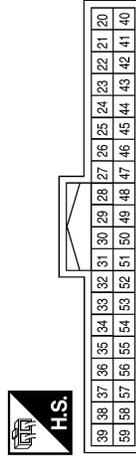
Terminal No.	Color of Wire	Signal Name
1	W/B	BAT_POWER_F/L

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

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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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[COUPE]

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



79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61	60
99	98	97	96	95	94	93	92	91	90	89	88	87	86	85	84	83	82	81	80

Terminal No.	Color of Wire	Signal Name
60	B/R	ROOM_ANT_2_B
61	W/R	ROOM_ANT_2_A
62	B/Y	AS_DOOR_ANT_B
63	LG	AS_DOOR_ANT_A
64	V	DR_DOOR_ANT_B
65	P	DR_DOOR_ANT_A
66	R	ROOM_ANT_1_B
67	G	ROOM_ANT_1_A
71	L/O	RF1_TUNER_SIGNAL
78	P	CAN-L
79	L	CAN-H
91	L/R	RF1_POWER_SUPPLY



1	2	3	4
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Terminal No.	Color of Wire	Signal Name
1	P	GND
2	L/O	SIGNAL
3	L/R	12V

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



131	130	129	128	127	126	125	124	123	122	121	120	119	118	117	116	115	114	113	112
151	150	149	148	147	146	145	144	143	142	141	140	139	138	137	136	135	134	133	132

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



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

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	CARE_SW_1

Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE



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

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

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



1	2	3		
4	5	6	7	8

Terminal No.	Color of Wire	Signal Name
5	O	-

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

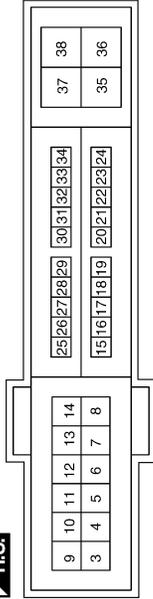
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Connector No.	E17
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



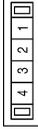
Terminal No.	Color of Wire	Signal Name
39	P	CAN-L
40	L	CAN-H
41	B	GND (SIGNAL)
44	G/W	HORN_RLY

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



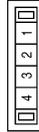
Terminal No.	Color of Wire	Signal Name
12	B	GND (POWER)

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



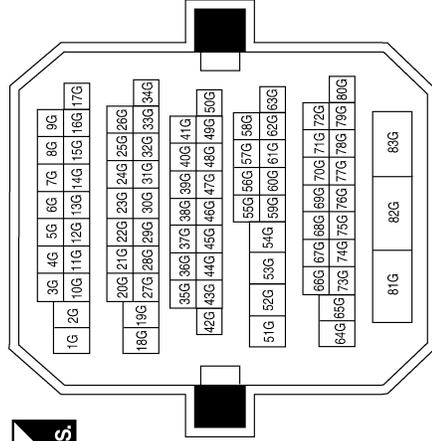
Terminal No.	Color of Wire	Signal Name
1	L	-
2	L	-

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



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

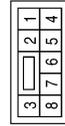
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BCM (BODY CONTROL MODULE)

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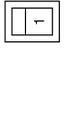
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Connector No.	E202
Connector Name	WIRE TO WIRE
Connector Color	WHITE



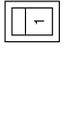
Terminal No.	5	Color of Wire	G	Signal Name	-
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Connector No.	E215
Connector Name	HORN
Connector Color	BLACK



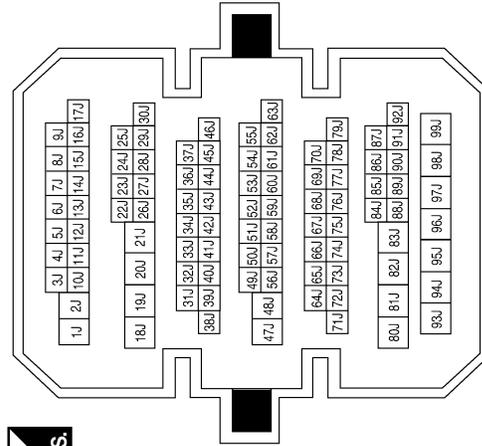
Terminal No.	1	Color of Wire	G	Signal Name	-
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Connector No.	E216
Connector Name	HORN
Connector Color	BLACK



Terminal No.	1	Color of Wire	G	Signal Name	-
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Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	17J	Color of Wire	SB	Signal Name	-
	22J		R/B		-
	25J		Y/G		-

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



Terminal No.	2	Color of Wire	SB	Signal Name	DOOR SW (DR)
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

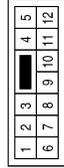
[COUPE]

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



Terminal No.	Color of Wire	Signal Name
2	R/B	DOOR SW (AS)

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



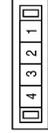
Terminal No.	Color of Wire	Signal Name
10	R/B	-

Connector No.	B48
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

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



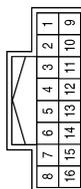
Terminal No.	Color of Wire	Signal Name
1	B	-
2	B	-

Connector No.	T4
Connector Name	TRUNK LAMP SWITCH AND TRUNK RELEASE SOLENOID
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	Y/G	TRUNK_REQUEST_SW
2	B	GND

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



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

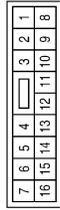
ABKIA0790GB

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

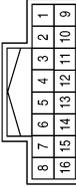
[COUPE]

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



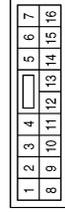
Terminal No.	Color of Wire	Signal Name
1	GR	-
9	GR/R	-

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



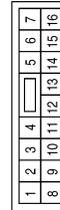
Terminal No.	Color of Wire	Signal Name
2	L/B	-
9	L/R	-
10	Y/G	-

Connector No.	D7
Connector Name	MAIN POWER WINDOW AND LOCK/UNLOCK SWITCH (WITH LEFT POWER WINDOW ANTI-PINCH SYSTEM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5	G/R	RR DOWN
6	GR/R	UNLOCK
10	L/W	IGN

Connector No.	D7
Connector Name	MAIN POWER WINDOW AND LOCK/UNLOCK SWITCH (WITH LEFT AND RIGHT POWER WINDOW ANTI-PINCH SYSTEM)
Connector Color	WHITE



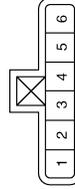
Terminal No.	Color of Wire	Signal Name
4	L/B	LOCK
6	L/R	UNLOCK
14	Y/G	COM

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



Terminal No.	Color of Wire	Signal Name
17	B	GND

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



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

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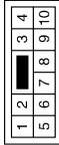
SEC

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

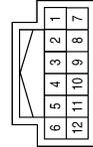
[COUPE]

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



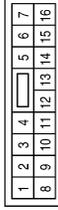
Terminal No.	Color of Wire	Signal Name
5	B	-
8	Y/G	-

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



Terminal No.	Color of Wire	Signal Name
2	GR	-
7	GR/R	-

Connector No.	D105
Connector Name	POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH (WITH LEFT AND RIGHT WINDOW ANTI-PINCH SYSTEM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
11	B	GND
16	Y/G	COM

Connector No.	D105
Connector Name	POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH (WITH LEFT AND RIGHT 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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BCM (BODY CONTROL MODULE)

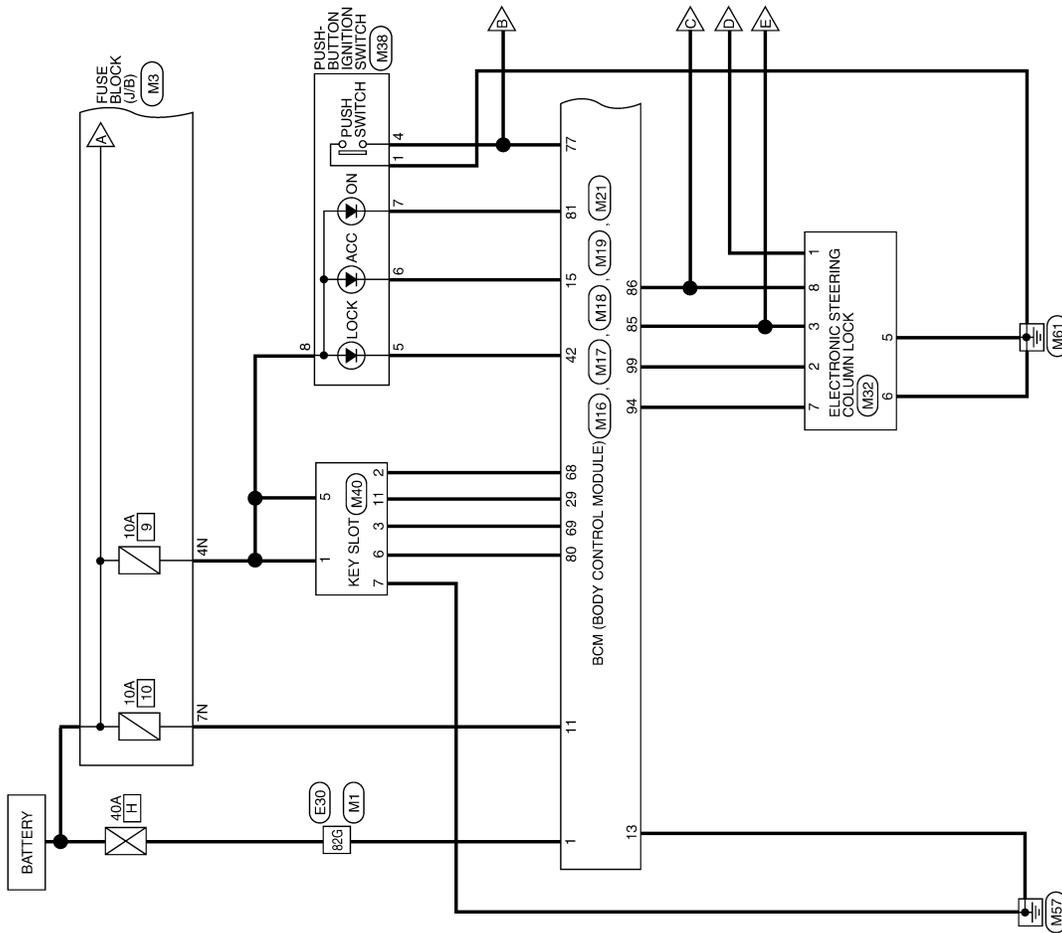
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[COUPE]

Wiring Diagram - NVIS -

INFOID:00000004206158

NVIS



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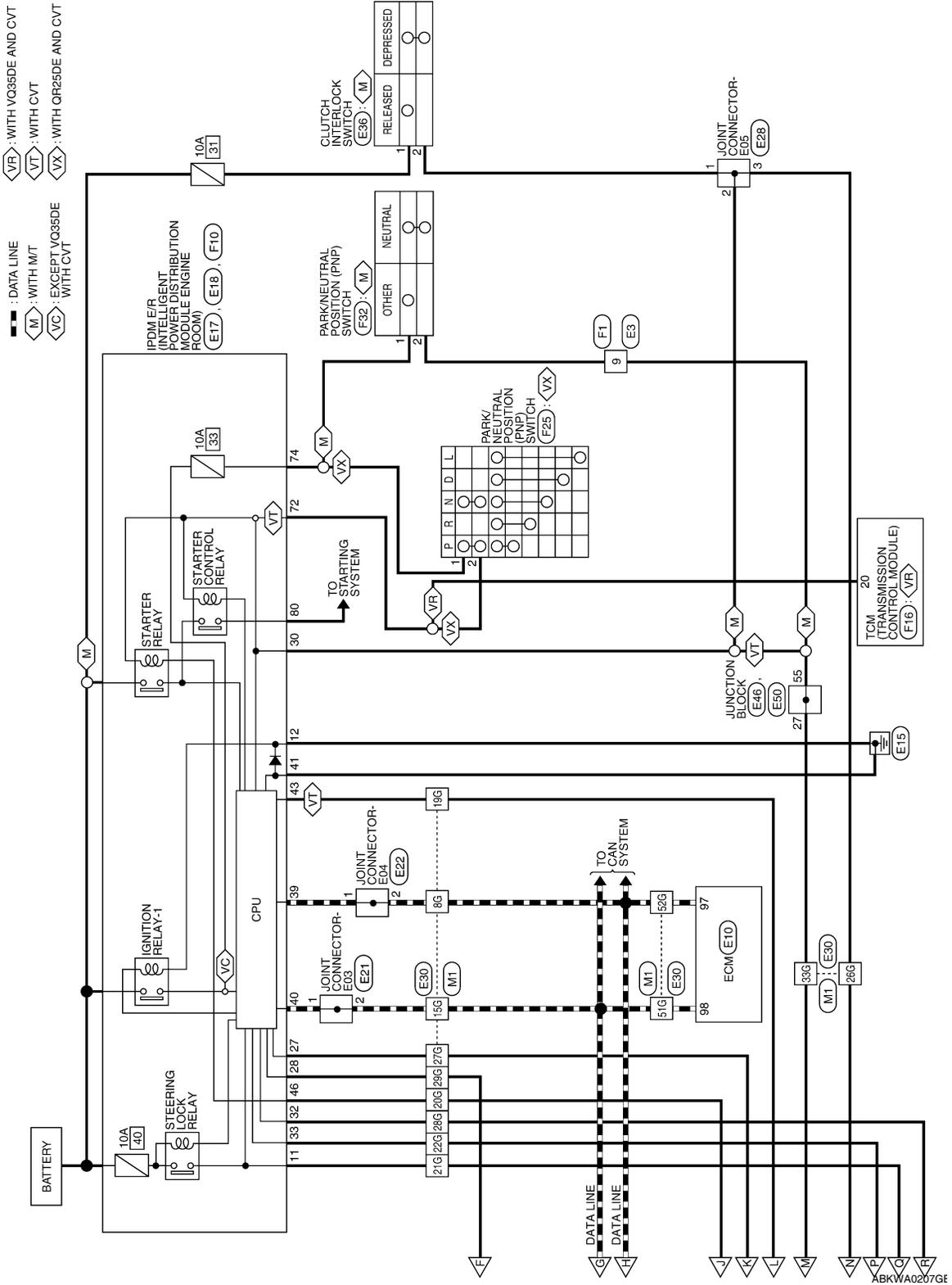
SEC

ABKWA0204GE

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[COUPE]

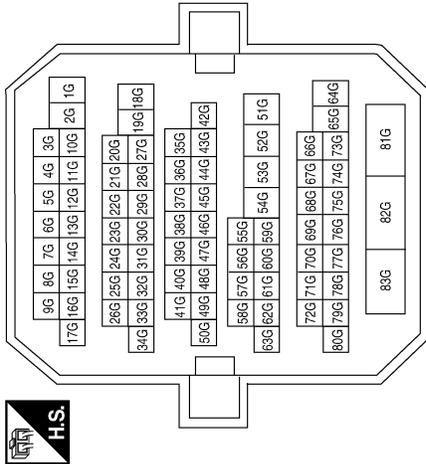


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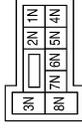
NVIS CONNECTORS

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



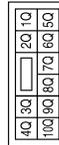
Terminal No.	Color of Wire	Signal Name
8G	P	-
15G	L	-
19G	Y	-
20G	R	-
21G	P/L	-
22G	G/R	-
26G	R/Y	-
27G	BR/W	-
28G	L/O	-
29G	BR	-
33G	R/G	-
51G	L	-
52G	P	-
82G	W/B	-

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	-
7N	Y/R	-

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



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

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



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

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



Terminal No.	Color of Wire	Signal Name
11	Y/R	BAT_BCM_FUSE
13	B	GND1
15	Y/L	ACC_LED

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[COUPE]

Terminal No.	Color of Wire	Signal Name
77	BR	ENG_START_SW
78	P	CAN-L
79	L	CAN-H
80	R/L	FOB SLOT ILLUMINATION
81	LG	IGN_ON_LED
84	Y/R	AT_DEVICE_OUT
85	L/O	S/L_CONDITION_1
86	G/R	S/L_CONDITION_2
87	G/B	SHIFT_P
94	G/Y	S/L_POWER_SUPPLY_12V
99	L/Y	S/L_K-LINE

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



79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61	60
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

Connector No.	M23
Connector Name	CVT DEVICE
Connector Color	WHITE



1	3	7	9		
2	4	5	6	8	10

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



131	130	129	128	127	126	125	124	123	122	121	120	119	118	117	116	115	114	113	112
151	150	149	148	147	146	145	144	143	142	141	140	139	138	137	136	135	134	133	132

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

Terminal No.	Color of Wire	Signal Name
127	BRW	IGN_USM_CONTT1
132	R	ST_CONT_USM

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

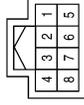
SEC

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[COUPE]

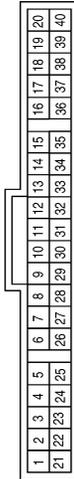
Connector No.	M32
Connector Name	ELECTRONIC STEERING COLUMN LOCK
Connector Color	WHITE



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
4	B	GND
14	V/Y	ACC
21	L	CAN-H
22	P	CAN-L
23	B	GND
28	L/O	SECURITY

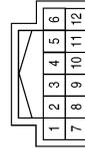
Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE



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



Connector No.	M40
Connector Name	KEY SLOT
Connector Color	WHITE



Terminal No.	9	Color of Wire	BR	Signal Name	-
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Connector No.	M38
Connector Name	PUSH-BUTTON IGNITION SWITCH
Connector Color	BROWN



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

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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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

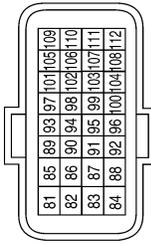
[COUPE]

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



Terminal No.	Color of Wire	Signal Name
2P	LG	-
8P	R	-

Connector No.	E10
Connector Name	ECM
Connector Color	BLACK



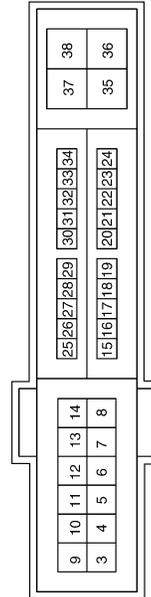
Terminal No.	Color of Wire	Signal Name
97	P	CAN-L
98	L	CAN-H

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



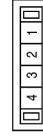
Terminal No.	Color of Wire	Signal Name
39	P	CAN-L
40	L	CAN-H
41	B	GND (SIGNAL)
43	Y	DETENT_SW
46	BR	START_CONT

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



Terminal No.	Color of Wire	Signal Name
11	O	ESCL
12	B	GND (POWER)
27	W	IGN_SIGNAL
28	SB	PUSH_START_SW
30	R	CLUTCH_I/L_SW
32	P	SL_CONDITION_1
33	G	SL_CONDITION_2

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



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

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SEC

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

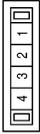
[COUPE]

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



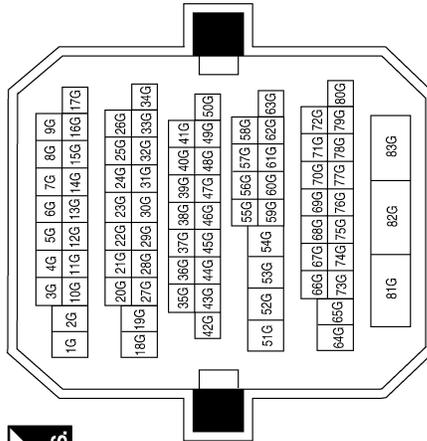
Terminal No.	Color of Wire	Signal Name
1	P	-
2	P	-

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	BR/W	-
28G	P	-
29G	BR	-
33G	BR	-
51G	L	-
52G	P	-
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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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[COUPE]

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



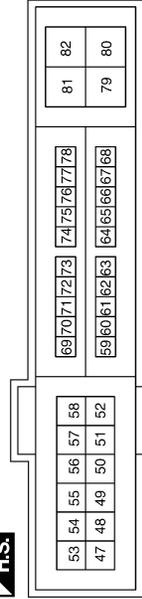
Terminal No.	Color of Wire	Signal Name
1	R	B+
2	LG	HIGH_SW

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



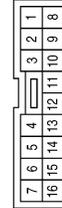
Terminal No.	Color of Wire	Signal Name
1	R	B+
2	LG	HIGH_SW

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	R/B	NPSW
74	Y	START_IG-EGI
80	B/W	STARTER_MOTOR

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



Terminal No.	Color of Wire	Signal Name
9	R/B	-

Connector No.	E50
Connector Name	JUNCTION BLOCK
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
55	BR	-

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SEC

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

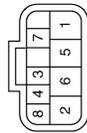
[COUPE]

Connector No.	F32
Connector Name	PARK/NEUTRAL POSITION (PNP) SWITCH (WITH M/T)
Connector Color	BLACK



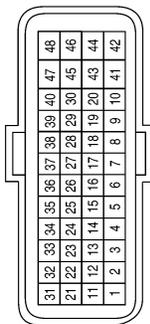
Terminal No.	Color of Wire	Signal Name
1	Y	-
2	R/B	-

Connector No.	F25
Connector Name	PARK/NEUTRAL POSITION (PNP) SWITCH (WITH CVT)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	Y	NPSW
2	R/B	START_IG_EGI

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



Terminal No.	Color of Wire	Signal Name
20	R/B	ST_RLY

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INFOID:000000004501295

Fail Safe

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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[COUPE]

Display contents of CONSULT	Fail-safe	Cancellation	
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC	A
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC	
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC	B
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	C
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 	D
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	E
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) 	F
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 	G
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) 	H
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 	I
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/PNP 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) - PNP switch signal (CAN): ON 	J
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) 	SEC
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) 	L

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[COUPE]

Display contents of CONSULT	Fail-safe	Cancellation
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
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
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)

DTC Inspection Priority Chart

INFOID:000000004501296

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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[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 • 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 • B26E1: ENG STATE NO RECIV • C1729: VHCL SPEED SIG ERR • U0415: VEHICLE SPEED SIG 	<p style="text-align: center;">A</p> <p style="text-align: center;">B</p> <p style="text-align: center;">C</p> <p style="text-align: center;">D</p> <p style="text-align: center;">E</p> <p style="text-align: center;">F</p> <p style="text-align: center;">G</p> <p style="text-align: center;">H</p> <p style="text-align: center;">I</p>	
	<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: center;">J</p> <p style="text-align: center;">L</p> <p style="text-align: center;">M</p> <p style="text-align: center;">N</p> <p style="text-align: center;">O</p> <p style="text-align: center;">P</p>	
	5		SEC
	6	<ul style="list-style-type: none"> • B2621: INSIDE ANTENNA • B2622: INSIDE ANTENNA • B2623: INSIDE ANTENNA 	

DTC Index

INFOID:000000004501297

NOTE:

BCM (BODY CONTROL MODULE)

[COUPE]

< ECU DIAGNOSIS >

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-38
U1010: CONTROL UNIT (CAN)	—	—	—	BCS-39
U0415: VEHICLE SPEED SIG	—	—	—	BCS-40
B2013: ID DISCORD BCM-S/L	×	—	—	SEC-38
B2014: CHAIN OF S/L-BCM	×	—	—	SEC-39
B2190: NATS ANTENNA AMP	×	—	—	SEC-64
B2191: DIFFERENCE OF KEY	×	—	—	SEC-67
B2192: ID DISCORD BCM-ECM	×	—	—	SEC-68
B2193: CHAIN OF BCM-ECM	×	—	—	SEC-69
B2553: IGNITION RELAY	—	—	—	PCS-60
B2555: STOP LAMP	—	—	—	SEC-70
B2556: PUSH-BTN IGN SW	—	×	—	SEC-72
B2557: VEHICLE SPEED	×	×	—	SEC-74
B2560: STARTER CONT RELAY	×	×	—	SEC-75
B2562: LOW VOLTAGE	—	—	—	BCS-41
B2601: SHIFT POSITION	×	×	—	SEC-76
B2602: SHIFT POSITION	×	×	—	SEC-79
B2603: SHIFT POSI STATUS	×	×	—	SEC-81
B2604: PNP SW	×	×	—	SEC-84
B2605: PNP SW	×	×	—	SEC-86
B2606: S/L RELAY	×	×	—	SEC-88
B2607: S/L RELAY	×	×	—	SEC-89
B2608: STARTER RELAY	×	×	—	SEC-91
B2609: S/L STATUS	×	×	—	SEC-93
B260A: IGNITION RELAY	×	×	—	PCS-62
B260B: STEERING LOCK UNIT	—	×	—	SEC-97
B260C: STEERING LOCK UNIT	—	×	—	SEC-98
B260D: STEERING LOCK UNIT	—	×	—	SEC-99
B260F: ENG STATE SIG LOST	×	×	—	SEC-100
B2612: S/L STATUS	×	×	—	SEC-101
B2614: ACC RELAY CIRC	—	×	—	PCS-65
B2615: BLOWER RELAY CIRC	—	×	—	PCS-68
B2616: IGN RELAY CIRC	—	×	—	PCS-71
B2617: STARTER RELAY CIRC	×	×	—	SEC-105
B2618: BCM	×	×	—	PCS-74

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[COUPE]

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
B2619: BCM	×	×	—	SEC-107
B261A: PUSH-BTN IGN SW	—	×	—	SEC-108
B2621: INSIDE ANTENNA	—	—	—	DLK-59
B2622: INSIDE ANTENNA	—	—	—	DLK-62
B2623: INSIDE ANTENNA	—	—	—	DLK-65
B26E1: ENG STATE NO RES	×	×	—	SEC-110
C1704: LOW PRESSURE FL	—	—	×	WT-52
C1705: LOW PRESSURE FR	—	—	×	WT-52
C1706: LOW PRESSURE RR	—	—	×	WT-52
C1707: LOW PRESSURE RL	—	—	×	WT-52
C1708: [NO DATA] FL	—	—	×	WT-14
C1709: [NO DATA] FR	—	—	×	WT-14
C1710: [NO DATA] RR	—	—	×	WT-14
C1711: [NO DATA] RL	—	—	×	WT-14
C1712: [CHECKSUM ERR] FL	—	—	×	WT-16
C1713: [CHECKSUM ERR] FR	—	—	×	WT-16
C1714: [CHECKSUM ERR] RR	—	—	×	WT-16
C1715: [CHECKSUM ERR] RL	—	—	×	WT-16
C1716: [PRESSDATA ERR] FL	—	—	×	WT-18
C1717: [PRESSDATA ERR] FR	—	—	×	WT-18
C1718: [PRESSDATA ERR] RR	—	—	×	WT-18
C1719: [PRESSDATA ERR] RL	—	—	×	WT-18
C1720: [CODE ERR] FL	—	—	×	WT-16
C1721: [CODE ERR] FR	—	—	×	WT-16
C1722: [CODE ERR] RR	—	—	×	WT-16
C1723: [CODE ERR] RL	—	—	×	WT-16
C1724: [BATT VOLT LOW] FL	—	—	×	WT-16
C1725: [BATT VOLT LOW] FR	—	—	×	WT-16
C1726: [BATT VOLT LOW] RR	—	—	×	WT-16
C1727: [BATT VOLT LOW] RL	—	—	×	WT-16
C1729: VHCL SPEED SIG ERR	—	—	×	WT-19
C1734: CONTROL UNIT	—	—	×	WT-20

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

< ECU DIAGNOSIS >

[COUPE]

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

Reference Value

INFOID:000000004501298

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
		<ul style="list-style-type: none"> • Front fog lamp switch ON • Daytime running light activated (Only for Canada models) 	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

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

< ECU DIAGNOSIS >

[COUPE]

Monitor Item	Condition	Value/Status
IHBT RLY -REQ	Ignition switch ON	Off
	At engine cranking	On
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
DTRL REQ	NOTE: This item is displayed, but cannot be monitored.	Off
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
CRNRNG LMP REQ	NOTE: This item is displayed, but cannot be monitored.	Off

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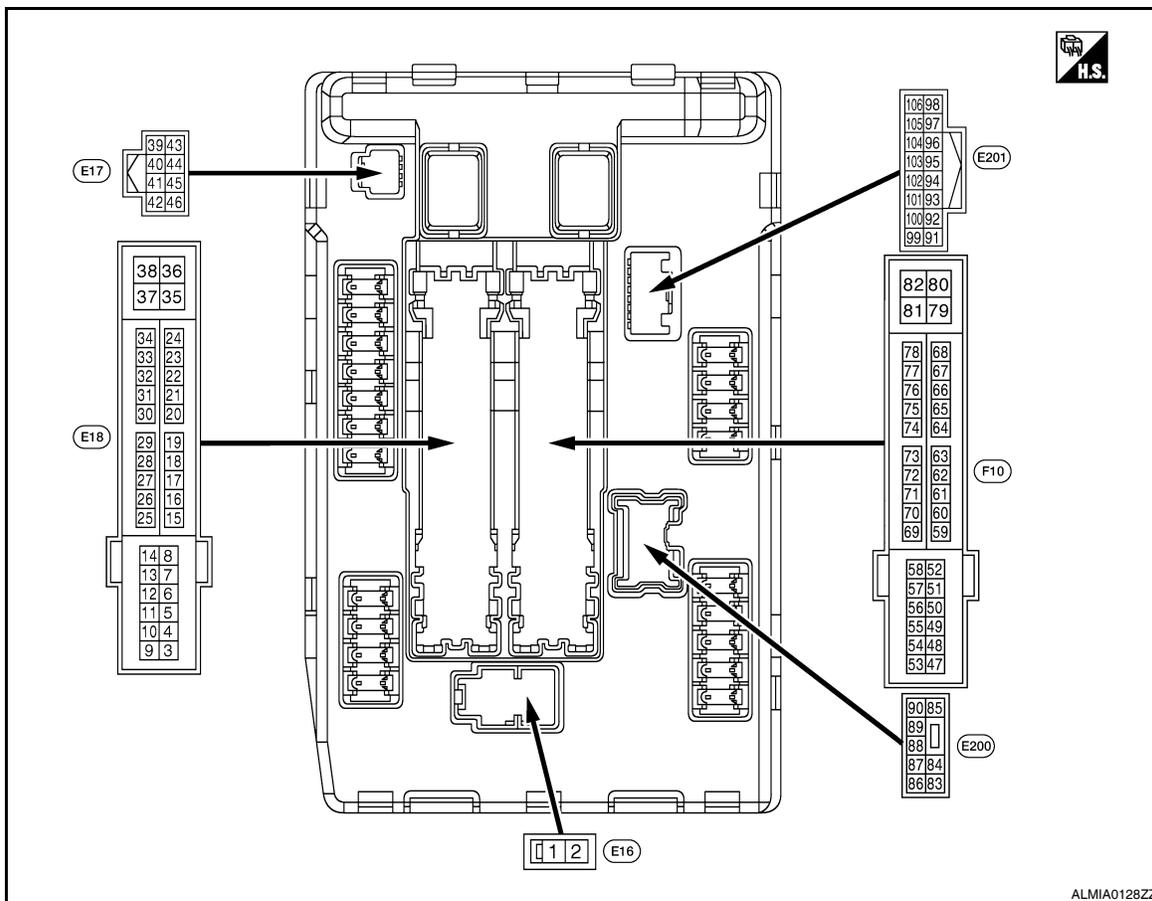
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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS >

[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 (L/R)	Ground	Front wiper LO	Output	Ignition switch OFF	Front wiper switch OFF	0V
				Ignition switch ON	Front wiper switch LO	Battery voltage
5 (L/B)	Ground	Front wiper HI	Output	Ignition switch OFF	Front wiper switch OFF	0V
				Ignition switch ON	Front wiper switch HI	Battery voltage
6 (SB)	Ground	Daytime light relay power supply (Canada models only)	Output	Ignition switch OFF		Battery voltage
7 (R/L)	Ground	Tail, license plate lamps & interior lamps	Output	Ignition switch OFF	Lighting switch OFF	0V
				Ignition switch ON	Lighting switch 1ST	Battery voltage
10 (R/B)	Ground	ECM relay power supply	Output	Ignition switch OFF (For a few seconds after turning ignition switch OFF)		0V
				<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 >

[COUPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
11 (P/L)	Ground	Steering lock unit 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		0V
12 (B)	Ground	Ground	—	Ignition switch ON		0V
13 (W)	Ground	Fuel pump power supply	Output	Approximately 1 second or more after turning the ignition switch ON		0V
				<ul style="list-style-type: none"> • Approximately 1 second after turning the ignition switch ON • Engine running 		Battery voltage
15 (G/W)	Ground	Ignition relay-1 power supply	Output	Ignition switch OFF		0V
				Ignition switch ON		Battery voltage
16 (L/Y)	Ground	Front wiper auto stop	Input	Ignition switch ON	Front wiper stop position	0V
					Any position other than front wiper stop position	Battery voltage
19 (L/Y)	Ground	Ignition relay-1 power supply	Output	Ignition switch OFF		0V
				Ignition switch ON		Battery voltage
20 (B/Y)	Ground	Ambient sensor ground	—	Ignition switch ON		0V
21 (O/B)	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		0V
				Ignition switch ON		Battery voltage
27 (BR/W)	Ground	Ignition relay monitor	Input	Ignition switch OFF or ACC		Battery voltage
				Ignition switch ON		0V
28 (BR)	Ground	Push-button ignition switch	Input	Press the push-button ignition switch		0V
				Release the push-button ignition switch		Battery voltage
30 (R/B)	Ground	Starter relay control	Input	CVT models	CVT selector lever in any position other than P or N (ignition switch ON)	0V
					CVT selector lever P or N (ignition switch ON)	Battery voltage
				M/T models	Release the clutch pedal	0V
					Depress the clutch pedal	Battery voltage

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

< ECU DIAGNOSIS >

[COUPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
32 (L/O)	Ground	Electronic steering column lock unit condition-1	Input	Electronic steering column lock is activated	0V	
				Electronic steering column lock is deactivated	Battery voltage	
33 (G/R)	Ground	Electronic steering column lock unit condition-2	Input	Electronic steering column lock is activated	Battery voltage	
				Electronic steering column lock is deactivated	0V	
34 (O/L)	Ground	Cooling fan relay-3 control	Input	Ignition switch OFF or ACC	0V	
				Ignition switch ON	0.7V	
35 (L/B)	Ground	Cooling fan motor control	Output	Ignition switch OFF or ACC	0V	
				Ignition switch ON	0.7V	
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	0V	
				Ignition switch ON	0.7V	
39 (P)	—	CAN - L	Input/ Output	—	—	
40 (L)	—	CAN - H	Input/ Output	—	—	
41 (B)	Ground	Ground	—	Ignition switch ON	0V	
42 (SB)	Ground	Cooling fan relay-2 control	Input	Ignition switch OFF or ACC	0V	
				Ignition switch ON	0.7V	
43 (G/B)	Ground	CVT device (Detention switch)	Input	Ignition switch ON	Battery voltage	
				<ul style="list-style-type: none"> • CVT selector lever in any position other than P • Release the CVT selector button (CVT selector lever P) 	0V	
44 (G/W)	Ground	Horn relay control	Input	The horn is deactivated	Battery voltage	
				The horn is activated	0V	
45 (L/O)	Ground	Anti theft horn relay control	Input	The horn is deactivated	Battery voltage	
				The horn is activated	0V	
46 (R)	Ground	Starter relay control	Input	CVT models	CVT selector lever in any position other than P or N (ignition switch ON)	0V
					CVT selector lever P or N (ignition switch ON)	Battery voltage
				M/T models	Release the clutch pedal	0V
					Depress the clutch pedal	Battery voltage
48 (Y/R)	Ground	A/C relay power supply	Output	Engine running	A/C switch OFF	0V
					A/C switch ON (A/C compressor is operating)	Battery voltage

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

< ECU DIAGNOSIS >

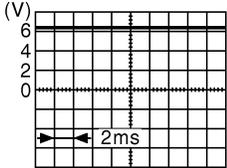
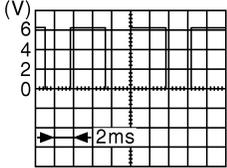
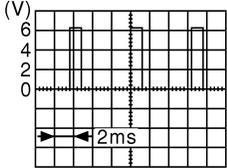
[COUPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
		Signal name	Input/ Output			
+	-					
49 (R/B)	Ground	ECM relay power supply (with VQ35DE)	Output	Ignition switch OFF (For a few seconds after turning ignition switch OFF)	0V	A
				<ul style="list-style-type: none"> • Ignition switch ON • Ignition switch OFF (More than a few seconds after turn- ing ignition switch OFF) 	Battery voltage	B C
49 (B/R)	Ground	ECM relay power supply (without VQ35DE)	Output	Ignition switch OFF (For a few seconds after turning ignition switch OFF)	0V	D
				<ul style="list-style-type: none"> • Ignition switch ON • Ignition switch OFF (More than a few seconds after turn- ing ignition switch OFF) 	Battery voltage	E
51 (LG)	Ground	Ignition relay power supply	Output	Ignition switch OFF	0V	F
				Ignition switch ON	Battery voltage	
52 (Y/G)	Ground	Ignition relay power supply	Output	Ignition switch OFF	0V	G
				Ignition switch ON	Battery voltage	
53 (B/R)	Ground	ECM relay power supply (with VQ35DE)	Output	Ignition switch OFF (For a few seconds after turning ignition switch OFF)	0V	H
				<ul style="list-style-type: none"> • Ignition switch ON • Ignition switch OFF (More than a few seconds after turn- ing ignition switch OFF) 	Battery voltage	I
53 (R/B)	Ground	ECM relay power supply (without VQ35DE)	Output	Ignition switch OFF (For a few seconds after turning ignition switch OFF)	0V	J
				<ul style="list-style-type: none"> • Ignition switch ON • Ignition switch OFF (More than a few seconds after turn- ing ignition switch OFF) 	Battery voltage	SEC
54 (G/W)	Ground	Throttle control motor re- lay power supply	Output	Ignition switch OFF (For a few seconds after turning ignition switch OFF)	0V	L
				<ul style="list-style-type: none"> • Ignition switch ON • Ignition switch OFF (More than a few seconds after turn- ing ignition switch OFF) 	Battery voltage	M
55 (W/L)	Ground	ECM power supply	Output	Ignition switch OFF	Battery voltage	N
56 (R/Y)	Ground	Ignition relay power supply	Output	Ignition switch OFF	0V	
				Ignition switch ON	Battery voltage	O
57 (O)	Ground	Ignition relay power supply	Output	Ignition switch OFF	0V	
				Ignition switch ON	Battery voltage	
58 (Y)	Ground	Ignition relay power supply	Output	Ignition switch OFF	0V	P
				Ignition switch ON	Battery voltage	

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

< ECU DIAGNOSIS >

[COUPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
69 (W/B)	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 - 1.5V
70 (O)	Ground	Throttle control motor relay control	Output	Ignition switch ON → OFF	0 - 1.0V ↓ Battery voltage ↓ 0V
				Ignition switch ON	0 - 1.0V
72 (R/B)	Ground	PNP switch signal	Input	Ignition switch ON	Battery voltage
				CVT selector lever in P or N position	0V
74 (Y)	Ground	Ignition relay power supply	Output	Ignition switch OFF	0V
				Ignition switch ON	Battery voltage
75 (P/L)	Ground	Oil pressure switch	Input	Ignition switch ON	0V
				Engine stopped	Battery voltage
76 (GR)	Ground	Power generation command signal	Output	Ignition switch ON	 <small>JPMIA0001GB</small> 6.3V
				40% is set on "Active test", "ALTERNATOR DUTY" of "ENGINE"	 <small>JPMIA0002GB</small> 3.8V
				80% is set on "Active test", "ALTERNATOR DUTY" of "ENGINE"	 <small>JPMIA0003GB</small> 1.4V
77 (B/R)	Ground	Fuel pump relay control	Output	<ul style="list-style-type: none"> • Approximately 1 second after turning the ignition switch ON • Engine running 	0 - 1.0V
				Approximately 1 second or more after turning the ignition switch ON	Battery voltage

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

< ECU DIAGNOSIS >

[COUPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
+	-					
80 (B/W)	Ground	Starter motor	Output	At engine cranking		Battery voltage
83 (R/Y)	Ground	Headlamp LO (RH)	Output	Ignition switch ON	Lighting switch OFF	0V
					Lighting switch 2ND	Battery voltage
84 (L)	Ground	Headlamp LO (LH)	Output	Ignition switch ON	Lighting switch OFF	0V
					Lighting switch 2ND	Battery voltage
86 (W/R)	Ground	Front fog lamp (RH)	Output	Lighting switch 2ND	<ul style="list-style-type: none"> • Front fog lamp switch ON • Daytime running light activated (Only for Canada models) 	Battery voltage
						Front fog lamp switch OFF
87 (L/Y)	Ground	Front fog lamp (LH)	Output	Lighting switch 2ND	<ul style="list-style-type: none"> • Front fog lamp switch ON • Daytime running light activated (Only for Canada models) 	Battery voltage
						Front fog lamp switch OFF
88 (R/W)	Ground	Washer pump power supply	Output	Ignition switch ON		Battery voltage
89 (L/W)	Ground	Headlamp HI (RH)	Output	Ignition switch ON	<ul style="list-style-type: none"> • Lighting switch HI • lighting switch PASS 	Battery voltage
						Lighting switch OFF
90 (G)	Ground	Headlamp HI (LH)	Output	Ignition switch ON	<ul style="list-style-type: none"> • Lighting switch HI • Lighting switch PASS 	Battery voltage
						Lighting switch OFF
91 (LG/R)	Ground	Parking lamp (RH)	Output	Ignition switch ON	Lighting switch 1ST	Battery voltage
						Lighting switch OFF
92 (LG/B)	Ground	Parking lamp (LH)	Output	Ignition switch ON	Lighting switch 1ST	Battery voltage
						Lighting switch OFF
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	—	<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
103 (P)	Ground	Refrigerant pressure sensor power supply	—	Ignition switch ON		5V
105 (V)	Ground	Daytime light relay control	Output	Ignition switch ON	Daytime light system active	Battery voltage
				Ignition switch ON	Daytime light system inactive	0V

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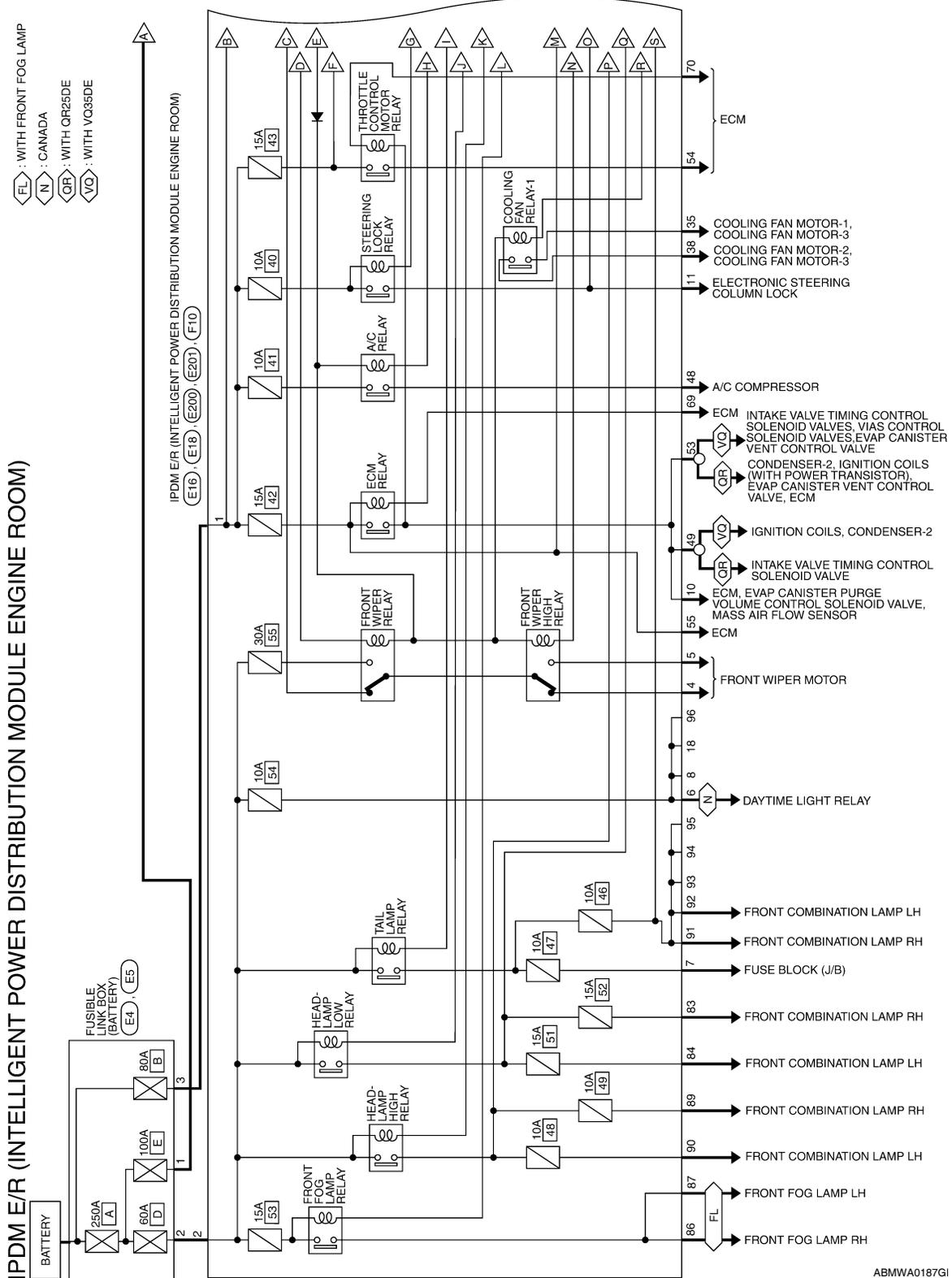
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS >

[COUPE]

Wiring Diagram — Coupe

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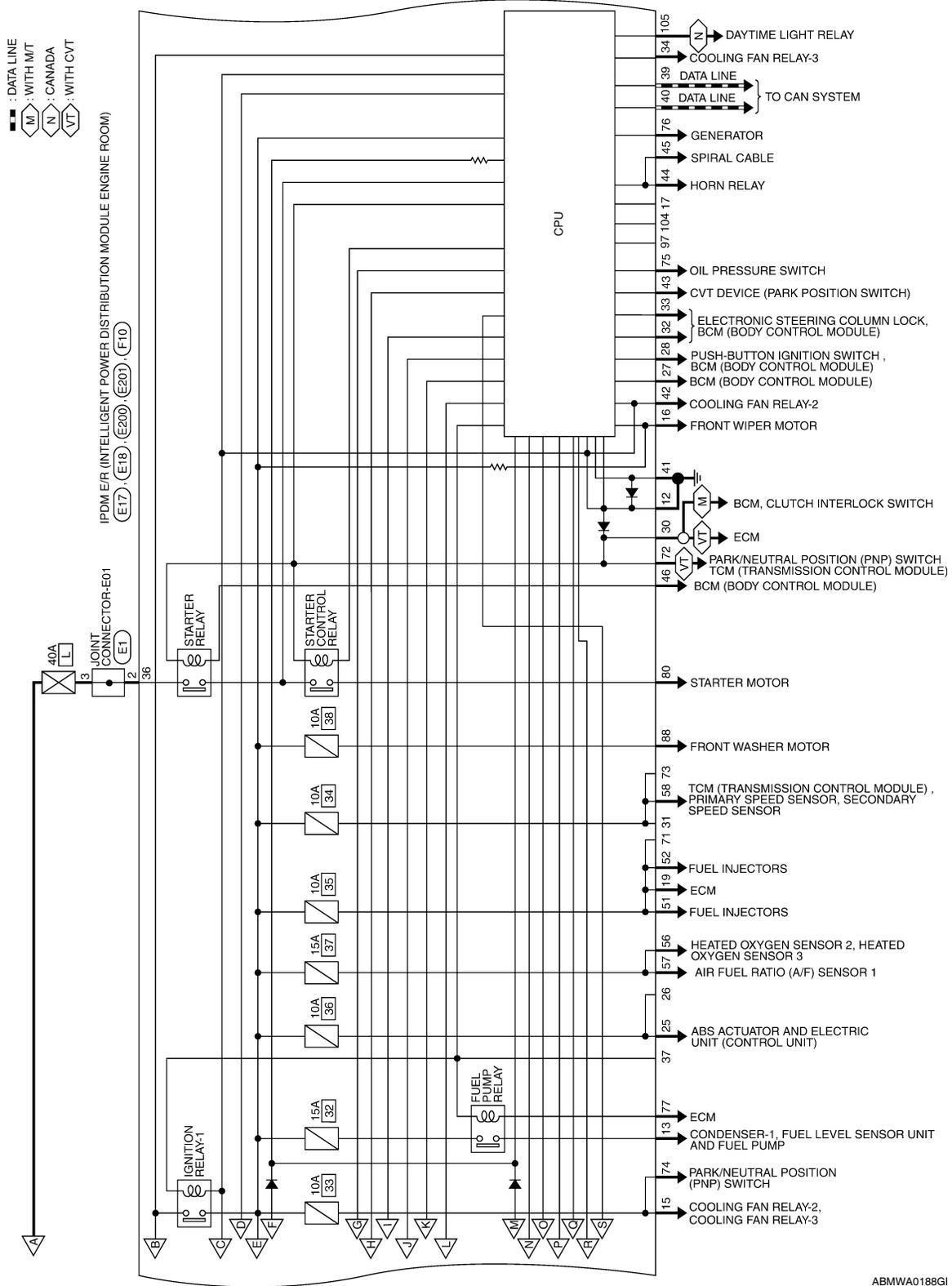


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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

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[COUPE]



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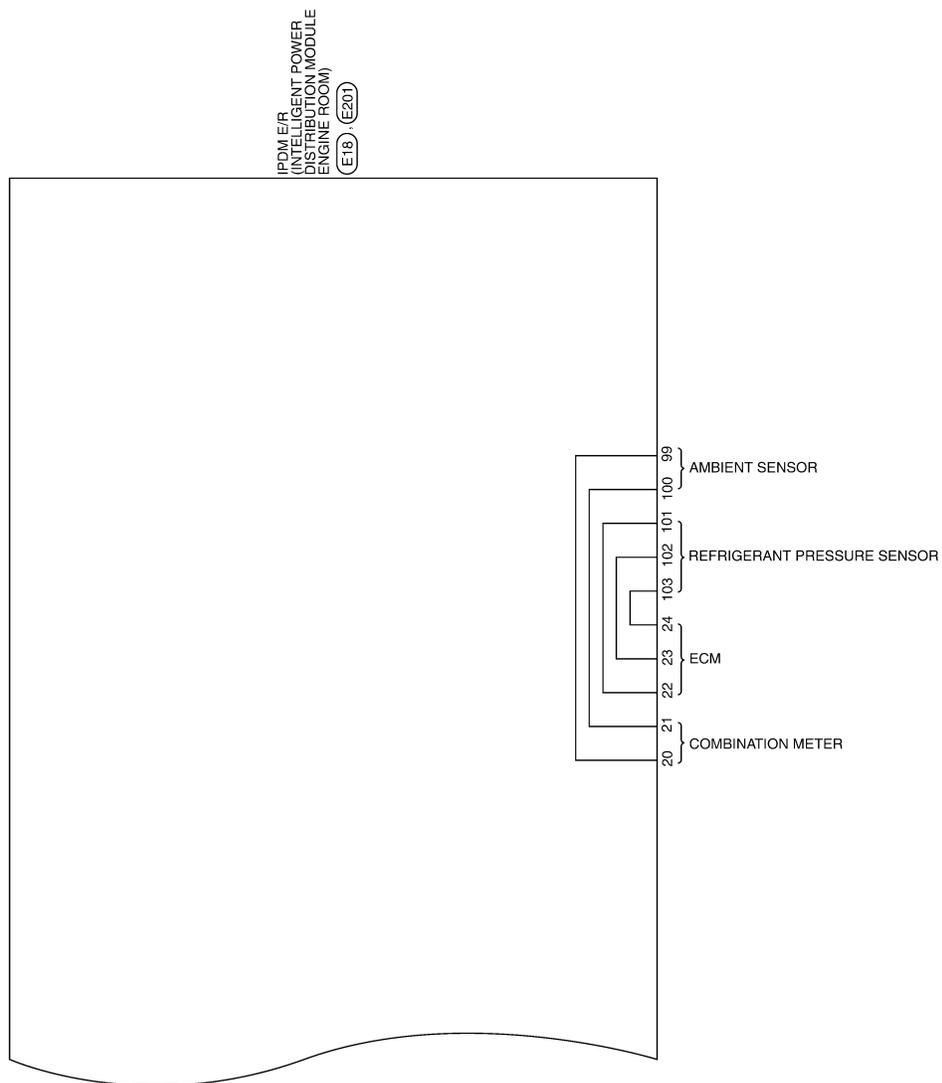
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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS >

[COUPE]



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

Connector No.	E1
Connector Name	JOINT CONNECTOR-E01
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	G	-
3	G	-

Connector No.	E4
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	BROWN



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

Connector No.	E5
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
3	R	-

Connector No.	E16
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	R	F/L_MAIN
2	L	F/L_USM

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)
42	SB	MOTOR_FAN_RLY_MID
43	G/B	DETENT_SW
44	G/W	HORN_RLY
45	L/O	HORN_SW
46	R	START_CONT

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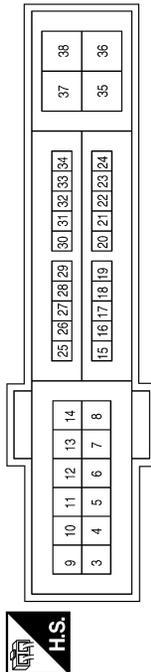
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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

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[COUPE]

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



Terminal No.	Color of Wire	Signal Name
3	-	-
4	L/R	FR_WIPER_LO
5	L/B	FR_WIPER_HI
6	SB	DTRL
7	R/L	TAIL/ILLUMI

Terminal No.	Color of Wire	Signal Name
8	-	-
9	-	-
10	R/B	ECM_VB
11	P/L	ESCL
12	B	GND (POWER)
13	W	FUEL_PUMP
14	-	-
15	GW	START_IG-E/R
16	L/Y	WIPER_AUTOSTOP
17	-	-
18	-	-
19	L/Y	BCM_IGNSW
20	B/Y	AMB_SENS_GND-E/R
21	O/B	AMB_SENS_SIG-E/R
22	W/R	PD_SENS_GND-E/R

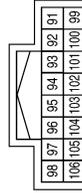
Terminal No.	Color of Wire	Signal Name
23	B/R	PD_SENS_SIG-E/R
24	B/R/W	PD_SENS_PWR-E/R
25	GR	ABS_ECU
26	-	-
27	B/R/W	IGN_SIGNAL
28	BR	PUSH_START_SW
29	-	-
30	R/B	CLUTCH_I/L_SW
31	-	-
32	L/O	SL_CONDITION_1
33	G/R	SL_CONDITION_2
34	O/L	MOTOR_FAN_RLY_HI
35	L/B	MOTOR_FAN_LO
36	G	F/L_IGNSW
37	-	-
38	R/W	F/L_MOTOR_FAN

Connector No.	E200
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
83	R/Y	HEADLAMP_LO_RH
84	L	HEADLAMP_LO_LH
85	-	-
86	W/R	FR_FOG_LAMP_RH
87	L/Y	FR_FOG_LAMP_LH
88	R/W	WASHER_MTR
89	L/W	HEADLAMP_HI_RH
90	G	HEADLAMP_HI_LH

Connector No.	E201
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



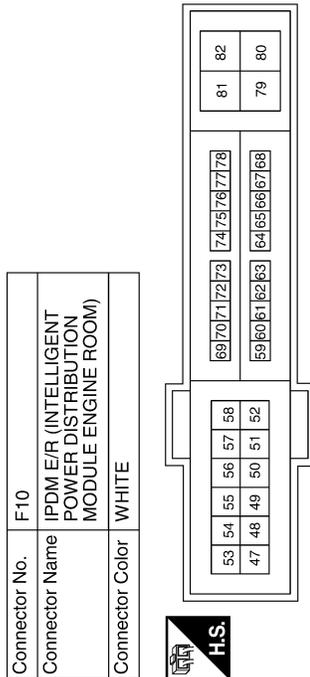
Terminal No.	Color of Wire	Signal Name
91	LG/R	CLEARANCE_RH
92	LG/B	CLEARANCE_LH
93	-	-
94	-	-
95	-	-
96	-	-
97	-	-

Terminal No.	Color of Wire	Signal Name
98	-	-
99	B/R/W	AMB_SENS_GND-FEM
100	SB	AMB_SENS_SIG-FEM
101	O/L	PD_SENS_GND-FEM
102	R/B	PD_SENS_SIG-FEM
103	P	PD_SENS_PWR-FEM
104	-	-
105	V	DTRL_RLY
106	-	-

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Terminal No.	Color of Wire	Signal Name
65	-	-
66	-	-
67	-	-
68	-	-
69	W/B	SSOF
70	O	MOTRLY
71	-	-
72	R/B	NPSW
73	-	-
74	Y	START_IG-EGI
75	P/L	OIL_PRESSURE_SW
76	GR	ALT_C
77	B/R	FPR
78	-	-
79	-	-
80	B/W	STARTER_MOTOR
81	-	-
82	-	-

Terminal No.	Color of Wire	Signal Name
50	-	-
51	LG	INJECTOR_#1
52	Y/G	INJECTOR_#2
53	R/B	IGN_SOL (WITH QR25DE)
53	B/R	ENG_SOL (WITH VQ35DE)
54	G/W	ETC
55	W/L	ECM_BAT
56	R/Y	O2_SENS_#1
57	O	O2_SENS_#2
58	Y	AT_ECU
59	-	-
60	-	-
61	-	-
62	-	-
63	-	-
64	-	-



Terminal No.	Color of Wire	Signal Name
47	-	-
48	Y/R	A/C_COMP
49	B/R	ENG_SOL (WITH QR25DE)
49	R/B	IGN_SOL (WITH VQ35DE)

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SEC

Fail Safe

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

ABMIA0560GB

INFOID:000000004501301

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

< ECU DIAGNOSIS >

[COUPE]

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.
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	Electronic steering column 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.

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

< ECU DIAGNOSIS >

[COUPE]

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:000000004501302

CONSULT-III display	Fail-safe	TIME ^{NOTE}		Refer to
No DTC is detected. further testing may be required.	—	—	—	—
U1000: CAN COMM CIRCUIT	×	CRNT	1 – 39	PCS-20
B2098: IGN RELAY ON	×	CRNT	1 – 39	PCS-21
B2099: IGN RELAY OFF	—	CRNT	1 – 39	PCS-22
B2108: STRG LCK RELAY ON	—	CRNT	1 – 39	SEC-42
B2109: STRG LCK RELAY OFF	—	CRNT	1 – 39	SEC-43
B210A: STRG LCK STATE SW	—	CRNT	1 – 39	SEC-44
B210B: START CONT RLY ON	—	CRNT	1 – 39	SEC-48
B210C: START CONT RLY OFF	—	CRNT	1 – 39	SEC-49
B210D: STARTER RELAY ON	—	CRNT	1 – 39	SEC-50
B210E: STARTER RELAY OFF	—	CRNT	1 – 39	SEC-51
B210F: INTRLCK/PNP SW ON	—	CRNT	1 – 39	SEC-54
B2110: INTRLCK/PNP SW OFF	—	CRNT	1 – 39	SEC-59

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.

SEC

SYMPTOM DIAGNOSIS

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION SYMPTOMS

Symptom Table

INFOID:000000004206163

Engine cannot be started with all Intelligent Keys.

CAUTION:

- Follow Trouble Diagnosis Flowchart referring to “[SEC-10, "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-III.
- 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	DLK-292
	IPDM E/R	PCS-23
2. Check push button ignition switch		PCS-80
3. Check Intermittent Incident		GI-42

VEHICLE SECURITY SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[COUPE]

VEHICLE SECURITY SYSTEM SYMPTOMS

Symptom Table

INFOID:000000004206164

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Procedure		Diagnostic procedure	Refer to page
Symptom			
1	Vehicle security system cannot be set by	Door switch	Check door switch DLK-69
		Trunk	Check trunk room lamp switch DLK-93
		Door outside key	Check key cylinder switch SEC-116 , or SEC-117
		Intelligent Key	Check Intelligent Key battery and function DLK-115
		—	Check Intermittent Incident GI-42
	Security indicator does not turn ON.	Check vehicle security indicator SEC-124	
		Check Intermittent Incident GI-42	
2	* Vehicle security system does not sound alarm when	Any door is opened. Check door switch DLK-69	
		Check Intermittent Incident GI-42	
3	Vehicle security alarm does not activate.	Horn alarm	Check horn SEC-120
			Check Intermittent Incident GI-42
		Head lamp alarm	Check head lamp alarm SEC-122
			Check Intermittent Incident GI-42
4	Vehicle security system cannot be canceled by	Door outside key	Check key cylinder switch SEC-116 , or SEC-117
			Check Intermittent Incident GI-42
		Intelligent Key	Check Intelligent Key battery and function DLK-115
			Check Intermittent Incident GI-42

*: Check the system is in the armed phase.

SEC

NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS SYMPTOMS

< SYMPTOM DIAGNOSIS >

[COUPE]

NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS SYMPTOMS

Symptom Table

INFOID:000000004206165

Security indicator does not turn ON or flash.

CAUTION:

- Follow Trouble Diagnosis Flowchart referring to “[SEC-10, "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-124
2. Check Intermittent Incident	GI-42

ON-VEHICLE REPAIR

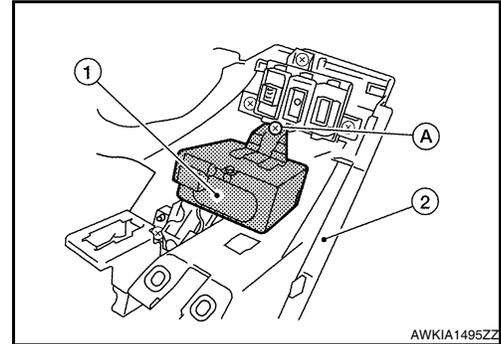
KEY SLOT

Removal and Installation

INFOID:000000004206168

REMOVAL

1. Remove the instrument lower panel LH. Refer to [IP-12. "Removal and Installation"](#).
2. Disconnect key slot connector.
3. Remove the key slot screw (A), 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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PUSH BUTTON IGNITION SWITCH

< ON-VEHICLE REPAIR >

[COUPE]

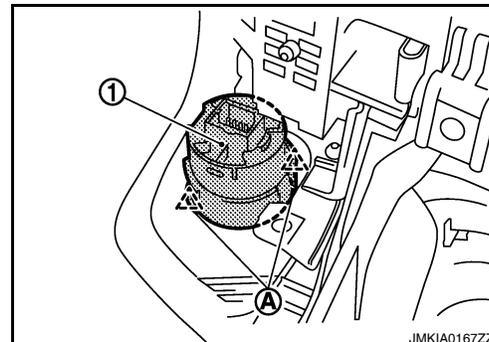
PUSH BUTTON IGNITION SWITCH

Removal and Installation

INFOID:000000004206169

REMOVAL

1. Remove the cluster lid A assembly. Refer to [IP-12. "Removal and Installation"](#).
2. Release the pawls (A) and remove the push-button ignition switch (1) from cluster lid A.



INSTALLATION

Installation is in the reverse order of removal.

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[SEDAN WITH INTELLIGENT KEY]

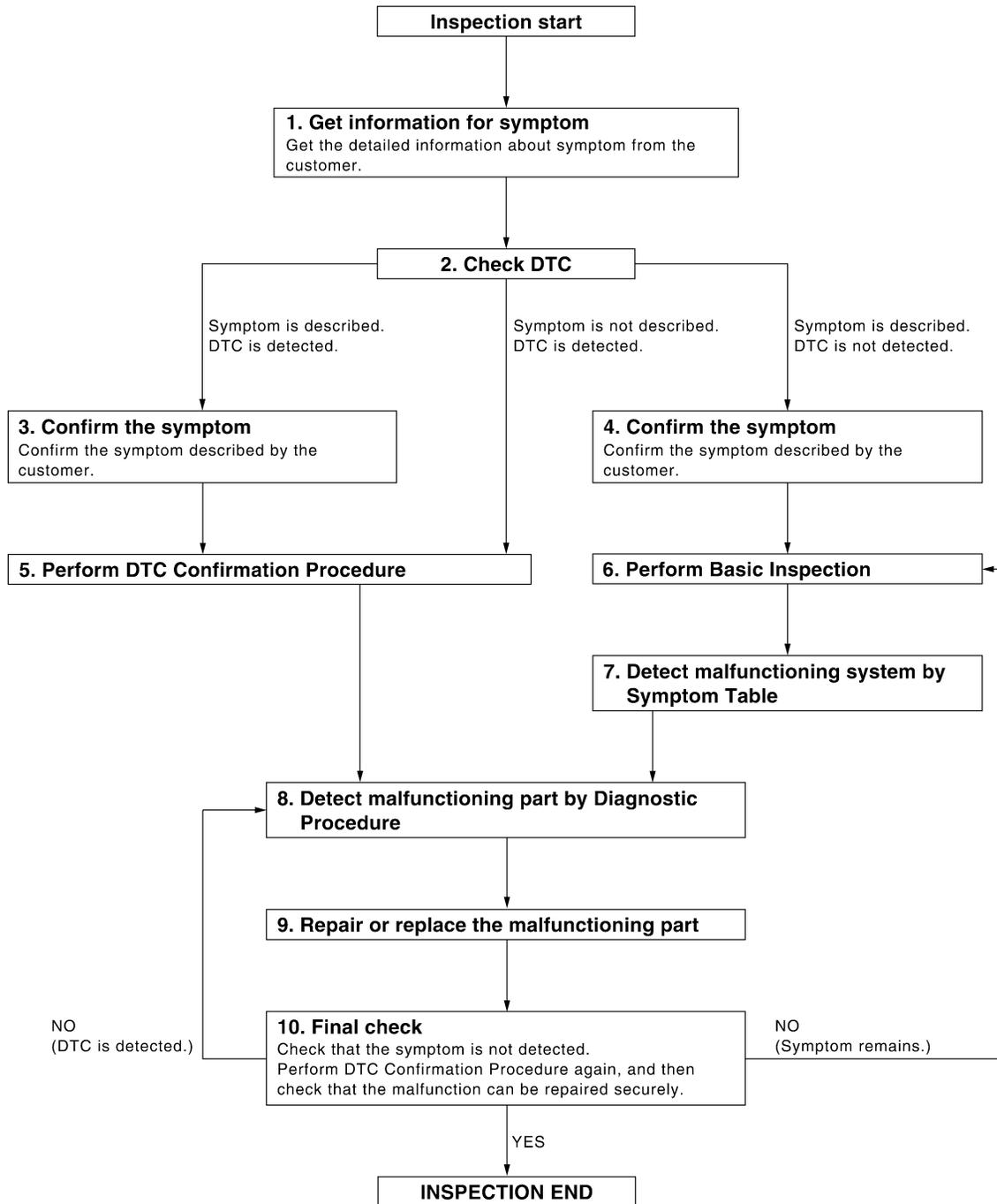
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000004206170

OVERALL SEQUENCE



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SEC

DETAILED FLOW

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DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[SEDAN WITH INTELLIGENT KEY]

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-III.
2. Perform the following procedure if DTC is displayed.
 - Record DTC and freeze frame data (Print them out with CONSULT-III.)
 - 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-III to the vehicle in "Data Monitor" mode and check real time diagnosis results.

Verify relation ship 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-III to the vehicle in "Data Monitor " mode and check real time diagnosis results.

Verify relation ship 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-III connected to the vehicle, and check diagnostic results in real time.

If two or more DTCs are detected, refer to [SEC-386. "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 [SEC-212. "Basic Inspection"](#).

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-406. "Symptom Table"](#).
- Vehicle security system: [SEC-407. "Symptom Table"](#).

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[SEDAN WITH INTELLIGENT KEY]

- Nissan vehicle immobilizer system-NATS: [SEC-408. "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-III.

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.

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SEC

PRE-INSPECTION FOR DIAGNOSTIC

Basic Inspection

INFOID:000000004206353

The engine start function, door lock function, power distribution system and NATS-IVIS/NMS in the Intelligent Key system are closely related to each other regarding control. Narrow down the functional area in question by performing basic inspection to identify which function is malfunctioning. The vehicle security function can operate only when the door lock and power distribution systems are operating normally. Therefore, it is easy to identify any factor unique to the vehicle security system by performing the vehicle security operation check after basic inspection.

1. CHECK DOOR LOCK OPERATION

1. Check the door lock for normal operation with the Intelligent Key controller and door request switch. Successful door lock operation with the Intelligent Key and request SW indicates that the remote keyless entry receiver is functioning normally. Identify the malfunctioning point by referring to the DLK section if the door cannot be unlocked.

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

- YES >> GO TO 2
NO >> Refer to [DLK-415. "INTELLIGENT KEY : Symptom Table"](#).

2. CHECK ENGINE STARTING

1. Checks that the engine starts when operating the Intelligent Key inserted into the key slot.

Does the engine start?

- YES >> GO TO 3
NO >> Refer to [SEC-406. "Symptom Table"](#).

3. CHECK STEERING LOCKING

1. Does the steering lock when operating door switch after switching the power supply from ON position (or ACC position) to LOCK position?
If door switch is malfunctioning, BCM cannot lock the steering. If BCM does not detect DTC, steering lock unit is normal.

Does steering lock?

- YES >> GO TO 4
NO >> Refer to [DLK-293. "Component Function Check"](#).

4. CHECK POWER SUPPLY INDICATOR SWITCHING

1. Press push-button ignition switch and position indicator will switch from LOCK, ACC to ON gradually when steering is locked. Check that the position indicator is illuminated at different positions of the circuit.

Is each position indicator illuminating?

- YES >> GO TO 5
NO >> Refer to [SEC-307. "Description"](#).

5. CHECK VEHICLE SECURITY SYSTEM

1. Check the vehicle security system for normal operation.
The vehicle security function can operate only when the door lock and power distribution functions are operating normally.
Therefore, it is easy to identify any factor unique to the vehicle security by performing the vehicle security operation check after this basic inspection.

>> Refer to [SEC-212. "Vehicle Security Operation Check"](#).

Vehicle Security Operation Check

INFOID:000000004206354

1. INSPECTION START

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

NOTE:

Before starting operation check, open front windows.

PRE-INSPECTION FOR DIAGNOSTIC

[SEDAN WITH INTELLIGENT KEY]

< BASIC INSPECTION >

>> GO TO 2

2. CHECK SECURITY INDICATOR LAMP

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

Security indicator lamp should illuminate.

OK >> GO TO 3

NG >> Perform diagnosis and repair. Refer to [SEC-323, "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.

Do alarm function properly.

OK >> GO TO 4

NG >> Check the following.

- The vehicle security system does not phase in alarm mode. Refer to [SEC-407, "Symptom Table"](#).
- Alarm (horn, headlamp and hazard lamp) do not operate. Refer to [SEC-407, "Symptom Table"](#).

4. CHECK ALARM CANCEL OPERATION

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

Alarm (horn, headlamp and hazard lamp) should stop.

OK >> Inspection End.

NG >> Check door lock function. Refer to [DLK-246, "INTELLIGENT KEY : System Description"](#).

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SEC

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[SEDAN WITH INTELLIGENT KEY]

INSPECTION AND ADJUSTMENT ECM RE-COMMUNICATING FUNCTION

ECM RE-COMMUNICATING FUNCTION : Description

INFOID:000000004206171

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-III is not necessary)

NOTE:

- When registering new Key IDs or replacing the ECM that is not brand new, refer to CONSULT-III 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:000000004206172

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-III Operation Manual.

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

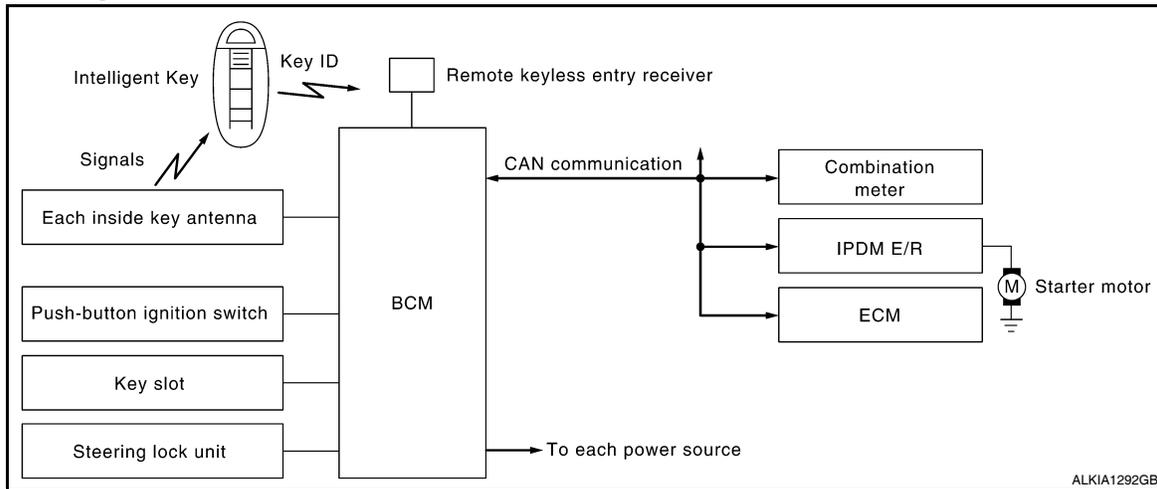
< FUNCTION DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

FUNCTION DIAGNOSIS

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

System Diagram



System Description

INFOID:000000004206174

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 Steering lock unit Starter relay (IPDM E/R) Starter control relay (IPDM E/R) Starter motor KEY warning lamp
CVT device (CVT models)	P range		
PNP 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.

SEC

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< FUNCTION DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

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

NOTE:

- Refer to [DLK-246. "INTELLIGENT KEY : 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

1. 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.
2. The Intelligent Key sends the request signal and transmits the Intelligent Key ID signal to the BCM via the remote keyless entry receiver.
3. The BCM receives the Intelligent Key ID signal and verifies it with the registered ID.
4. BCM transmits the steering lock unlock signal to steering lock unit and IPDM E/R if the verification results are OK.
5. IPDM E/R turns the steering lock relay ON and supplies power to the steering lock unit.
6. Release of the steering lock.
7. BCM transmits the power supply stop signal to IPDM E/R when it confirms that the steering lock is in the unlock condition.
8. IPDM E/R turns the steering lock relay OFF and stops power supply to the steering lock unit.
9. BCM turns ACC relay ON and transmits the ignition power supply ON signal to IPDM E/R.
10. IPDM E/R turns the ignition relay ON and starts the ignition power supply.
11. BCM confirms that the shift position is P or N (CVT models).
12. 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.
13. IPDM E/R turns the starter control relay ON when receiving the starter request signal.
14. 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.

15. 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-215. "System Description"](#).

BATTERY SAVER SYSTEM

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

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< FUNCTION DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

- 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 steering lock unit 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

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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< FUNCTION DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

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)

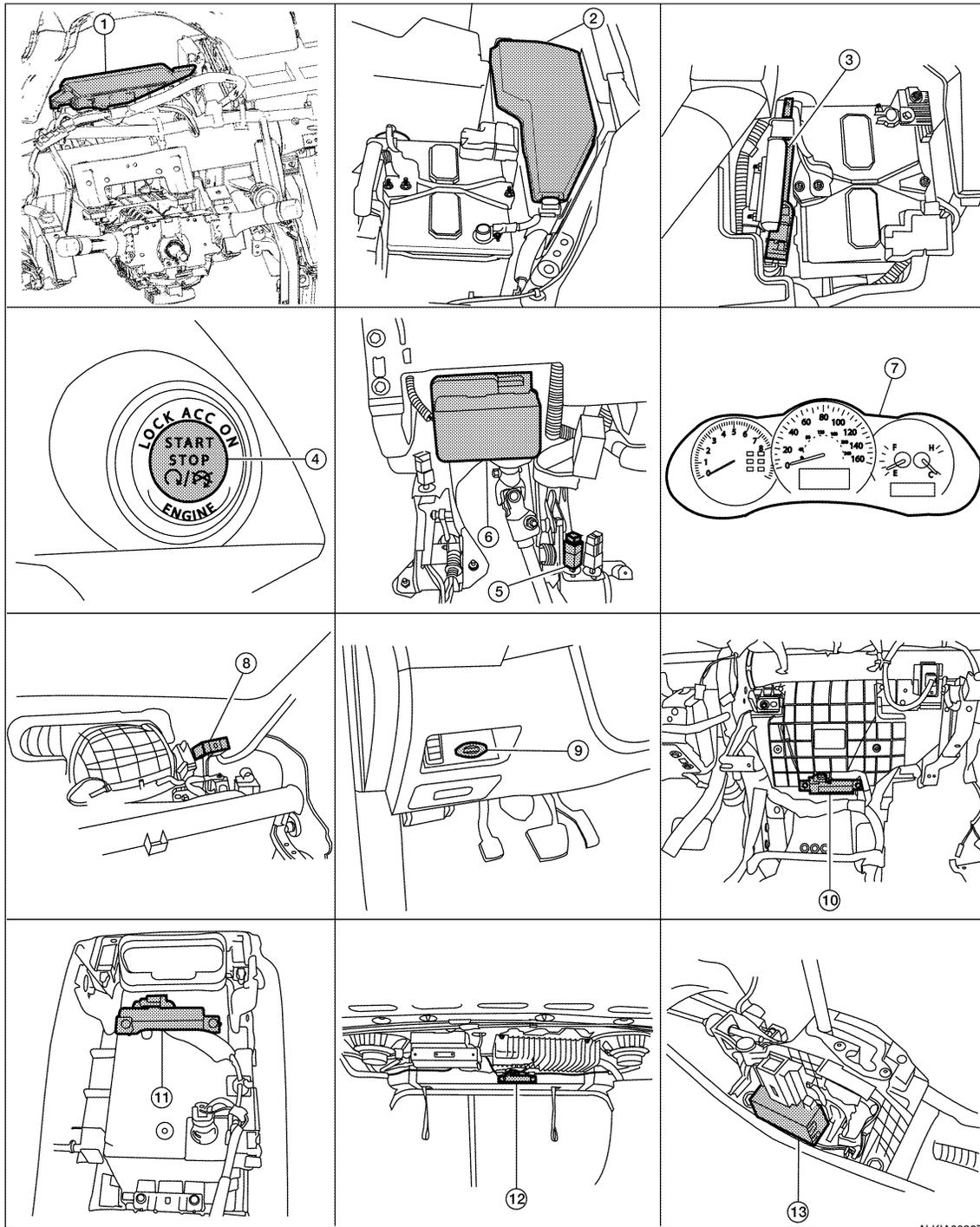
INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< FUNCTION DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

Component Parts Location

INFOID:00000004206175



- | | | |
|---|---|---|
| 1. Body control module (view with instrument panel removed) | 2. IPDM E/R | 3. ECM |
| 4. Push button ignition switch | 5. Stop lamp switch (view with lower driver instrument panel removed) | 6. Steering lock unit (steering column) |
| 7. Combination meter | 8. Remote keyless entry receiver (view with instrument panel removed) | 9. Key slot |
| 10. Instrument panel antenna (view with instrument panel removed) | 11. Front console antenna (bottom view of console) | 12. Rear parcel shelf antenna |
| 13. CVT device (park position switch) | | |

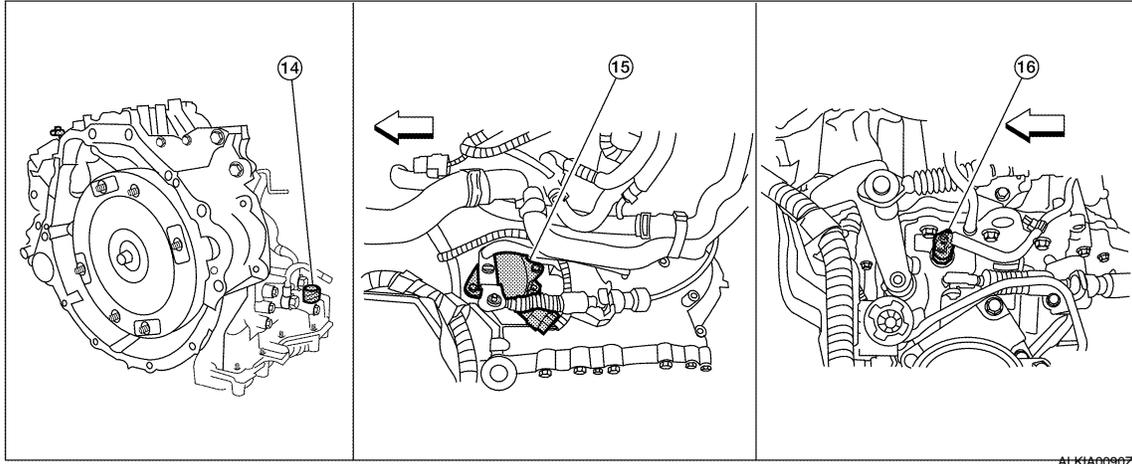
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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< FUNCTION DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]



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14. Park neutral position switch connector (switch inside trans) (CVT/VQ) 15. Park neutral position switch (CVT/QR) 16. Park neutral position switch (M/T)

Component Description

INFOID:000000004206176

Component	Reference
BCM	SEC-306
Steering lock unit	SEC-296
Push-button ignition switch	SEC-271
Door switch	DLK-293
CVT device (park position switch)	SEC-275
Inside key antenna	DLK-283
Remote keyless entry receiver	DLK-337
Stop lamp switch	SEC-269
Park/neutral position switch	SEC-283
Clutch switch	SEC-253
Steering lock relay	SEC-242
Starter relay	SEC-249
Starter control relay	SEC-247
Security indicator	SEC-323
Key warning lamp	SEC-322

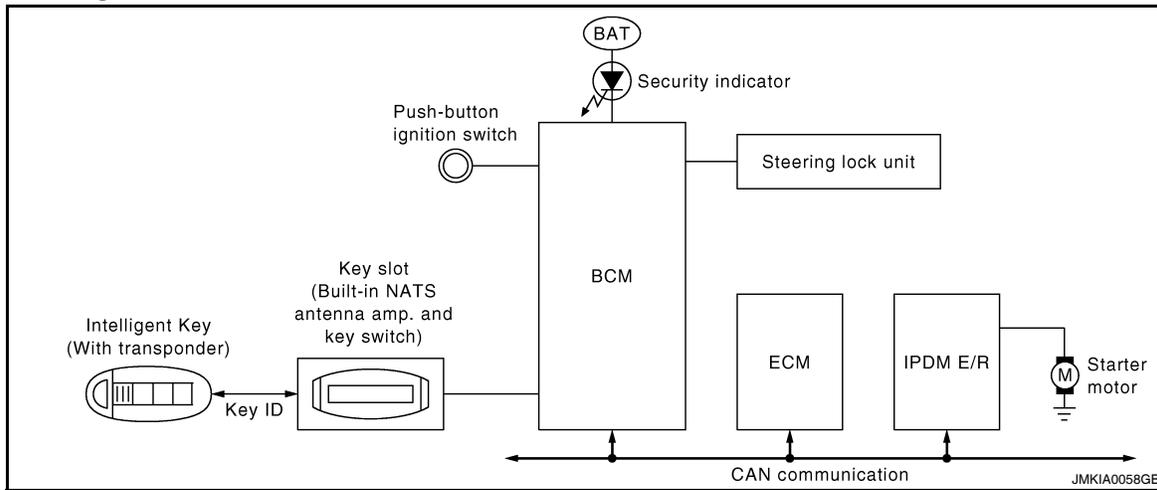
NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

< FUNCTION DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

System Diagram



System Description

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 Steering lock unit Starter relay (IPDM E/R) Starter control relay (IPDM E/R) Starter motor KEY warning lamp Security indicator lamp
CVT device (CVT models)	P range		
PNP 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-III Operation Manual NATS-IVIS/NVIS.

NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

< FUNCTION DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

- 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-209. "Work Flow"](#).
- If ECM other than Genuine NISSAN is installed, the engine cannot be started. For ECM replacement procedure, refer to [SEC-214. "ECM RE-COMMUNICATING FUNCTION : Special Repair Requirement"](#).

PRECAUTIONS FOR KEY REGISTRATION

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

SECURITY INDICATOR

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

NOTE:

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

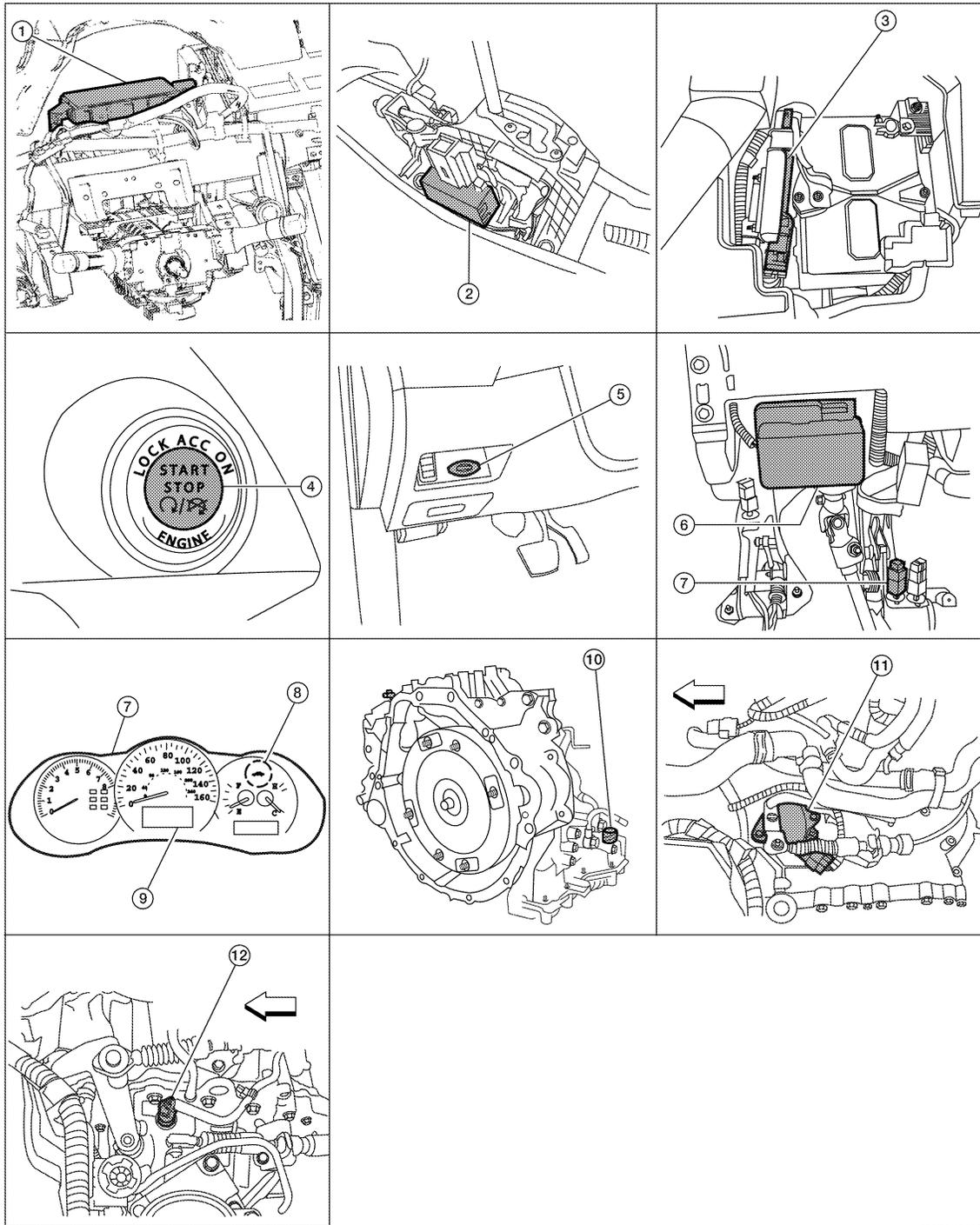
NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

< FUNCTION DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

Component Parts Location

INFOID:00000004206179



- | | | |
|--|--|---|
| 1. Body control module M16, M17, M18, M19, M21
(view with instrument panel removed) | 2. CVT device (park position switch) M23
(with CVT) | 3. ECM E10 |
| 4. Push button ignition switch M38 | 5. Key slot M40 | 6. Electronic steering column lock M32
(steering column) |
| 7. Stop lamp switch E38
(view with lower LH instrument panel removed) | 8. Security indicator lamp | 9. Information display |
| 10. Park neutral position switch connector (TCM connector) F16
(with CVT/VQ) | 11. Park neutral position switch F25
(with CVT/QR) | 12. Park neutral position switch F32
(with M/T) |

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NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

< FUNCTION DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

Component Description

INFOID:000000004206180

Component	Reference
BCM	SEC-306
Steering lock unit	SEC-296
Push-button ignition switch	SEC-307
Door switch	DLK-293
CVT device (park position switch)	SEC-275
Inside key antenna	DLK-283
Remote keyless entry receiver	DLK-337
Stop lamp switch	SEC-269
Park/neutral position switch	SEC-283
Clutch switch	SEC-253
Steering lock relay	SEC-241
Starter relay	SEC-290
Starter control relay	SEC-274
Security indicator	SEC-323
Key warning lamp	SEC-322

VEHICLE SECURITY SYSTEM

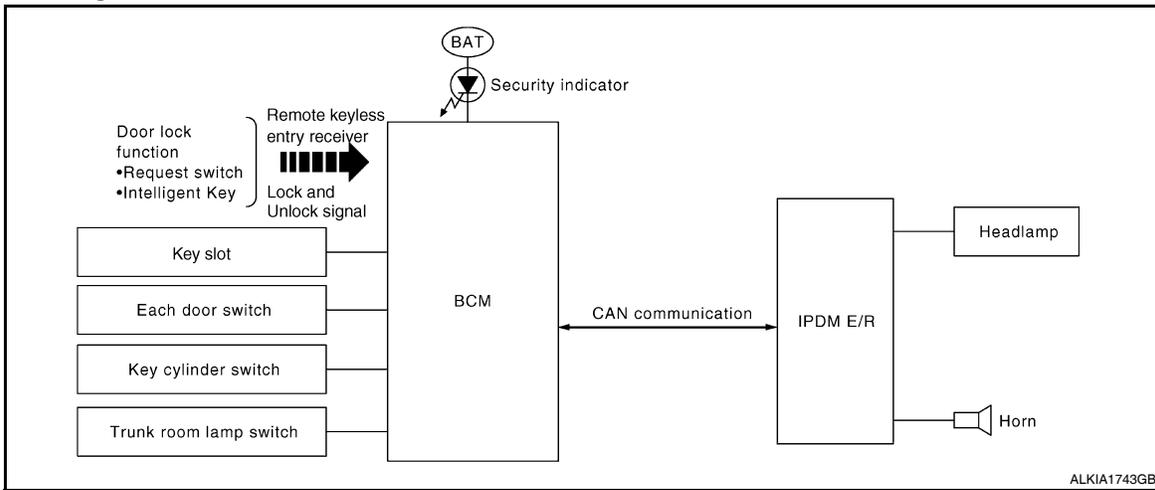
< FUNCTION DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

VEHICLE SECURITY SYSTEM

System Diagram

INFOID:000000004206181



System Description

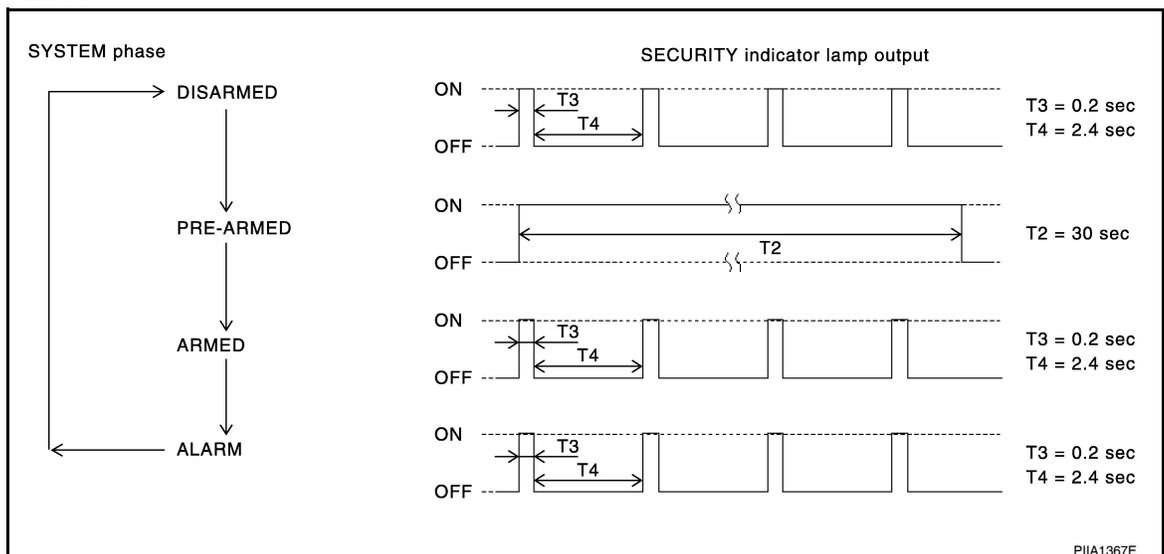
INFOID:000000004206182

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		
Key slot	Intelligent Key sensing		

SEC

OPERATION FLOW



SETTING THE VEHICLE SECURITY SYSTEM

Initial Condition

- Ignition switch is in OFF position.

VEHICLE SECURITY SYSTEM

[SEDAN WITH INTELLIGENT KEY]

< FUNCTION DIAGNOSIS >

Disarmed Phase

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

Pre-armed Phase and Armed Phase

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

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

CANCELING THE SET VEHICLE SECURITY SYSTEM

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

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

CANCELING THE ALARM OPERATION OF THE VEHICLE SECURITY SYSTEM

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

ACTIVATING THE ALARM OPERATION OF THE VEHICLE SECURITY SYSTEM

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

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

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

PANIC ALARM OPERATION

Intelligent Key system will not operate horn and headlamps if the ignition switch is in the ACC or ON position.

When the Intelligent Key system is triggered, ground is supplied intermittently to both headlamp relay and horn relay.

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

The headlamp flashes and the horn sounds intermittently.

The alarm automatically turns off after 50 seconds or when BCM receives any signal from Intelligent Key.

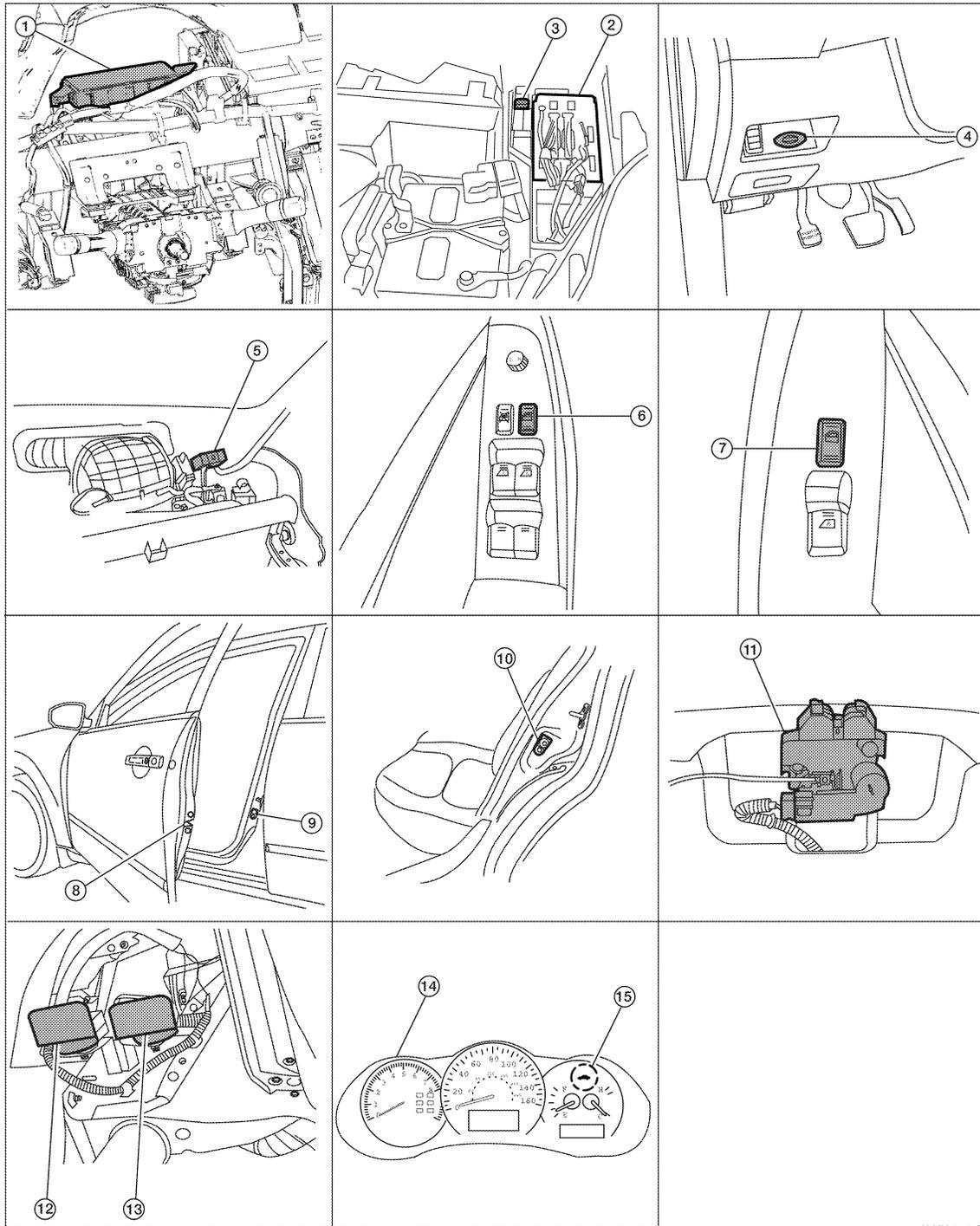
VEHICLE SECURITY SYSTEM

< FUNCTION DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

Component Parts Location

INFOID:00000004206183



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

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VEHICLE SECURITY SYSTEM

[SEDAN WITH INTELLIGENT KEY]

< FUNCTION DIAGNOSIS >

- | | | |
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| 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:000000004206184

Component	Reference
BCM	SEC-225
Horn relay	SEC-319
Security indicator	SEC-323
Door switch	DLK-293
Door lock actuator	DLK-326
Trunk lid lock assembly	DLK-330
Door key cylinder switch	DLK-305
Door lock and unlock switch	DLK-296
Key slot	DLK-303
Remote keyless entry receiver	DLK-337

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM : Diagnosis Description

INFOID:000000004498328

BCM CONSULT-III FUNCTION

CONSULT-III 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	MUTI REMOTE ENT	×	×	×
Exterior lamp	HEADLAMP	×	×	×
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-III Function

INFOID:000000004498329

ECU IDENTIFICATION

Displays the BCM part No.

SELF-DIAG RESULT

Refer to [BCS-91, "DTC Index"](#).

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

INTELLIGENT KEY

INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY) INFOID:000000004498330

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">• MODE 1: 1 minute• MODE 2: 5 minutes• MODE 3: 30 seconds• MODE 4: 2 minutes
LOCK/UNLOCK BY I-KEY	Door lock/unlock function by door request switch (driver side, passenger side and trunk) mode can be changed to operate (ON) or not operate (OFF) with 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 opener 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">• 0.5 sec.• 1.5 sec.• OFF: Non-operation
PW DOWN SET	Unlock button pressing time on Intelligent Key button to lower front windows can be selected from the following with this mode. <ul style="list-style-type: none">• 3 sec.• 5 sec.• OFF: Non-operation
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">• 0.5 sec.• 1.5 sec.• 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.
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.
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 AND 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 operate during the times below. <ul style="list-style-type: none">• 70 msec• 100 msec• 200 msec
INSIDE ANT DIAGNOSIS	This function allows inside key antenna self-diagnosis.

SELF-DIAG RESULT

Refer to [BCS-91, "DTC Index"](#).

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

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.
IGN RLY2-F/B	Indicates [ON/OFF] condition of ignition relay 2.
ACC RLY1-F/B	Indicates [ON/OFF] condition of accessory relay.
CLUTCH SW	NOTE: This item is displayed, but cannot be monitored.
BRAKE SW 1	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 from IPDM E/R via CAN.
IGN RLY1-F/B	Indicates [ON/OFF] condition of ignition relay 1 from IPDM E/R via CAN.
DETE SW -IPDM	Indicates [ON/OFF] condition of P position from TCM via CAN.
SFT PN -IPDM	Indicates [ON/OFF] condition of P or N position from TCM via CAN.
SFT P -MET	Indicates [ON/OFF] condition of P position from TCM via CAN.
SFT N -MET	Indicates [ON/OFF] condition of N position from IPDM E/R via CAN.
ENGINE STATE	Indicates [STOP/START/CRANK/RUN] condition of engine states from ECM via CAN.
S/L LOCK-IPDM	Indicates [ON/OFF] condition of steering lock (LOCK) request from IPDM E/R via CAN.
S/L UNLOCK-IPDM	Indicates [ON/OFF] condition of steering lock (UNLOCK) request from IPDM E/R via CAN.
S/L RELAY-REQ	Indicates [ON/OFF] condition of steering lock relay from IPDM E/R via CAN.
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.
PRMT RKE STRT	NOTE: This item is displayed, but cannot be monitored.
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.
RKE OPE COUN2	NOTE: This item is displayed, but cannot be monitored.
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.

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DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

Monitor Item	Condition
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.

ACTIVE TEST

Test item	Description
BATTERY SAVER	This test is able to check interior room lamp operation. The interior room lamp will be activated after "ON" on CONSULT-III screen is touched.
PW REMOTO DOWN SET	This test is able to check power window down operation. The power window down will be activated after "ON" on CONSULT-III screen is touched.
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation. Intelligent Key warning buzzer sounds when "ON" on CONSULT-III screen is touched.
INSIDE BUZZER	This test is able to check warning chime by combination meter operation. <ul style="list-style-type: none"> • Take out warning chime sounds when "TAKE OUT" on CONSULT-III screen is touched. • Key warning chime sounds when "KEY WARN" on CONSULT-III screen is touched. • P position warning chime sounds when "P RNG WARN" on CONSULT-III screen is touched. • ACC warning chime sounds when "ACC WARN" on CONSULT-III 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 IND ON" on CONSULT-III screen is touched. • "KEY" Warning lamp flashes when "KEY IND FSH" on CONSULT-III screen is touched.
INT LAMP	This test is able to check interior room lamp operation. The interior room lamp will be activated after "ON" on CONSULT-III screen is touched.
LCD	This test is able to check meter display information <ul style="list-style-type: none"> • Engine start information displays when "BRAKE/P" on CONSULT-III screen is touched. • Engine start information displays when "BRAKE/P/ON" on CONSULT-III screen is touched. • Key ID warning displays when "KEY ID NG" on CONSULT-III screen is touched. • Steering lock information displays when "STLCK RELES" on CONSULT-III screen is touched. • P position warning displays when "P RNG IND" on CONSULT-III screen is touched. • Intelligent Key insert information displays when "INSERT KEY" on CONSULT-III screen is touched. • Intelligent Key low battery warning displays when "KEY BAT LOW" on CONSULT-III screen is touched. • Take away window warning displays when "TK AWAY WDW" on CONSULT-III screen is touched. • Take away warning display when "TAKE AWAY" on CONSULT-III screen is touched. • OFF position warning display when "IGN OFF WARN" on CONSULT-III screen is touched.
TRUNK/GLASS HATCH	This test is able to check trunk lid opener actuator open operation. This actuator opens when "ON" on CONSULT-III screen is touched.
FLASHER	This test is able to check security hazard lamp operation. The hazard lamps will be activated after "ON" on CONSULT-III screen is touched.
HORN	This test is able to check horn operation. The horn will be activated after "ON" on CONSULT-III screen is touched.
P RANGE	This test is able to check CVT device power supply CVT device power is supplied when "ON" on CONSULT-III 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-III 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-III screen is touched.
ACC INDICATOR	This test is able to check ACC indicator in push-ignition switch operation. LOCK indicator in push-ignition switch illuminates when "ON" on CONSULT-III screen is touched.
IGNITION ON IND	This test is able to check IGNITION ON indicator in push-ignition switch operation. LOCK indicator in push-ignition switch illuminates when "ON" on CONSULT-III screen is touched.
KEY SLOT ILLUMI	This test is able to check key slot illumination operation. Key slot illumination flash when "ON" on CONSULT-III screen is touched.

THEFT ALM

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

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

INFOID:000000004498331

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-III 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 -RR	Indicates [ON/OFF] condition of rear door request switch (passenger side).
REQ SW -RL	Indicates [ON/OFF] condition of rear door request switch (driver 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.
DOOR SW-BK	NOTE: This is displayed even when it is not equipped.
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.
KEY CYL SW-TR	NOTE: This is displayed even when it is not equipped.
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	Description
THEFT IND	This test is able to check security indicator lamp operation. The lamp will be turned on when "ON" on CONSULT-III 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-III screen is touched.
HEADLAMP(HI)	This test is able to check vehicle security lamp operation. The headlamps will be activated for 0.5 seconds after "ON" on CONSULT-III screen is touched.
FLASHER	This test is able to check vehicle security hazard lamp operation. The hazard lamps will be activated after "ON" on CONSULT-III screen is touched.

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DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

IMMU : CONSULT-III Function (BCM - IMMU)

INFOID:000000004498332

DATA MONITOR

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

ACTIVE TEST

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

U1000 CAN COMM CIRCUIT

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

COMPONENT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description

INFOID:000000004206190

CAN (Controller Area Network) is a serial communication line for real time applications. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Modern vehicle is equipped with many electronic control unit, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN-H line, CAN-L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only. CAN Communication Signal Chart, refer to [LAN-25, "CAN Communication Signal Chart"](#).

DTC Logic

INFOID:000000004206191

DTC DETECTION LOGIC

CONSULT-III 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 (MULTI AV)• Receiving (IPDM E/R)

Diagnosis Procedure

INFOID:000000004206192

1.PERFORM SELF DIAGNOSTIC

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

Is "CAN COMM CIRCUIT" displayed?

- YES >> Refer to [LAN-8, "CAN Communication Control Circuit"](#).
NO >> Refer to [GI-42, "Intermittent Incident"](#).

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U1010 CONTROL UNIT (CAN)

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

U1010 CONTROL UNIT (CAN)

DTC Logic

INFOID:000000004206193

DTC DETECTION LOGIC

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

Diagnosis Procedure

INFOID:000000004206194

1. REPLACE BCM

When DTC U1010 is detected, replace BCM.

>> Replace BCM. Refer to [BCS-96, "Removal and Installation"](#).

B2013 ID DISCORD, IMMU-STRG

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B2013 ID DISCORD, IMMU-STRG

Description

INFOID:000000004206195

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

DTC Logic

INFOID:000000004206196

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">Steering wheel lock unit

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-III.

Is DTC detected?

- YES >> Refer to [SEC-237. "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206197

1. PERFORM INITIALIZATION

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

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

- YES >> Steering lock unit was unregistered.
NO >> Replace steering wheel lock unit.

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B2014 CHAIN OF STRG-IMMU

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B2014 CHAIN OF STRG-IMMU

Description

INFOID:000000004206198

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

DTC Logic

INFOID:000000004206199

DTC DETECTION LOGIC

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

Is DTC detected?

YES >> Refer to [SEC-238, "Diagnosis Procedure"](#).

NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206200

1.CHECK STEERING LOCK UNIT POWER SUPPLY

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

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

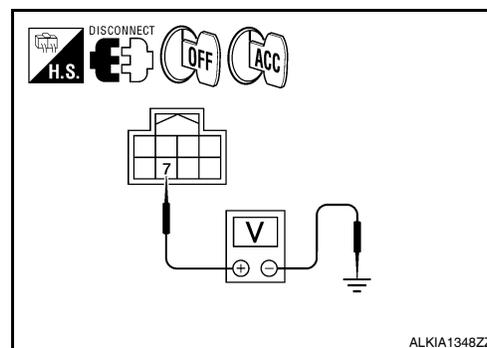
Is the inspection result normal?

YES >> GO TO 3

NO >> GO TO 2

2.CHECK STEERING LOCK UNIT POWER SUPPLY CIRCUIT

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



B2014 CHAIN OF STRG-IMMU

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

3. Check continuity between steering lock unit harness connector M32 (A) terminal 7 and BCM harness connector M19 (B) terminal 94.

Steering lock unit		BCM		Continuity
Connector	Terminal	connector	Terminal	
A: M32	7	B: M19	94	Yes

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

Steering lock unit		Ground	Continuity
Connector	Terminal		
A: M32	7	Ground	No

Is the inspection result normal?

YES >> GO TO 6

NO >> Repair harness or connector.

3. CHECK STEERING LOCK UNIT GROUND CIRCUIT

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

Steering lock unit		Ground	Continuity
Connector	Terminal		
M32	5	Ground	Yes
	6		

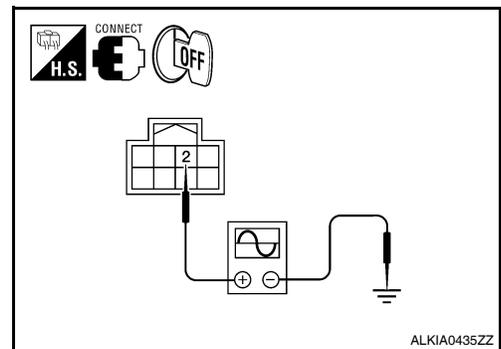
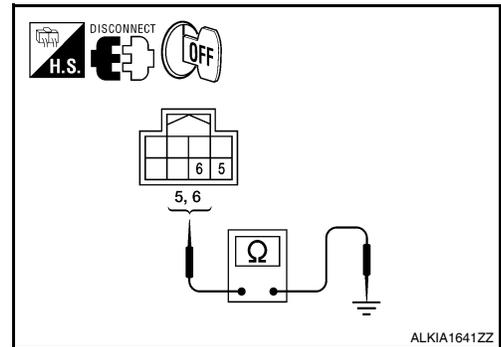
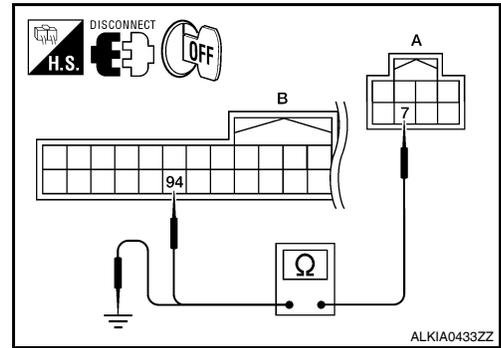
Is the inspection result normal?

YES >> GO TO 4

NO >> Repair harness or connector.

4. CHECK STEERING LOCK UNIT COMMUNICATION SIGNAL

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

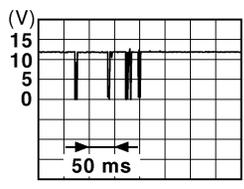


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B2014 CHAIN OF STRG-IMMU

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

Steering lock unit		Ground	Steering lock unit condition	Value
Connector	Terminal			
M32	2	Ground	Lock	Battery voltage
			Lock or unlock	 <p>(V) 15 10 5 0</p> <p>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 result normal?

YES >> Replace steering lock unit.
 NO >> GO TO 5

5. CHECK STEERING LOCK UNIT COMMUNICATION CIRCUIT

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

BCM		Steering lock unit		Continuity
Connector	Terminal	connector	Terminal	
A: M19	99	B: M32	2	Yes

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

BCM		Ground	Continuity
Connector	Terminal		
A: M19	99	Ground	No

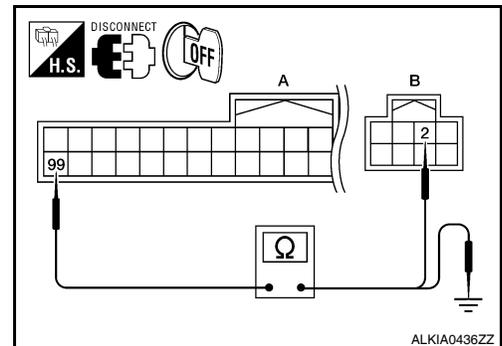
Is the inspection normal?

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

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B2108 STEERING LOCK RELAY

Description

INFOID:000000004206285

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:000000004206286

DTC DETECTION LOGIC

NOTE:

- If DTC B2108 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-235, "DTC Logic"](#).
- If DTC B2108 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-236, "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-III.

Is DTC detected?

- YES >> Refer to [SEC-241, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206287

1.CHECK FUSE

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

Is the inspection result normal?

- YES >> Replace IPDM E/R. Refer to [PCS-48, "Removal and Installation"](#).
NO >> Check the following.
 - Harness for open or short between IPDM E/R and battery
 - Fuse

B2109 STEERING LOCK RELAY

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B2109 STEERING LOCK RELAY

Description

INFOID:000000004206288

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:000000004206289

DTC DETECTION LOGIC

NOTE:

- If DTC B2109 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-235, "DTC Logic"](#).
- If DTC B2109 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-236, "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-III.

Is DTC detected?

- YES >> Refer to [SEC-242, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206290

1.CHECK POWER SUPPLY CIRCUIT

Check IPDM E/R power supply circuit. Refer to [PCS-23, "Diagnosis Procedure"](#).

Is the inspection result 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 result normal?

- YES >> Replace IPDM E/R. Refer to [PCS-48, "Removal and Installation"](#).
NO >> Check the following.
 - Harness for open or short between IPDM E/R and battery
 - Fuse

B210A STEERING LOCK CONDITION SWITCH

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B210A STEERING LOCK CONDITION SWITCH

Description

INFOID:000000004206291

There are 2 switches in the electronic steering column lock. 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:000000004206292

DTC DETECTION LOGIC

NOTE:

- If DTC B210A is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-235, "DTC Logic"](#).
- If DTC B210A is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-236, "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-III.

Is DTC detected?

- YES >> Refer to [SEC-243, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206293

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 WITH INTELLIGENT KEY]

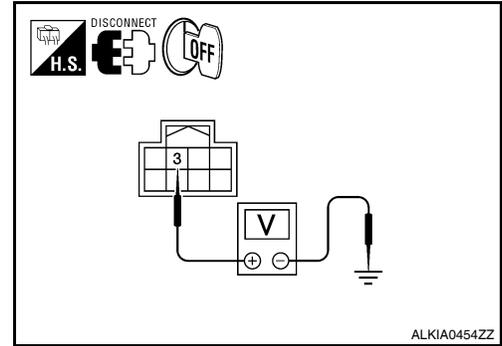
< COMPONENT DIAGNOSIS >

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.

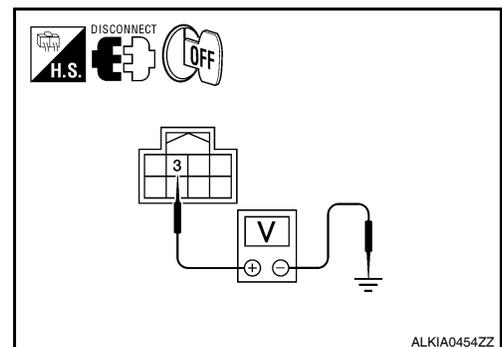
4. CHECK IPDM E/R OUTPUT SIGNAL

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

B210A STEERING LOCK CONDITION SWITCH

[SEDAN WITH INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

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.
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

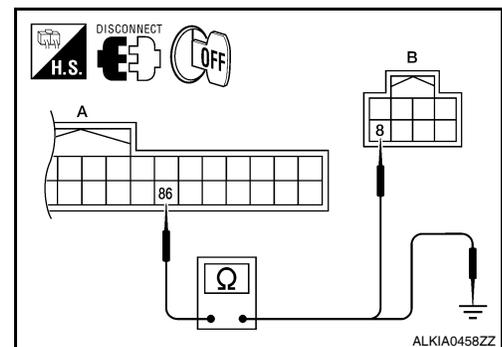
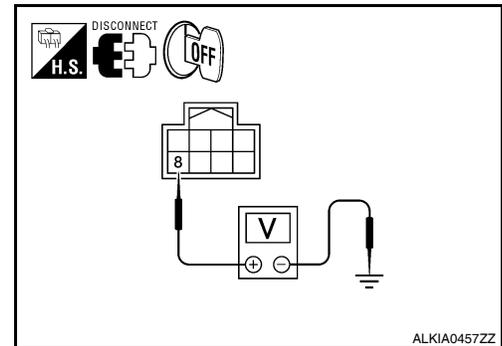
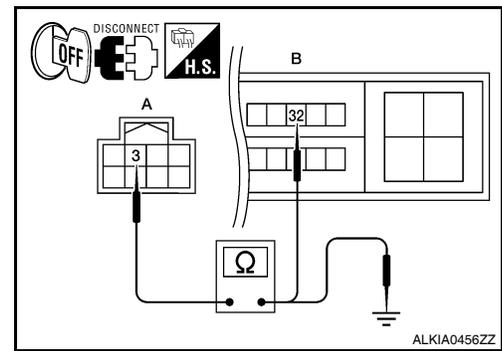
1. Disconnect BCM harness connector M122.
2. Check continuity between BCM harness connector M19 (A) terminal 86 and electronic steering column lock harness connector M32 (B) terminal 8.

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?



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SEC

B210A STEERING LOCK CONDITION SWITCH

[SEDAN WITH INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

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

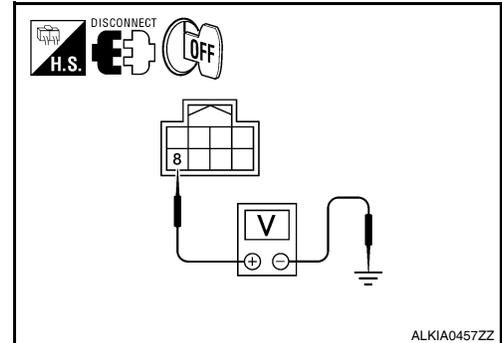
9. CHECK IPDM E/R OUTPUT SIGNAL

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



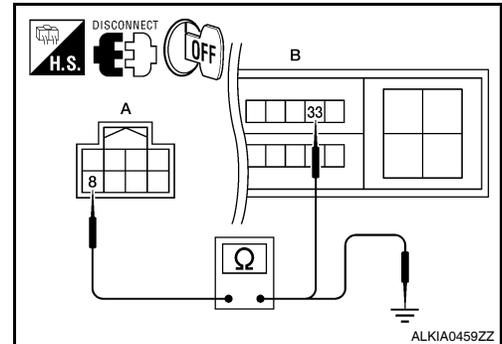
ALKIA0457ZZ

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.



ALKIA0459ZZ

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

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B210B STARTER CONTROL RELAY

Description

INFOID:000000004206294

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:000000004206295

DTC DETECTION LOGIC

NOTE:

- If DTC B210B is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-235, "DTC Logic"](#).
- If DTC B210B is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-236, "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 following conditions are met for about 1 second. <ul style="list-style-type: none">• Starter control relay ON/OFF signal from BCM• Clutch interlock or shift park neutral position (PNP) 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-III.

Is DTC detected?

- YES >> Refer to [SEC-247, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206296

1. INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT-III.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**
See [PCS-45, "DTC Index"](#).

Is the DTC B210B displayed again?

- YES >> Replace IPDM E/R. Refer to [PCS-48, "Removal and Installation"](#).
NO >> Inspection End.

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B210C STARTER CONTROL RELAY

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B210C STARTER CONTROL RELAY

Description

INFOID:000000004206297

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:000000004206298

DTC DETECTION LOGIC

NOTE:

- If DTC B210C is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-235, "DTC Logic"](#).
- If DTC B210C is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-236, "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 following conditions are met for about 1 second. <ul style="list-style-type: none">• Starter control relay ON/OFF signal from BCM• Clutch interlock or shift park neutral position (PNP) 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-III.

Is DTC detected?

- YES >> Refer to [SEC-248, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206299

1. INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT-III.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**
Refer to [PCS-45, "DTC Index"](#).

Is the DTC B210C displayed again?

- YES >> Replace IPDM E/R. Refer to [PCS-48, "Removal and Installation"](#).
NO >> Inspection End.

B210D STARTER RELAY

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B210D STARTER RELAY

Description

INFOID:000000004206300

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:000000004206301

DTC DETECTION LOGIC

NOTE:

- If DTC B210D is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-235, "DTC Logic"](#).
- If DTC B210D is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-236, "DTC Logic"](#).
- If DTC B210D is displayed with DTC B2617, first perform the trouble diagnosis for DTC B2617. Refer to [SEC-304, "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 following conditions are met for about 1 second. <ul style="list-style-type: none"> • Starter control relay ON/OFF signal from BCM • Clutch interlock or shift park neutral position (PNP) 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 in the P or N position
 - Do not depress the brake pedal
2. Check "Self diagnostic result" with CONSULT-III.

Is DTC detected?

- YES >> Refer to [SEC-249, "Diagnosis Procedure"](#).
 NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206302

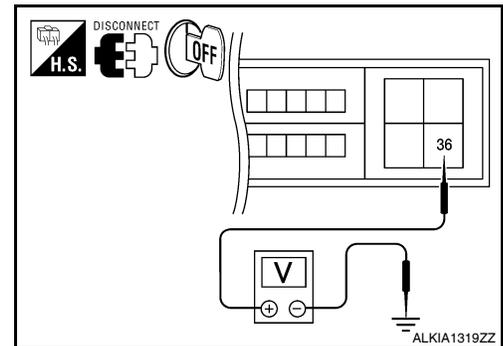
1. CHECK STARTER RELAY POWER SUPPLY CIRCUIT

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

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-48, "Removal and Installation"](#).
 NO >> Check harness for open or short between IPDM E/R and battery.



B210E STARTER RELAY

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B210E STARTER RELAY

Description

INFOID:000000004206303

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:000000004206304

DTC DETECTION LOGIC

NOTE:

- If DTC B210E is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-235, "DTC Logic"](#).
- If DTC B210E is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-236, "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 following conditions are met for about 1 second. <ul style="list-style-type: none">• Starter control relay ON/OFF signal from BCM• Clutch interlock or shift park neutral position (PNP) 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-III.

Is DTC detected?

- YES >> Refer to [SEC-250, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206305

1. INSPECTION START

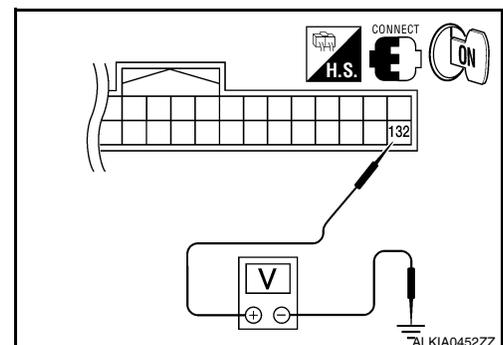
Check which type of transmission the vehicle is equipped with.

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.
3. Check voltage between BCM harness connector and ground.



B210E STARTER RELAY

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

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

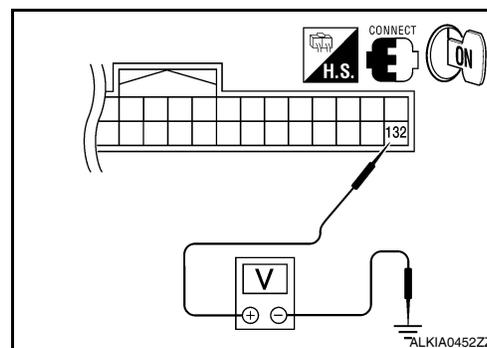
- Turn ignition switch OFF.
- Disconnect BCM harness connector.
- Check voltage between BCM harness connector and ground.

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

- Disconnect IPDM E/R harness connector.
- 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

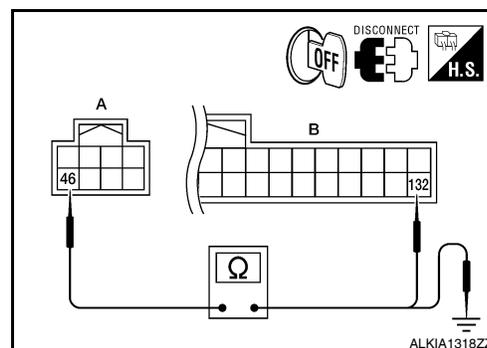
Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-48, "Removal and Installation"](#).

NO >> Repair harness connector.

5. CHECK STARTER RELAY POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- Disconnect IPDM E/R harness connector.



B210E STARTER RELAY

< COMPONENT DIAGNOSIS >

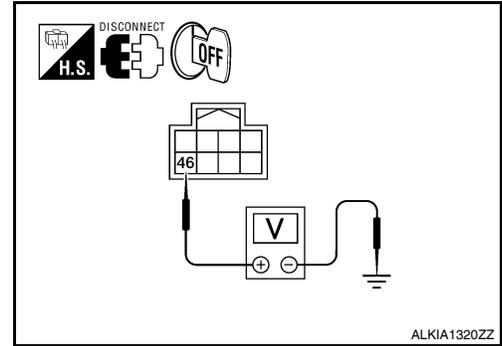
[SEDAN WITH INTELLIGENT KEY]

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

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

Is the inspection result normal?

- YES >> Replace IPDM E/R. Refer to [PCS-48. "Removal and Installation"](#).
- NO >> Check harness for open or short between IPDM E/R and battery.



B210F PNP/CLUTCH INTERLOCK SWITCH

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B210F PNP/CLUTCH INTERLOCK SWITCH

Description

INFOID:000000004206306

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

- Park/neutral position (PNP) switch (CVT models)
- Clutch interlock switch (M/T models)
- Shift position signal from BCM (CAN)

DTC Logic

INFOID:000000004206307

DTC DETECTION LOGIC

NOTE:

- If DTC B210F is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-235, "DTC Logic"](#)
- If DTC B210F is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-235, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B210F	INTER LOCK/PNP 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 PNP switch input signal (CVT models)• Shift position signal from BCM (CAN)	<ul style="list-style-type: none">• Harness or connectors [Park/neutral position (PNP) switch circuit is open or shorted (CVT models)] or (Clutch interlock switch circuit is open or shorted.)• Clutch interlock switch (M/T models)• Park/neutral position (PNP) 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-III.

Is DTC detected?

- YES >> Refer to [SEC-253, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206308

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-91, "DTC Index"](#).

Is the inspection result normal?

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

3. CHECK PNP SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R harness connector.
3. Turn ignition switch ON.

B210F PNP/CLUTCH INTERLOCK SWITCH

[SEDAN WITH INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

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-48. "Removal and Installation"](#).

NO >> (VQ35DE) GO TO 4

NO >> (QR25DE) GO TO 10

4.CHECK PNP SWITCH CIRCUIT

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

TCM		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: F16	20	B: E18	72	Yes

4. Check continuity between TCM harness connector and ground.

TCM		Ground	Continuity
Connector	Terminal		
A: F16	20	Ground	No

Is the inspection result normal?

YES >> GO TO 13

NO >> Repair harness or connector.

5.CHECK CLUTCH INTERLOCK SWITCH INPUT SIGNAL (BCM)

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

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

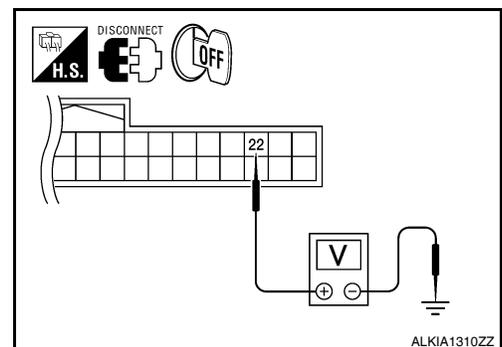
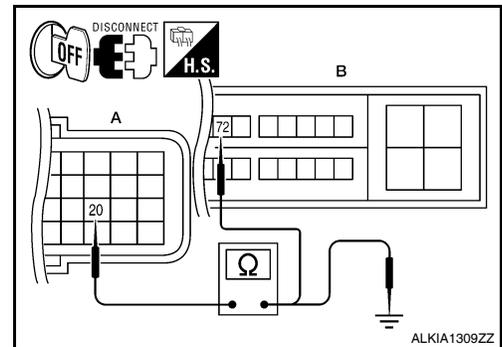
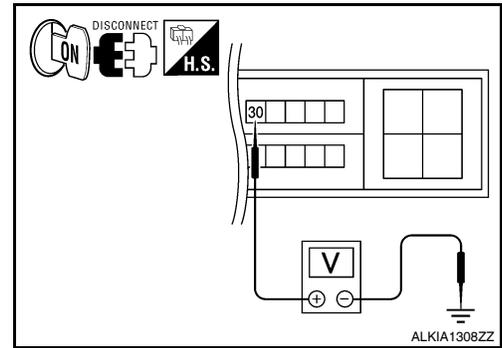
Is the inspection result normal?

YES >> GO TO 6

NO >> GO TO 7

6.CHECK CLUTCH INTERLOCK SWITCH INPUT SIGNAL

- Turn ignition switch OFF.
- Disconnect IPDM E/R harness connector.
- Turn ignition switch ON.



B210F PNP/CLUTCH INTERLOCK SWITCH

[SEDAN WITH INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

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

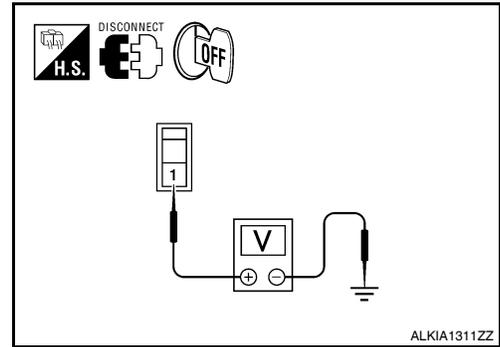
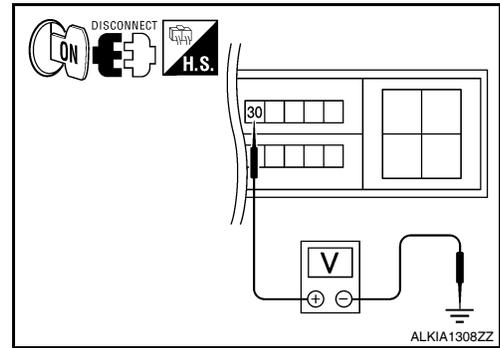
Is the inspection result normal?

YES >> Replace the IPDM E/R. Refer to [PCS-48. "Removal and Installation"](#).

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

7. CHECK CLUTCH INTERLOCK SWITCH POWER SUPPLY

- Disconnect clutch interlock switch harness connector.
- 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

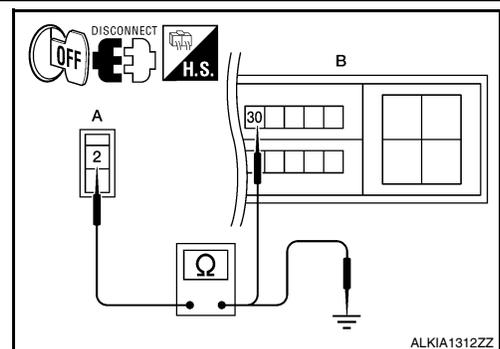
Is the inspection result normal?

YES >> GO TO 9

NO >> Repair harness or connector.

9. CHECK CLUTCH INTERLOCK SWITCH

Refer to [SEC-257. "Component Inspection"](#).



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B210F PNP/CLUTCH INTERLOCK SWITCH

[SEDAN WITH INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

Is the inspection result normal?

- YES >> Replace the IPDM E/R. Refer to [PCS-48, "Removal and Installation"](#).
 NO >> Replace clutch interlock switch.

10. CHECK PNP SWITCH CIRCUIT FOR CONTINUITY

- Turn ignition switch OFF.
- Check continuity between IPDM E/R harness connector terminals 72 and 74.

IPDM E/R			Condition		Continuity
Connector	Terminals		PNP switch position	P or N	
F10	72	74		P	Yes
			N	No	

Is the inspection result normal?

- YES >> GO TO 11
 NO >> GO TO 12

11. CHECK PNP 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-48, "Removal and Installation"](#).
 NO >> Repair or replace harness.

12. CHECK PNP SWITCH INPUT SIGNAL CIRCUIT

- Disconnect PNP switch harness connector.
- Check continuity between PNP switch and IPDM E/R harness connectors.

Park/neutral position switch		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: F25	1	B: F10	74	Yes
	2		72	

- Check continuity between PNP switch harness connector and ground.

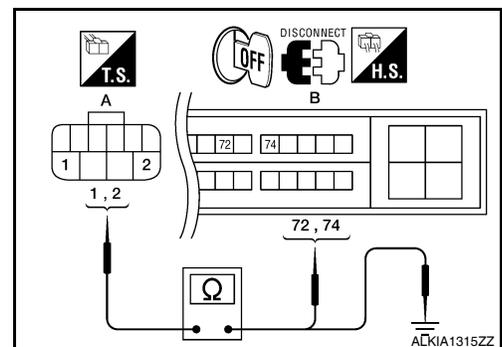
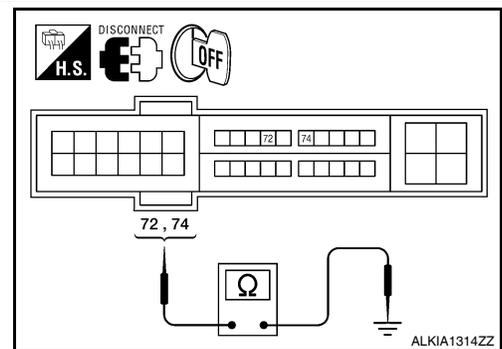
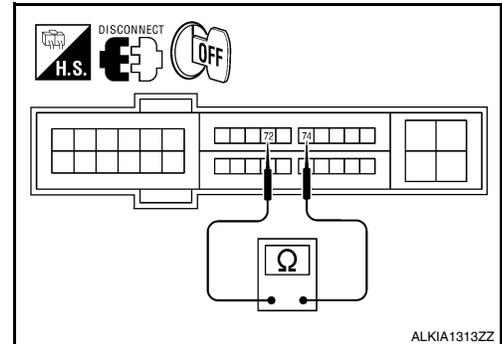
Park/neutral position switch		Ground	Continuity
Connector	Terminal		
A: F25	1	Ground	No
	2		

Is the inspection result normal?

- YES >> Replace PNP switch.
 NO >> Repair harness or connector.

13. CHECK INTERMITTENT INCIDENT

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



B210F PNP/CLUTCH INTERLOCK SWITCH

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

>> Inspection End.

Component Inspection

INFOID:000000004206309

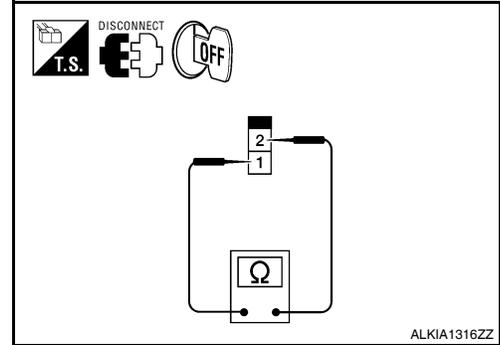
1. CHECK CLUTCH INTERLOCK SWITCH

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 PNP/CLUTCH INTERLOCK SWITCH

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B2110 PNP/CLUTCH INTERLOCK SWITCH

Description

INFOID:000000004206310

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

- Park/neutral position (PNP) switch (CVT models)
- Clutch inter lock switch (M/T models)
- Shift position signal from BCM (CAN)

DTC Logic

INFOID:000000004206311

DTC DETECTION LOGIC

NOTE:

- If DTC B2110 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-235, "DTC Logic"](#).
- If DTC B2110 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-236, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2110	INTER LOCK/PNP 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 [Park/neutral position (PNP) switch circuit is open or shorted (CVT models)] or (Clutch interlock switch circuit is open or shorted.)• Clutch inter lock switch (MT models)• Park/neutral position (PNP) 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-III.

Is DTC detected?

- YES >> Refer to [SEC-258, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206312

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-91, "DTC Index"](#).

Is the inspection result normal?

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

3. CHECK PNP SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R harness connector.
3. Turn ignition switch ON.

B2110 PNP/CLUTCH INTERLOCK SWITCH

[SEDAN WITH INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

- 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-48. "Removal and Installation"](#).

NO >> (VQ35DE) GO TO 4

NO >> (QR25DE) GO TO 10

4.CHECK PNP SWITCH CIRCUIT

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

TCM		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: F16	20	B: E18	72	Yes

- Check continuity between TCM harness connector and ground.

TCM		Ground	Continuity
Connector	Terminal		
A: F16	20	Ground	No

Is the inspection result normal?

YES >> GO TO 13

NO >> Repair harness or connector.

5.CHECK CLUTCH INTERLOCK SWITCH INPUT SIGNAL (BCM)

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

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

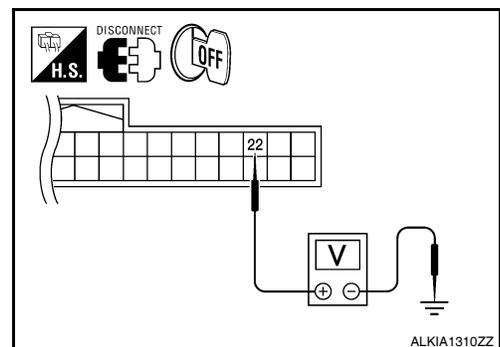
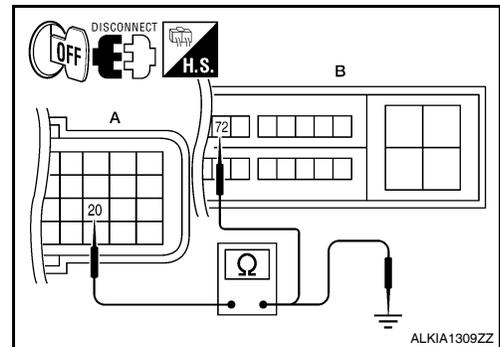
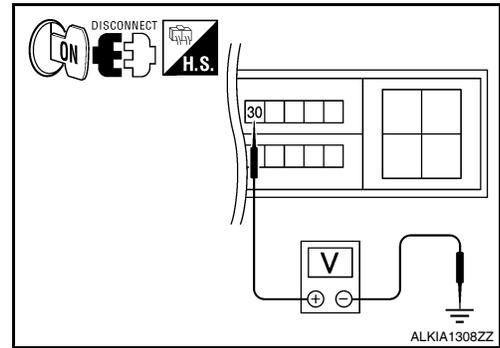
Is the inspection result normal?

YES >> GO TO 6

NO >> GO TO 7

6.CHECK CLUTCH INTERLOCK SWITCH INPUT SIGNAL

- Turn ignition switch OFF.
- Disconnect IPDM E/R harness connector.
- Turn ignition switch ON.



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B2110 PNP/CLUTCH INTERLOCK SWITCH

[SEDAN WITH INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

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

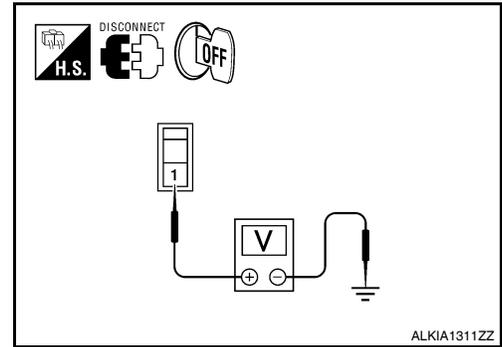
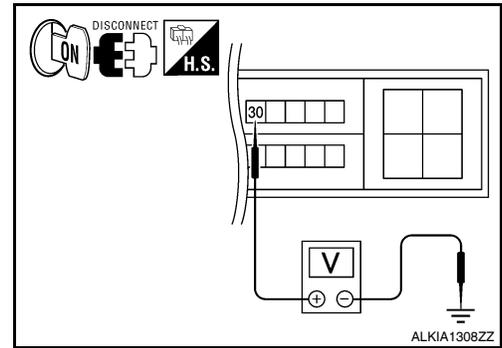
Is the inspection result normal?

YES >> Replace the IPDM E/R. Refer to [PCS-48. "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.
2. Check voltage between clutch interlock switch harness connector and ground.



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

Is the inspection result normal?

YES >> GO TO 8

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

8. CHECK CLUTCH INTERLOCK SWITCH CIRCUIT

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

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

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

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

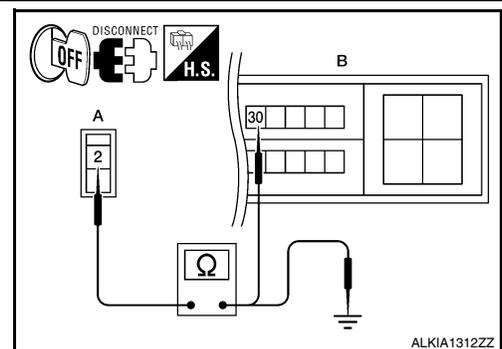
Is the inspection result normal?

YES >> GO TO 9

NO >> Repair harness or connector.

9. CHECK CLUTCH INTERLOCK SWITCH

Refer to [SEC-262. "Component Inspection"](#).



B2110 PNP/CLUTCH INTERLOCK SWITCH

[SEDAN WITH INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

Is the inspection result normal?

- YES >> Replace the IPDM E/R. Refer to [PCS-48, "Removal and Installation"](#).
- NO >> Replace clutch interlock switch.

10. CHECK PNP 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	P or N	Yes
			Other	No

Is the inspection result normal?

- YES >> GO TO 11
- NO >> GO TO 12

11. CHECK PNP 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-48, "Removal and Installation"](#).
- NO >> Repair or replace harness.

12. CHECK PNP SWITCH INPUT SIGNAL CIRCUIT

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

Park/neutral position switch		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: F25	1	B: F10	74	Yes
	2		72	

3. Check continuity between PNP switch harness connector and ground.

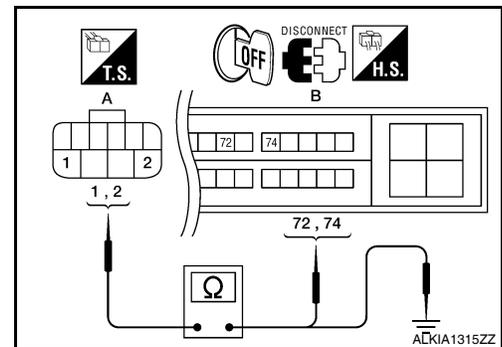
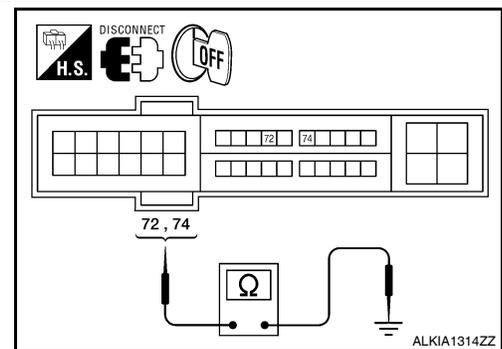
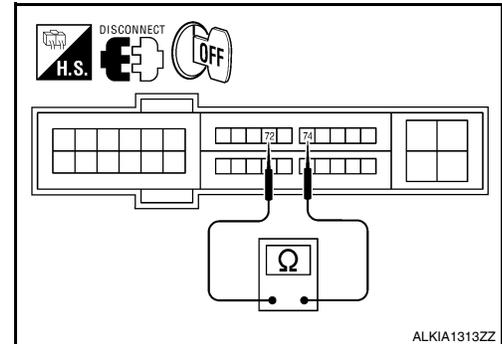
Park/neutral position switch		Ground	Continuity
Connector	Terminal		
A: F25	1	Ground	No
	2		

Is the inspection result normal?

- YES >> Replace PNP switch.
- NO >> Repair harness or connector.

13. CHECK INTERMITTENT INCIDENT

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



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B2110 PNP/CLUTCH INTERLOCK SWITCH

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

>> Inspection End.

Component Inspection

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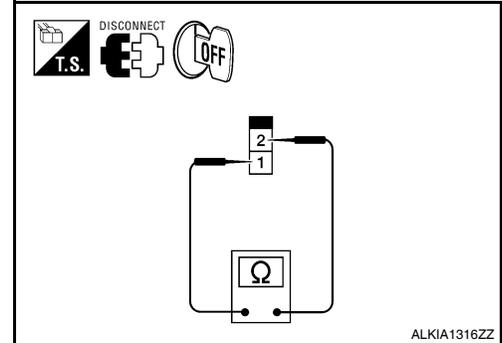
1. CHECK CLUTCH INTERLOCK SWITCH

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

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B2190, P1610 NATS ANTENNA AMP

Description

INFOID:000000004206201

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:000000004206202

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-III.

Is DTC detected?

- YES >> Refer to [SEC-263, "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-III.

Is DTC detected?

- YES >> Refer to [SEC-263, "Diagnosis Procedure"](#).
 NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206203

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

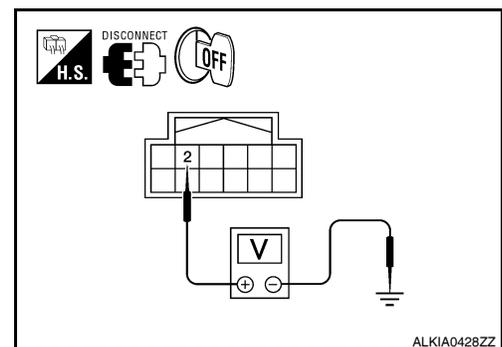
2. CHECK KEY SLOT INPUT SIGNAL

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

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

Is the inspection result normal?

- YES >> Replace key slot. Refer to [SEC-409, "Removal and Installation"](#).
 NO >> GO TO 3



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B2190, P1610 NATS ANTENNA AMP

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

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

Key slot		Ground	Continuity
Connector	Terminal		
M40	3	Ground	Yes

Is the inspection result normal?

- YES >> Replace key slot. Refer to [SEC-409. "Removal and Installation"](#).
 NO >> GO TO 6

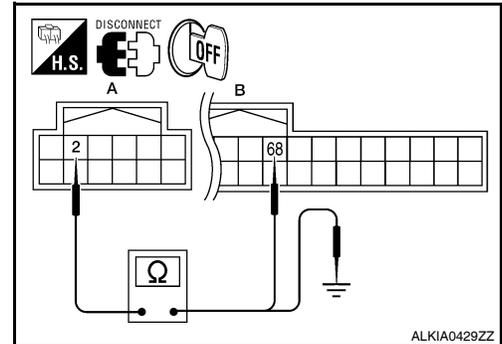
6. CHECK KEY SLOT COMMUNICATION SIGNAL CIRCUIT

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

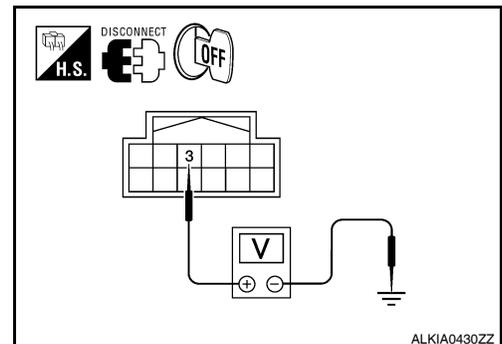
Key slot		BCM		Continuity
Connector	Terminal	Connector	Terminal	
A: M40	3	B: M19	69	Yes

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

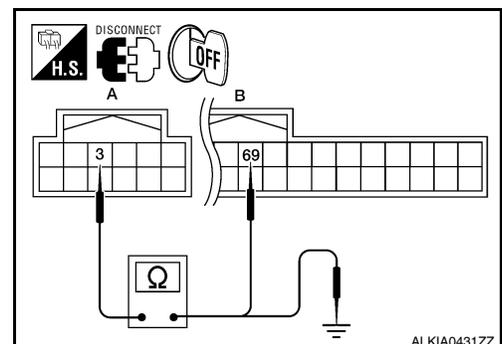
Key slot		Ground	Continuity
Connector	Terminal		
A: M40	3	Ground	No



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ALKIA0430ZZ



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B2190, P1610 NATS ANTENNA AMP

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

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

Key slot		Ground	Continuity
Connector	Terminal		
M40	7	Ground	Yes

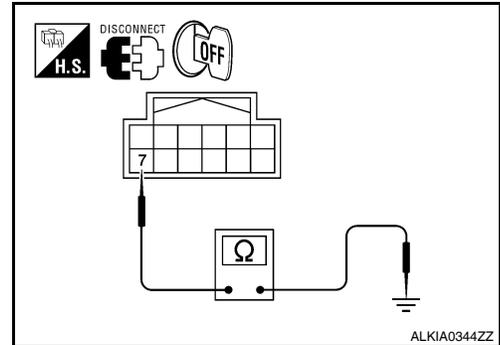
Is the inspection result normal?

- YES >> GO TO 8
- NO >> Repair harness or connector.

8. CHECK INTERMITTENT INCIDENT

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

>> Inspection End.



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B2191, P1615 DIFFERENCE OF KEY

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B2191, P1615 DIFFERENCE OF KEY

Description

INFOID:000000004206204

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:000000004206205

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. Press the push-button ignition switch.
2. Check "Self Diagnostic Result" with CONSULT-III.

Is DTC detected?

- YES >> Refer to [SEC-266. "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206206

1.PERFORM INITIALIZATION

Perform initialization with CONSULT-III. Re-register all Intelligent Keys. For initialization and registration of Intelligent Key, refer to CONSULT-III 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. Refer to [BCS-96. "Removal and Installation"](#).
 - Perform initialization again.

B2192, P1611 ID DISCORD, IMMUECM

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B2192, P1611 ID DISCORD, IMMUECM

Description

INFOID:000000004206207

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:000000004206208

DTC DETECTION LOGIC

NOTE:

- If DTC B2192 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-235, "DTC Logic"](#).
- If DTC B2192 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-236, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2192	ID DISCORD, IMMUECM	The ID verification results between BCM and ECM are NG. The registration is necessary.	• BCM • ECM
P1611			

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-III.

Is DTC detected?

- YES >> Refer to [SEC-267, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206209

1. PERFORM INITIALIZATION

Perform initialization with CONSULT-III. Re-register all Intelligent Keys.

For initialization and registration of Intelligent Key, refer to "CONSULT-III 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. Refer to [BCS-96, "Removal and Installation"](#).
 - Perform initialization again.
 - Replace ECM.

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B2193, P1612 CHAIN OF ECM-IMMU

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B2193, P1612 CHAIN OF ECM-IMMU

Description

INFOID:000000004206210

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:000000004206211

DTC DETECTION LOGIC

NOTE:

- If DTC B2193 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-235, "DTC Logic"](#).
- If DTC B2193 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-236, "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-III.

Is DTC detected?

- YES >> Refer to [SEC-268, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206212

1. REPLACE BCM

1. Replace BCM. Refer to [BCS-96, "Removal and Installation"](#).
2. Perform initialization with CONSULT-III.
For initialization, refer to "CONSULT-III Operation Manual."

Does the engine start?

- YES >> BCM is malfunctioning.
 - Replace BCM. Refer to [BCS-96, "Removal and Installation"](#).
 - Perform initialization again.
- NO >> ECM is malfunctioning.
 - Replace ECM.
 - Perform ECM re-communicating function.

B2555 STOP LAMP

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B2555 STOP LAMP

Description

INFOID:000000004206213

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:000000004206214

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2555	STOP LAMP	BCM makes a comparison between the upper voltage and lower voltage of stop lamp switch. It judges from their values to detect the malfunctioning circuit.	<ul style="list-style-type: none"> Harness or connectors (stop lamp switch circuit is open or shorted) Stop lamp switch Fuse

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Depress the brake pedal and wait for at least 1 second.
- Check "Self Diagnostic Result" with CONSULT-III.

Is DTC detected?

- YES >> Refer to [SEC-269, "Diagnosis Procedure"](#).
 NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206215

1. CHECK STOP LAMP SWITCH INPUT SIGNAL

- Turn ignition switch OFF.
- Disconnect BCM harness connector.
- 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 >> Stop lamp switch is OK.
 NO >> GO TO 2

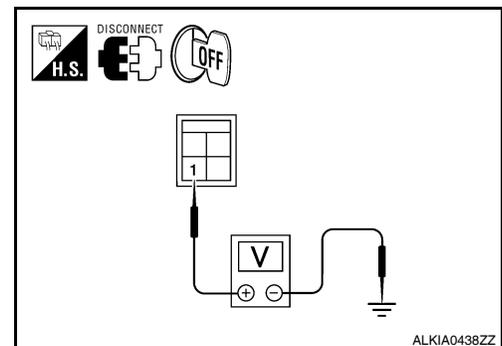
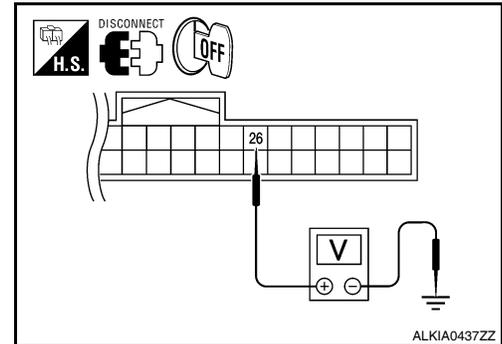
2. CHECK STOP LAMP SWITCH POWER SUPPLY CIRCUIT

- Disconnect stop lamp switch harness connector.
- 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.



B2555 STOP LAMP

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

3. CHECK STOP LAMP SWITCH CIRCUIT

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

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

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

Stop lamp switch		Ground	Continuity
Connector	Terminal		
A: 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-270, "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

INFOID:000000004206216

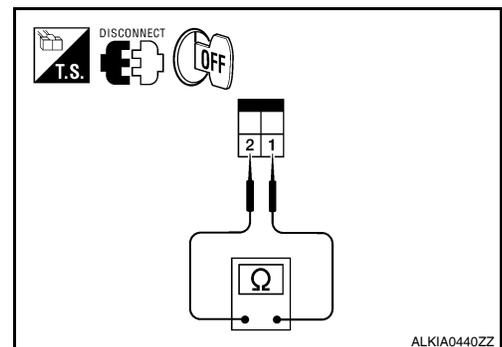
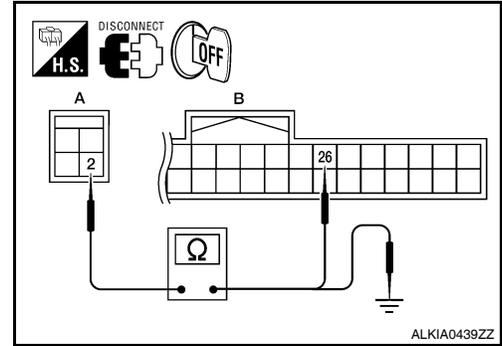
1. CHECK STOP LAMP SWITCH

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

Stop lamp switch		Condition	Continuity
Terminal			
1	2	Not depressed	No
		Depressed	Yes

Is the inspection result normal?

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



B2556 PUSH-BUTTON IGNITION SWITCH

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B2556 PUSH-BUTTON IGNITION SWITCH

Description

INFOID:000000004206217

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:000000004206218

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-III.

Is DTC detected?

- YES >> Refer to [SEC-271, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206219

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 result normal?

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

2. CHECK PUSH-BUTTON IGNITION SWITCH

Refer to [SEC-272, "Component Inspection"](#).

Is the inspection result normal?

- YES >> GO TO 3
NO >> Replace push-button ignition switch. Refer to [SEC-410, "Removal and Installation"](#).

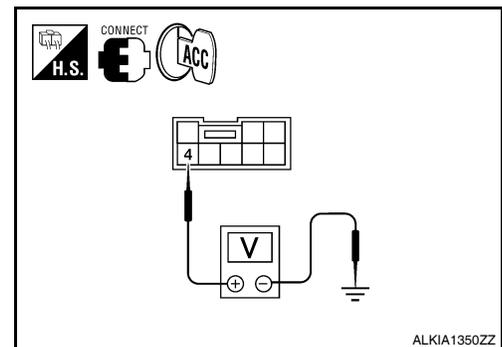
3. CHECK INTERMITTENT INCIDENT

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.



B2556 PUSH-BUTTON IGNITION SWITCH

[SEDAN WITH INTELLIGENT KEY]

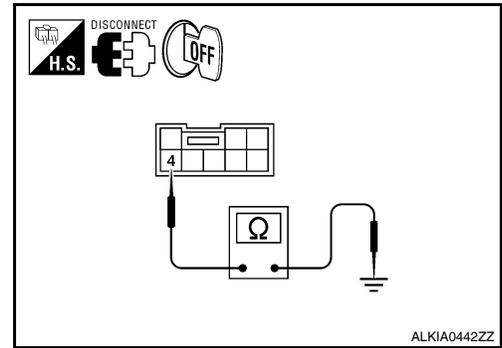
< COMPONENT DIAGNOSIS >

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 result normal?

- YES >> Replace BCM. Refer to [BCS-96. "Removal and Installation"](#).
- NO >> Repair harness or connector.



Component Inspection

INFOID:000000004206220

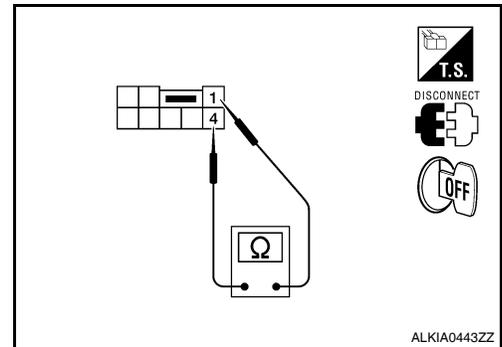
1. CHECK PUSH-BUTTON IGNITION SWITCH

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-410. "Removal and Installation"](#).



B2557 VEHICLE SPEED

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B2557 VEHICLE SPEED

Description

INFOID:000000004206221

BCM receives the 2 vehicle speed signals via CAN communication. One 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:000000004206222

DTC DETECTION LOGIC

NOTE:

- If DTC B2557 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-235, "DTC Logic"](#).
- If DTC B2557 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-236, "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 10 km/h or more and the other is 4 km/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-III.

Is DTC detected?

- YES >> Refer to [SEC-273, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206223

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

Check “Self Diagnostic Result” with CONSULT-III. Refer to [BRC-51, "DTC No. Index"](#).

Is the inspection result normal?

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

2.CHECK UNIFIED METER.

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

>> Inspection End.

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B2560 STARTER CONTROL RELAY

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B2560 STARTER CONTROL RELAY

Description

INFOID:000000004206224

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:000000004206225

DTC DETECTION LOGIC

NOTE:

- If DTC B2560 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-235, "DTC Logic"](#).
- If DTC B2560 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-236, "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-III.

Is DTC detected?

- YES >> Refer to [SEC-274, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206226

1. CHECK DTC WITH IPDM E/R

Check "Self Diagnostic Result" with CONSULT-III. Refer to [PCS-45, "DTC Index"](#).

Is the inspection result normal?

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

2. CHECK INTERMITTENT INCIDENT

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

>> Inspection End.

B2601 SHIFT POSITION

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B2601 SHIFT POSITION

Description

INFOID:000000004206227

BCM confirms the shift position with the following 2 signals.

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

DTC Logic

INFOID:000000004206228

DTC DETECTION LOGIC

NOTE:

- If DTC B2601 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-235, "DTC Logic"](#).
- If DTC B2601 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-236, "DTC Logic"](#).
- If DTC B2601 is displayed with DTC B2605, first perform the trouble diagnosis for DTC B2605. Refer to [SEC-285, "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 device circuit is open or shorted.) • CVT device

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-III.
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-III.

Is DTC detected?

- YES >> Refer to [SEC-275, "Diagnosis Procedure"](#).
 NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206229

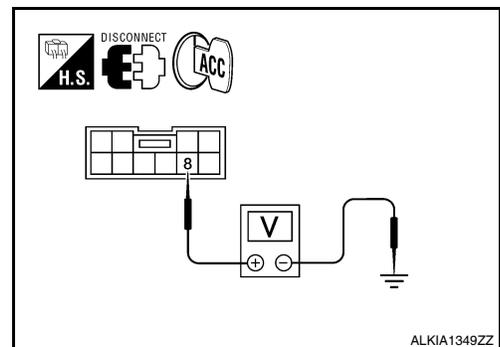
1. CHECK CVT DEVICE POWER SUPPLY

1. Turn ignition switch to ACC.
2. Disconnect CVT device (park position switch) harness connector.
3. Check voltage between CVT device (park position switch) harness connector and ground.

CVT device (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 DEVICE POWER SUPPLY CIRCUIT

1. Disconnect BCM harness connector.

B2601 SHIFT POSITION

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

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

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

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

BCM		Ground	Continuity
Connector	Terminal		
A: M19	84	Ground	No

Is the inspection result normal?

- YES >> Replace BCM. Refer to [BCS-96. "Removal and Installation"](#).
 NO >> Repair harness or connector.

3. CHECK CVT DEVICE CIRCUIT (BCM)

- Disconnect BCM harness connector and IPDM E/R harness connector.
- Check continuity between BCM harness connector M19 (A) terminal 87 and CVT device (park position switch) harness connector M23 (B) terminal 9.

BCM		CVT device (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?

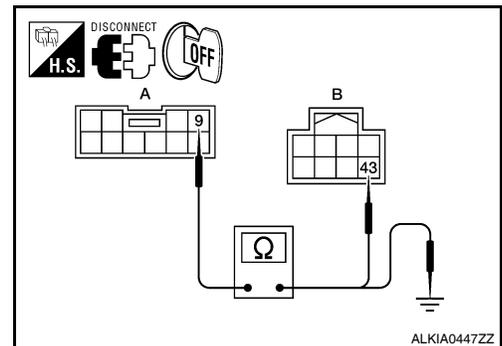
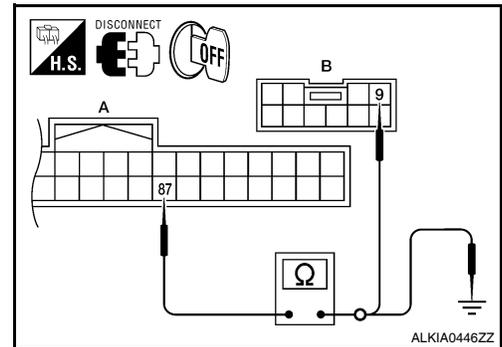
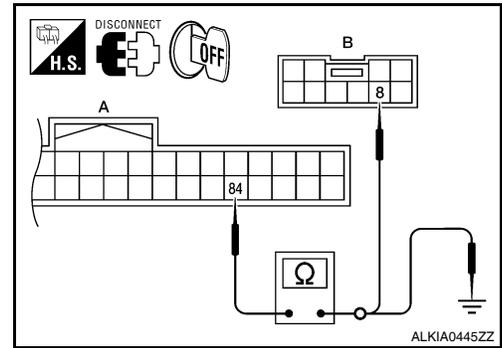
- YES >> GO TO 4
 NO >> Repair harness or connector.

4. CHECK CVT DEVICE CIRCUIT (IPDM E/R)

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

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

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



B2601 SHIFT POSITION

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

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

Is the inspection result normal?

YES >> GO TO 5

NO >> Repair harness or connector.

5.CHECK CVT DEVICE

Refer to [SEC-277, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 6

NO >> Replace CVT device. Refer to [TM-255, "Removal and Installation"](#) (RE0F09B) or [TM-431, "Removal and Installation"](#) (RE0F10A).

6.CHECK INTERMITTENT INCIDENT

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

>> Inspection End.

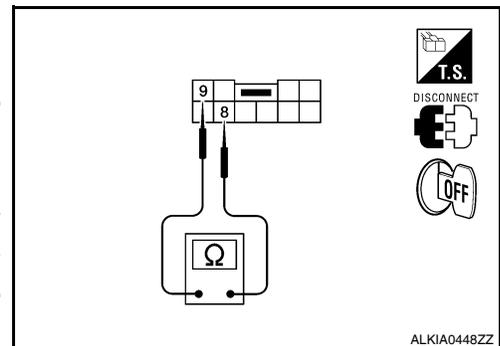
Component Inspection

INFOID:000000004206230

1.CHECK CVT DEVICE (PARK POSITION SWITCH)

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

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



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Is the inspection result normal?

YES >> Inspection End.

NO >> Replace CVT device. Refer to [TM-255, "Removal and Installation"](#) (RE0F09B) or [TM-431, "Removal and Installation"](#) (RE0F10A).

B2602 SHIFT POSITION

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B2602 SHIFT POSITION

Description

INFOID:000000004206231

BCM confirms the shift position with the following 2 signals.

- CVT selector lever
- Speed signal from meter

DTC Logic

INFOID:000000004206232

DTC DETECTION LOGIC

NOTE:

- If DTC B2602 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-235, "DTC Logic"](#).
- If DTC B2602 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-236, "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 device (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-III.

Is DTC detected?

- YES >> Refer to [SEC-278, "Diagnosis Procedure"](#).
 NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206233

1. CHECK DTC WITH "COMBINATION METER"

Check "Self diagnostic result" with CONSULT-III. Refer to [MWI-95, "DTC Index"](#).

Is the inspection result normal?

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

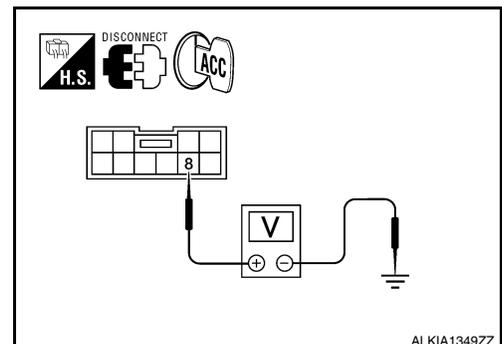
2. CHECK CVT DEVICE POWER SUPPLY

1. Turn ignition switch to ACC.
2. Disconnect CVT device (park position switch) harness connector.
3. Check voltage between CVT device (park position switch) harness connector and ground.

CVT device (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



B2602 SHIFT POSITION

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

3. CHECK CVT DEVICE POWER SUPPLY CIRCUIT

1. Disconnect BCM harness connector.
2. Check continuity between BCM harness connector M19 (A) terminal 84 and CVT device (park position switch) harness connector M23 (B) terminal 8.

BCM		CVT device (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-96, "Removal and Installation"](#).

NO >> Repair harness or connector.

4. CHECK CVT DEVICE CIRCUIT

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

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

3. Check continuity between CVT device (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 DEVICE

Refer to [SEC-277, "Component Inspection"](#).

Is the inspection result normal?

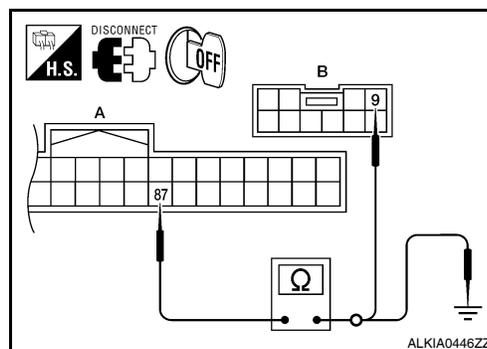
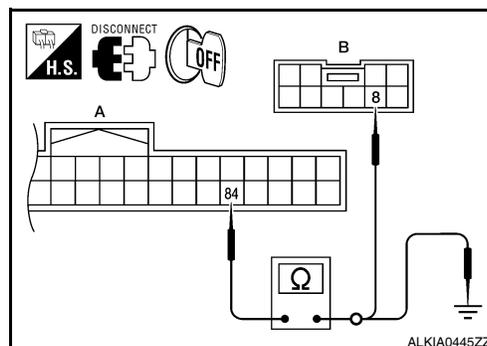
YES >> GO TO 6

NO >> Replace CVT device. Refer to [TM-255, "Removal and Installation"](#) (RE0F09B) or [TM-431, "Removal and Installation"](#) (RE0F10A).

6. CHECK INTERMITTENT INCIDENT

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

>> Inspection End.



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B2603 SHIFT POSITION STATUS

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B2603 SHIFT POSITION STATUS

Description

INFOID:000000004206234

BCM confirms the shift position with the following 2 signals.

- CVT selector lever
- P/N position switch

DTC Logic

INFOID:000000004206235

DTC DETECTION LOGIC

NOTE:

- If DTC B2603 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-235, "DTC Logic"](#).
- If DTC B2603 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-236, "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">• Park/neutral position (PNP) switch: approx. 0V• CVT device (park position switch): approx 0V	<ul style="list-style-type: none">• Harness or connector (CVT device circuit is open or shorted.)• Harness or connectors [Park/neutral position (PNP) switch circuit is open or shorted.]• CVT device (park position switch)• Park/neutral position (PNP) 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-III.

Is DTC detected?

- YES >> Refer to [SEC-280, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206236

1. CHECK DTC WITH IPDM E/R

Check "Self diagnostic result" with CONSULT-III. Refer to [PCS-45, "DTC Index"](#).

Is the inspection result normal?

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

2. CHECK PNP SWITCH CIRCUIT

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

B2603 SHIFT POSITION STATUS

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

- Check continuity between TCM harness connector F16 (A) terminal 20 and BCM harness connector M18 (B) terminal 48.

TCM		BCM		Continuity
Connector	Terminal	Connector	Terminal	
A: F16	20	B: M18	48	Yes

- Check continuity between TCM harness connector F16 (A) terminal 20 and ground.

TCM		Ground	Continuity
Connector	Terminal		
A: F16	20	Ground	No

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair harness or connector.

3. CHECK CVT DEVICE POWER SUPPLY

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

CVT device (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 DEVICE POWER SUPPLY CIRCUIT

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

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

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

BCM		Ground	Continuity
Connector	Terminal		
A: M19	84	Ground	No

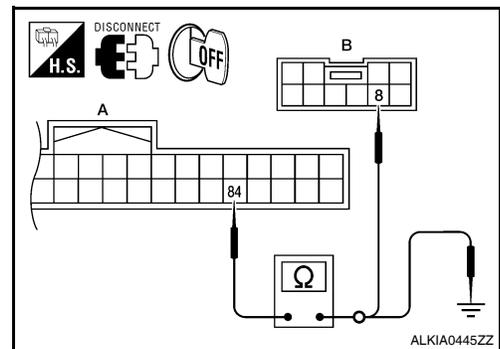
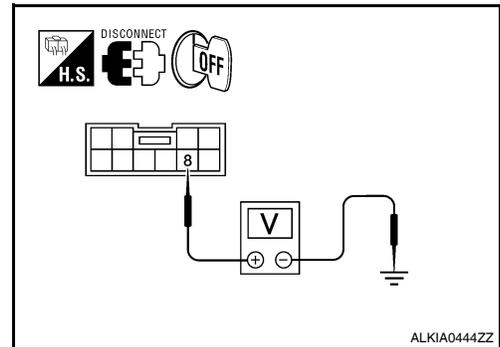
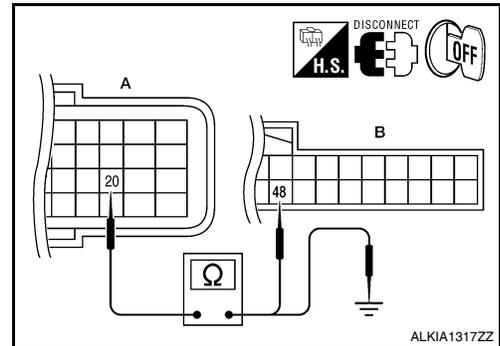
Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-96, "Removal and Installation"](#).

NO >> Repair harness or connector.

5. CHECK CVT DEVICE CIRCUIT

- Disconnect BCM harness connector.



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B2603 SHIFT POSITION STATUS

[SEDAN WITH INTELLIGENT KEY]

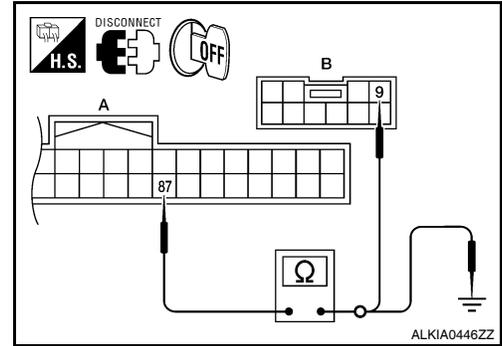
< COMPONENT DIAGNOSIS >

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

BCM		CVT device (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 DEVICE

Refer to [SEC-277. "Component Inspection"](#).

Is the inspection result normal?

- YES >> GO TO 7
 NO >> Replace CVT device. Refer to [TM-255. "Removal and Installation"](#) (RE0F09B) or [TM-431. "Removal and Installation"](#) (RE0F10A).

7. CHECK INTERMITTENT INCIDENT

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

>> Inspection End.

B2604 PNP SWITCH

Description

INFOID:000000004206237

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:000000004206238

DTC DETECTION LOGIC

NOTE:

- If DTC B2604 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-235, "DTC Logic"](#).
- If DTC B2604 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-236, "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 park/neutral position (PNP) switch circuit is open or shorted.] • Park/ neutral position (PNP) switch • TCM

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. 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-III.

Is DTC detected?

- YES >> Refer to [SEC-283, "Diagnosis Procedure"](#).
 NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206239

1. CHECK DTC WITH TCM

Check "Self diagnostic result" with CONSULT-III. Refer to [TM-221, "DTC Index"](#) (RE0F09B) or [TM-399, "DTC Index"](#) (RE0F10A).

Is the inspection result normal?

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

2. CHECK PNP SWITCH CIRCUIT

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

B2604 PNP SWITCH

[SEDAN WITH INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

3. Check continuity between TCM harness connector and BCM harness connector.

TCM		BCM		Continuity
Connector	Terminal	Connector	Terminal	
A: F16	20	B: M18	48	Yes

4. Check continuity between TCM harness connector and ground.

TCM		Ground	Continuity
Connector	Terminal		
A: F16	20	Ground	No

Is the inspection result normal?

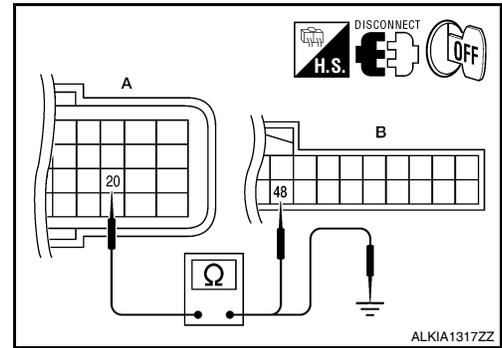
YES >> GO TO 3

NO >> Repair harness or connector.

3.CHECK INTERMITTENT INCIDENT

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

>> Inspection End.



B2605 PNP SWITCH

Description

INFOID:000000004206240

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:000000004206241

DTC DETECTION LOGIC

NOTE:

- If DTC B2605 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-235. "DTC Logic"](#).
- If DTC B2605 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-236. "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 park/neutral position (PNP) switch circuit is open or shorted.] • Park/neutral position (PNP) 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 second.
 - CVT selector lever is in the P or N position
 - Do not depress the brake pedal.
2. Check "Self diagnostic result" with CONSULT-III.

Is DTC detected?

YES >> Refer to [SEC-285. "Diagnosis Procedure"](#).

NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206242

1. CHECK DTC WITH IPDM E/R

Check "Self diagnostic result" with CONSULT-III. Refer to [PCS-45. "DTC Index"](#).

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace malfunctioning parts.

2. CHECK PNP SWITCH CIRCUIT

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

B2605 PNP SWITCH

[SEDAN WITH INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

3. Check continuity between TCM connector and BCM harness connector.

TCM		BCM		Continuity
Connector	Terminal	Connector	Terminal	
A: F16	20	B: M18	48	Yes

4. Check continuity between TCM harness connector and ground.

TCM		Ground	Continuity
Connector	Terminal		
A: F16	20	Ground	No

Is the inspection result normal?

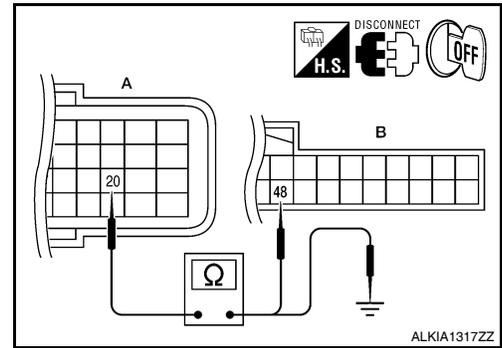
YES >> GO TO 3

NO >> Repair harness or connector.

3. CHECK INTERMITTENT INCIDENT

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

>> Inspection End.



B2606 STEERING LOCK RELAY

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B2606 STEERING LOCK RELAY

Description

INFOID:000000004206243

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:000000004206244

DTC DETECTION LOGIC

NOTE:

- If DTC B2606 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-235, "DTC Logic"](#).
- If DTC B2606 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-236, "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">• Steering lock unit ON signal transmitted by IPDM E/R• The steering lock unit 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-III.

Is DTC detected?

- YES >> Refer to [SEC-287, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206245

1. CHECK DTC WITH IPDM E/R

Check "Self diagnostic result" with CONSULT-III. Refer to [PCS-45, "DTC Index"](#).

Is the inspection result normal?

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

2. INTERMITTENT INCIDENT

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

>> Inspection End.

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B2607 STEERING LOCK RELAY

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B2607 STEERING LOCK RELAY

Description

INFOID:000000004206246

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:000000004206247

DTC DETECTION LOGIC

NOTE:

- If DTC B2607 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-235, "DTC Logic"](#).
- If DTC B2607 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-236, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2607	STEERING LOCK RELAY	<p>BCM detects that there is a difference between the following statuses.</p> <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-III.

Is DTC detected?

- YES >> Refer to [SEC-288, "Diagnosis Procedure"](#).
 NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206248

1. CHECK DTC WITH IPDM E/R

Check "Self diagnostic result" with CONSULT-III. Refer to [PCS-45, "DTC Index"](#).

Is the inspection result normal?

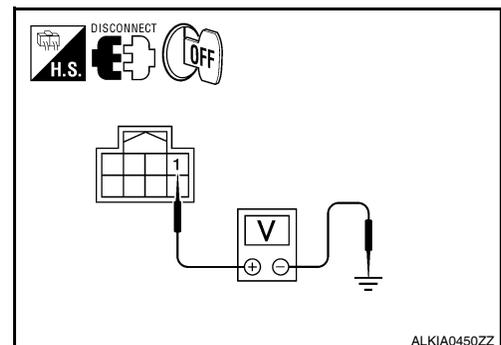
- YES >> GO TO 2
 NO >> Repair or replace malfunctioning parts.

2. CHECK ELECTRONIC STEERING COLUMN LOCK POWER SUPPLY CIRCUIT

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



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B2607 STEERING LOCK RELAY

[SEDAN WITH INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

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

3. CHECK ELECTRONIC STEERING COLUMN LOCK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R harness connector.
3. 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

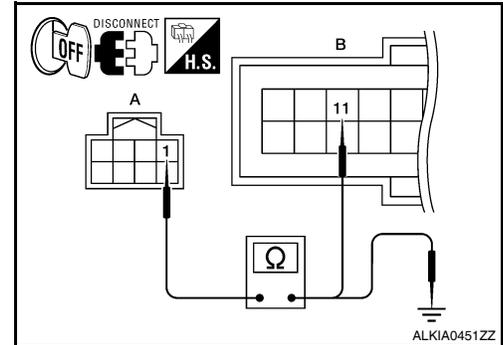
Is the inspection result normal?

- YES >> Replace IPDM E/R. Refer to [PCS-48, "Removal and Installation"](#).
- NO >> Repair harness or connector.

4. CHECK INTERMITTENT INCIDENT

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

>> Inspection End.



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B2608 STARTER RELAY

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B2608 STARTER RELAY

Description

INFOID:000000004206249

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:000000004206250

DTC DETECTION LOGIC

NOTE:

- If DTC B2608 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-235, "DTC Logic"](#).
- If DTC B2608 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-236, "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-III.

Is DTC detected?

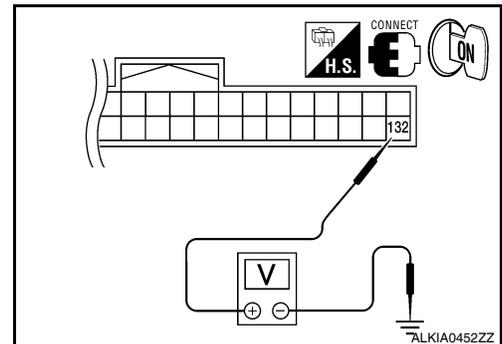
- YES >> Refer to [SEC-290, "Diagnosis Procedure"](#).
 NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206251

1.CHECK STARTER RELAY

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



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

B2608 STARTER RELAY

[SEDAN WITH INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

Is the measurement value within the specification?

YES >> GO TO 3

NO >> GO TO 2

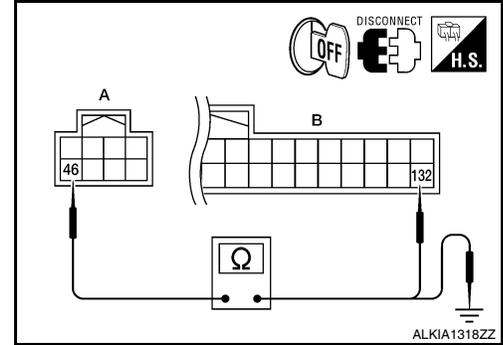
2. CHECK STARTER RELAY CIRCUIT

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

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

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

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



Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-48, "Removal and Installation"](#).

NO >> Repair harness or connector.

3. CHECK INTERMITTENT INCIDENT

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

>> Inspection End.

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B2609 STEERING STATUS

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B2609 STEERING STATUS

Description

INFOID:000000004206252

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:000000004206253

DTC DETECTION LOGIC

NOTE:

- If DTC B2609 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-235, "DTC Logic"](#).
- If DTC B2609 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-236, "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-III.

Is DTC detected?

- YES >> Refer to [SEC-292, "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-III.

Is DTC detected?

- YES >> Refer to [SEC-292, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206254

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

B2609 STEERING STATUS

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

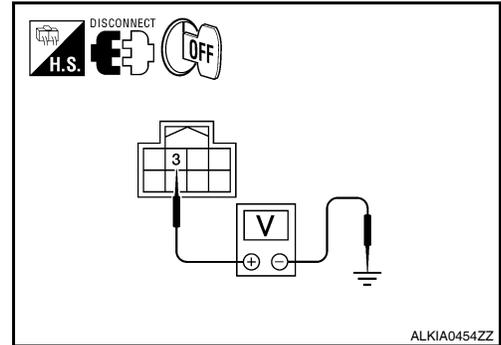
2. CHECK BCM OUTPUT SIGNAL

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.

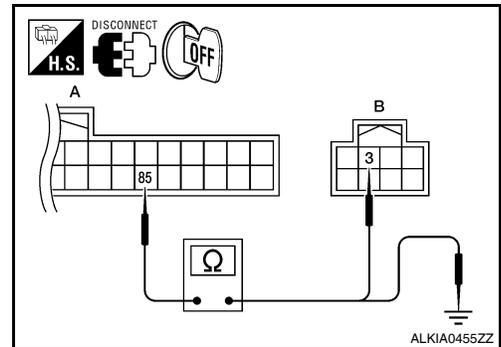
BCM		Electronic steering column lock		Continuity
Connector	Terminal	Connector	Terminal	
A: M19	85	B: M32	3	Yes

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.



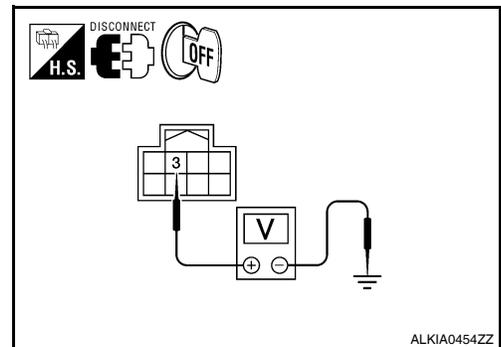
4. CHECK IPDM E/R OUTPUT SIGNAL

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

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B2609 STEERING STATUS

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

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.
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

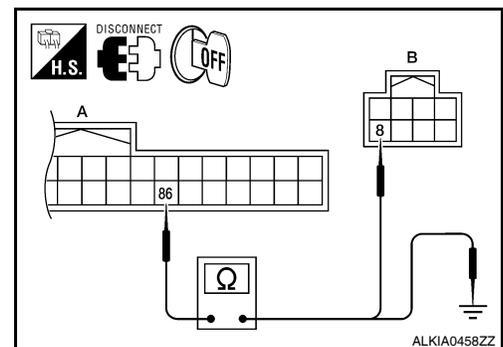
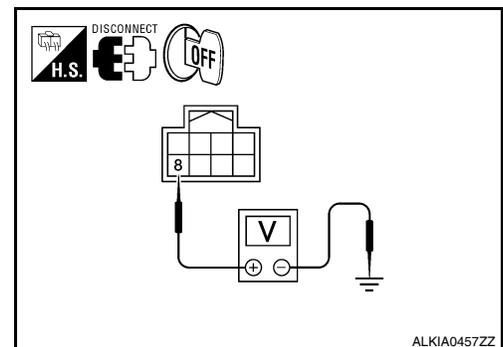
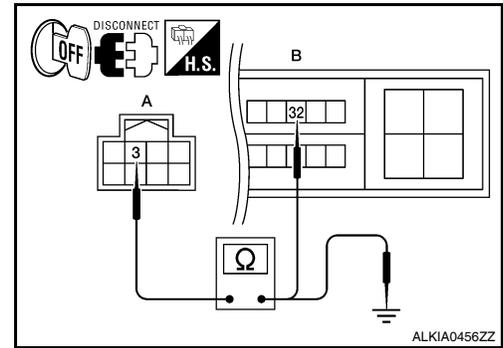
1. Disconnect BCM harness connector M19.
2. Check continuity between BCM harness connector M19 (A) terminal 86 and electronic steering column lock harness connector M32 (B) terminal 8.

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?



B2609 STEERING STATUS

[SEDAN WITH INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

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

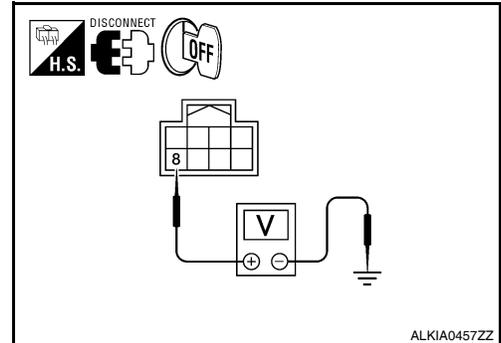
9. CHECK IPDM E/R OUTPUT SIGNAL

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

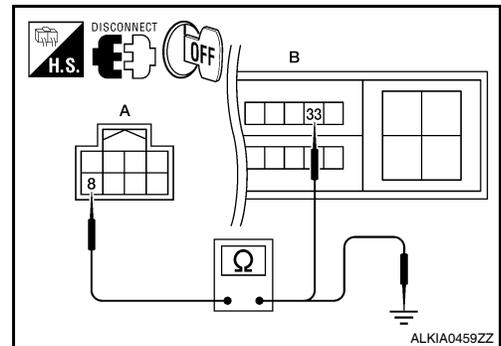


10. CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-II

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.

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B260B STEERING LOCK UNIT

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B260B STEERING LOCK UNIT

Description

INFOID:000000004206255

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

DTC Logic

INFOID:000000004206256

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B260B	STEERING LOCK UNIT	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-III.

Is DTC detected?

- YES >> Refer to [SEC-296, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206257

1.INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT-III.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**
See [SEC-296, "DTC Logic"](#).

Is the DTC B260B displayed again?

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

B260C STEERING LOCK UNIT

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B260C STEERING LOCK UNIT

Description

INFOID:000000004206258

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

DTC Logic

INFOID:000000004206259

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B260C	STEERING LOCK UNIT	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-III.

Is DTC detected?

- YES >> Refer to [SEC-297, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206260

1. INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT-III.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**
See [SEC-297, "DTC Logic"](#).

Is the DTC B260C displayed again?

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

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B260D STEERING LOCK UNIT

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B260D STEERING LOCK UNIT

Description

INFOID:000000004206261

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:000000004206262

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B260D	STEERING LOCK UNIT	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-III.

Is DTC detected?

- YES >> Refer to [SEC-298, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206263

1. INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT-III.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**
See [SEC-298, "DTC Logic"](#).

Is the DTC B260D displayed again?

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

B260F ENGINE STATUS

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B260F ENGINE STATUS

Description

INFOID:000000004206264

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

DTC Logic

INFOID:000000004206265

DTC DETECTION LOGIC

NOTE:

- If DTC B260F is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-235, "DTC Logic"](#).
- If DTC B260F is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-236, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B260F	INTERRUPTION OF ENGINE STATUS SIGNAL	BCM has 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-III.

Is DTC detected?

- YES >> Refer to [SEC-299, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206266

1. INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT-III.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**
See [SEC-299, "DTC Logic"](#).

Is the DTC B260F displayed again?

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

2. REPLACE ECM

1. Replace ECM.
2. Refer to [EC-1048, "BASIC INSPECTION : Special Repair Requirement"](#) (VQ35DE), [EC-560, "BASIC INSPECTION : Special Repair Requirement"](#) (QR25DE except California), [EC-24, "BASIC INSPECTION : Special Repair Requirement"](#) (QR25DE California).

>> Inspection End.

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SEC

B2612 STEERING STATUS

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B2612 STEERING STATUS

Description

INFOID:000000004206270

There are 2 switches in the electronic steering column lock. 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:000000004206271

DTC DETECTION LOGIC

NOTE:

- If DTC B2612 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-235, "DTC Logic"](#).
- If DTC B2612 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-236, "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-III.

Is DTC detected?

- YES >> Refer to [SEC-300, "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-III.

Is DTC detected?

- YES >> Refer to [SEC-300, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206272

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

B2612 STEERING STATUS

[SEDAN WITH INTELLIGENT KEY]

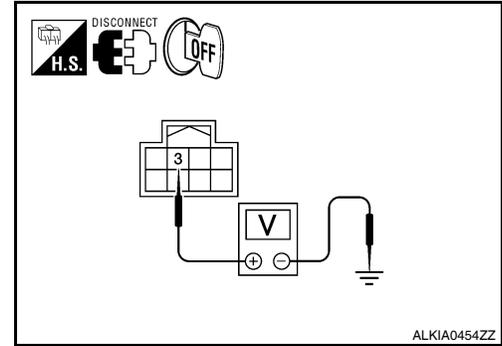
< COMPONENT DIAGNOSIS >

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.

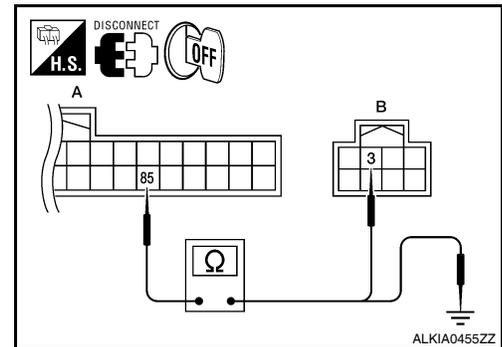
BCM		Electronic steering column lock		Continuity
Connector	Terminal	Connector	Terminal	
A: M19	85	B: M32	3	Yes

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.



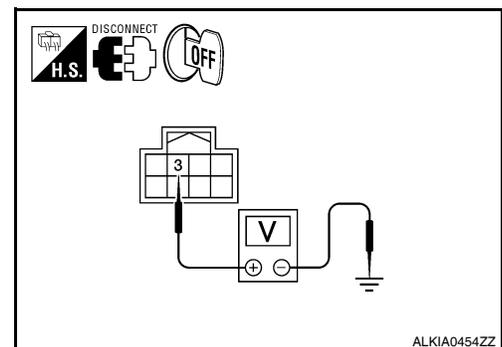
4.CHECK IPDM E/R OUTPUT SIGNAL

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

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B2612 STEERING STATUS

[SEDAN WITH INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

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.
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

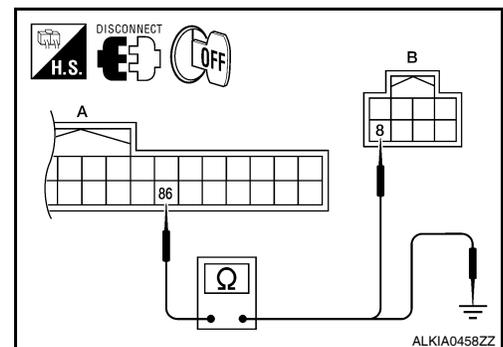
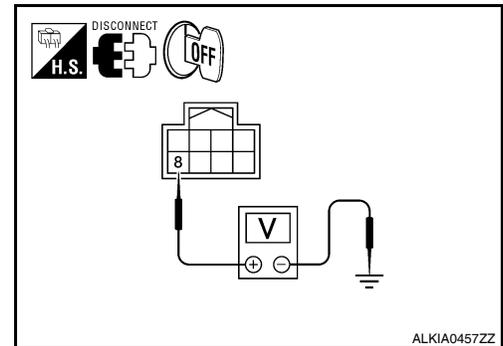
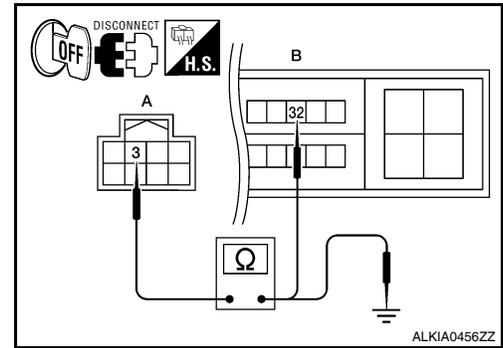
1. Disconnect BCM harness connector.
2. Check continuity between BCM harness connector M19 (A) terminal 86 and electronic steering column lock harness connector M32 (B) terminal 8.

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?



B2612 STEERING STATUS

[SEDAN WITH INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

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

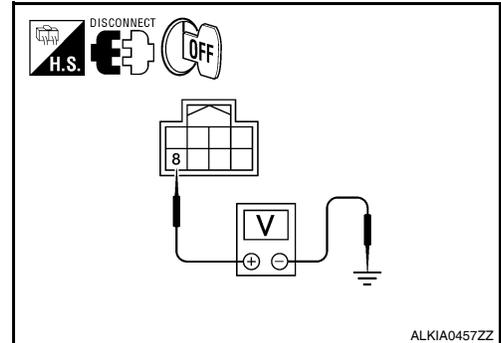
9. CHECK IPDM E/R OUTPUT SIGNAL

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



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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

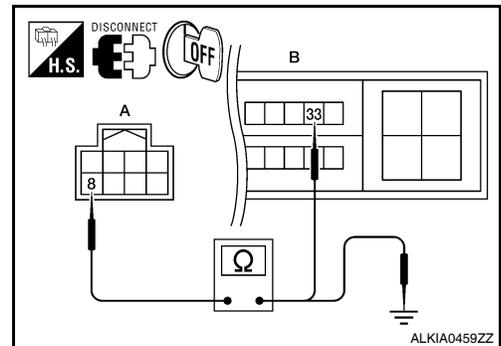
Is the inspection result normal?

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

11. CHECK INTERMITTENT INCIDENT

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

>> Inspection End.



ALKIA0459ZZ

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B2617 STARTER RELAY CIRCUIT

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B2617 STARTER RELAY CIRCUIT

Description

INFOID:000000004206273

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:000000004206274

DTC DETECTION LOGIC

NOTE:

- If DTC B2617 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-235, "DTC Logic"](#).
- If DTC B2617 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-236, "DTC Logic"](#).
- If DTC B2617 is displayed with DTC B210E, first perform the trouble diagnosis for DTC B210E. Refer to [SEC-304, "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-III.

Is DTC detected?

YES >> Refer to [SEC-304, "Diagnosis Procedure"](#).

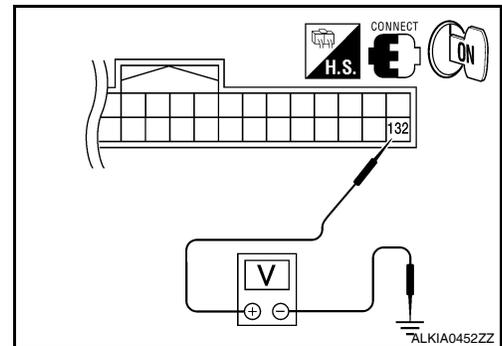
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206275

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

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

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

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

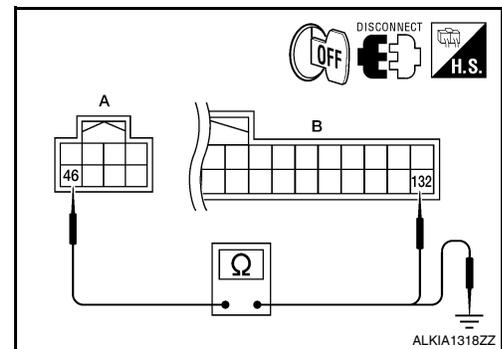
YES >> Replace BCM. Refer to [BCS-96, "Removal and Installation"](#).

NO >> Repair harness or connector.

3. CHECK INTERMITTENT INCIDENT

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

>> Inspection End.



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B2619 BCM**Description**

INFOID:000000004206276

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

DTC Logic

INFOID:000000004206277

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 steering lock unit 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-III.

Is DTC detected?

- YES >> Refer to [SEC-306, "Diagnosis Procedure"](#).
 NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206278

1. INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT-III.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**
See [SEC-306, "DTC Logic"](#).

Is the DTC B2619 displayed again?

- YES >> Replace BCM. Refer to [BCS-96, "Removal and Installation"](#).
 NO >> Inspection End.

B261A PUSH-BUTTON IGNITION SWITCH

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B261A PUSH-BUTTON IGNITION SWITCH

Description

INFOID:000000004206279

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:000000004206280

DTC DETECTION LOGIC

NOTE:

- If DTC B261A is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-235, "DTC Logic"](#).
- If DTC B261A is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-236, "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-III.

Is DTC detected?

- YES >> Refer to [SEC-307, "Diagnosis Procedure"](#).
 NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206281

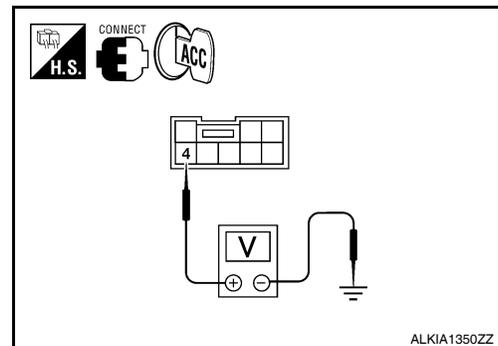
1. CHECK PUSH-BUTTON IGNITION SWITCH OUTPUT SIGNAL 1

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.

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.

B261A PUSH-BUTTON IGNITION SWITCH

[SEDAN WITH INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

- 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

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

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

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair harness or connector.

3. CHECK PUSH-BUTTON IGNITION SWITCH

- Disconnect IPDM E/R harness connector.
- 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

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

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

Is the inspection result normal?

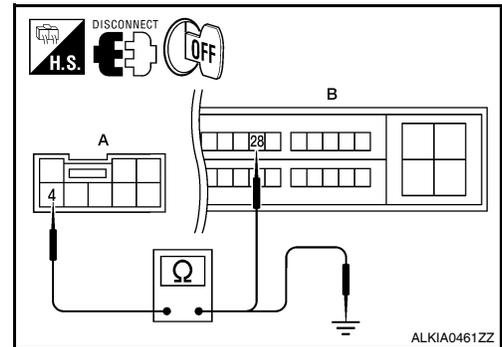
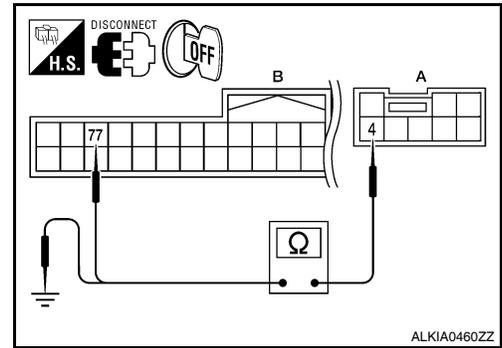
YES >> GO TO 4

NO >> Repair harness or connector.

4. CHECK INTERMITTENT INCIDENT

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

>> Inspection End.



B26E1 NO RECEPTION OF ENGINE STATUS SIGNAL

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B26E1 NO RECEPTION OF ENGINE STATUS SIGNAL

Description

INFOID:000000004206267

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

DTC Logic

INFOID:000000004206268

DTC DETECTION LOGIC

NOTE:

- If DTC B26E1 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-235, "DTC Logic"](#).
- If DTC B26E1 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-236, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B26E1	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-III.

Is DTC detected?

- YES >> Refer to [SEC-309, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004206269

1. INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT-III.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**
See [SEC-309, "DTC Logic"](#).

Is the DTC B26E1 displayed again?

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

2. REPLACE ECM

1. Replace ECM.
2. Refer to [EC-1048, "BASIC INSPECTION : Special Repair Requirement"](#) (VQ35DE), [EC-560, "BASIC INSPECTION : Special Repair Requirement"](#) (QR25DE except California), [EC-24, "BASIC INSPECTION : Special Repair Requirement"](#) (QR25DE California).

>> Inspection End.

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SEC

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM : Diagnosis Procedure

INFOID:000000004498339

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?

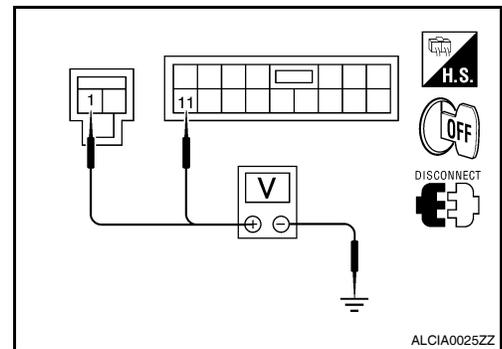
YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

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		
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

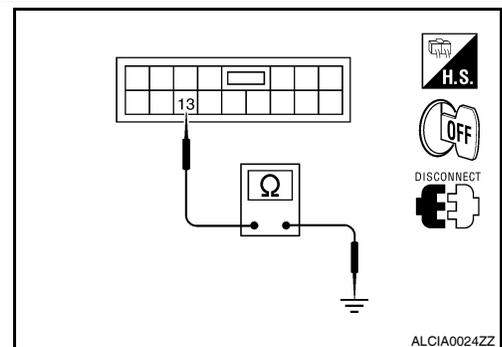
Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M17	13		

Does continuity exist?

YES >> Inspection End.

NO >> Repair or replace harness.



BCM : Special Repair Requirement

INFOID:000000004498340

1. REQUIRED WORK WHEN REPLACING BCM

Initialize control unit. Refer to [BCS-6. "CONFIGURATION \(BCM\) : 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

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

agnosis Procedure

INFOID:00000004498341

1. CHECK FUSES AND FUSIBLE LINK

Check that the following IPDM E/R fuses or fusible link are not blown.

Terminal No.	Signal name	Fuses and fusible link No.
1, 2	Battery power supply	B, D
—		42
—		43

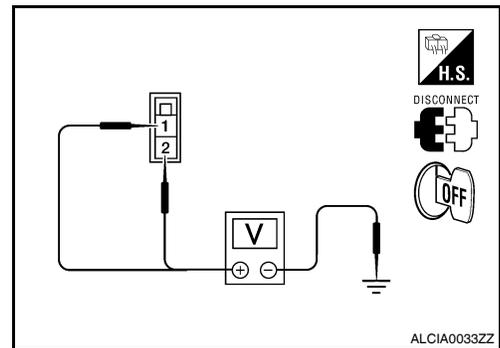
Is the fuse blown?

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

2. CHECK POWER SUPPLY CIRCUIT

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

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



Is the measurement value normal?

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

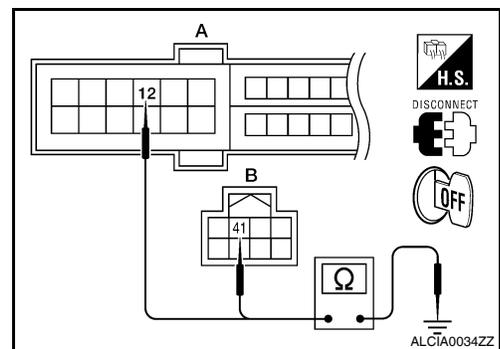
3. CHECK GROUND CIRCUIT

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
A: E18	12	Ground	Yes
B: E17	41		

Does continuity exist?

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



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SEC

KEY SLOT

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

KEY SLOT

Diagnosis Procedure

INFOID:000000004206316

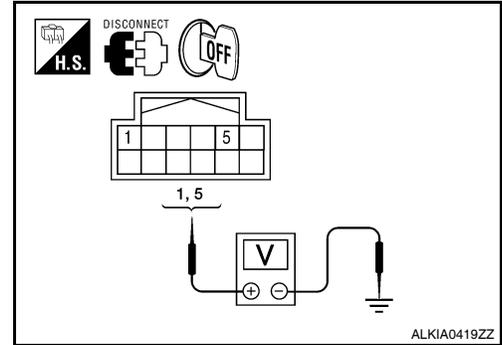
1. CHECK KEY SLOT POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect key slot connector.
3. Check voltage between slot connector and ground.

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

Is the inspection result normal?

- YES >> GO TO 2
 NO >> Repair or replace key slot power supply circuit.



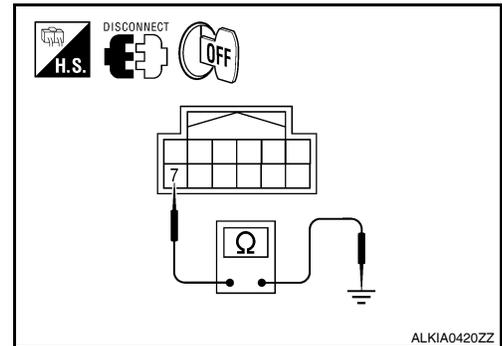
2. CHECK KEY SLOT GROUND CIRCUIT

Check continuity between key slot connector and ground.

Key slot		Ground	Continuity
Connector	Terminal		
M40	7	Ground	Yes

Is the inspection result normal?

- YES >> GO TO 3
 NO >> Repair or replace key slot ground circuit.



3. CHECK INTERMITTENT INCIDENT

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

>> Inspection End.

KEY SLOT ILLUMINATION

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

KEY SLOT ILLUMINATION

Description

INFOID:000000004206317

Blinks when Intelligent Key insertion is required.

Component Function Check

INFOID:000000004206318

1.CHECK FUNCTION

Ⓜ With CONSULT-III

Check key slot illumination ("KEY SLOT ILLUMI") Active Test mode.

Is the inspection result normal?

YES >> Key slot function is OK.

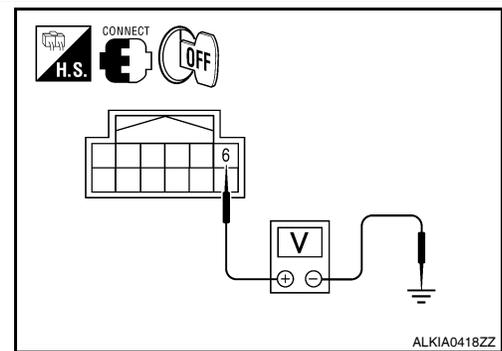
NO >> Refer to [SEC-313. "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000004206319

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

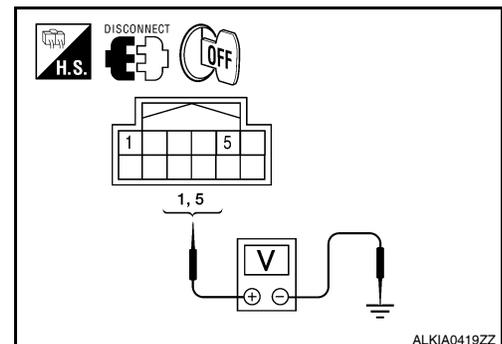
2.CHECK KEY SLOT POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect key slot connector.
3. Check voltage between slot connector and ground.

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

Is the inspection result normal?

YES >> GO TO 3



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KEY SLOT ILLUMINATION

[SEDAN WITH INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

NO >> Repair or replace key slot power supply circuit.

3.CHECK KEY SLOT GROUND CIRCUIT

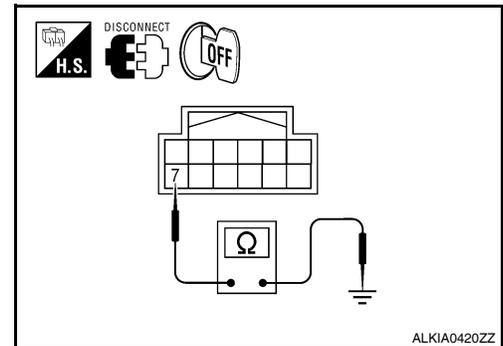
Check continuity between key slot connector and ground.

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.

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-313. "Description"](#).

Is the inspection result normal?

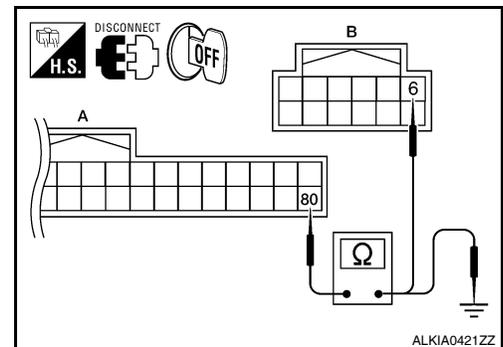
YES >> GO TO 6

NO >> Replace key slot. Refer to [SEC-409. "Removal and Installation"](#).

6.CHECK INTERMITTENT INCIDENT

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

>> Inspection End.



KEY CYLINDER SWITCH

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

KEY CYLINDER SWITCH

Description

INFOID:000000004206320

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:000000004206321

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-III. Refer to [DLK-231, "Work Flow"](#).

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 [DLK-305, "Diagnosis Procedure \(With LH and RH Anti-Pinch\)"](#).

NO >> With LH anti-pinch only, refer to [DLK-306, "Diagnosis Procedure \(With LH Anti-Pinch Only\)"](#).

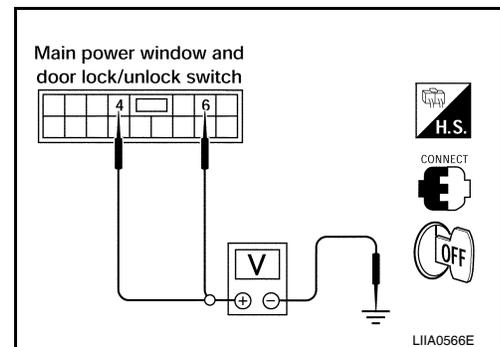
Diagnosis Procedure (With LH and RH Anti-Pinch)

INFOID:000000004206322

1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

- Turn ignition switch ON.
- 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	Ground	
	4	Lock	0
		Neutral / Unlock	5
	6	Unlock	0
		Neutral / Lock	5



Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to [PWC-91, "Removal and Installation"](#).

NO >> GO TO 2

2. CHECK DOOR KEY CYLINDER SIGNAL CIRCUIT

- Turn ignition switch OFF.

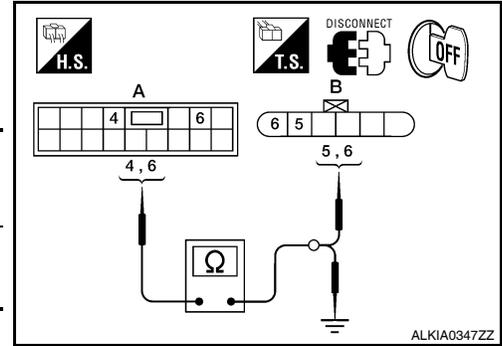
KEY CYLINDER SWITCH

[SEDAN WITH INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

- Disconnect main power window and door lock/unlock switch connector and front door lock assembly LH (key cylinder switch) connector.
- Check continuity between main power window and door lock/unlock switch connector and front door lock assembly LH (key cylinder switch) connector.

Main power window and door lock/unlock switch connector	Terminal	Front door lock assembly LH (key cylinder switch) connector	Terminal	Continuity
A: D7	4	B: D10	6	Yes
	6		5	



- Check continuity between main power window and door lock/unlock switch connector and ground.

Power window main switch connector	Terminal	Ground	Continuity
A: D7	4	Ground	No
	6		

Is the inspection result normal?

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

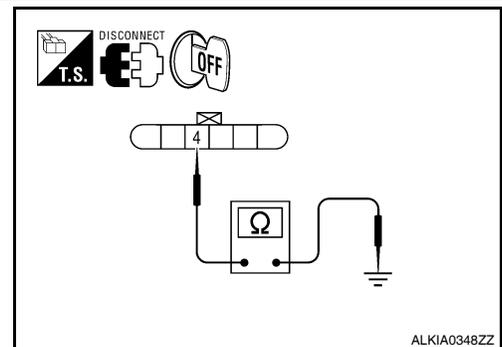
3. CHECK DOOR KEY CYLINDER SWITCH GROUND CIRCUIT

Check continuity between front door lock assembly LH connector and ground.

Front 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.



4. CHECK DOOR KEY CYLINDER SWITCH

Check door key cylinder switch.

Refer to [SEC-318. "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-451. "FRONT DOOR LOCK : Removal and Installation"](#).

Diagnosis Procedure (With LH Anti-Pinch Only)

INFOID:000000004206323

1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

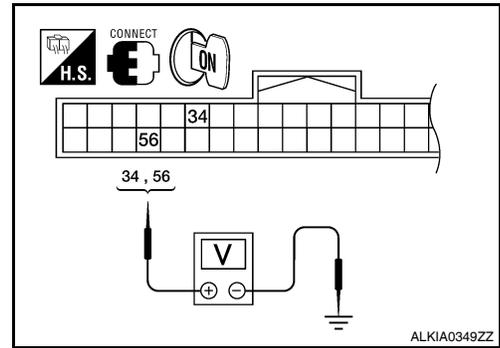
- Turn ignition switch ON.

KEY CYLINDER SWITCH

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

2. Check voltage between BCM connector and ground.



Terminals		Key position	Voltage (V) (Approx.)
(+)	(-)		
BCM connector	Terminal		
M18	56	Lock	0
		Neutral / Unlock	5
	34	Unlock	0
		Neutral / Lock	5

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to [PWC-91, "Removal and Installation"](#).

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

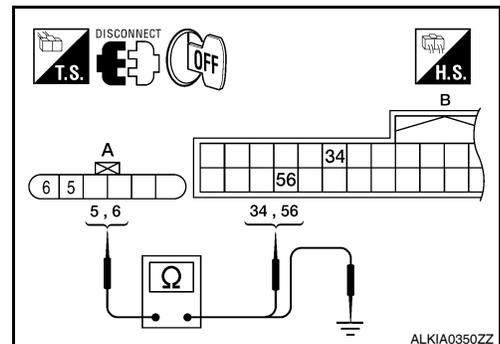
NO >> Repair or replace harness.

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		

KEY CYLINDER SWITCH

[SEDAN WITH INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

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-318, "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-451, "FRONT DOOR LOCK : Removal and Installation"](#).

Component Inspection

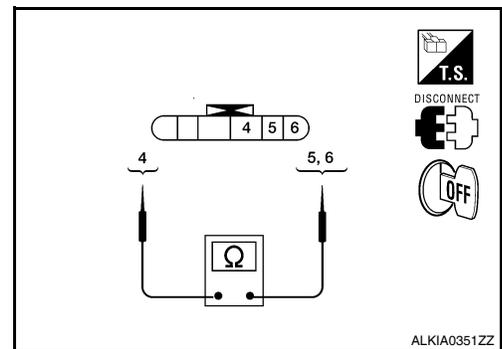
INFOID:000000004206324

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-451, "FRONT DOOR LOCK : Removal and Installation"](#).

HORN

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

HORN

Description

INFOID:000000004206326

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

Component Function Check

INFOID:000000004206327

1.CHECK FUNCTION

1. Select HORN in "ACTIVE TEST" mode with CONSULT-III.
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-319, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000004206328

1.CHECK HORN FUNCTION

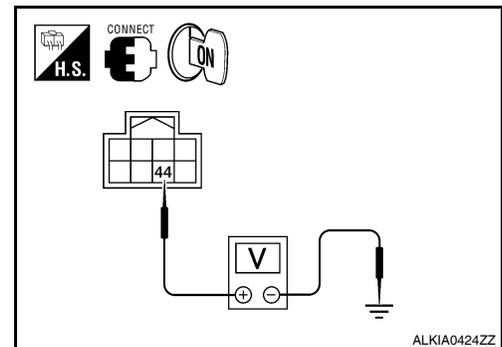
Check horn function with horn switch

Do the horns sound?

- YES >> GO TO 2
 NO >> Refer to [HRN-7, "Wiring Diagram - Sedan"](#).

2.CHECK HORN RELAY POWER SUPPLY

1. Turn ignition switch ON.
2. Perform "ACTIVE TEST" ("HORN") with CONSULT-III.
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 >> Repair or replace harness between IPDM E/R and horn relay.
 NO >> GO TO 3

3.CHECK HORN RELAY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R and horn relay connector.

HORN

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

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?

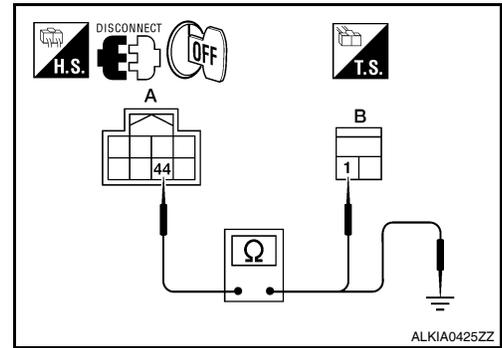
- YES >> GO TO 4
 NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

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

Is the inspection result normal?

- YES >> Replace IPDM E/R. Refer to [PCS-48. "Removal and Installation"](#).
 NO >> Repair or replace the malfunctioning part.



HEADLAMP

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

HEADLAMP

Description

INFOID:000000004206329

Headlamp lighting when theft warning system is in alarm phase.

Component Function Check

INFOID:000000004206330

1.CHECK HEADLAMP OPERATION

Check if headlamps operate by lighting switch.

Does headlamp come on when turning switch "ON"?

YES >> Headlamp circuit is OK.

NO >> Check headlamp system. Refer to [SEC-321, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000004206331

1.CHECK HEADLAMP OPERATION

Refer to [EXL-71, "Wiring Diagram - Sedan"](#) (xenon type) or [EXL-61, "Wiring Diagram - Sedan"](#) (halogen type).

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace malfunctioning parts.

2.CHECK INTERMITTENT INCIDENT

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

>> Inspection End.

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WARNING LAMP

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

WARNING LAMP

Description

INFOID:000000004206332

- 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:000000004206333

1. CHECK FUNCTION

1. Perform "INDICATOR" in the "Active Test" mode with CONSULT-III.
2. Check warning lamp operation.

Test item		Description	
INDICATOR	ON	Warning lamp	ON
	OFF		OFF

Is the inspection result normal?

- YES >> Inspection End.
NO >> Refer to [SEC-322, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000004206334

1. CHECK "COMBINATION METER."

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

Is the inspection result 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

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

VEHICLE SECURITY INDICATOR

Description

INFOID:000000004206335

- Vehicle security indicator is built in combination meter.
- NVIS (Nissan Vehicle Immobilizer System-NATS) and vehicle security system conditions are indicated by blink or illumination of vehicle security indicator.

Component Function Check

INFOID:000000004206336

1.CHECK FUNCTION

1. Perform "THEFT IND" in the "ACTIVE TEST" mode with CONSULT-III.
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 >> Refer to [SEC-323, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000004206337

1.CHECK COMBINATION METER

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

Is the inspection result normal?

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

2.CHECK INTERMITTENT INCIDENT

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

>> Inspection End.

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

ECU DIAGNOSIS

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:000000004498464

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 - 7	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 door RH closed	OFF
	Rear door RH opened	ON
DOOR SW-RL	Rear door LH closed	OFF
	Rear door LH opened	ON

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

Monitor Item	Condition	Value/Status
DOOR SW-BK	NOTE: This item is displayed, but cannot be monitored.	OFF
CDL LOCK SW	Other than power door lock switch LOCK	OFF
	Power door lock switch LOCK	ON
CDL UNLOCK SW	Other than power door lock switch UNLOCK	OFF
	Power door lock switch UNLOCK	ON
KEY CYL LK-SW	Other than driver door key cylinder LOCK position	OFF
	Driver door key cylinder LOCK position	ON
KEY CYL UN-SW	Other than driver door key cylinder UNLOCK position	OFF
	Driver door key cylinder UNLOCK position	ON
KEY CYL SW-TR	NOTE: This item is displayed, but cannot be monitored.	OFF
HAZARD SW	When hazard switch is not pressed	OFF
	When hazard switch is pressed	ON
REAR DEF SW	When rear window defogger switch is pressed	ON
TR CANCEL SW	Trunk lid opener cancel switch OFF	OFF
	Trunk lid opener cancel switch ON	ON
TR/BD OPEN SW	Trunk lid opener switch OFF	OFF
	While the trunk lid opener switch is turned ON	ON
TRNK/HAT MNTR	Trunk lid closed	OFF
	Trunk lid opened	ON
RKE-LOCK	When LOCK button of Intelligent Key is not pressed	OFF
	When LOCK button of Intelligent Key is pressed	ON
RKE-UNLOCK	When UNLOCK button of Intelligent Key is not pressed	OFF
	When UNLOCK button of Intelligent Key is pressed	ON
RKE-TR/BD	When TRUNK OPEN button of Intelligent Key is not pressed	OFF
	When TRUNK OPEN button of Intelligent Key is pressed	ON
RKE-PANIC	When PANIC button of Intelligent Key is not pressed	OFF
	When PANIC button of Intelligent Key is pressed	ON
RKE-P/W OPEN	When UNLOCK button of Intelligent Key is not pressed and held	OFF
	When UNLOCK button of Intelligent Key is pressed and held	ON
RKE-MODE CHG	When LOCK/UNLOCK button of Intelligent Key is not pressed and held simultaneously	OFF
	When LOCK/UNLOCK button of Intelligent Key is pressed and held simultaneously	ON
OPTICAL SENSOR	When outside of the vehicle is bright	Close to 5 V
	When outside of the vehicle is dark	Close to 0 V
REQ SW-DR	When driver door request switch is not pressed	OFF
	When driver door request switch is pressed	ON
REQ SW-AS	When passenger door request switch is not pressed	OFF
	When passenger door request switch is pressed	ON
REQ SW-BD/TR	When trunk request switch is not pressed	OFF
	When trunk request switch is pressed	ON
PUSH SW	When engine switch (push switch) is not pressed	OFF
	When engine switch (push switch) is pressed	ON

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

Monitor Item	Condition	Value/Status
IGN RLY2-F/B	Ignition switch OFF or ACC	OFF
	Ignition switch ON	ON
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 >

[SEDAN WITH INTELLIGENT KEY]

Monitor Item	Condition	Value/Status	
DOOR STAT-DR	Driver door LOCK status	LOCK	A
	Wait with selective UNLOCK operation (5 seconds)	READY	
	Driver door UNLOCK status	UNLK	B
DOOR STAT-AS	Passenger door LOCK status	LOCK	
	Wait with selective UNLOCK operation (5 seconds)	READY	C
	Passenger door UNLOCK status	UNLK	
ID OK FLAG	Ignition switch ACC or ON	RESET	
	Ignition switch OFF	SET	D
PRMT ENG STAT	When the engine start is prohibited	RESET	
	When the engine start is permitted	SET	E
PRMT RKE STAT	NOTE: This item is displayed, but cannot be monitored.	RESET	
KEY SW -SLOT	When Intelligent Key is not inserted into key slot	OFF	F
	When Intelligent Key is inserted into key slot	ON	
RKE OPE COUN1	During the operation of Intelligent Key	Operation frequency of Intelligent Key	
RKE OPE COUN2	NOTE: This item is displayed, but cannot be monitored.	Operation frequency of Intelligent Key	G
CONFIRM ID ALL	The key ID that the key slot receives does not accord with any key ID registered to BCM.	YET	
	The key ID that the key slot receives accords with any key ID registered to BCM.	DONE	H
CONFIRM ID4	The key ID that the key slot receives does not accord with the fourth key ID registered to BCM.	YET	I
	The key ID that the key slot receives accords with the fourth key ID registered to BCM.	DONE	
CONFIRM ID3	The key ID that the key slot receives does not accord with the third key ID registered to BCM.	YET	J
	The key ID that the key slot receives accords with the third key ID registered to BCM.	DONE	SEC
CONFIRM ID2	The key ID that the key slot receives does not accord with the second key ID registered to BCM.	YET	
	The key ID that the key slot receives accords with the second key ID registered to BCM.	DONE	L
CONFIRM ID1	The key ID that the key slot receives does not accord with the first key ID registered to BCM.	YET	M
	The key ID that the key slot receives accords with the first key ID registered to BCM.	DONE	
TP 4	The ID of fourth key is not registered to BCM	YET	N
	The ID of fourth key is registered to BCM	DONE	
TP 3	The ID of third key is not registered to BCM	YET	O
	The ID of third key is registered to BCM	DONE	
TP 2	The ID of second key is not registered to BCM	YET	
	The ID of second key is registered to BCM	DONE	P
TP 1	The ID of first key is not registered to BCM	YET	
	The ID of first key is registered to BCM	DONE	
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	

BCM (BODY CONTROL MODULE)

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[SEDAN WITH INTELLIGENT KEY]

Monitor Item	Condition	Value/Status
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
BUZZER	Tire pressure warning alarm is not sounding	OFF
	Tire pressure warning alarm is sounding	ON

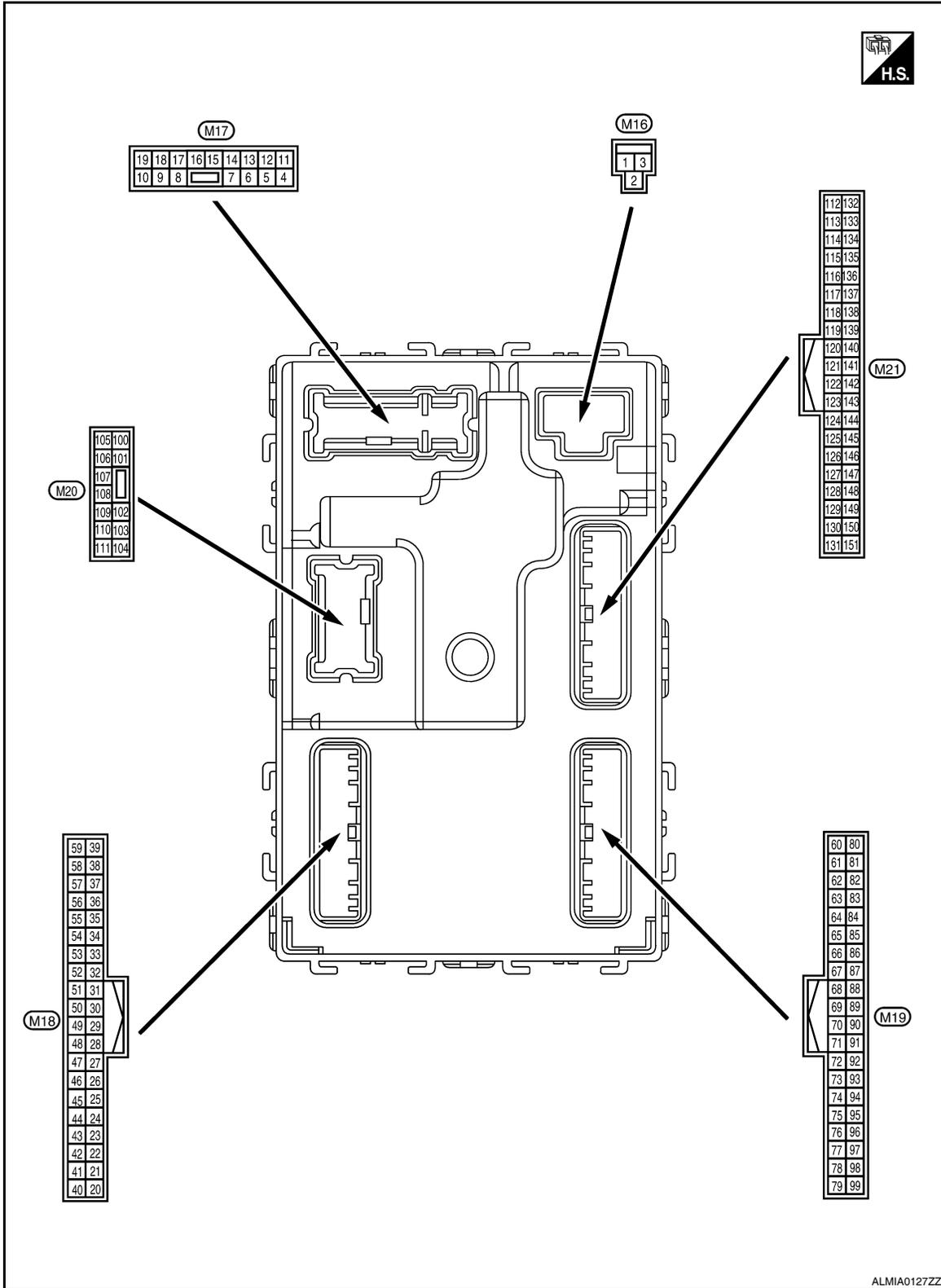
BCM (BODY CONTROL MODULE)

[SEDAN WITH INTELLIGENT KEY]

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Terminal Layout

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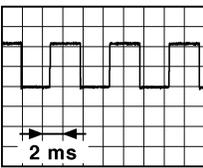
Physical Values

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BCM (BODY CONTROL MODULE)

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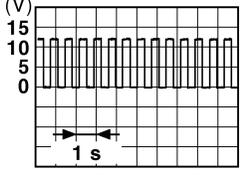
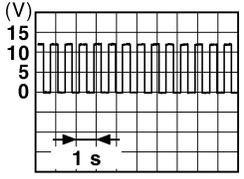
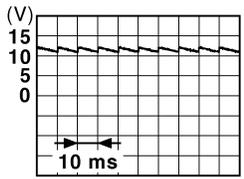
[SEDAN WITH INTELLIGENT KEY]

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 (R/Y)	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: right; font-size: small;">JSNIA0010GB</p>
15 (Y/L)	Ground	ACC indicator lamp	Output	Ignition switch	OFF	Battery voltage
					ACC or ON	0V

BCM (BODY CONTROL MODULE)

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[SEDAN WITH INTELLIGENT KEY]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
(+)	(-)	Signal name	Input/ Output		
17 (G/B)	Ground	Turn signal (RH)	Output	Turn signal switch OFF	0V
				Turn signal switch ON Turn signal switch RH	
18 (G/Y)	Ground	Turn signal (LH)	Output	Turn signal switch OFF	0V
				Turn signal switch ON Turn signal switch LH	
19 (Y)	Ground	Room lamp timer control	Output	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 (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
27 (G/W)	Ground	Front door lock assembly LH (unlock sensor)	Input	Front door LH LOCK status	
				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

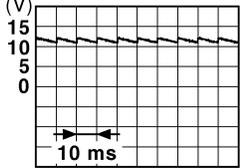
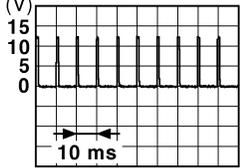
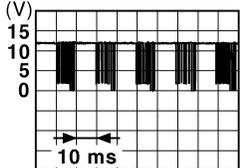
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BCM (BODY CONTROL MODULE)

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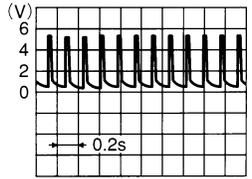
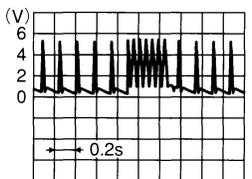
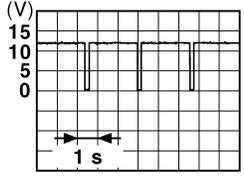
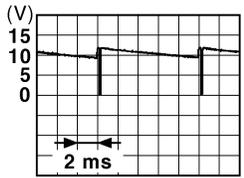
[SEDAN WITH INTELLIGENT KEY]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
(+)	(-)					
31 (G)	Ground	Rear window defogger feedback signal	Input	Rear window defogger 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)	 <p style="text-align: right; font-size: small;">JPMIA0011GB</p>
					ON (when front door RH opens)	0V
33 (SB)	Ground	Compressor ON signal	Input	A/C switch	OFF	5V
					ON	0V
34 ² (L/R)	Ground	Front door lock assembly LH (key cylinder switch) (unlock)	Input	Front door lock assembly LH (key cylinder switch)	OFF (neutral)	5V
					ON (unlock)	0V
36 ² (GR)	Ground	Lock switch signal	Input	Door lock/unlock switch	Lock	Battery voltage
					Unlock	0V
37 (O)	Ground	Trunk lid opener cancel switch	Input	Trunk lid opener cancel switch	CANCEL	 <p style="text-align: right; font-size: small;">JPMIA0012GB</p>
					ON	0V
38 (GR/W)	Ground	Rear window defogger ON signal	Input	Rear window defogger switch	OFF	5V
					ON	0V
39 ² (GR/R)	Ground	Unlock switch signal	Input	Door lock/unlock switch	Unlock	Battery voltage
					Lock	0V
40 ³ (Y/G)	Ground	Power window serial link	Input/ Output	Ignition switch ON	 <p style="text-align: right; font-size: small;">JPMIA0013GB</p>	
				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

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[SEDAN WITH INTELLIGENT KEY]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
		Signal name	Input/ Output		
(+)	(-)				
45 (P)	Ground	Receiver & sensor ground	Input	Ignition switch ON	0V
46 (V/W)	Ground	Receiver & sensor power supply output	Output	Ignition switch	OFF
				ACC or ON	5.0V
47 (G/O)	Ground	Tire pressure receiver signal	Input/ Output	Ignition switch ON	 <p style="text-align: right; font-size: small;">OCC3881D</p>
				When receiving the signal from the transmitter	 <p style="text-align: right; font-size: small;">OCC3880D</p>
48 (R/G)	Ground	Selector lever P/N position signal	Input	Selector lever	P or N position
					Except P and N positions
49 (L/O)	Ground	Security indicator signal	Output	Security indicator	ON
				Blinking	 <p style="text-align: right; font-size: small;">JPMIA0014GB</p> <p style="text-align: center;">11.3V</p>
50 (LG/B)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper intermittent dial 4)	OFF
					Battery voltage
					All switch OFF
					Lighting switch 1ST
					Lighting switch high-beam
	Lighting switch 2ND				
	Turn signal switch RH	 <p style="text-align: right; font-size: small;">JPMIA0031GB</p> <p style="text-align: center;">10.7V</p>			

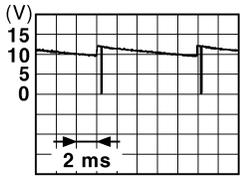
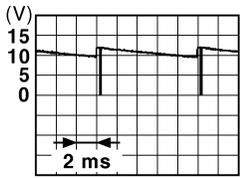
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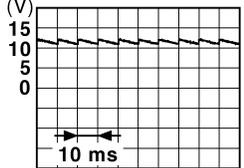
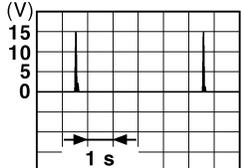
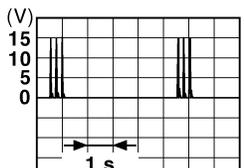
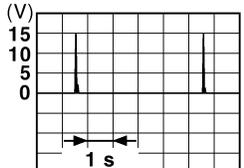
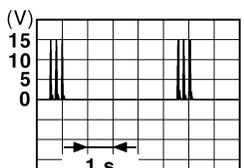
[SEDAN WITH INTELLIGENT KEY]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
(+)	(-)	Signal name	Input/ Output		
51 (L/W)	Ground	Combination switch OUTPUT 1	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)
				Combination switch	Front wiper switch HI (Wiper intermittent dial 4)
				Any of the conditions below with all switch OFF	0V
				<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 	
					10.7V
52 (G/B)	Ground	Combination switch OUTPUT 2	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)
				Combination switch	Front washer switch ON (Wiper intermittent dial 4)
				Any of the conditions below with all switch OFF	0V
				<ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6 	
					10.7V
53 (L/G/ R)	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF
				Combination switch (Wiper intermit- tent dial 4)	Front wiper switch INT
				Lighting switch AUTO	0V
				Lighting switch AUTO	0V
				Lighting switch AUTO	0V
				Lighting switch AUTO	0V
					10.7V
54 (G/Y)	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF
				Combination switch (Wiper intermit- tent dial 4)	Front fog lamp switch ON
				Lighting switch 2ND	0V
				Lighting switch flash-to- pass	0V
				Turn signal switch LH	0V
				Turn signal switch LH	0V
					10.7V
55 (BR/ W)	Ground	Front blower monitor	Input	Front blower mo- tor switch	ON
					OFF
					Battery voltage
					0V
56 ² (L/B)	Ground	Front door lock as- sembly LH (key cylin- der switch) (lock)	Input	Front door lock assembly LH (key cylinder switch)	OFF (neutral)
					ON (lock)
					5V
					0V
57 (W)	Ground	Tire pressure warn- ing check switch	Input	—	5V

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[SEDAN WITH INTELLIGENT KEY]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
(+)	(-)	Signal name	Input/ Output			
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</p> <p style="text-align: center;">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>
				Ignition switch OFF	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>
				Ignition switch OFF	When Intelligent Key is not in the passenger compartment	 <p style="text-align: right; font-size: small;">JMKIA0063GB</p>

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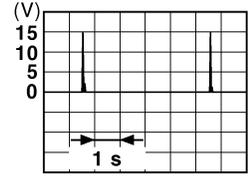
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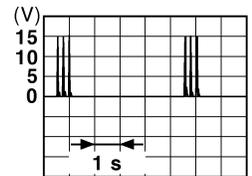
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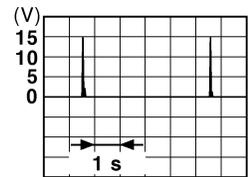
Terminal No. (Wire color)		Description		Condition	Value (Approx.)
(+)	(-)	Signal name	Input/ Output		
62 ⁴ (B/Y)	Ground	Front outside handle RH antenna (-)	Output	When the front door RH request switch is operat- ed with ignition switch OFF	When Intelligent Key is in the antenna detection area
				When Intelligent Key is not in the antenna detection area	When Intelligent Key is not in the antenna detection area
63 ⁴ (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
				When Intelligent Key is not in the antenna detection area	When Intelligent Key is not in the antenna detection area
64 ⁴ (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
				When Intelligent Key is not in the antenna detection area	When Intelligent Key is not in the antenna detection area



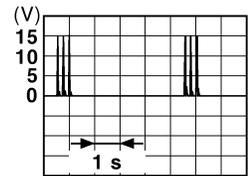
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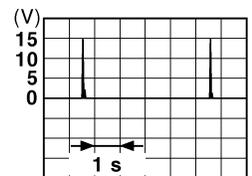
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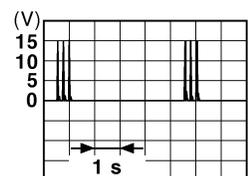
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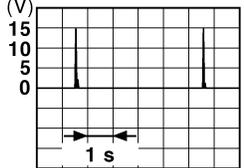
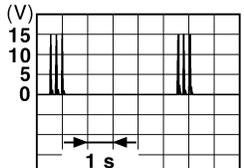
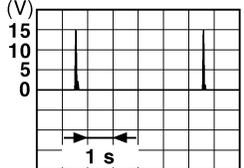
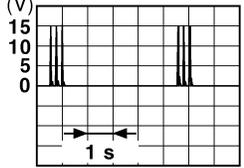
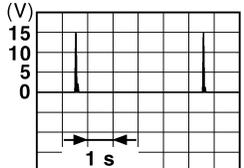
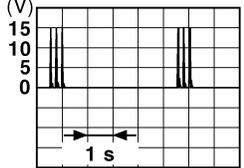


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BCM (BODY CONTROL MODULE)

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[SEDAN WITH INTELLIGENT KEY]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
(+)	(-)	Signal name	Input/ Output		
65 ⁴ (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>
66 (R)	Ground	Instrument panel an- tenna (-)	Output	When Intelligent Key is in the passenger compart- ment	 <small>JMKIA0062GB</small>
				When Intelligent Key is not in the passenger compart- ment	 <small>JMKIA0063GB</small>
67 (G)	Ground	Instrument panel an- tenna (+)	Output	When Intelligent Key is in the passenger compart- ment	 <small>JMKIA0062GB</small>
				When Intelligent Key is not in the passenger compart- ment	 <small>JMKIA0063GB</small>

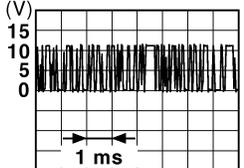
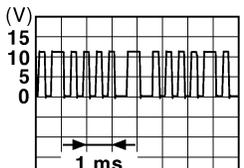
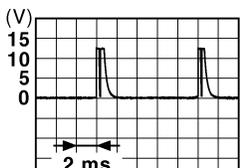
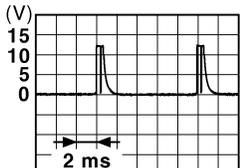
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BCM (BODY CONTROL MODULE)

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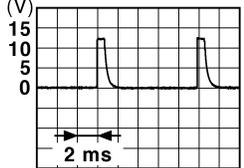
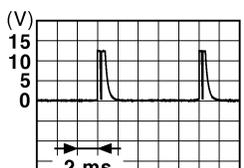
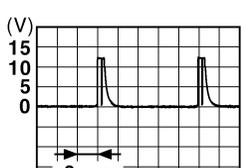
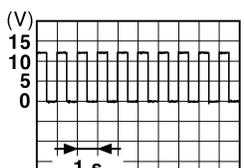
[SEDAN WITH INTELLIGENT KEY]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
68 (G/O)	Ground	NATS antenna amp (built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
69 (O)	Ground	NATS antenna amp (built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
70 (R/B)	Ground	Ignition relay-2 con- trol	Output	Ignition switch	OFF or ACC ON	0V Battery voltage
71 (L/O)	Ground	Remote keyless entry receiver signal	Input/ Output	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>
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;">JPMIA0041GB</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;">JPMIA0037GB</p> <p style="text-align: center;">1.3V</p>
					Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7	 <p style="text-align: right; font-size: small;">JPMIA0040GB</p> <p style="text-align: center;">1.3V</p>

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[SEDAN WITH INTELLIGENT KEY]

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 Not pressed	0V 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

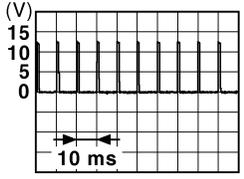
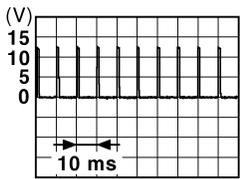
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BCM (BODY CONTROL MODULE)

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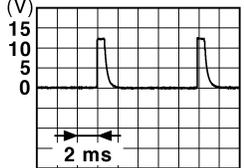
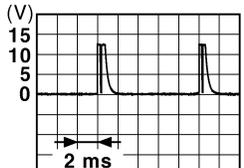
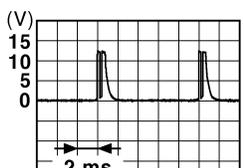
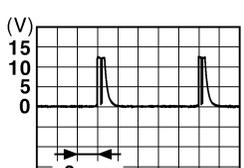
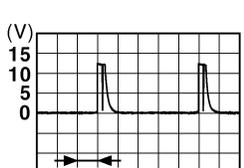
[SEDAN WITH INTELLIGENT KEY]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
(+)	(-)					
81 (LG)	Ground	ON indicator lamp	Output	Ignition switch	OFF or ACC	0V
					ON	Battery voltage
83 (L)	Ground	ACC relay control	Output	Ignition switch	OFF	0V
					ACC or ON	Battery voltage
84 (Y/R)	Ground	CVT device	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 (G/B)	Ground	Selector lever P position switch	Input	Selector lever	P position	0V
					Any position other than P	Battery voltage
88 ⁴ (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 JPMIA0016GB</p>
89 ⁴ (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 JPMIA0016GB</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	Steering wheel lock unit power supply	Output	Ignition switch	OFF or ACC	Battery voltage
					ON	0V

BCM (BODY CONTROL MODULE)

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[SEDAN WITH INTELLIGENT KEY]

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

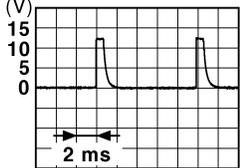
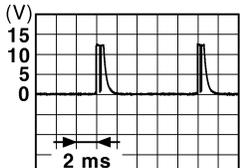
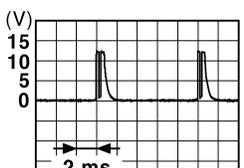
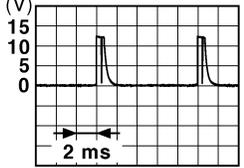
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BCM (BODY CONTROL MODULE)

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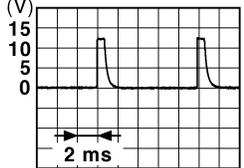
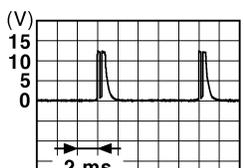
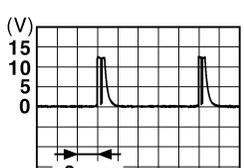
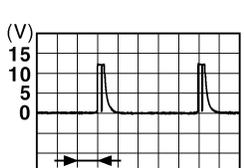
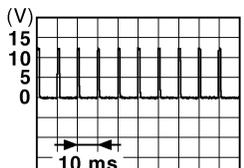
[SEDAN WITH INTELLIGENT KEY]

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) <div style="text-align: right;">  <p style="font-size: small; margin: 0;">JPMIA0041GB</p> <p style="margin: 0;">1.4V</p> </div>
				Combination switch	Lighting switch AUTO (Wiper intermittent dial 4) <div style="text-align: right;">  <p style="font-size: small; margin: 0;">JPMIA0038GB</p> <p style="margin: 0;">1.3V</p> </div>
				Combination switch	Lighting switch 1ST (Wiper intermittent dial 4) <div style="text-align: right;">  <p style="font-size: small; margin: 0;">JPMIA0036GB</p> <p style="margin: 0;">1.3V</p> </div>
				Combination switch	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 <div style="text-align: right;">  <p style="font-size: small; margin: 0;">JPMIA0039GB</p> <p style="margin: 0;">1.3V</p> </div>

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

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	 1.4V
					Lighting switch flash-to-pass	 1.3V
					Lighting switch 2ND	 1.3V
					Front wiper switch INT	 1.3V
					Front wiper switch HI	 1.3V
					Pressed	0 V
98 (G/O)	Ground	Hazard switch	Input	Hazard switch	Not pressed  1.1V	

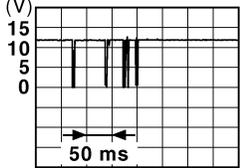
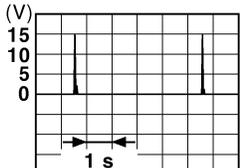
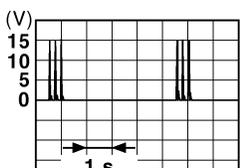
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BCM (BODY CONTROL MODULE)

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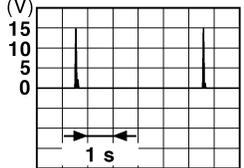
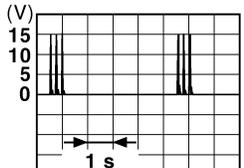
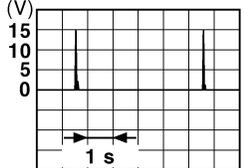
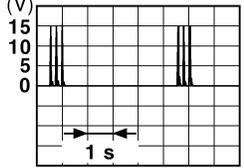
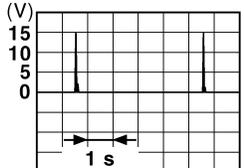
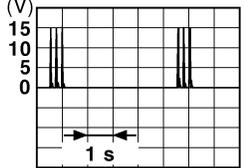
[SEDAN WITH INTELLIGENT KEY]

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	Rear parcel shelf an- tenna 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>

BCM (BODY CONTROL MODULE)

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[SEDAN WITH INTELLIGENT KEY]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
(+)	(-)	Signal name	Input/ Output		
115 (W)	Ground	Rear parcel shelf antenna 1 (+)	Output	Ignition switch OFF	 <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>
118 ⁴ (L/O)	Ground	Rear bumper antenna (-)	Output	When the trunk lid request switch is operated with ignition switch OFF	 <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 ⁴ (BR/W)	Ground	Rear bumper antenna (+)	Output	When the trunk lid request switch is operated with ignition switch OFF	 <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>

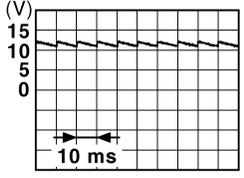
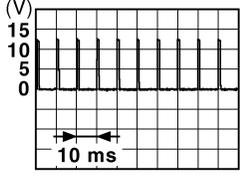
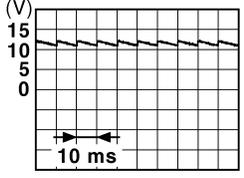
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BCM (BODY CONTROL MODULE)

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[SEDAN WITH INTELLIGENT KEY]

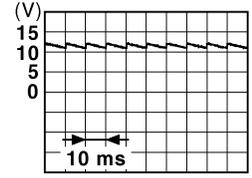
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
127 (BR/ W)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC	Battery voltage
					ON	0V
130 (Y/G)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (trunk is closed)	 <p style="text-align: right; margin-right: 50px;">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
				Ignition switch ON (other than M/ T vehicle)	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
				Ignition switch ON (other than M/ T vehicle)	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: right; margin-right: 50px;">1.0V</p>
144 ⁴ (GR)	Ground	Intelligent Key warn- ing buzzer	Output	Request switch buzzer	Sounding	0V
					Not sounding	Battery voltage
144 ⁵ (GR)	Ground	Outside warning buzzer	Output	Outside warning 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: right; margin-right: 50px;">11.8V</p>
					ON (when rear door RH opens)	0V

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

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



JPMIA0011GB

- 1: Sedan only
- 2: With LH front window anti-pinch
- 3: With LH and RH front window anti-pinch
- 4: With Intelligent Key
- 5: Without Intelligent Key

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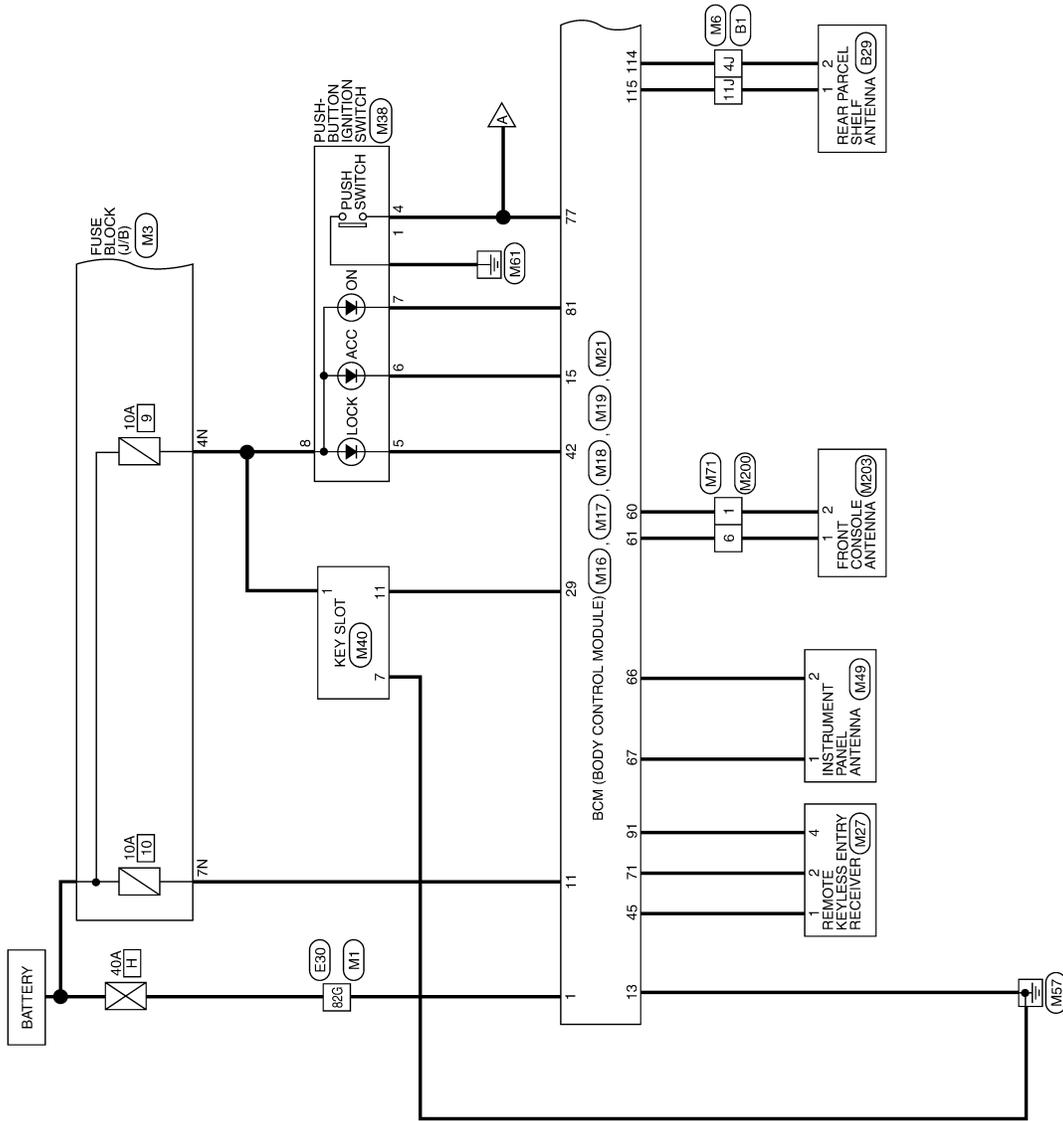
BCM (BODY CONTROL MODULE)

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[SEDAN WITH INTELLIGENT KEY]

Wiring Diagram - ENGINE START FUNCTION - WITH INTELLIGENT KEY INFOID:000000004206341

ENGINE START FUNCTION - WITH INTELLIGENT KEY

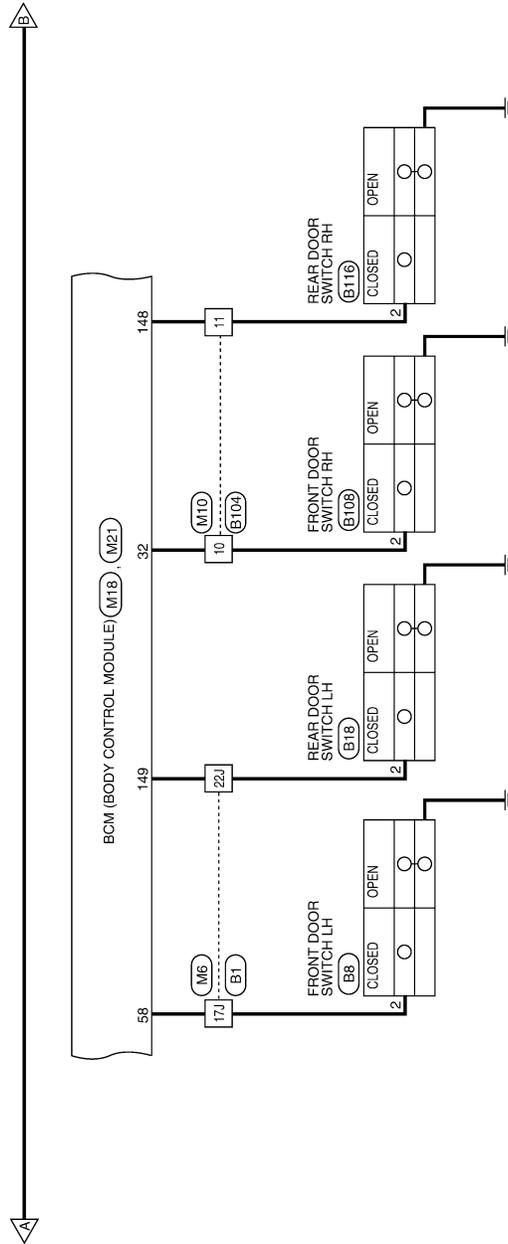


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BCM (BODY CONTROL MODULE)

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[SEDAN WITH INTELLIGENT KEY]



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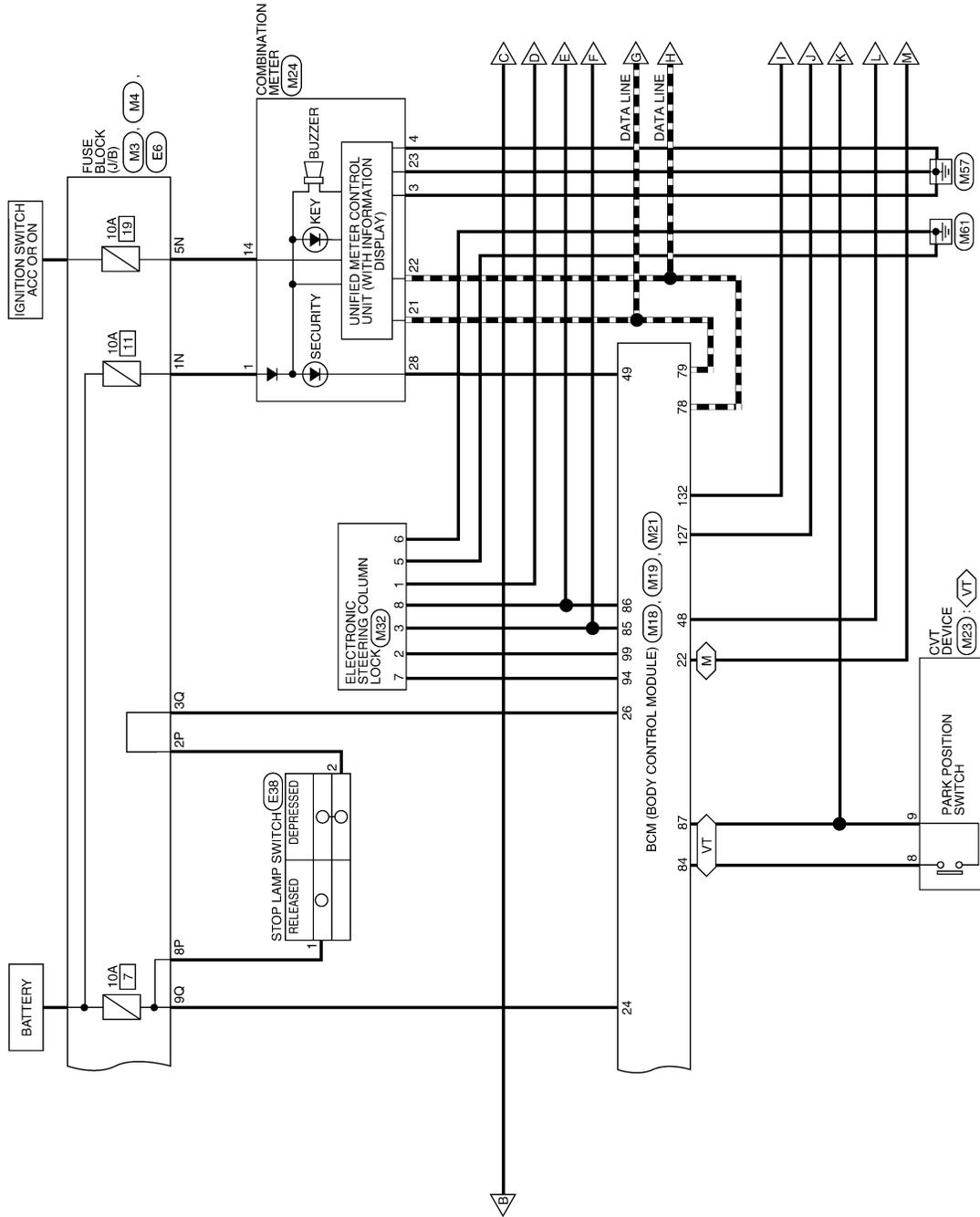
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BCM (BODY CONTROL MODULE)

[SEDAN WITH INTELLIGENT KEY]

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- - - : DATA LINE
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 (VT) : WITH CVT

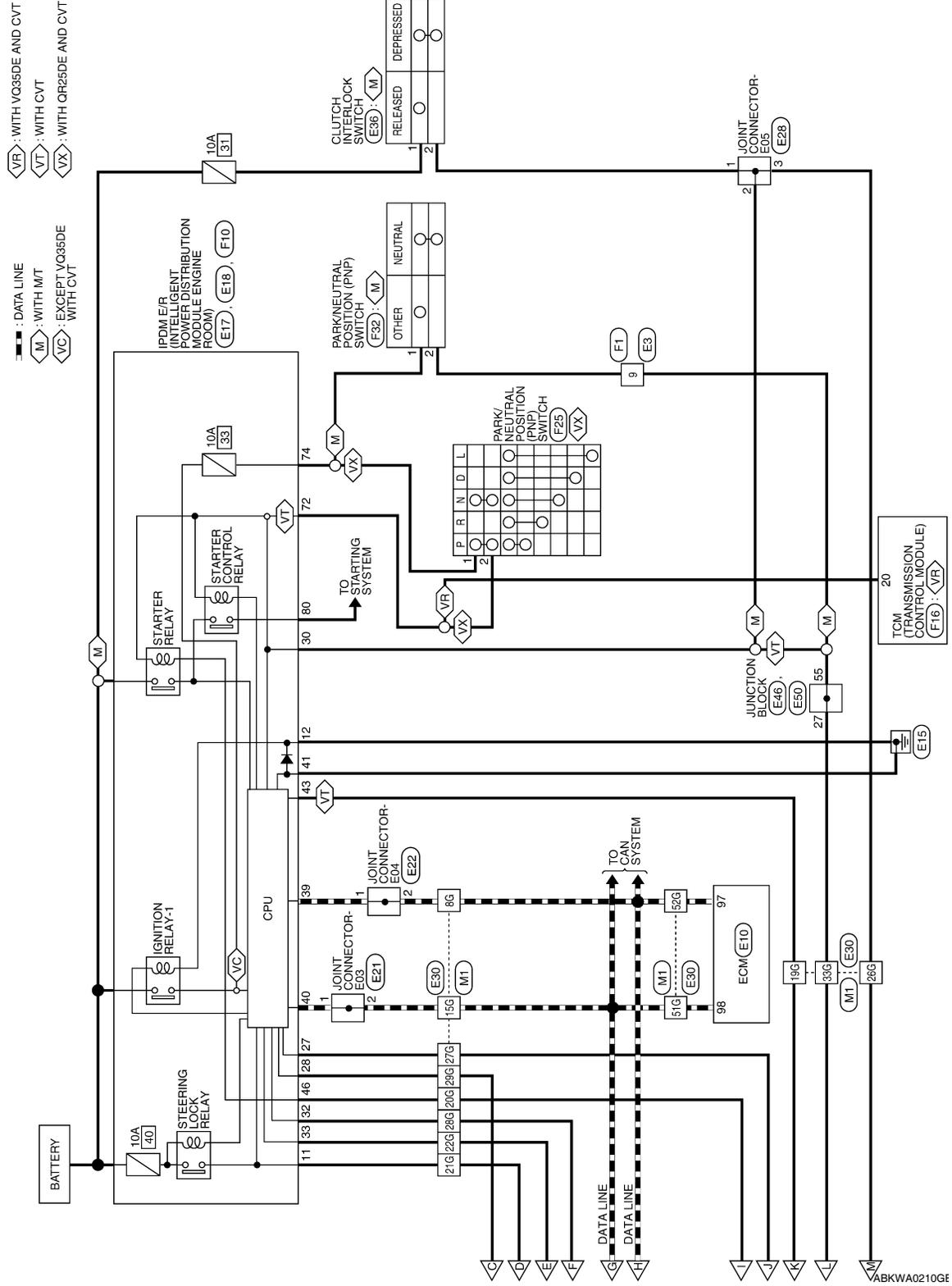


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BCM (BODY CONTROL MODULE)

[SEDAN WITH INTELLIGENT KEY]

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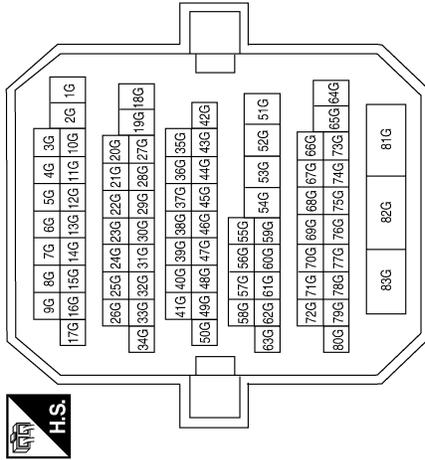
BCM (BODY CONTROL MODULE)

[SEDAN WITH INTELLIGENT KEY]

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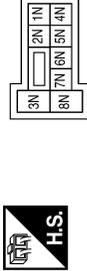
ENGINE START FUNCTION CONNECTORS - WITH INTELLIGENT KEY

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



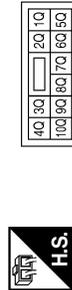
Terminal No.	Color of Wire	Signal Name
8G	P	-
15G	L	-
19G	G/B	-
20G	R	-
21G	P/L	-
22G	G/R	-
26G	R/Y	-
27G	BR/W	-
28G	L/O	-
29G	BR	-
33G	R/G	-
51G	L	-
52G	P	-
82G	W/B	-

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	-

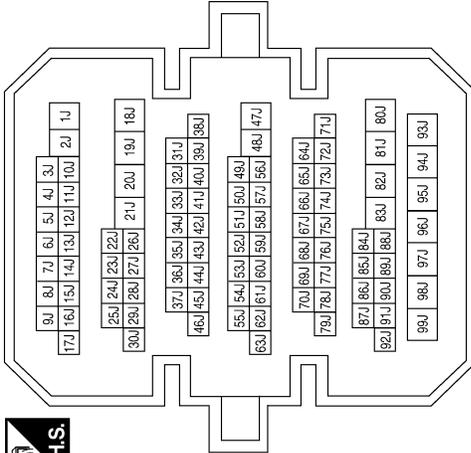
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BCM (BODY CONTROL MODULE)

[SEDAN WITH INTELLIGENT KEY]

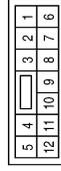
< ECU DIAGNOSIS >

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	-

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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SEC

BCM (BODY CONTROL MODULE)

[SEDAN WITH INTELLIGENT KEY]

< ECU DIAGNOSIS >

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



39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20
59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40

Terminal No.	Color of Wire	Signal Name
22	R/Y	CLUTCH_SW
24	R/W	STOP_LAMP_LOW_SW
26	O/L	STOP_LAMP_HIGH_SW
29	Y	FOB_IN_SW
32	R/B	AS_DOOR_SW
42	R	S/L_LOCK_LED
45	P	GND_RF2_A/L
48	R/G	SHIFT_N/P
49	L/O	IMMO_LED
58	SB	DR_DOOR_SW

Connector No.	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
66	R	ROOM_ANT_1_B
67	G	ROOM_ANT_1_A

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.	M21
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GRAY



13	130	129	128	127	126	125	124	123	122	121	120	119	118	117	116	115	114	113	112
151	150	149	148	147	146	145	144	143	142	141	140	139	138	137	136	135	134	133	132

Terminal No.	Color of Wire	Signal Name
114	B	TRUNK_ANT_1_B
115	W	TRUNK_ANT_1_A
127	BR/W	IGN_USM_CONT1
132	R	ST_CONT_USM
148	R/W	RR_DOOR_SW
149	R/B	RL_DOOR_SW

Connector No.	M23
Connector Name	CVT DEVICE
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

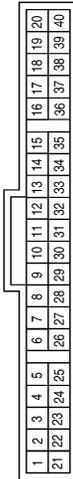
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BCM (BODY CONTROL MODULE)

[SEDAN WITH INTELLIGENT KEY]

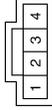
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Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE



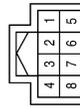
Terminal No.	Color of Wire	Signal Name
1	W/L	BAT
3	B	GND
4	B	GND
14	V/Y	ACC
21	L	CAN-H
22	P	CAN-L
23	B	GND
28	L/O	SECURITY

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



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

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

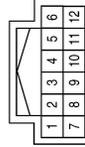


Connector No.	M38
Connector Name	PUSH-BUTTON IGNITION SWITCH
Connector Color	BROWN



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.	M40
Connector Name	KEY SLOT
Connector Color	WHITE



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

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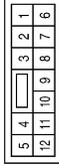
SEC

BCM (BODY CONTROL MODULE)

[SEDAN WITH INTELLIGENT KEY]

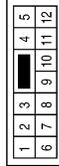
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Connector No.	M200
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

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



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

Connector No.	M49
Connector Name	INSTRUMENT PANEL ANTENNA
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	G	ANT+
2	R	ANT-

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



Terminal No.	Color of Wire	Signal Name
2P	R/G	-
8P	Y/R	-

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



Terminal No.	Color of Wire	Signal Name
9	BR	-

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-

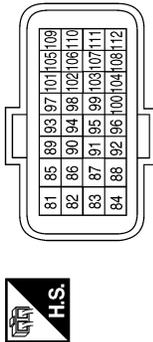
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BCM (BODY CONTROL MODULE)

[SEDAN WITH INTELLIGENT KEY]

< ECU DIAGNOSIS >

Connector No.	E10
Connector Name	ECM
Connector Color	BLACK



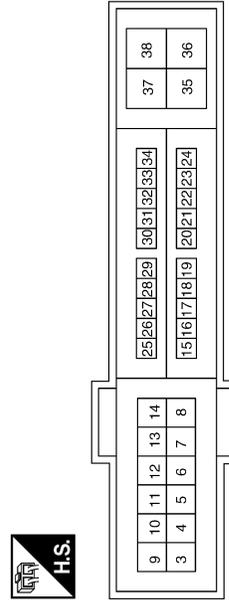
Terminal No.	Color of Wire	Signal Name
97	P	CAN-L
98	L	CAN-H

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 (POWER)
43	Y	DETENT_SW
46	BR	START_CONT

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



Terminal No.	Color of Wire	Signal Name
11	O	ESCL
12	B	GND (POWER)
27	W	IGN_SIGNAL
28	SB	PUSH_START_SW
30	R	CLUTCH_I/L_SW
32	P	SL_CONDITION_1
33	G	SL_CONDITION_2

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



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

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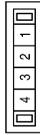
SEC

BCM (BODY CONTROL MODULE)

[SEDAN WITH INTELLIGENT KEY]

< ECU DIAGNOSIS >

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



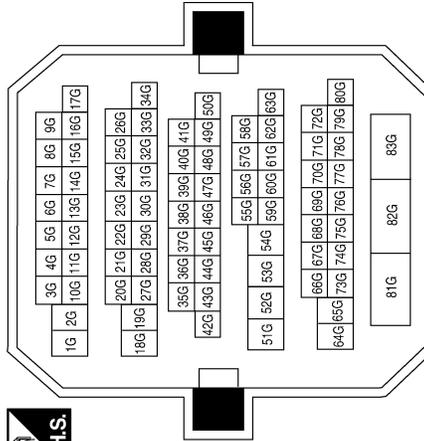
Terminal No.	Color of Wire	Signal Name
1	P	-
2	P	-

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	-
51G	L	-
52G	P	-
82G	LG	-

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



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

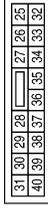
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BCM (BODY CONTROL MODULE)

[SEDAN WITH INTELLIGENT KEY]

< ECU DIAGNOSIS >

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



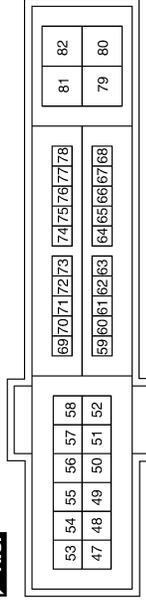
Terminal No.	Color of Wire	Signal Name
1	R	B+
2	LG	HIGH_SW

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

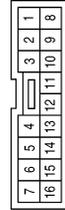


Terminal No.	Color of Wire	Signal Name
1	R	B+
2	LG	HIGH_SW

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



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



Terminal No.	Color of Wire	Signal Name
9	R/B	-

Connector No.	E50
Connector Name	JUNCTION BLOCK
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
55	BR	-

Terminal No.	Color of Wire	Signal Name
72	R/B	NPSW
74	Y	START_IG_EGI
80	B/W	STARTER_MOTOR

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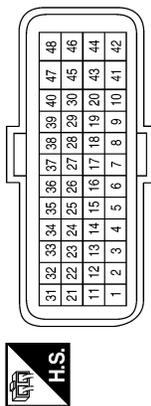
SEC

BCM (BODY CONTROL MODULE)

[SEDAN WITH INTELLIGENT KEY]

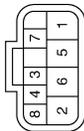
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Connector No.	F16
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
20	R/B	ST_RLY

Connector No.	F25
Connector Name	PARK/NEUTRAL POSITION (PNP) SWITCH
Connector Color	BLACK



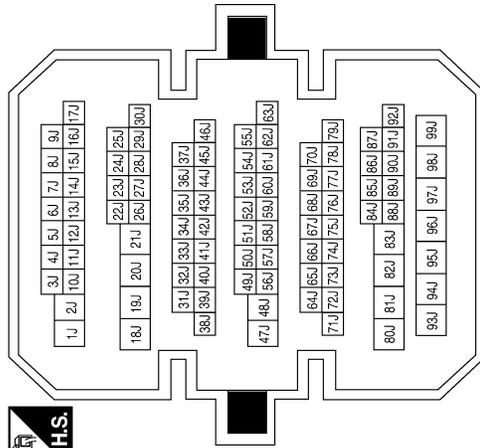
Terminal No.	Color of Wire	Signal Name
1	Y	IGN_P_N
2	R/B	P_N_OUTPUT

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



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

Connector No.	B1
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.	B8
Connector Name	FRONT DOOR SWITCH LH
Connector Color	WHITE



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

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BCM (BODY CONTROL MODULE)

[SEDAN WITH INTELLIGENT KEY]

< ECU DIAGNOSIS >

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

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



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

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



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

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

1	2	3
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Terminal No.	Color of Wire	Signal Name
2	R/B	DOOR SW (RL)

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

1	2	3
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Terminal No.	Color of Wire	Signal Name
2	R/W	DOOR SW (RR)

Connector No.	B108
Connector Name	FRONT DOOR SWITCH RH
Connector Color	WHITE

1	2	3
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Terminal No.	Color of Wire	Signal Name
2	R/B	DOOR SW (AS)

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BCM (BODY CONTROL MODULE)

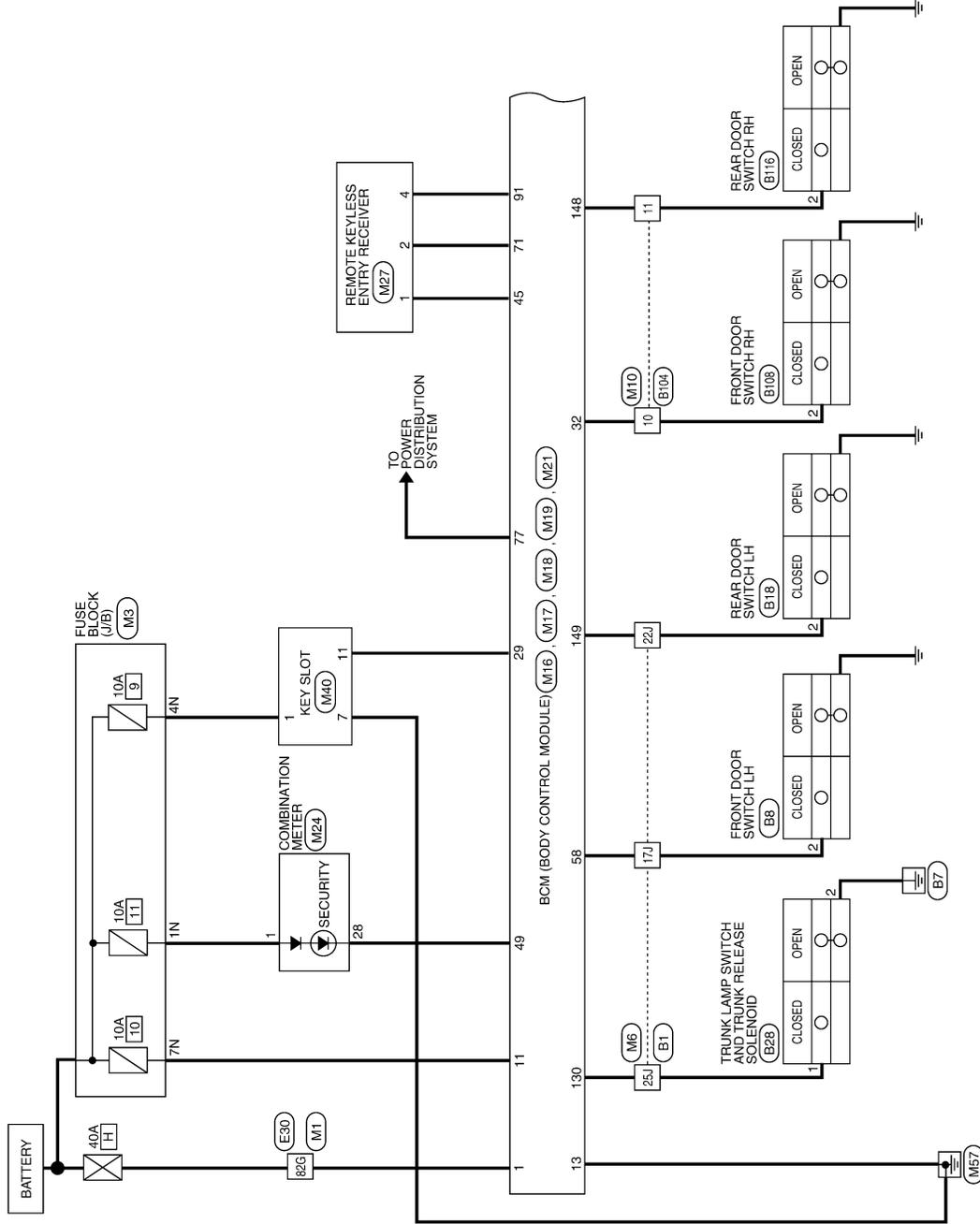
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< ECU DIAGNOSIS >

Wiring Diagram - VEHICLE SECURITY SYSTEM - WITH INTELLIGENT KEY

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VEHICLE SECURITY SYSTEM - WITH INTELLIGENT KEY



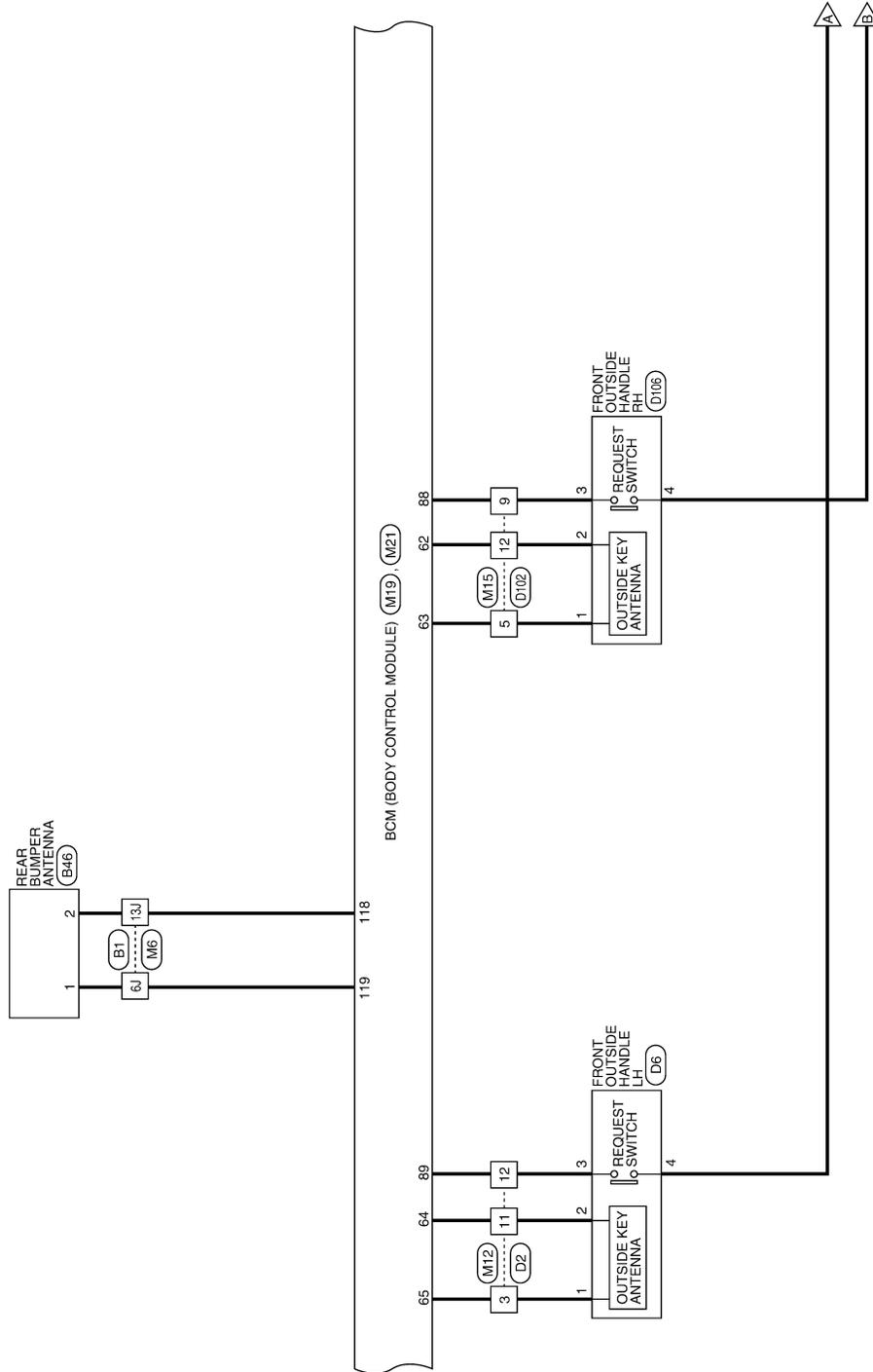
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BCM (BODY CONTROL MODULE)

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< ECU DIAGNOSIS >

■ ■ ■ : DATA LINE



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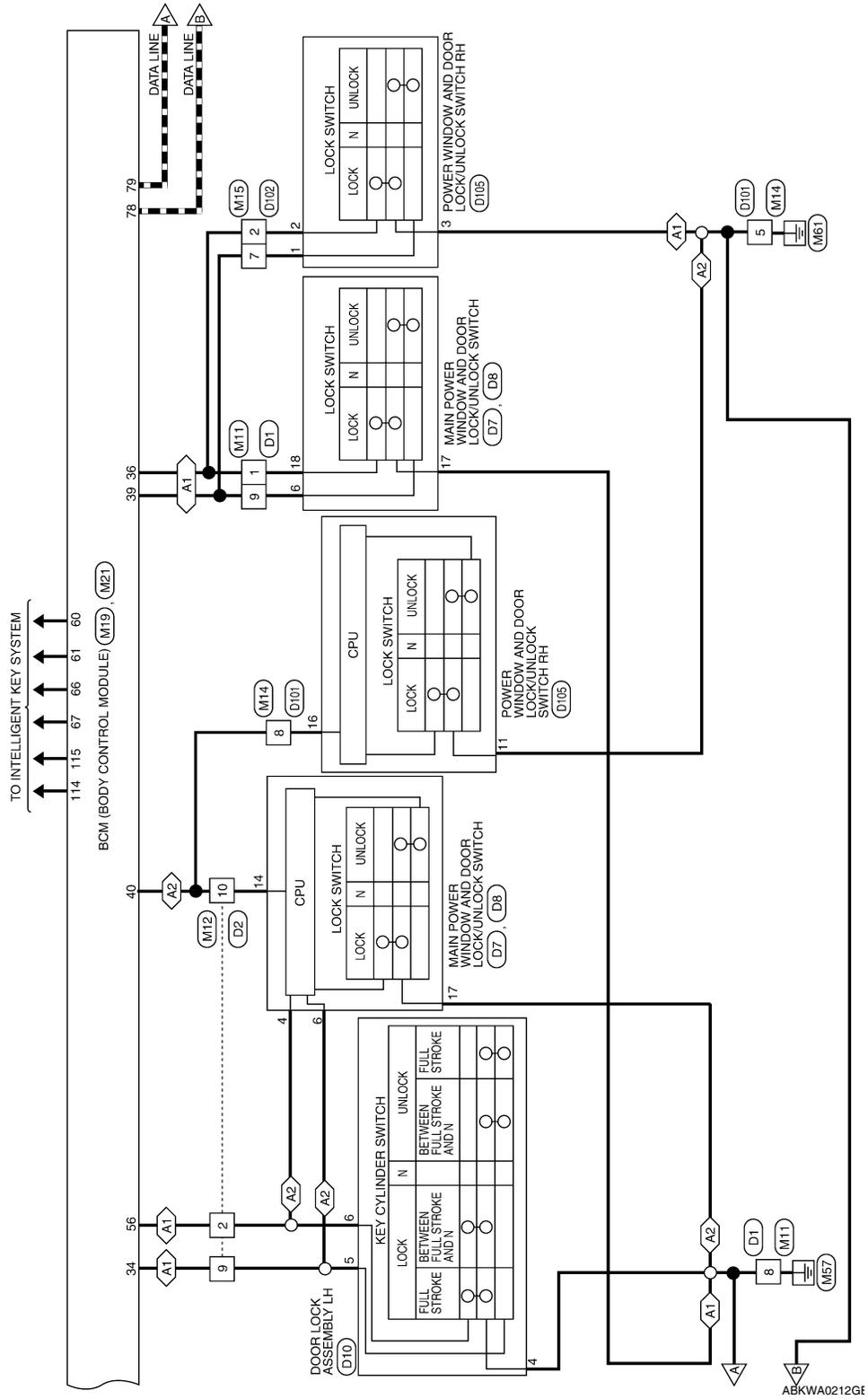
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BCM (BODY CONTROL MODULE)

[SEDAN WITH INTELLIGENT KEY]

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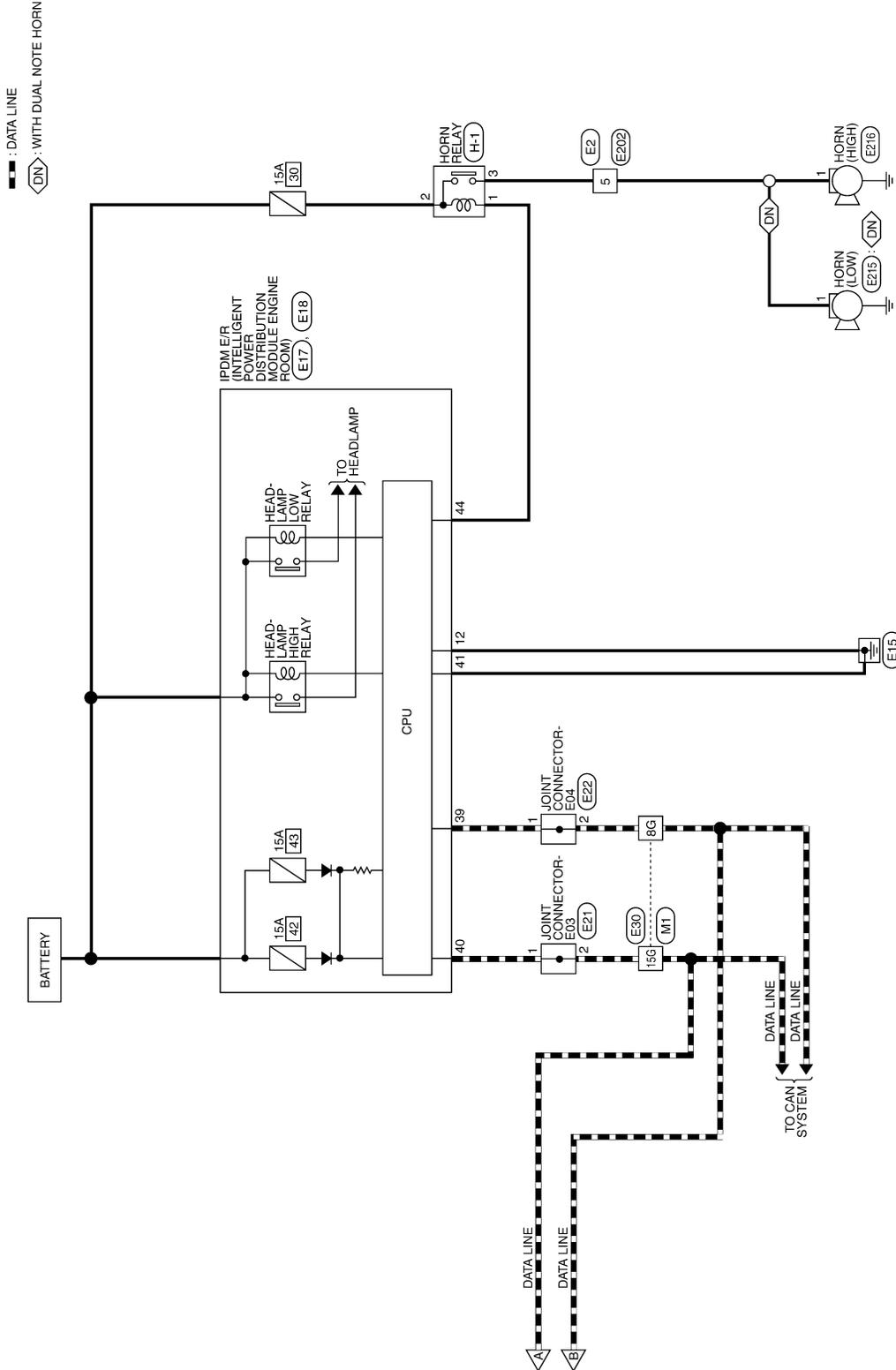
- : DATA LINE
- ◁A6> : WITH LEFT POWER WINDOW ANTI-PINCH SYSTEM
- ◁A7> : WITH LEFT AND RIGHT POWER WINDOW ANTI-PINCH SYSTEM



BCM (BODY CONTROL MODULE)

[SEDAN WITH INTELLIGENT KEY]

< ECU DIAGNOSIS >



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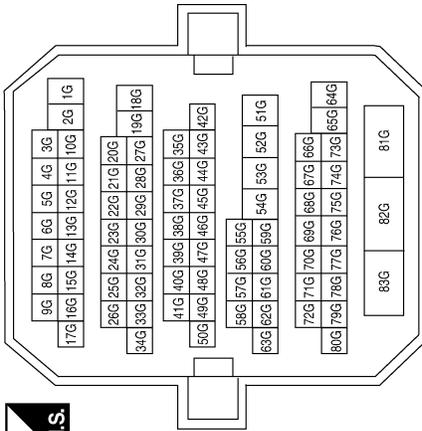
BCM (BODY CONTROL MODULE)

[SEDAN WITH INTELLIGENT KEY]

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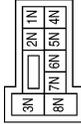
VEHICLE SECURITY SYSTEM CONNECTORS - WITH INTELLIGENT KEY

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



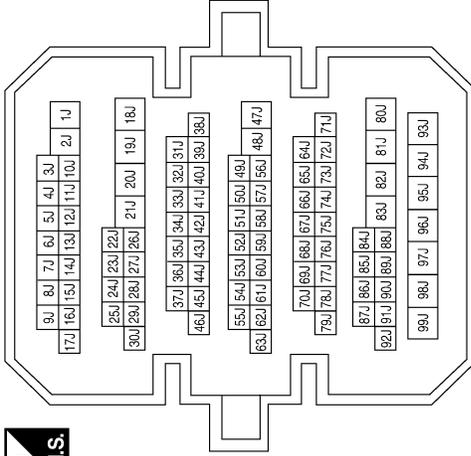
Terminal No.	Color of Wire	Signal Name
8G	P	-
15G	L	-
82G	W/B	-

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	-

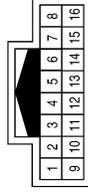
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BCM (BODY CONTROL MODULE)

[SEDAN WITH INTELLIGENT KEY]

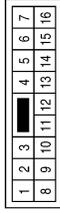
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Connector No.	M12
Connector Name	WIRE TO WIRE
Connector Color	WHITE



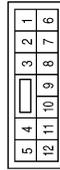
Terminal No.	Color of Wire	Signal Name
2	L/B	-
3	P	-
9	L/R	-
10	Y/G	-
11	V	-
12	B/W	-

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	-

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



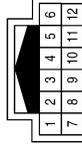
Terminal No.	Color of Wire	Signal Name
10	R/B	-
11	R/W	-

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



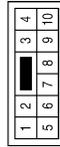
Terminal No.	Color of Wire	Signal Name
1	W/B	BAT_POWER_F/L

Connector No.	M15
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

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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BCM (BODY CONTROL MODULE)

[SEDAN WITH INTELLIGENT KEY]

< ECU DIAGNOSIS >

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



4	5	6	7	8	9	10		
11	12	13	14	15	16	17	18	19

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

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



30	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
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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

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



70	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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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
66	R	ROOM_ANT_1_B
67	G	ROOM_ANT_1_A
71	L/O	RF1_TUNER_SIGNAL
77	BR	ENG_START_SW
78	P	CAN-L
79	L	CAN-H
88	P/L	AS REQUEST SWITCH
89	B/W	DR REQUEST SWITCH
91	L/R	RF1_POWER_SUPPLY

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



131	130	129	128	127	126	125	124	123	122	121	120	119	118	117	116	115	114	113	112
151	150	149	148	147	146	145	144	143	142	141	140	139	138	137	136	135	134	133	132

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

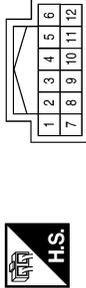
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BCM (BODY CONTROL MODULE)

[SEDAN WITH INTELLIGENT KEY]

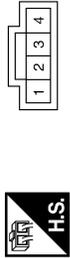
< ECU DIAGNOSIS >

Connector No.	M40
Connector Name	KEY SLOT
Connector Color	WHITE



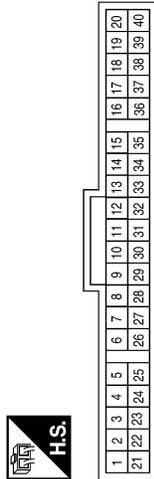
Terminal No.	Color of Wire	Signal Name
1	G/Y	B+
7	B	GND
11	Y	CARD_SW_1

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



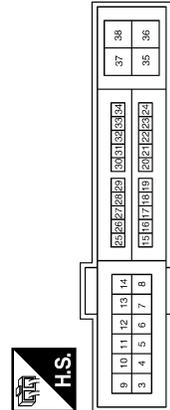
Terminal No.	Color of Wire	Signal Name
1	P	GND
2	L/O	SIGNAL
4	L/R	12V

Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE



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

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



Terminal No.	Color of Wire	Signal Name
12	B	GND (POWER)

Connector No.	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	G/W	HORN_RLY

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



Terminal No.	Color of Wire	Signal Name
5	O	-

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

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



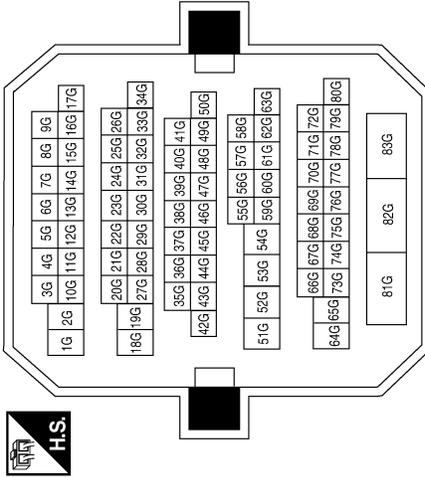
Terminal No.	Color of Wire	Signal Name
1	L	-
2	L	-

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



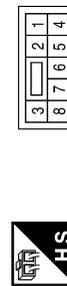
Terminal No.	Color of Wire	Signal Name
1	P	-
2	P	-

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



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

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



Terminal No.	Color of Wire	Signal Name
5	G	-

Connector No.	E215
Connector Name	HORN
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	G	-

Connector No.	E216
Connector Name	HORN
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	G	-

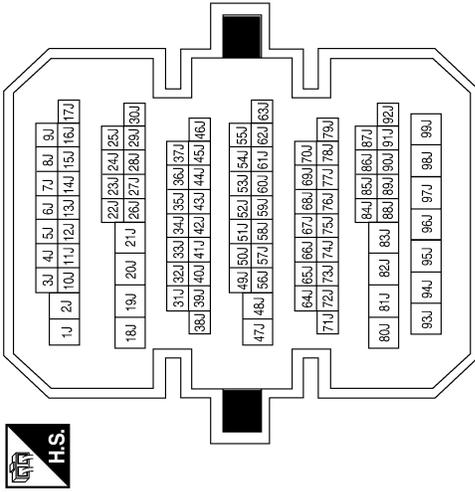
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

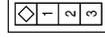
[SEDAN WITH INTELLIGENT KEY]

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



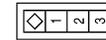
Terminal No.	Color of Wire	Signal Name
6J	BRW	-
13J	L/O	-
17J	SB	-
22J	R/B	-
25J	Y/G	-

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



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

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



Terminal No.	Color of Wire	Signal Name
2	R/B	DOOR SW (RL)

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



Terminal No.	Color of Wire	Signal Name
1	Y/G	TRUNK_REQUEST_SW
2	B	GND

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



Terminal No.	Color of Wire	Signal Name
1	BRW	ANT+
2	L/O	ANT-

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

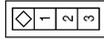
[SEDAN WITH INTELLIGENT KEY]

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



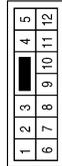
Terminal No.	Color of Wire	Signal Name
2	R/W	DOOR SW (RR)

Connector No.	B108
Connector Name	FRONT DOOR SWITCH RH
Connector Color	WHITE



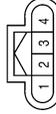
Terminal No.	Color of Wire	Signal Name
2	R/B	DOOR SW (AS)

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



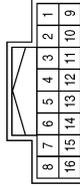
Terminal No.	Color of Wire	Signal Name
10	R/B	-
11	R/W	-

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



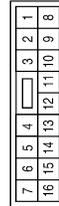
Terminal No.	Color of Wire	Signal Name
1	P	ANT+
2	V	ANT-
3	B/W	SW+
4	B	SW-

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	Y/G	-
11	V	-
12	B/W	-

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	-

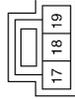
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BCM (BODY CONTROL MODULE)

[SEDAN WITH INTELLIGENT KEY]

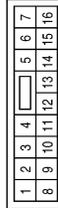
< ECU DIAGNOSIS >

Connector No.	D8
Connector Name	MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH (WITH LEFT AND RIGHT FRONT POWER WINDOW ANTI-PINCH SYSTEM)
Connector Color	WHITE



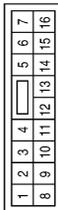
Terminal No.	Color of Wire	Signal Name
17	B	GND

Connector No.	D7
Connector Name	MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH (WITH LEFT FRONT ONLY POWER WINDOW ANTI-PINCH SYSTEM)
Connector Color	WHITE



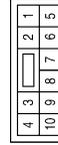
Terminal No.	Color of Wire	Signal Name
6	GR/R	UNLOCK

Connector No.	D7
Connector Name	MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH (WITH LEFT AND RIGHT FRONT POWER WINDOW ANTI-PINCH SYSTEM)
Connector Color	WHITE



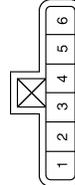
Terminal No.	Color of Wire	Signal Name
4	L/B	LOCK
6	L/R	UNLOCK
14	Y/G	COM

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



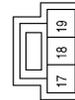
Terminal No.	Color of Wire	Signal Name
5	B	-
8	Y/G	-

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/D/C_LOCK_SW

Connector No.	D8
Connector Name	MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH (WITH LEFT FRONT ONLY POWER WINDOW ANTI-PINCH SYSTEM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
17	B	GND

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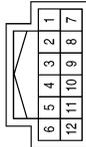
SEC

BCM (BODY CONTROL MODULE)

[SEDAN WITH INTELLIGENT KEY]

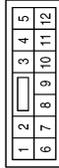
< ECU DIAGNOSIS >

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



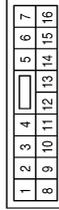
Terminal No.	Color of Wire	Signal Name
2	GR	-
5	LG	-
7	GR/R	-
9	P/L	-
12	B/Y	-

Connector No.	D105
Connector Name	POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH (WITCH LEFT AND FRONT ONLY POWER WINDOW ANTI-PINCH SYSTEM)
Connector Color	WHITE



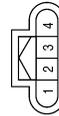
Terminal No.	Color of Wire	Signal Name
1	GR	LOCK
2	GR/R	UNLOCK
3	B	GND

Connector No.	D105
Connector Name	POWER WINDOW DOOR LOCK/UNLOCK SWITCH RH (WITCH LEFT AND RIGHT FRONT POWER WINDOW ANTI-PINCH SYSTEM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
11	B	GND
16	Y/G	COM

Connector No.	D106
Connector Name	FRONT OUTSIDE HANDLE RH
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	LG	ANT+
2	B/Y	ANT-
3	P/L	SW+
4	B	SW-

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BCM (BODY CONTROL MODULE)

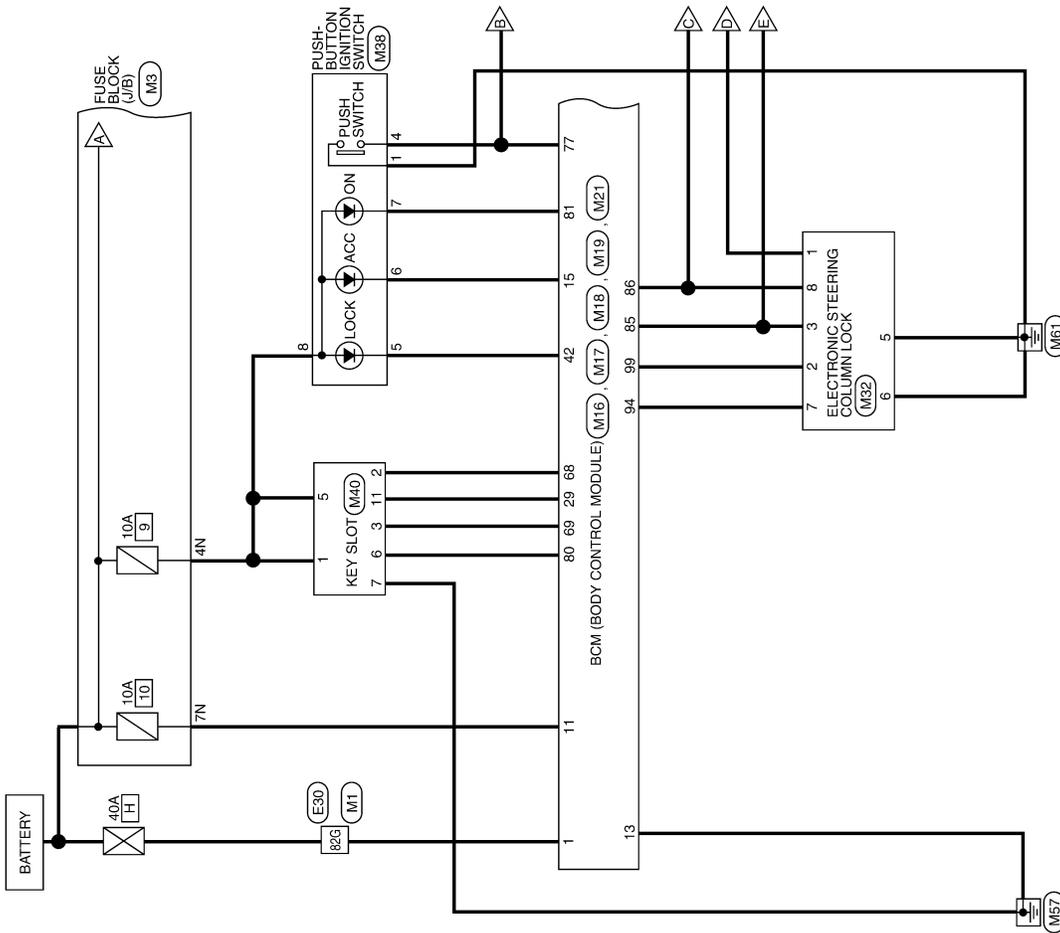
< ECU DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

Wiring Diagram - NVIS - WITH INTELLIGENT KEY

INFOID:00000004206343

NVIS - WITH INTELLIGENT KEY



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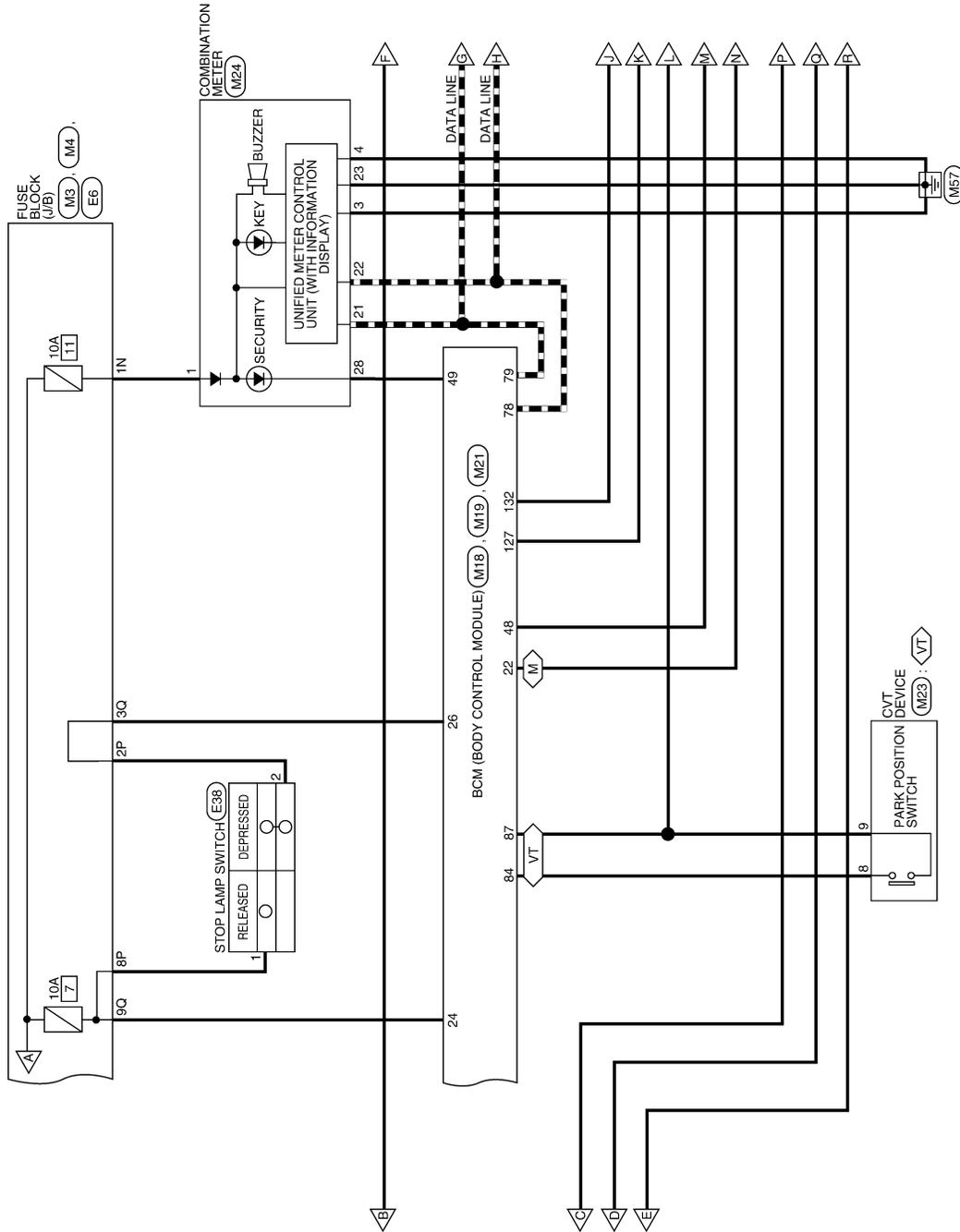
ABKWA0214GE

BCM (BODY CONTROL MODULE)

[SEDAN WITH INTELLIGENT KEY]

< ECU DIAGNOSIS >

■ : DATA LINE
 M : WITH MT
 VT : WITH CVT

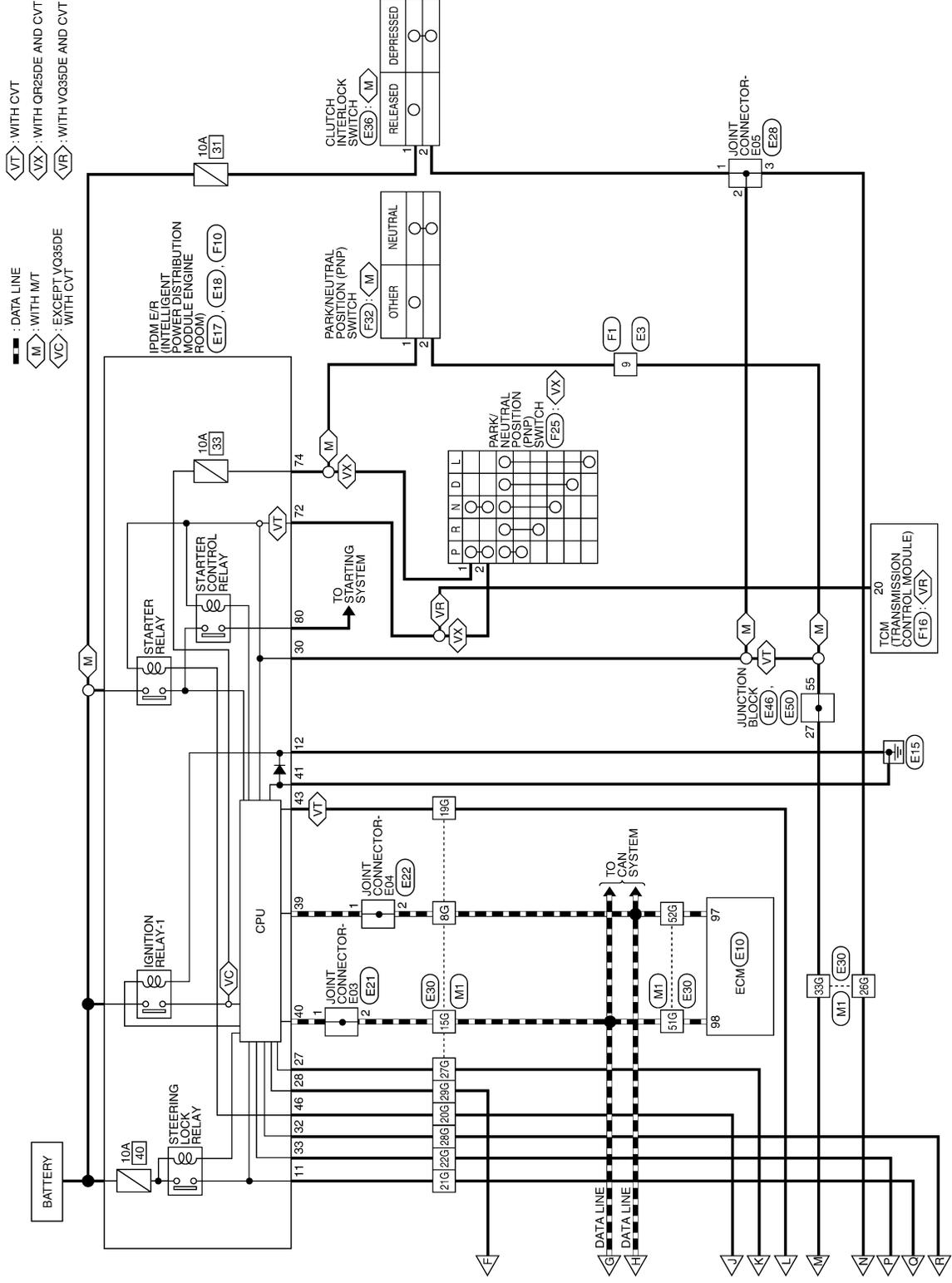


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BCM (BODY CONTROL MODULE)

[SEDAN WITH INTELLIGENT KEY]

< ECU DIAGNOSIS >



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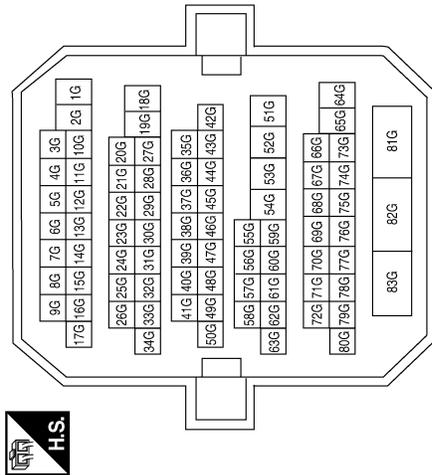
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

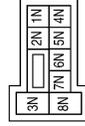
NVIS CONNECTORS - WITH INTELLIGENT KEY

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



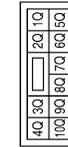
Terminal No.	Color of Wire	Signal Name
8G	P	-
15G	L	-
20G	R	-
21G	P/L	-
22G	G/R	-
26G	R/Y	-
27G	BR/W	-
28G	L/O	-
29G	BR	-
33G	R/G	-
51G	L	-
52G	P	-
82G	W/B	-

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	-
7N	Y/R	-

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



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

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



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

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



Terminal No.	Color of Wire	Signal Name
11	Y/R	BAT_BCM_FUSE
13	B	GND1
15	Y/L	ACC_LED

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BCM (BODY CONTROL MODULE)

[SEDAN WITH INTELLIGENT KEY]

< ECU DIAGNOSIS >

Terminal No.	Color of Wire	Signal Name
77	BR	ENG_START_SW
78	P	CAN-L
79	L	CAN-H
80	R/L	FOB SLOT ILLUMINATION
81	LG	IGN_ON_LED
84	Y/R	AT_DEVICE_OUT
85	L/O	S/L_CONDITION_1
86	G/R	S/L_CONDITION_2
87	G/B	SHIFT_P
94	G/Y	S/L_POWER_SUPPLY_12V
99	L/Y	S/L_K-LINE

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



79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61	60
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
68	G/O	FOB_READER_CLOCK
69	O	FOB_READER_DATA

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



39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20
59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40

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

Connector No.	M23
Connector Name	CVT DEVICE
Connector Color	WHITE



1	3	7	9		
2	4	5	6	8	10

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

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



131	130	129	128	127	126	125	124	123	122	121	120	119	118	117	116	115	114	113	112
151	150	149	148	147	146	145	144	143	142	141	140	139	138	137	136	135	134	133	132

Terminal No.	Color of Wire	Signal Name
127	BR/W	IGN_USM_CONT1
132	R	ST_CONT_USM

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

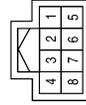
SEC

BCM (BODY CONTROL MODULE)

[SEDAN WITH INTELLIGENT KEY]

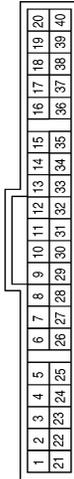
< ECU DIAGNOSIS >

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



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

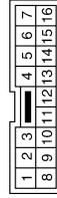
Terminal No.	Color of Wire	Signal Name
1	W/L	BAT
3	B	GND
4	B	GND
14	V/Y	ACC
21	L	CAN-H
22	P	CAN-L
23	B	GND
28	L/O	SECURITY



Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE

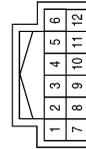


Connector No.	E3
Connector Name	WIRE TO WIRE
Connector Color	WHITE



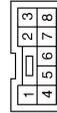
Terminal No.	Color of Wire	Signal Name
9	BR	-

Connector No.	M40
Connector Name	KEY SLOT
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	G/Y	B+
2	G/O	CLOCK
3	O	DATA
5	G/Y	LIGHT_BAT+
6	R/L	LIGHT_A
7	B	GND
11	Y	CARD_SW_1

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



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

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BCM (BODY CONTROL MODULE)

[SEDAN WITH INTELLIGENT KEY]

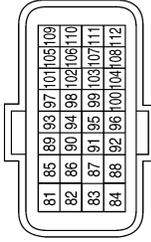
< ECU DIAGNOSIS >

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



Terminal No.	Color of Wire	Signal Name
2P	LG	-
8P	R	-

Connector No.	E10
Connector Name	ECM
Connector Color	BLACK



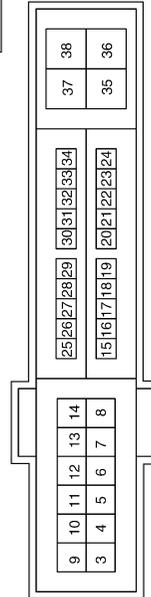
Terminal No.	Color of Wire	Signal Name
97	P	CAN-L
98	L	CAN-H

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	DETENT_SW
46	BR	START_CONT

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



Terminal No.	Color of Wire	Signal Name
11	O	ESCL
12	B	GND (POWER)
27	W	IGN_SIGNAL
28	SB	PUSH_START_SW
30	R	CLUTCH_J/L_SW
32	P	SL_CONDITION_1
33	G	SL_CONDITION_2

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



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

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

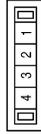
SEC

BCM (BODY CONTROL MODULE)

[SEDAN WITH INTELLIGENT KEY]

< ECU DIAGNOSIS >

Connector No.	E28
Connector Name	JOINT CONNECTOR-E05
Connector Color	BLACK



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	-

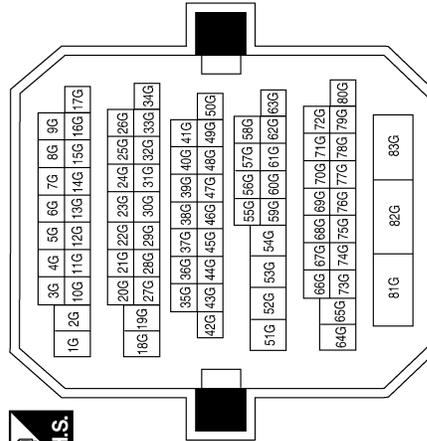
Connector No.	E36
Connector Name	CLUTCH INTERLOCK SWITCH
Connector Color	BROWN



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	P/L	-
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 (WITH M/T)
Connector Color	WHITE



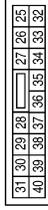
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BCM (BODY CONTROL MODULE)

[SEDAN WITH INTELLIGENT KEY]

< ECU DIAGNOSIS >

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



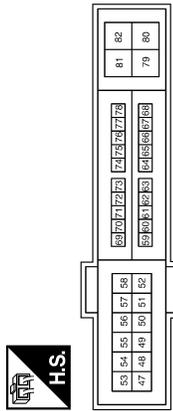
Terminal No.	Color of Wire	Signal Name
1	R	B+
2	LG	HIGH_SW

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



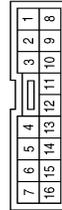
Terminal No.	Color of Wire	Signal Name
1	R	B+
2	LG	HIGH_SW

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	R/B	NPSW
74	Y	START_IG-EGI
80	B/W	STARTER_MOTOR

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



Terminal No.	Color of Wire	Signal Name
9	R/B	-

Connector No.	E50
Connector Name	JUNCTION BLOCK
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
55	BR	-

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

SEC

BCM (BODY CONTROL MODULE)

[SEDAN WITH INTELLIGENT KEY]

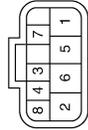
< ECU DIAGNOSIS >

Connector No.	F32
Connector Name	PARK/NEUTRAL POSITION (PNP) SWITCH (WITH M/T)
Connector Color	BLACK



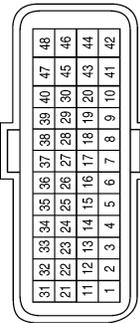
Terminal No.	Color of Wire	Signal Name
1	Y	-
2	R/B	-

Connector No.	F25
Connector Name	PARK/NEUTRAL POSITION (PNP) SWITCH (WITH CVT)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	Y	NPSW
2	R/B	START_IG_EGI

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



Terminal No.	Color of Wire	Signal Name
20	R/B	ST_RLY

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INFOID:000000004498467

Fail Safe

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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

Display contents of CONSULT	Fail-safe	Cancellation	
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC	A
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC	
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC	B
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	C
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 	D
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	E
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) 	F
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 	G
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) 	H
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 	I SEC
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/PNP 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) - PNP switch signal (CAN): ON 	J L M
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) 	N O
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) 	P

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

Display contents of CONSULT	Fail-safe	Cancellation
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
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
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)

DTC Inspection Priority Chart

INFOID:000000004498468

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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

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 • 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 • B26E1: ENG STATE NO RECIV • C1729: VHCL SPEED SIG ERR • U0415: VEHICLE SPEED SIG 	A B C D E F G H I	
	<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 	J L M N O P	
	5		SEC
	6	<ul style="list-style-type: none"> • B2621: INSIDE ANTENNA • B2622: INSIDE ANTENNA • B2623: INSIDE ANTENNA 	

DTC Index

INFOID:000000004498469

NOTE:

BCM (BODY CONTROL MODULE)

[SEDAN WITH INTELLIGENT KEY]

< ECU DIAGNOSIS >

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-38
U1010: CONTROL UNIT (CAN)	—	—	—	BCS-39
U0415: VEHICLE SPEED SIG	—	—	—	BCS-40
B2013: ID DISCORD BCM-S/L	×	—	—	SEC-38
B2014: CHAIN OF S/L-BCM	×	—	—	SEC-39
B2190: NATS ANTENNA AMP	×	—	—	SEC-64
B2191: DIFFERENCE OF KEY	×	—	—	SEC-67
B2192: ID DISCORD BCM-ECM	×	—	—	SEC-68
B2193: CHAIN OF BCM-ECM	×	—	—	SEC-69
B2553: IGNITION RELAY	—	—	—	PCS-60
B2555: STOP LAMP	—	—	—	SEC-70
B2556: PUSH-BTN IGN SW	—	×	—	SEC-72
B2557: VEHICLE SPEED	×	×	—	SEC-74
B2560: STARTER CONT RELAY	×	×	—	SEC-75
B2562: LOW VOLTAGE	—	—	—	BCS-41
B2601: SHIFT POSITION	×	×	—	SEC-76
B2602: SHIFT POSITION	×	×	—	SEC-79
B2603: SHIFT POSI STATUS	×	×	—	SEC-81
B2604: PNP SW	×	×	—	SEC-84
B2605: PNP SW	×	×	—	SEC-86
B2606: S/L RELAY	×	×	—	SEC-88
B2607: S/L RELAY	×	×	—	SEC-89
B2608: STARTER RELAY	×	×	—	SEC-91
B2609: S/L STATUS	×	×	—	SEC-93
B260A: IGNITION RELAY	×	×	—	PCS-62
B260B: STEERING LOCK UNIT	—	×	—	SEC-97
B260C: STEERING LOCK UNIT	—	×	—	SEC-98
B260D: STEERING LOCK UNIT	—	×	—	SEC-99
B260F: ENG STATE SIG LOST	×	×	—	SEC-100
B2612: S/L STATUS	×	×	—	SEC-101
B2614: ACC RELAY CIRC	—	×	—	PCS-65
B2615: BLOWER RELAY CIRC	—	×	—	PCS-68
B2616: IGN RELAY CIRC	—	×	—	PCS-71
B2617: STARTER RELAY CIRC	×	×	—	SEC-105
B2618: BCM	×	×	—	PCS-74

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
B2619: BCM	×	×	—	SEC-107
B261A: PUSH-BTN IGN SW	—	×	—	SEC-108
B2621: INSIDE ANTENNA	—	—	—	DLK-59
B2622: INSIDE ANTENNA	—	—	—	DLK-62
B2623: INSIDE ANTENNA	—	—	—	DLK-65
B26E1: ENG STATE NO RES	×	×	—	SEC-110
C1704: LOW PRESSURE FL	—	—	×	WT-52
C1705: LOW PRESSURE FR	—	—	×	WT-52
C1706: LOW PRESSURE RR	—	—	×	WT-52
C1707: LOW PRESSURE RL	—	—	×	WT-52
C1708: [NO DATA] FL	—	—	×	WT-14
C1709: [NO DATA] FR	—	—	×	WT-14
C1710: [NO DATA] RR	—	—	×	WT-14
C1711: [NO DATA] RL	—	—	×	WT-14
C1712: [CHECKSUM ERR] FL	—	—	×	WT-16
C1713: [CHECKSUM ERR] FR	—	—	×	WT-16
C1714: [CHECKSUM ERR] RR	—	—	×	WT-16
C1715: [CHECKSUM ERR] RL	—	—	×	WT-16
C1716: [PRESSDATA ERR] FL	—	—	×	WT-18
C1717: [PRESSDATA ERR] FR	—	—	×	WT-18
C1718: [PRESSDATA ERR] RR	—	—	×	WT-18
C1719: [PRESSDATA ERR] RL	—	—	×	WT-18
C1720: [CODE ERR] FL	—	—	×	WT-16
C1721: [CODE ERR] FR	—	—	×	WT-16
C1722: [CODE ERR] RR	—	—	×	WT-16
C1723: [CODE ERR] RL	—	—	×	WT-16
C1724: [BATT VOLT LOW] FL	—	—	×	WT-16
C1725: [BATT VOLT LOW] FR	—	—	×	WT-16
C1726: [BATT VOLT LOW] RR	—	—	×	WT-16
C1727: [BATT VOLT LOW] RL	—	—	×	WT-16
C1729: VHCL SPEED SIG ERR	—	—	×	WT-19
C1734: CONTROL UNIT	—	—	×	WT-20

A
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P

SEC

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

< ECU DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

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

Reference Value

INFOID:000000004498470

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
		<ul style="list-style-type: none"> • Front fog lamp switch ON • Daytime running light activated (Only for Canada models) 	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

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

< ECU DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

Monitor Item	Condition	Value/Status
IHBT RLY -REQ	Ignition switch ON	Off
	At engine cranking	On
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
DTRL REQ	NOTE: This item is displayed, but cannot be monitored.	Off
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
CRNRNG LMP REQ	NOTE: This item is displayed, but cannot be monitored.	Off

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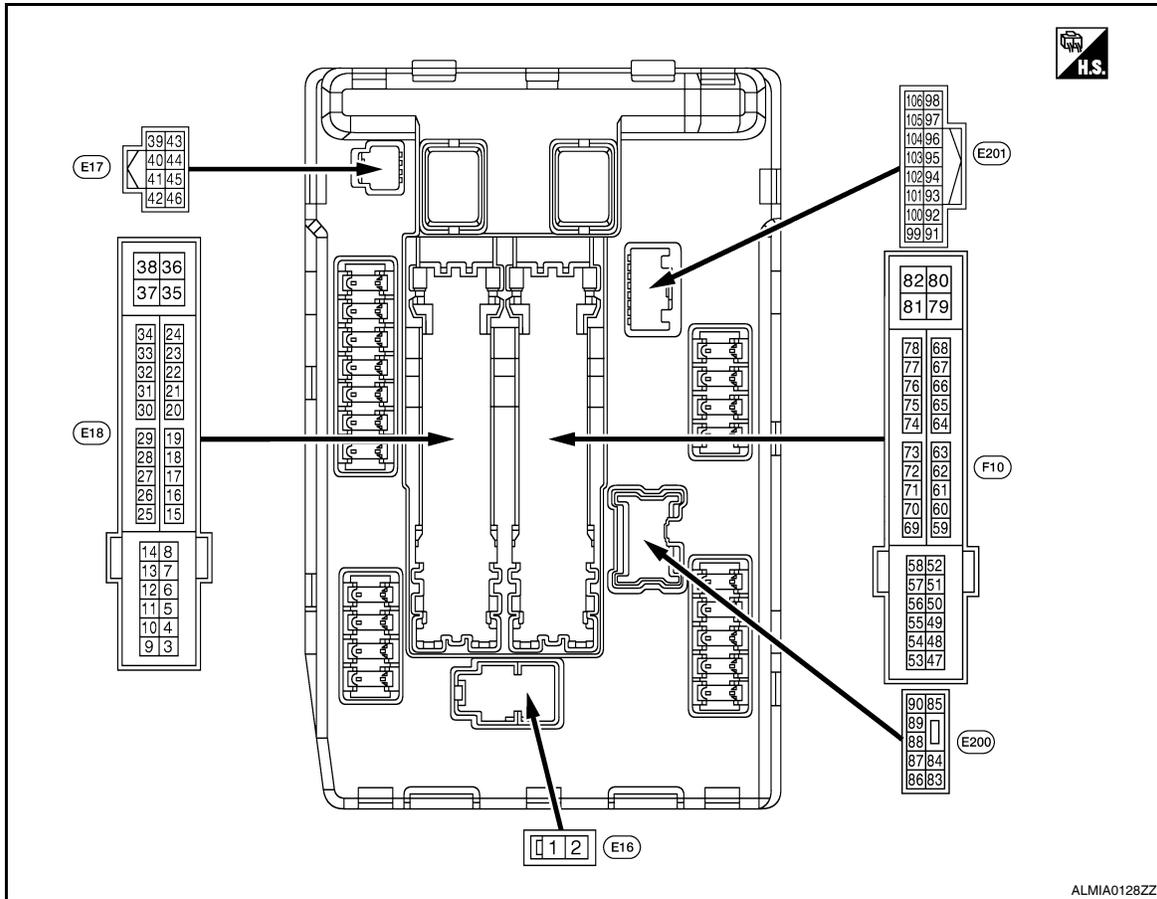
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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

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 (L/R)	Ground	Front wiper LO	Output	Ignition switch OFF	Front wiper switch OFF	0V
				Ignition switch ON	Front wiper switch LO	Battery voltage
5 (L/B)	Ground	Front wiper HI	Output	Ignition switch OFF	Front wiper switch OFF	0V
				Ignition switch ON	Front wiper switch HI	Battery voltage
6 (SB)	Ground	Daytime light relay power supply (Canada models only)	Output	Ignition switch OFF		Battery voltage
7 (R/L)	Ground	Tail, license plate lamps & interior lamps	Output	Ignition switch OFF	Lighting switch OFF	0V
				Ignition switch ON	Lighting switch 1ST	Battery voltage
10 (R/B)	Ground	ECM relay power supply	Output	Ignition switch OFF (For a few seconds after turning ignition switch OFF)		0V
				<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 >

[SEDAN WITH INTELLIGENT KEY]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)	
+	-	Signal name	Input/ Output				
11 (P/L)	Ground	Steering lock unit 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		0V	
12 (B)	Ground	Ground	—	Ignition switch ON		0V	
13 (W)	Ground	Fuel pump power supply	Output	Approximately 1 second or more after turning the ignition switch ON		0V	
				<ul style="list-style-type: none"> • Approximately 1 second after turning the ignition switch ON • Engine running 		Battery voltage	
15 (G/W)	Ground	Ignition relay-1 power supply	Output	Ignition switch OFF		0V	
				Ignition switch ON		Battery voltage	
16 (L/Y)	Ground	Front wiper auto stop	Input	Ignition switch ON	Front wiper stop position	0V	
					Any position other than front wiper stop position		Battery voltage
19 (L/Y)	Ground	Ignition relay-1 power supply	Output	Ignition switch OFF		0V	
				Ignition switch ON		Battery voltage	
20 (B/Y)	Ground	Ambient sensor ground	—	Ignition switch ON		0V	
21 (O/B)	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		0V	
				Ignition switch ON		Battery voltage	
27 (BR/W)	Ground	Ignition relay monitor	Input	Ignition switch OFF or ACC		Battery voltage	
				Ignition switch ON		0V	
28 (BR)	Ground	Push-button ignition switch	Input	Press the push-button ignition switch		0V	
				Release the push-button ignition switch		Battery voltage	
30 (R/B)	Ground	Starter relay control	Input	CVT models	CVT selector lever in any position other than P or N (ignition switch ON)	0V	
					CVT selector lever P or N (ignition switch ON)		Battery voltage
				M/T models	Release the clutch pedal		0V
					Depress the clutch pedal		Battery voltage

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

< ECU DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
32 (L/O)	Ground	Electronic steering column lock unit condition-1	Input	Electronic steering column lock is activated	0V	
				Electronic steering column lock is deactivated	Battery voltage	
33 (G/R)	Ground	Electronic steering column lock unit condition-2	Input	Electronic steering column lock is activated	Battery voltage	
				Electronic steering column lock is deactivated	0V	
34 (O/L)	Ground	Cooling fan relay-3 control	Input	Ignition switch OFF or ACC	0V	
				Ignition switch ON	0.7V	
35 (L/B)	Ground	Cooling fan motor control	Output	Ignition switch OFF or ACC	0V	
				Ignition switch ON	0.7V	
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	0V	
				Ignition switch ON	0.7V	
39 (P)	—	CAN - L	Input/ Output	—	—	
40 (L)	—	CAN - H	Input/ Output	—	—	
41 (B)	Ground	Ground	—	Ignition switch ON	0V	
42 (SB)	Ground	Cooling fan relay-2 control	Input	Ignition switch OFF or ACC	0V	
				Ignition switch ON	0.7V	
43 (G/B)	Ground	CVT device (Detention switch)	Input	Ignition switch ON	Battery voltage	
				<ul style="list-style-type: none"> • CVT selector lever in any position other than P • Release the CVT selector button (CVT selector lever P) 	0V	
44 (G/W)	Ground	Horn relay control	Input	The horn is deactivated	Battery voltage	
				The horn is activated	0V	
45 (L/O)	Ground	Anti theft horn relay control	Input	The horn is deactivated	Battery voltage	
				The horn is activated	0V	
46 (R)	Ground	Starter relay control	Input	CVT models	CVT selector lever in any position other than P or N (ignition switch ON)	0V
					CVT selector lever P or N (ignition switch ON)	Battery voltage
				M/T models	Release the clutch pedal	0V
					Depress the clutch pedal	Battery voltage
48 (Y/R)	Ground	A/C relay power supply	Output	Engine running	A/C switch OFF	0V
					A/C switch ON (A/C compressor is operating)	Battery voltage

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

< ECU DIAGNOSIS >

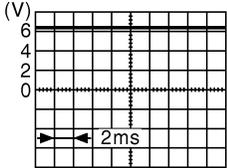
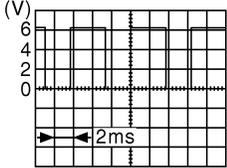
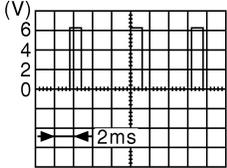
[SEDAN WITH INTELLIGENT KEY]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
		Signal name	Input/ Output			
+	-					
49 (R/B)	Ground	ECM relay power supply (with VQ35DE)	Output	Ignition switch OFF (For a few seconds after turning ignition switch OFF)	0V	A
				<ul style="list-style-type: none"> • Ignition switch ON • Ignition switch OFF (More than a few seconds after turn- ing ignition switch OFF) 	Battery voltage	B C
49 (B/R)	Ground	ECM relay power supply (without VQ35DE)	Output	Ignition switch OFF (For a few seconds after turning ignition switch OFF)	0V	D
				<ul style="list-style-type: none"> • Ignition switch ON • Ignition switch OFF (More than a few seconds after turn- ing ignition switch OFF) 	Battery voltage	E
51 (LG)	Ground	Ignition relay power supply	Output	Ignition switch OFF	0V	F
				Ignition switch ON	Battery voltage	
52 (Y/G)	Ground	Ignition relay power supply	Output	Ignition switch OFF	0V	G
				Ignition switch ON	Battery voltage	
53 (B/R)	Ground	ECM relay power supply (with VQ35DE)	Output	Ignition switch OFF (For a few seconds after turning ignition switch OFF)	0V	H
				<ul style="list-style-type: none"> • Ignition switch ON • Ignition switch OFF (More than a few seconds after turn- ing ignition switch OFF) 	Battery voltage	I
53 (R/B)	Ground	ECM relay power supply (without VQ35DE)	Output	Ignition switch OFF (For a few seconds after turning ignition switch OFF)	0V	J
				<ul style="list-style-type: none"> • Ignition switch ON • Ignition switch OFF (More than a few seconds after turn- ing ignition switch OFF) 	Battery voltage	SEC
54 (G/W)	Ground	Throttle control motor re- lay power supply	Output	Ignition switch OFF (For a few seconds after turning ignition switch OFF)	0V	L
				<ul style="list-style-type: none"> • Ignition switch ON • Ignition switch OFF (More than a few seconds after turn- ing ignition switch OFF) 	Battery voltage	M
55 (W/L)	Ground	ECM power supply	Output	Ignition switch OFF	Battery voltage	N
56 (R/Y)	Ground	Ignition relay power supply	Output	Ignition switch OFF	0V	
				Ignition switch ON	Battery voltage	O
57 (O)	Ground	Ignition relay power supply	Output	Ignition switch OFF	0V	
				Ignition switch ON	Battery voltage	
58 (Y)	Ground	Ignition relay power supply	Output	Ignition switch OFF	0V	P
				Ignition switch ON	Battery voltage	

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

< ECU DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
69 (W/B)	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 - 1.5V
70 (O)	Ground	Throttle control motor relay control	Output	Ignition switch ON → OFF	0 - 1.0V ↓ Battery voltage ↓ 0V
				Ignition switch ON	0 - 1.0V
72 (R/B)	Ground	PNP switch signal	Input	Ignition switch ON	Battery voltage
				CVT selector lever in P or N position	0V
74 (Y)	Ground	Ignition relay power supply	Output	Ignition switch OFF	0V
				Ignition switch ON	Battery voltage
75 (P/L)	Ground	Oil pressure switch	Input	Ignition switch ON	0V
				Engine stopped	Battery voltage
76 (GR)	Ground	Power generation command signal	Output	Ignition switch ON	 <p style="text-align: right; font-size: small;">JPMIA0001GB</p> <p style="text-align: center;">6.3V</p>
				40% is set on "Active test", "ALTERNATOR DUTY" of "ENGINE"	 <p style="text-align: right; font-size: small;">JPMIA0002GB</p> <p style="text-align: center;">3.8V</p>
				80% is set on "Active test", "ALTERNATOR DUTY" of "ENGINE"	 <p style="text-align: right; font-size: small;">JPMIA0003GB</p> <p style="text-align: center;">1.4V</p>
77 (B/R)	Ground	Fuel pump relay control	Output	<ul style="list-style-type: none"> • Approximately 1 second after turning the ignition switch ON • Engine running 	0 - 1.0V
				Approximately 1 second or more after turning the ignition switch ON	Battery voltage

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

< ECU DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
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80 (B/W)	Ground	Starter motor	Output	At engine cranking		Battery voltage
83 (R/Y)	Ground	Headlamp LO (RH)	Output	Ignition switch ON	Lighting switch OFF	0V
					Lighting switch 2ND	Battery voltage
84 (L)	Ground	Headlamp LO (LH)	Output	Ignition switch ON	Lighting switch OFF	0V
					Lighting switch 2ND	Battery voltage
86 (W/R)	Ground	Front fog lamp (RH)	Output	Lighting switch 2ND	<ul style="list-style-type: none"> • Front fog lamp switch ON • Daytime running light activated (Only for Canada models) 	Battery voltage
						Front fog lamp switch OFF
87 (L/Y)	Ground	Front fog lamp (LH)	Output	Lighting switch 2ND	<ul style="list-style-type: none"> • Front fog lamp switch ON • Daytime running light activated (Only for Canada models) 	Battery voltage
						Front fog lamp switch OFF
88 (R/W)	Ground	Washer pump power supply	Output	Ignition switch ON		Battery voltage
89 (L/W)	Ground	Headlamp HI (RH)	Output	Ignition switch ON	<ul style="list-style-type: none"> • Lighting switch HI • lighting switch PASS 	Battery voltage
						Lighting switch OFF
90 (G)	Ground	Headlamp HI (LH)	Output	Ignition switch ON	<ul style="list-style-type: none"> • Lighting switch HI • Lighting switch PASS 	Battery voltage
						Lighting switch OFF
91 (LG/R)	Ground	Parking lamp (RH)	Output	Ignition switch ON	Lighting switch 1ST	Battery voltage
						Lighting switch OFF
92 (LG/B)	Ground	Parking lamp (LH)	Output	Ignition switch ON	Lighting switch 1ST	Battery voltage
						Lighting switch OFF
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	—	<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
103 (P)	Ground	Refrigerant pressure sensor power supply	—	Ignition switch ON		5V
105 (V)	Ground	Daytime light relay control	Output	Ignition switch ON	Daytime light system active	Battery voltage
				Ignition switch ON	Daytime light system inactive	0V

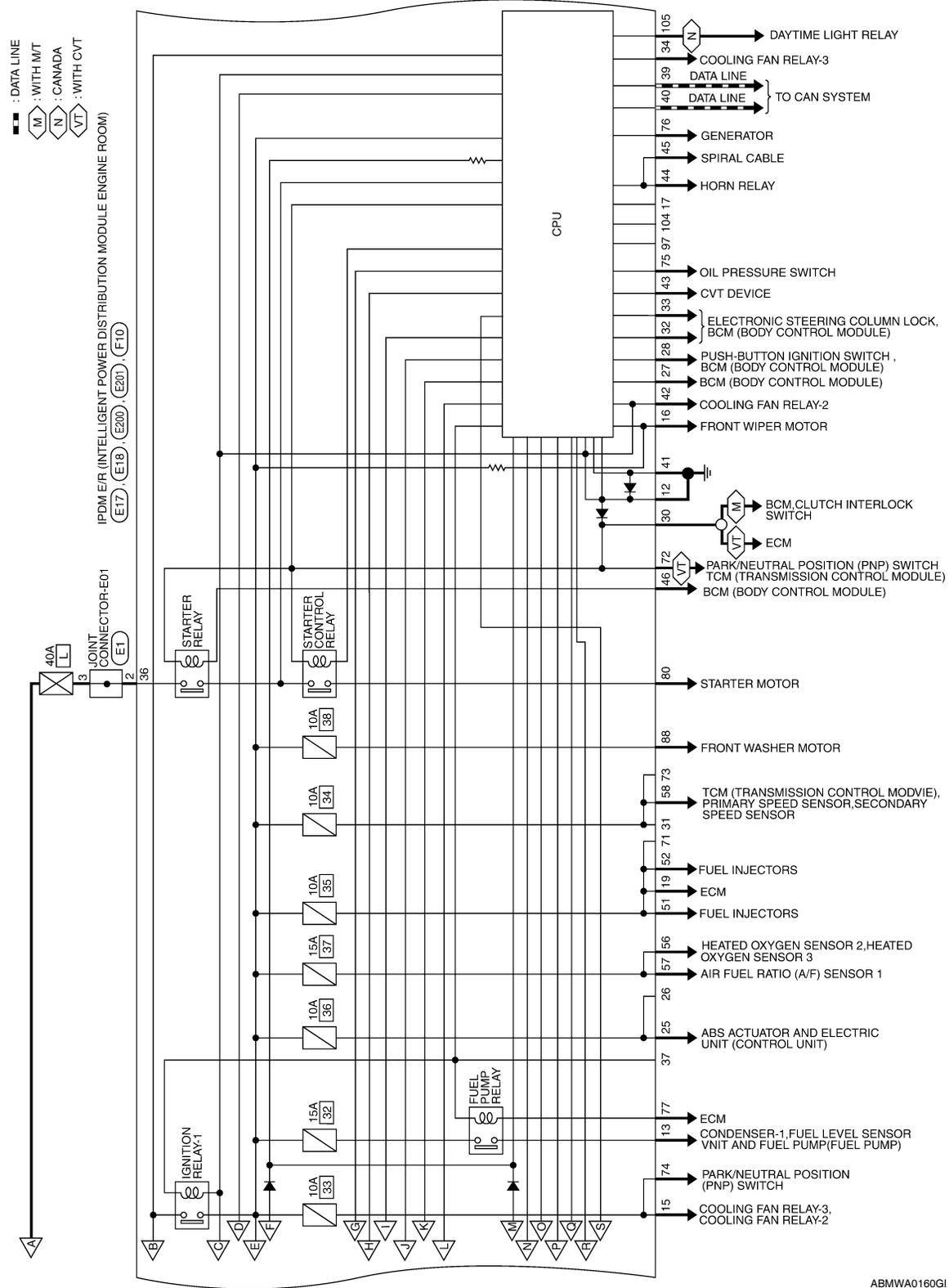
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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

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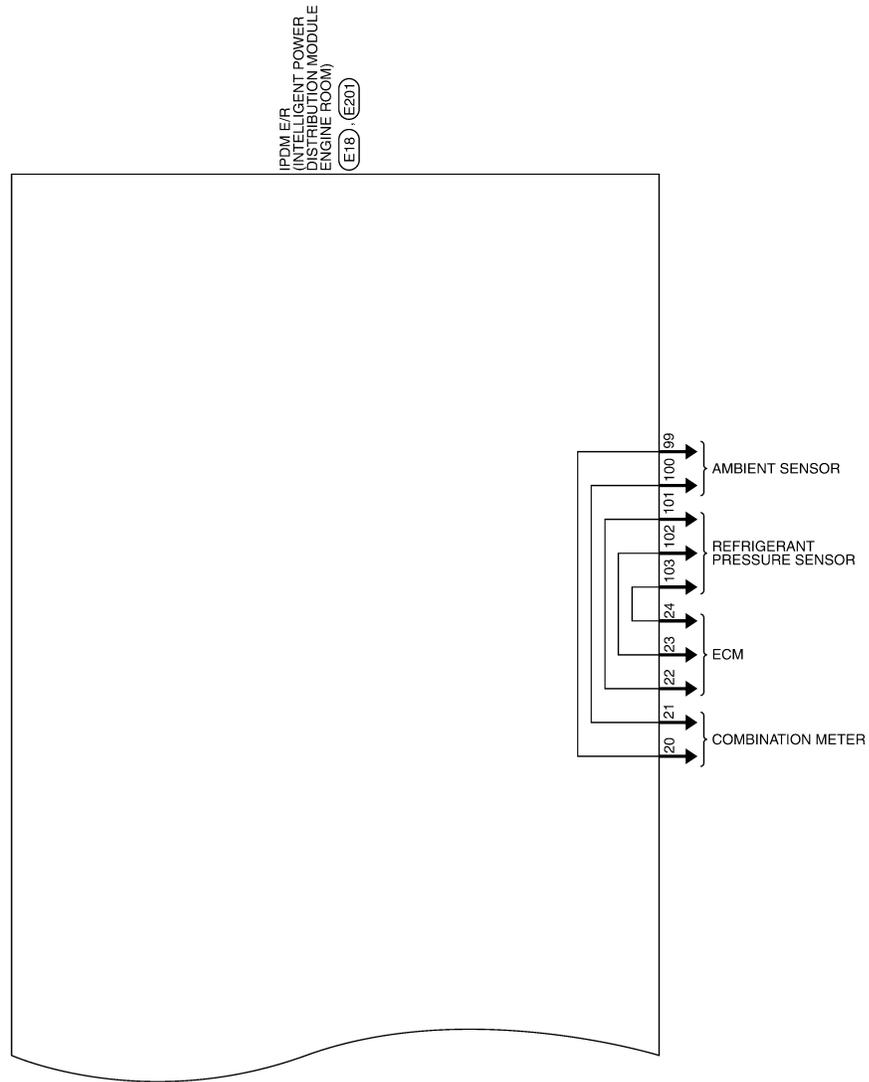
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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

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

Connector No.	E1
Connector Name	JOINT CONNECTOR-E01
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	G	-
3	G	-

Connector No.	E4
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	BROWN



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

Connector No.	E5
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
3	R	-

Connector No.	E16
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	R	F/L_MAIN
2	L	F/L_USM

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



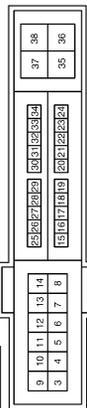
Terminal No.	Color of Wire	Signal Name
39	P	CAN-L
40	L	CAN-H
41	B	GND (SIGNAL)
42	SB	MOTOR_FAN_RLY_MID
43	G/B	DETENT_SW
44	G/W	HORN_RLY
45	L/O	HORN_SW
46	R	START_CONT

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

< ECU DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

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



Terminal No.	Color of Wire	Signal Name
3	-	-
4	L/R	FR_WIPER_LO
5	L/B	FR_WIPER_HI
6	SB	DTRL
7	R/L	TAIL/ILLUMI



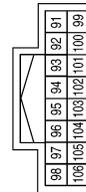
Connector No.	E200
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE

Terminal No.	Color of Wire	Signal Name
83	R/Y	HEADLAMP_LO_RH
84	L	HEADLAMP_LO_LH
85	-	-
86	W/R	FR_FOG_LAMP_RH
87	L/Y	FR_FOG_LAMP_LH
88	R/W	WASHER_MTR
89	L/W	HEADLAMP_HI_RH
90	G	HEADLAMP_HI_LH

Terminal No.	Color of Wire	Signal Name
8	-	-
9	-	-
10	R/B	ECM_VB
11	P/L	ESCL
12	B	GND (POWER)
13	W	FUEL_PUMP
14	-	-
15	G/W	START_IG-E/R
16	L/Y	WIPER_AUTOSTOP
17	-	-
18	-	-
19	L/Y	BCM_IGNSW
20	B/Y	AMB_SENS_GND-E/R
21	O/B	AMB_SENS_SIG-E/R
22	W/R	PD_SENS_GND-E/R

Terminal No.	Color of Wire	Signal Name
23	B/R	PD_SENS_SIG-E/R
24	BR/W	PD_SENS_PWR-E/R
25	GR	ABS_ECU
26	-	-
27	BR/W	IGN_SIGNAL
28	BR	PUSH_START_SW
29	-	-
30	R/B	CLUTCH_I/L_SW
31	-	-
32	L/O	SL_CONDITION_1
33	G/R	SL_CONDITION_2
34	O/L	MOTOR_FAN_RLY_HI
35	L/B	MOTOR_FAN_LO
36	G	F/L_IGNSW
37	-	-
38	R/W	F/L_MOTOR_FAN

Connector No.	E201
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
91	LG/R	CLEARANCE_RH
92	LG/B	CLEARANCE_LH
93	-	-
94	-	-
95	-	-
96	-	-
97	-	-

Terminal No.	Color of Wire	Signal Name
98	-	-
99	BR/W	AMB_SENS_GND-FEM
100	SB	AMB_SENS_SIG-FEM
101	O/L	PD_SENS_GND-FEM
102	R/B	PD_SENS_SIG-FEM
103	P	PD_SENS_PWR-FEM
104	-	-
105	V	DTRL_RLY
106	-	-

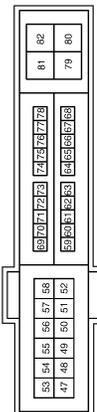
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Terminal No.	Color of Wire	Signal Name
65	-	-
66	-	-
67	-	-
68	-	-
69	W/B	SSOF
70	O	MOTRLY
71	-	-
72	R/B	NPSW
73	-	-
74	Y	START_IG-EGI
75	P/L	OIL_PRESSURE_SW
76	GR	ALT_C
77	B/R	FPR
78	-	-
79	-	-
80	B/W	STARTER_MOTOR
81	-	-
82	-	-

Terminal No.	Color of Wire	Signal Name
50	-	-
51	LG	INJECTOR_#1
52	Y/G	INJECTOR_#2
53	R/B	IGN_SOL (WITH QR25DE)
53	B/R	ENG_SOL (WITH VQ35DE)
54	G/W	ETC
55	W/L	ECM_BAT
56	R/Y	O2_SENS_#1
57	O	O2_SENS_#2
58	Y	AT_ECU
59	-	-
60	-	-
61	-	-
62	-	-
63	-	-
64	-	-

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



Terminal No.	Color of Wire	Signal Name
47	-	-
48	Y/R	A/C COMP
49	B/R	ENG SOL (WITH QR25DE)
49	R/B	IGN_SOL (WITH VQ35DE)

SEC

Fail Safe

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

ABMIA0473GB

INFOID:000000004498472

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

< ECU DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

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.
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	Electronic steering column 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.

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

< ECU DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

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:000000004498473

CONSULT-III display	Fail-safe	TIME ^{NOTE}		Refer to
No DTC is detected. further testing may be required.	—	—	—	—
U1000: CAN COMM CIRCUIT	×	CRNT	1 – 39	PCS-20
B2098: IGN RELAY ON	×	CRNT	1 – 39	PCS-21
B2099: IGN RELAY OFF	—	CRNT	1 – 39	PCS-22
B2108: STRG LCK RELAY ON	—	CRNT	1 – 39	SEC-42
B2109: STRG LCK RELAY OFF	—	CRNT	1 – 39	SEC-43
B210A: STRG LCK STATE SW	—	CRNT	1 – 39	SEC-44
B210B: START CONT RLY ON	—	CRNT	1 – 39	SEC-48
B210C: START CONT RLY OFF	—	CRNT	1 – 39	SEC-49
B210D: STARTER RELAY ON	—	CRNT	1 – 39	SEC-50
B210E: STARTER RELAY OFF	—	CRNT	1 – 39	SEC-51
B210F: INTRLCK/PNP SW ON	—	CRNT	1 – 39	SEC-54
B2110: INTRLCK/PNP SW OFF	—	CRNT	1 – 39	SEC-59

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.

SEC

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION SYMPTOMS

< SYMPTOM DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

SYMPTOM DIAGNOSIS

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION SYMPTOMS

Symptom Table

INFOID:000000004206350

Engine cannot be started with all Intelligent Keys.

CAUTION:

- Follow Trouble Diagnosis Flowchart referring to “[SEC-209, "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-III.
- 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-42
	IPDM E/R	PCS-23
2. Check push button ignition switch		SEC-307
3. Check Intermittent Incident		GI-42

VEHICLE SECURITY SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

VEHICLE SECURITY SYSTEM SYMPTOMS

Symptom Table

INFOID:000000004206351

Procedure		Diagnostic procedure	Refer to page
Symptom			
1	Vehicle security system cannot be set by	Door switch	Check door switch DLK-293
		Trunk	Check trunk room lamp switch DLK-316
		Door outside key	Check key cylinder switch SEC-315
		Intelligent Key	Check Intelligent Key. DLK-340
		—	Check Intermittent Incident GI-42
Security indicator does not turn ON.		Check vehicle security indicator SEC-323	
		Check Intermittent Incident GI-42	
2	* Vehicle security system does not sound alarm when	Any door is opened.	Check door switch DLK-293
			Check Intermittent Incident GI-42
3	Vehicle security alarm does not activate.	Horn alarm	Check horn DLK-344
			Check Intermittent Incident GI-42
		Head lamp alarm	Check head lamp alarm SEC-321
			Check Intermittent Incident GI-42
4	Vehicle security system cannot be canceled by	Door outside key	Check key cylinder switch SEC-315
			Check Intermittent Incident GI-42
		Intelligent Key	Check Intelligent Key DLK-340
			Check Intermittent Incident GI-42

*: Check that the system is in the armed phase.

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SEC

NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS SYMPTOMS

< SYMPTOM DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS SYMPTOMS

Symptom Table

INFOID:000000004206352

Security indicator does not turn ON or flash.

CAUTION:

- Follow Trouble Diagnosis Flowchart referring to “[SEC-209, "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-323
2. Check Intermittent Incident	GI-42

ON-VEHICLE REPAIR

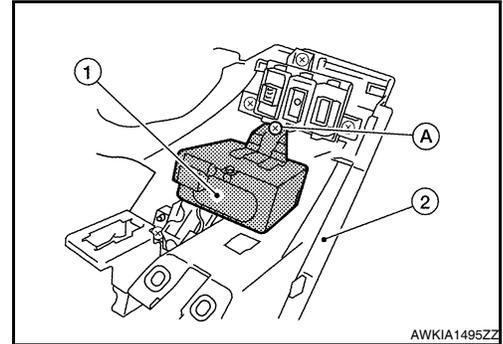
KEY SLOT

Removal and Installation

INFOID:000000004206355

REMOVAL

1. Remove the instrument lower panel LH. Refer to [IP-12. "Removal and Installation"](#).
2. Disconnect key slot connector.
3. Remove the key slot screw (A), 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

< ON-VEHICLE REPAIR >

[SEDAN WITH INTELLIGENT KEY]

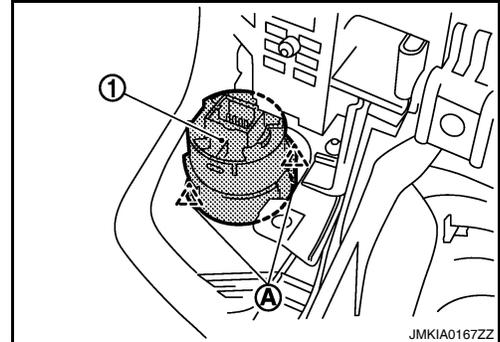
PUSH BUTTON IGNITION SWITCH

Removal and Installation

INFOID:000000004206356

REMOVAL

1. Remove the cluster lid A assembly. Refer to [IP-12. "Removal and Installation"](#).
2. Release the pawls (A) and remove the push-button ignition switch (1) from cluster lid A.



INSTALLATION

Installation is in the reverse order of removal.

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[SEDAN WITHOUT INTELLIGENT KEY]

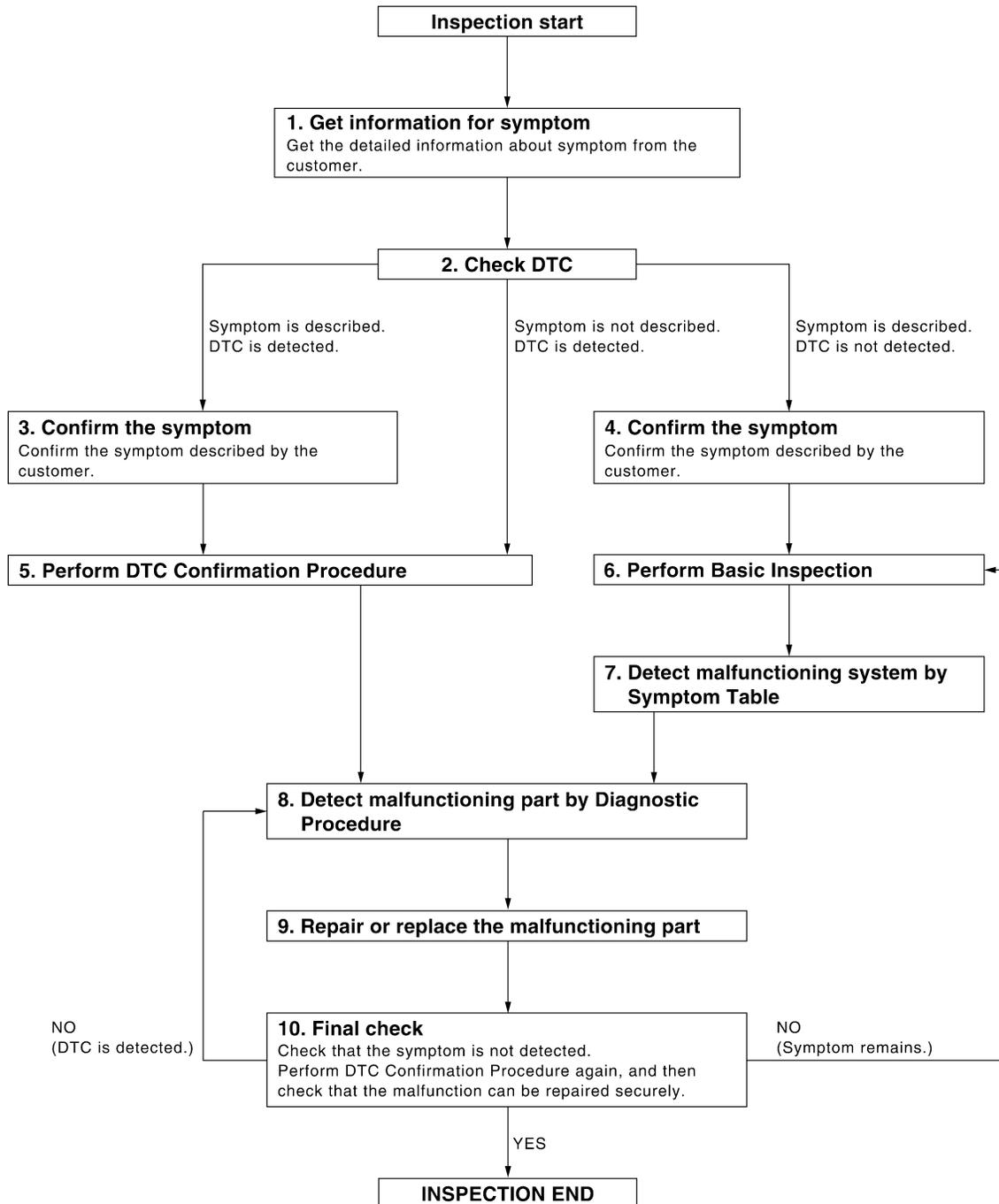
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000004499046

OVERALL SEQUENCE



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DETAILED FLOW

ALKIA0246GB

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[SEDAN WITHOUT INTELLIGENT KEY]

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-III.
2. Perform the following procedure if DTC is displayed.
 - Record DTC and freeze frame data (Print them out with CONSULT-III.)
 - 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-III to the vehicle in "Data Monitor" mode and check real time diagnosis results.

Verify relation ship 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-III to the vehicle in "Data Monitor " mode and check real time diagnosis results.

Verify relation ship 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-III connected to the vehicle, and check diagnostic results in real time.

If two or more DTCs are detected, refer to [SEC-573. "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 [SEC-414. "Basic Inspection"](#).

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.

- Engine start function: [SEC-593. "Symptom Table"](#).
- Vehicle security system: [SEC-594. "Symptom Table"](#).

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[SEDAN WITHOUT INTELLIGENT KEY]

- Nissan vehicle immobilizer system-NATS: [SEC-595. "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-III.

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.

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SEC

PRE-INSPECTION FOR DIAGNOSTIC

Basic Inspection

INFOID:000000004499247

The engine start function, door lock function, power distribution system and NATS-IVIS/NMS in the Remote Keyless Entry system are closely related to each other regarding control. Narrow down the functional area in question by performing basic inspection to identify which function is malfunctioning. The vehicle security function can operate only when the door lock and power distribution systems are operating normally. Therefore, it is easy to identify any factor unique to the vehicle security system by performing the vehicle security operation check after basic inspection.

1.CHECK DOOR LOCK OPERATION

1. Check the door lock for normal operation with the keyfob.
 Successful door lock operation with the keyfob indicates that the remote keyless entry receiver is functioning normally.
 Identify the malfunctioning point by referring to the DLK section if the door cannot be unlocked.

Can the door be locked with the keyfob?

- YES >> GO TO 2
- NO >> Refer to [DLK-415. "INTELLIGENT KEY : Symptom Table"](#).

2.CHECK ENGINE STARTING

1. Checks that the engine starts when operating the keyfob inserted into the key slot.

Does the engine start?

- YES >> GO TO 3
- NO >> Refer to [SEC-593. "Symptom Table"](#).

3.CHECK STEERING LOCKING

1. Does the steering lock when operating door switch after switching the power supply from ON position (or ACC position) to LOCK position?
 If door switch is malfunctioning, BCM cannot lock the steering. If BCM does not detect DTC, steering lock unit is normal.

Does steering lock?

- YES >> GO TO 4
- NO >> Refer to [DLK-293. "Component Function Check"](#).

4.CHECK POWER SUPPLY INDICATOR SWITCHING

1. Press push-button ignition switch and position indicator will switch from LOCK, ACC to ON gradually when steering is locked. Check that the position indicator is illuminated at different positions of the circuit.

Is each position indicator illuminating?

- YES >> GO TO 5
- NO >> Refer to [SEC-499. "Description"](#).

5.CHECK VEHICLE SECURITY SYSTEM

1. Check the vehicle security system for normal operation.
 The vehicle security function can operate only when the door lock and power distribution functions are operating normally.
 Therefore, it is easy to identify any factor unique to the vehicle security by performing the vehicle security operation check after this basic inspection.

>> Refer to [SEC-414. "Vehicle Security Operation Check"](#).

Vehicle Security Operation Check

INFOID:000000004499248

1.INSPECTION START

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

NOTE:

Before starting operation check, open front windows.

PRE-INSPECTION FOR DIAGNOSTIC

[SEDAN WITHOUT INTELLIGENT KEY]

< BASIC INSPECTION >

>> GO TO 2

2. CHECK SECURITY INDICATOR LAMP

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

Security indicator lamp should illuminate.

OK >> GO TO 3

NG >> Perform diagnosis and repair. Refer to [SEC-514, "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 keyfob or mechanical key, or open trunk lid without keyfob or mechanical key.

Do alarm function properly.

OK >> GO TO 4

NG >> Check the following.

- The vehicle security system does not phase in alarm mode. Refer to [SEC-594, "Symptom Table"](#).
- Alarm (horn, headlamp and hazard lamp) do not operate. Refer to [SEC-594, "Symptom Table"](#).

4. CHECK ALARM CANCEL OPERATION

Unlock any door or open trunk lid using keyfob or mechanical key.

Alarm (horn, headlamp and hazard lamp) should stop.

OK >> Inspection End.

NG >> Check door lock function. Refer to [DLK-246, "INTELLIGENT KEY : System Description"](#).

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INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[SEDAN WITHOUT INTELLIGENT KEY]

INSPECTION AND ADJUSTMENT ECM RE-COMMUNICATING FUNCTION

ECM RE-COMMUNICATING FUNCTION : Description

INFOID:000000004499047

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-III is not necessary)

NOTE:

- When registering new Key IDs or replacing the ECM that is not brand new, refer to CONSULT-III 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:000000004499048

1. PERFORM ECM RE-COMMUNICATING FUNCTION

1. Install ECM.
2. Insert the registered keyfob (*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-III Operation Manual.

ENGINE START FUNCTION

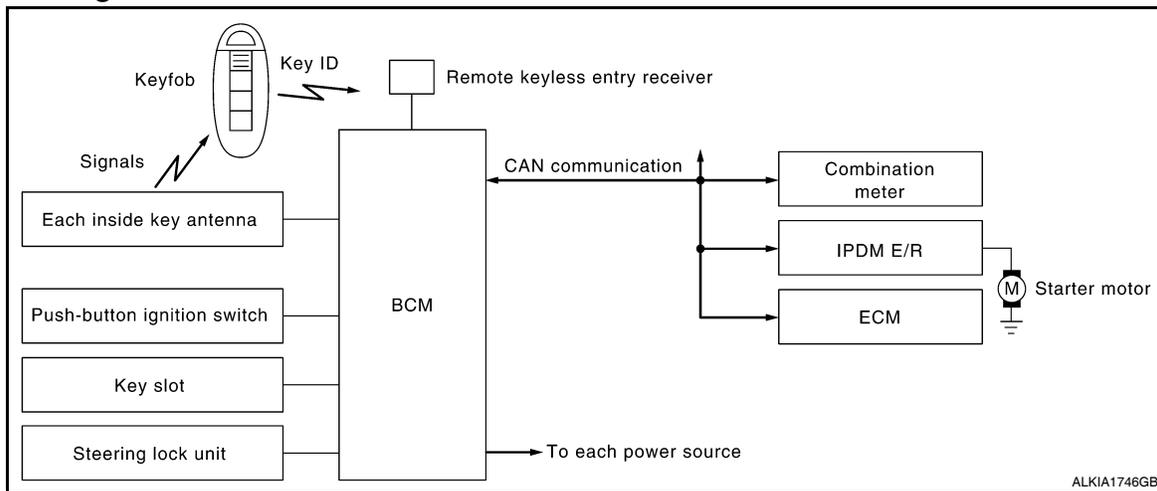
< FUNCTION DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

FUNCTION DIAGNOSIS

ENGINE START FUNCTION

System Diagram



System Description

INFOID:000000004499050

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 Steering lock unit Starter relay (IPDM E/R) Starter control relay (IPDM E/R) Starter motor KEY warning lamp
CVT device (park position switch)	P range		
PNP switch	N, P range		
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 remote keyless entry 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 keyfob, which operates based on the results of electronic ID verification for keyfob using two-way communications between the keyfob and the vehicle.

NOTE:

The driver should carry the keyfob at all times.

- keyfob has 2 IDs [for keyfob and for NVIS (NATS)]. It can perform the door lock/unlock operation and the push-button ignition switch operation when the registered keyfob is carried.
- When the keyfob battery is discharged, it can be used as emergency back-up by inserting the keyfob to the key slot. At that time, perform the NVIS (NATS) ID verification. If it is used when the keyfob is carried, perform the keyfob 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 keyfob battery is discharged, all doors lock/unlock can be performed by operating the driver door key cylinder using the mechanical key set in the keyfob.
- keyfob can be registered up to 4 keys (Including the standard keyfob) on request from the owner.

NOTE:

- Refer to [DLK-246, "INTELLIGENT KEY : System Description"](#) for any functions other than engine start function of remote keyless entry system.

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ENGINE START FUNCTION

[SEDAN WITHOUT INTELLIGENT KEY]

< FUNCTION DIAGNOSIS >

PRECAUTIONS FOR REMOTE KEYLESS ENTRY SYSTEM

- In the remote keyless entry system of model L32, the transponder [the chip for NVIS (NATS) ID verification] is integrated into the keyfob. (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 keyfob into the key slot, and then it can start the engine.

OPERATION WHEN KEYFOB IS CARRIED

1. 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 keyfob.
2. The keyfob sends the request signal and transmits the keyfob ID signal to the BCM via the remote keyless entry receiver.
3. The BCM receives the keyfob ID signal and verifies it with the registered ID.
4. BCM transmits the steering lock unlock signal to steering lock unit and IPDM E/R if the verification results are OK.
5. IPDM E/R turns the steering lock relay ON and supplies power to the steering lock unit.
6. Release of the steering lock.
7. BCM transmits the power supply stop signal to IPDM E/R when it confirms that the steering lock is in the unlock condition.
8. IPDM E/R turns the steering lock relay OFF and stops power supply to the steering lock unit.
9. BCM turns ACC relay ON and transmits the ignition power supply ON signal to IPDM E/R.
10. IPDM E/R turns the ignition relay ON and starts the ignition power supply.
11. BCM confirms that the shift position is P or N.
12. 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.
13. IPDM E/R turns the starter control relay ON when receiving the starter request signal.
14. 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 remote keyless entry system, the “KEY” warning lamp in the combination meter illuminates. At that time, the engine cannot be started.

15. 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 keyfob 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 keyfob is inside the vehicle. However, sometimes engine might not start when keyfob is on instrument panel or in glove box.

OPERATION WHEN KEY SLOT IS USED

When the keyfob battery is discharged, it performs the NVIS (NATS) ID verification between the integrated transponder and BCM by inserting the keyfob into the key slot, and then the engine can be started. For details relating to starting the engine using key slot, refer to [SEC-417, "System Description"](#).

BATTERY SAVER SYSTEM

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 remote keyless entry system failures (keyfob warning indicator is not ON)

Reset Condition of Battery Saver System

ENGINE START FUNCTION

[SEDAN WITHOUT INTELLIGENT KEY]

< FUNCTION DIAGNOSIS >

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 keyfob on door lock

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

STEERING LOCK OPERATION

Steering is locked by steering lock unit 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 keyfob

PUSH-BUTTON IGNITION SWITCH OPERATION PROCEDURE

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

NOTE:

- When an keyfob 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 selector lever position
 - 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 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
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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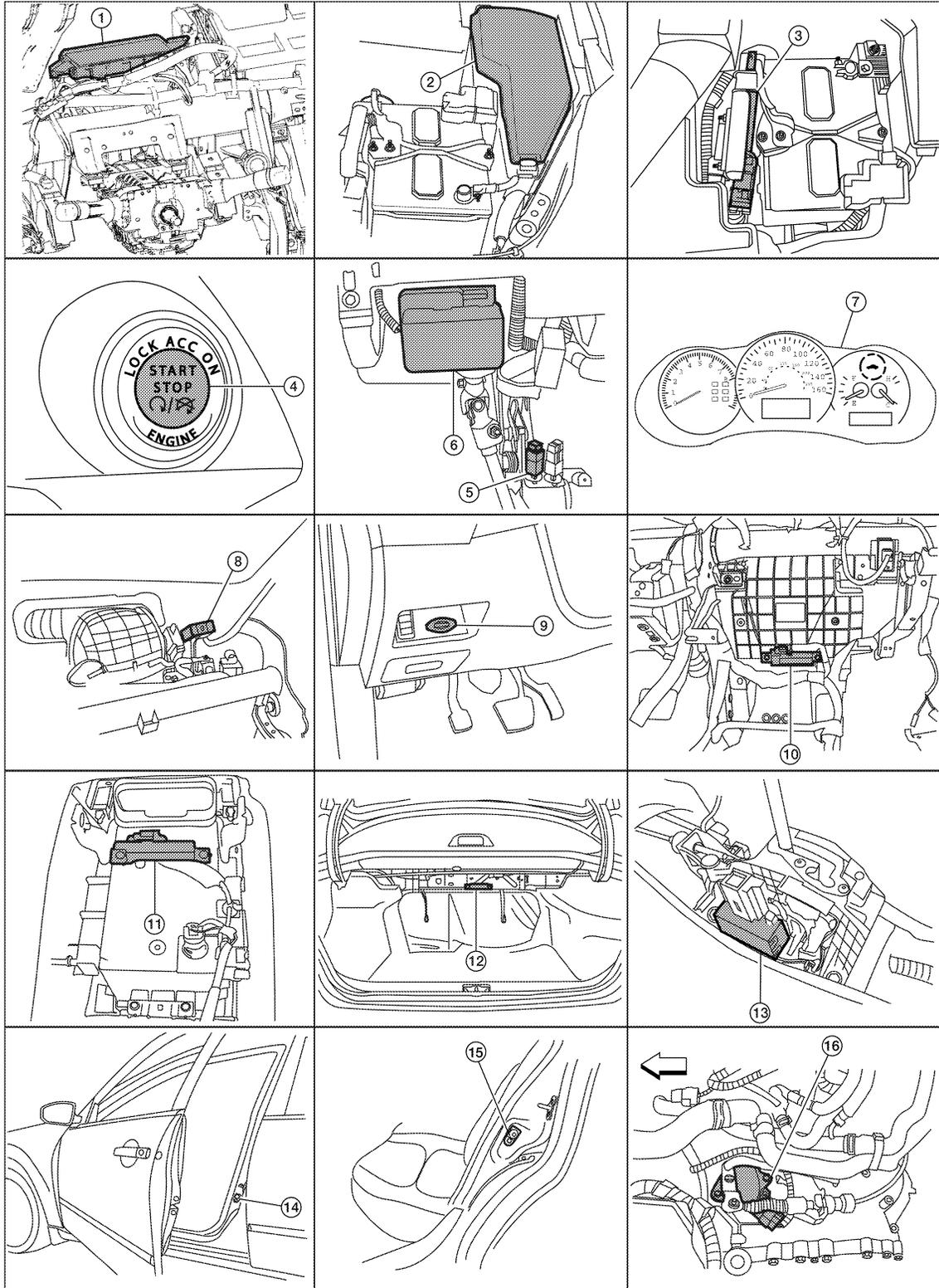
ENGINE START FUNCTION

< FUNCTION DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

Component Parts Location

INFOID:000000004499051



ALKIA1747ZZ

ENGINE START FUNCTION

[SEDAN WITHOUT INTELLIGENT KEY]

< FUNCTION DIAGNOSIS >

- | | | | |
|--|--|--|---|
| 1. Body control module M16, M17, M18, M19, M21
(view with instrument panel removed) | 2. IPDM E/R E17, E18, F10 | 3. ECM E10 | A |
| 4. Push button ignition switch M38 | 5. Stop lamp switch E38
(view with lower driver instrument panel removed) | 6. Electronic steering column lock M32 | B |
| 7. Combination meter M24 | 8. Remote keyless entry receiver M27
(view with instrument panel removed) | 9. Key slot M40 | C |
| 10. Instrument panel antenna M49
(view with instrument panel removed) | 11. Front console antenna M203
(bottom view of center console) | 12. Rear parcel shelf antenna B29 | D |
| 13. CVT device (park position switch) M23 | 14. Front door switch LH B8
RH B108 | 15. Rear door switch LH B18
RH B116 | D |
| 16. Park neutral position (PNP) switch F25 | | | E |

Component Description

INFOID:000000004499052

Component	Reference
BCM	SEC-498
Steering lock unit	SEC-488
Push-button ignition switch	SEC-463
Door switch	DLK-293
CVT device (park position switch)	SEC-467
Inside key antenna	DLK-283
Remote keyless entry receiver	DLK-337
Stop lamp switch	SEC-461
Park/neutral position switch	SEC-475
Steering lock relay	SEC-440
Starter relay	SEC-447
Starter control relay	SEC-445
Security indicator	SEC-514
Key warning lamp	SEC-513

SEC

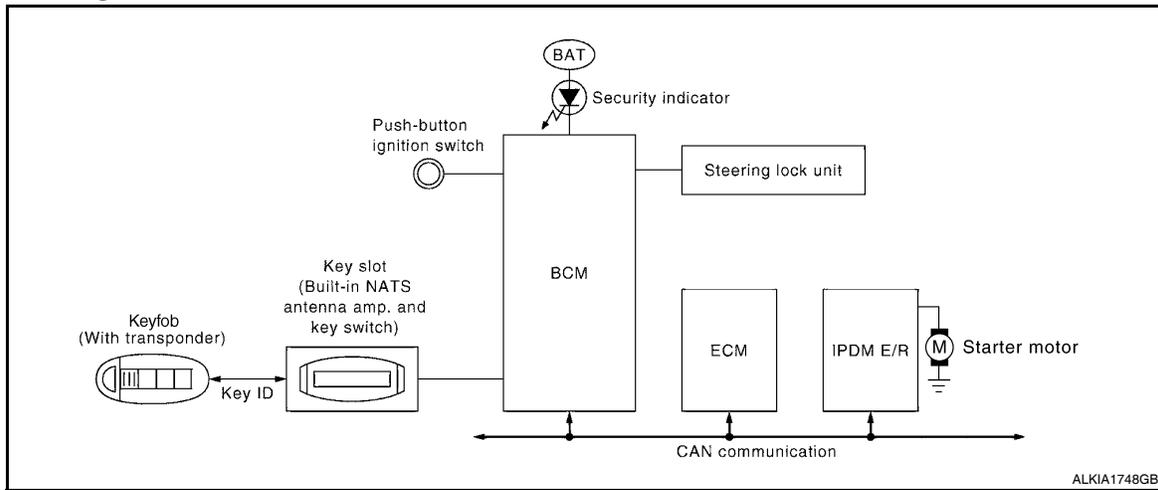
NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

< FUNCTION DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

System Diagram



System Description

INFOID:000000004499054

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 Steering lock unit Starter relay (IPDM E/R) Starter control relay (IPDM E/R) Starter motor KEY warning lamp Security indicator lamp
CVT device (park position switch)	P range		
PNP switch	N, P range		
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 a keyfob ID in to the vehicle and prevents the engine being started by an unregistered keyfob. 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 remote keyless entry system. But, it performs the NVIS (NATS) ID verification when inserting the keyfob and performs the keyfob ID verification when carrying the keyfob.
- The remote keyless entry system of L32 is not the same as the conventional models. The mechanical key integrated in the keyfob cannot start the engine. When the keyfob battery is discharged, the NVIS (NATS) ID verification memorized to the transponder integrated with keyfob is performed by inserting the keyfob 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 keyfob is removed from the key slot and when the power supply position is in LOCK position.
- Keyfob 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 keyfob. The registrations procedure for NVIS (NATS) and registration procedure for keyfob when installing the BCM, refer to CONSULT-III Operation Manual.
- Possible symptom of NVIS (NATS) malfunction is "Engine cannot start". In L32, the engine can be started with the remote keyless entry system and NVIS (NATS). Identify the possible causes according to "Work Flow", Refer to [SEC-411. "Work Flow"](#).
- If ECM other than Genuine NISSAN is installed, the engine cannot be started. For ECM replacement procedure, refer to [SEC-416. "ECM RE-COMMUNICATING FUNCTION : Special Repair Requirement"](#).

NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

< FUNCTION DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

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 keyfob is necessary for this procedure. Before starting the registration operation collect all registered keyfobs from the customer
- When registering the keyfob, performs only one procedure to register simultaneously both ID (NVIS "NATS" ID registration and keyfob ID registration).

The NVIS (NATS) ID registration is the procedure that registers the ID stored into the transponder (integrated in keyfob) to BCM.

The keyfob ID registration is the procedure that registers the ID to BCM.

- When performing the keyfob registration only, the engine cannot be started by inserting the key into the key slot. When performing the NVIS (NATS) registration only, the engine cannot be started by the operation when carrying the key. The registrations of both systems should be performed.

SECURITY INDICATOR

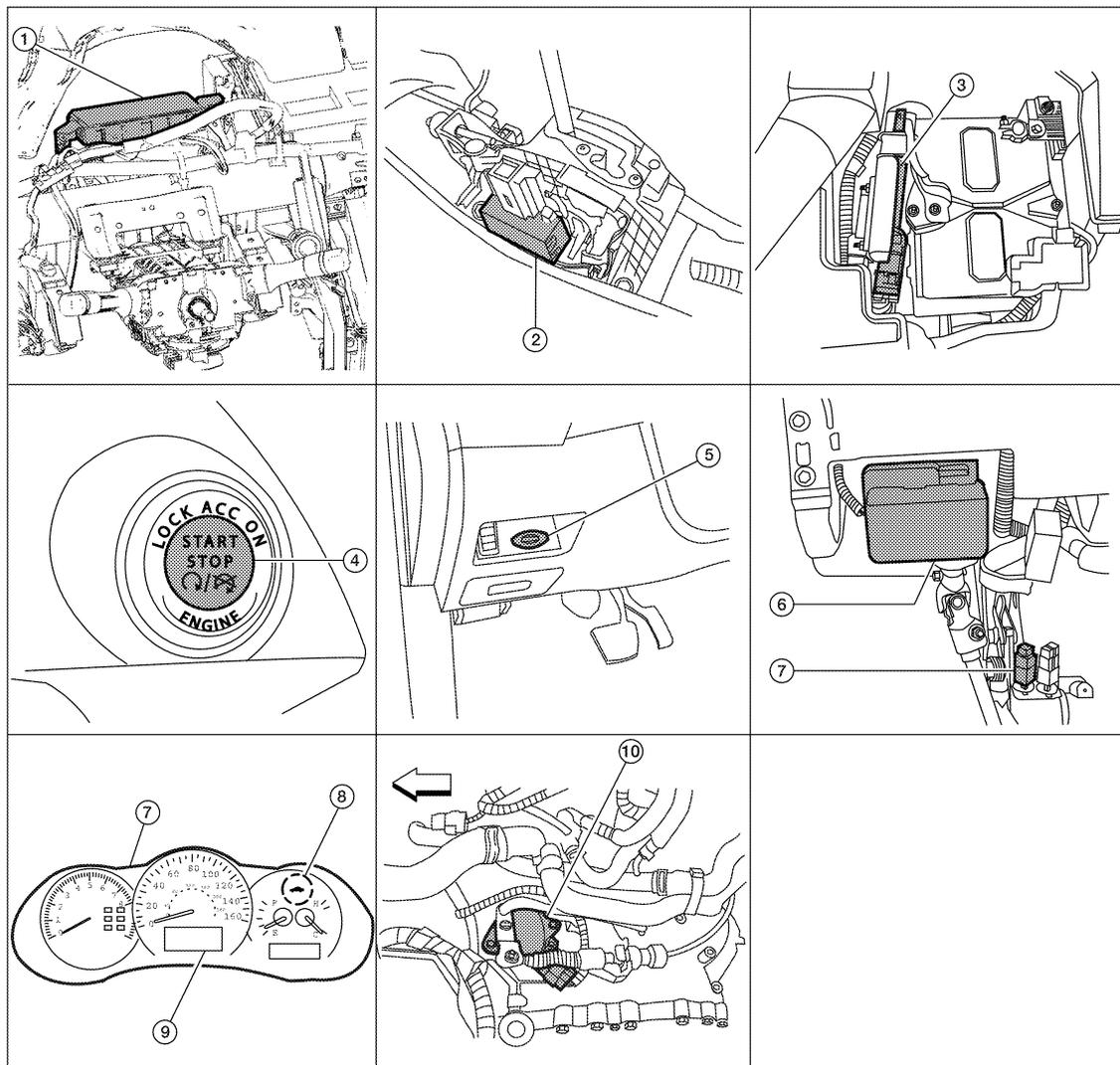
- Warns that the vehicle is equipped with NVIS (NATS).
- The security indicator always blinks when the keyfob is removed from the key slot and when the ignition switch is in LOCK position.

NOTE:

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

Component Parts Location

INFOID:000000004499055



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NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

< FUNCTION DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

1. Body control module M16, M17, M18, M19, M21
(view with instrument panel removed)
2. CVT device (park position switch)
M23
3. ECM E10
4. Push button ignition switch M38
5. Key slot M40
6. Electronic steering column lock M32
(steering column)
7. Stop lamp switch E38
(view with lower LH instrument panel removed)
8. Security indicator lamp
9. Information display
10. Park neutral position switch F25

Component Description

INFOID:000000004499056

Component	Reference
BCM	SEC-498
Steering lock unit	SEC-488
Push-button ignition switch	SEC-499
Door switch	DLK-293
CVT device (park position switch)	SEC-467
Inside key antenna	DLK-283
Remote keyless entry receiver	DLK-337
Stop lamp switch	SEC-461
Park/neutral position switch	SEC-475
Steering lock relay	SEC-439
Starter relay	SEC-482
Starter control relay	SEC-466
Security indicator	SEC-514
Key warning lamp	SEC-513

VEHICLE SECURITY SYSTEM

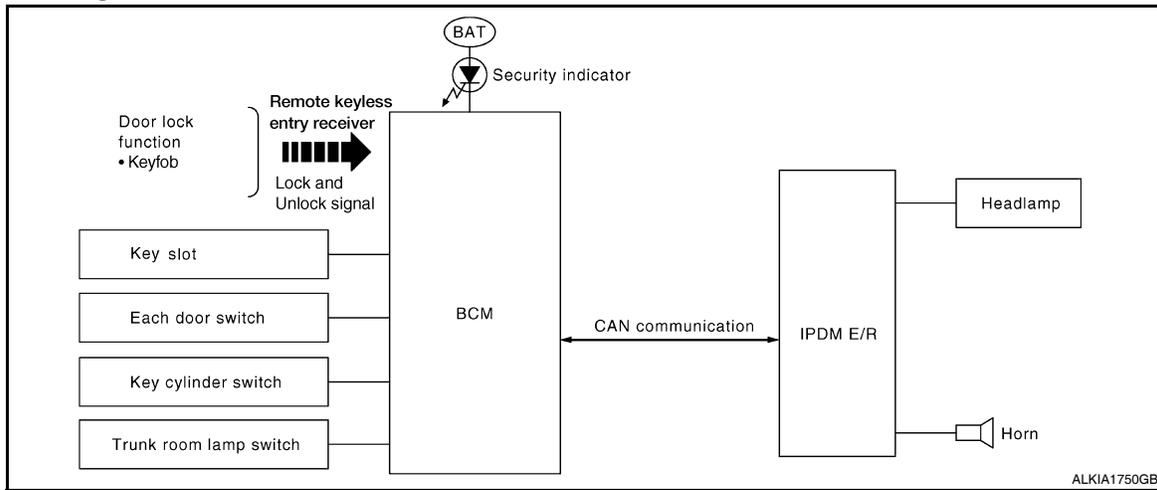
< FUNCTION DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

VEHICLE SECURITY SYSTEM

System Diagram

INFOID:000000004499057



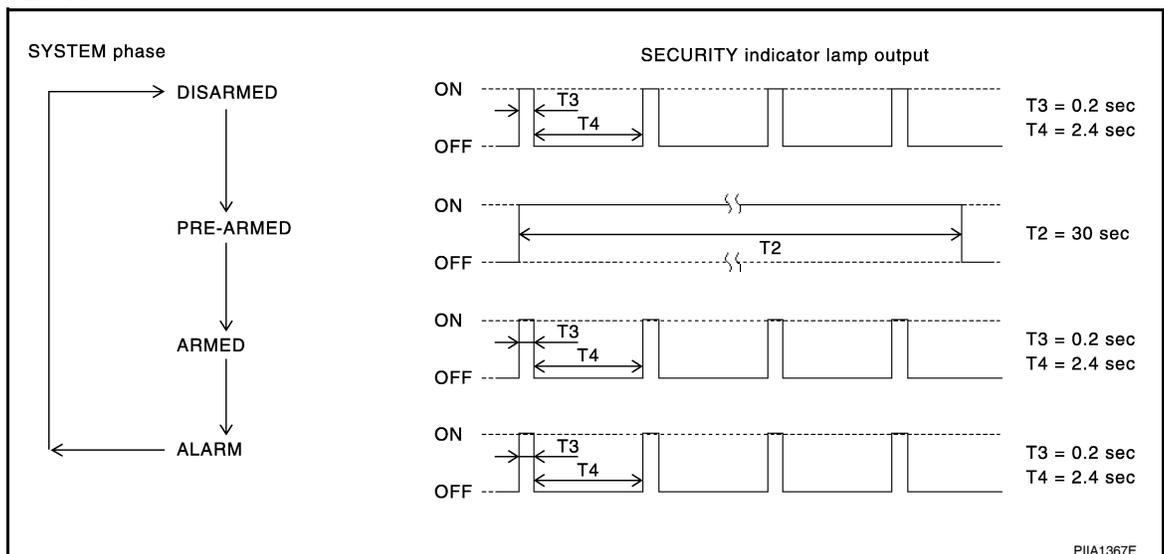
System Description

INFOID:000000004499058

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			
Keyfob	Lock or unlock		
	Panic alarm		
Key slot	Keyfob sensing		

OPERATION FLOW



SETTING THE VEHICLE SECURITY SYSTEM

Initial Condition

- Ignition switch is in OFF position.

VEHICLE SECURITY SYSTEM

[SEDAN WITHOUT INTELLIGENT KEY]

< FUNCTION DIAGNOSIS >

Disarmed Phase

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

Pre-armed Phase and Armed Phase

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

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

CANCELING THE SET VEHICLE SECURITY SYSTEM

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

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

CANCELING THE ALARM OPERATION OF THE VEHICLE SECURITY SYSTEM

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

ACTIVATING THE ALARM OPERATION OF THE VEHICLE SECURITY SYSTEM

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

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

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

PANIC ALARM OPERATION

Keyfob will not operate horn and headlamps if the ignition switch is in the ACC or ON position.

When the vehicle security system is triggered, ground is supplied intermittently to both headlamp relay and horn relay.

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

The headlamp flashes and the horn sounds intermittently.

The alarm automatically turns off after 50 seconds or when BCM receives any signal from keyfob.

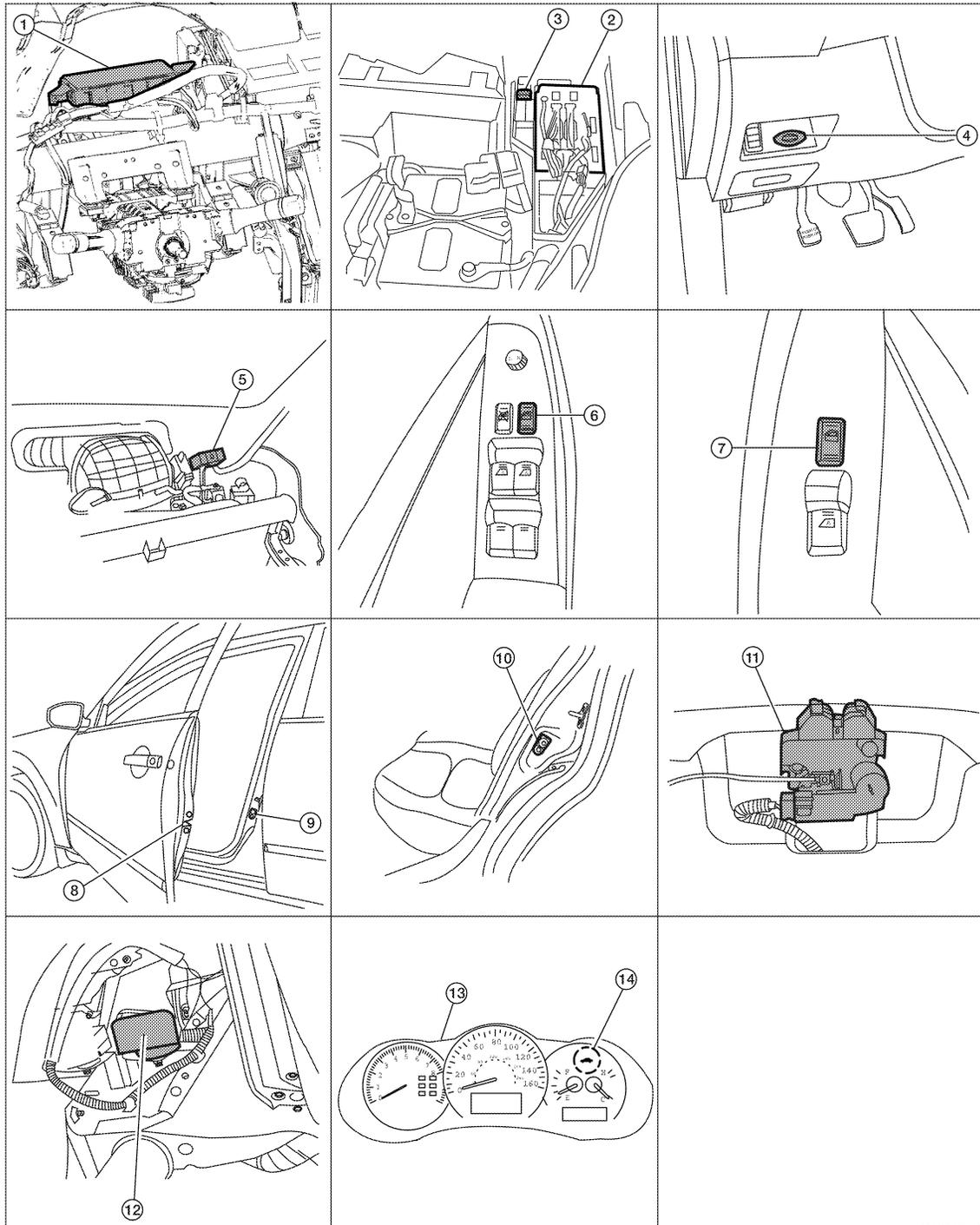
VEHICLE SECURITY SYSTEM

< FUNCTION DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

Component Parts Location

INFOID:000000004499059



- | | | |
|--|--|---|
| 1. Body control module M16, M17, M18, M19, M21
(view with instrument panel removed) | 2. IPDM E/R E17, E18, F10 | 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 |

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VEHICLE SECURITY SYSTEM

[SEDAN WITHOUT INTELLIGENT KEY]

< FUNCTION DIAGNOSIS >

- | | | |
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| 10. Rear door switch LH B18
RH B108 | 11. Trunk lamp switch and trunk release
solenoid B28 | 12. Horn E216
(view with front fender protector LH
removed) |
| 13. Combination meter M24 | 14. Security indicator lamp | |

Component Description

INFOID:000000004499060

Component	Reference
BCM	SEC-425
Horn relay	SEC-510
Security indicator	SEC-514
Door switch	DLK-293
Door lock actuator	DLK-326
Trunk lid lock assembly	DLK-330
Door key cylinder switch	DLK-305
Door lock and unlock switch	DLK-296
Key slot	DLK-303
Remote keyless entry receiver	DLK-337

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM : Diagnosis Description

INFOID:000000004499061

BCM CONSULT-III FUNCTION

CONSULT-III 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	MUTI REMOTE ENT	×	×	×
Exterior lamp	HEADLAMP	×	×	×
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-III Function

INFOID:000000004499062

ECU IDENTIFICATION

Displays the BCM part No.

SELF-DIAG RESULT

Refer to [BCS-91, "DTC Index"](#).

DIAGNOSIS SYSTEM (BCM)

[SEDAN WITHOUT INTELLIGENT KEY]

< FUNCTION DIAGNOSIS >

MULTI REMOTE ENT

MULTI REMOTE ENT : CONSULT-III Function (BCM - MULTIREMOTE ENT)

INFOID:000000004507210

DATA MONITOR

Monitor Item	Condition
DOOR SW-DR	Indicates [ON/OFF] condition of front door switch (driver side).
DOOR SW-AS	Indicates [ON/OFF] condition of front door switch (passenger side).
DOOR SW-RR	Indicates [ON/OFF] condition of rear door switch RH.
DOOR SW-RL	Indicates [ON/OFF] condition of rear door switch LH.
DOOR SW-BK	NOTE: This item is displayed, but cannot be monitored.
CDL LOCK SW	Indicates [ON/OFF] condition of door lock and unlock switch.
CDL UNLOCK SW	Indicates [ON/OFF] condition of door lock and unlock switch.
RKE-LOCK	Indicates [ON/OFF] condition of LOCK signal from keyfob.
RKE-UNLOCK	Indicates [ON/OFF] condition of UNLOCK signal from keyfob.
RKE-TR/BD	Indicates [ON/OFF] condition of TRUNK OPEN signal from keyfob.
RKE-PANIC	Indicates [ON/OFF] condition of PANIC button of keyfob.
RKE-P/W OPEN	Indicates [ON/OFF] condition of P/W DOWN signal from keyfob.
RKE-MODE CHG	Indicates [ON/OFF] condition of MODE CHANGE signal from keyfob.
KEY CYL LK-SW	Indicated [ON/OFF] condition of lock signal from door key cylinder.
KEY CYL UN-SW	Indicated [ON/OFF] condition of unlock signal from door key cylinder.
KEY CYL SW-TR	NOTE: This item is displayed, but cannot be monitored.

ACTIVE TEST

Test item	Description
INT LAMP	This test is able to check interior room lamp operation. The interior room lamp will be activated after "ON" on CONSULT-III screen is touched.
LUGGAGE LAMP TEST	NOTE: This item is displayed, but cannot be tested.
DOOR LOCK	This test is able to check door lock/unlock operation. <ul style="list-style-type: none">• The all door lock actuators are locked when "ALL LCK" on CONSULT-III screen is touched.• The all door lock actuators are unlocked when "ALL UNLK" on CONSULT-III screen is touched.• The door lock actuator (driver side) is unlocked when "DR UNLK" on CONSULT-III screen is touched.• The door lock actuator (passenger side) is unlocked when "AS UNLK" on CONSULT- III screen is touched.• The door lock actuator (rear LH and RH) is unlocked when "OTR ULK" on CONSULT-III screen is touched.
FLASHER	This test is able to check flasher operation [LH/RH/OFF].
HORN	This test is able to check horn operation [ON/OFF].
TRUNK/GLASS HATCH	This test is able to check trunk lid opener actuator open operation. This actuator opens when "ON" on CONSULT-III screen is touched.
TRUNK/BACK DOOR	NOTE: This item is displayed, but cannot be tested.
AUTOMATIC BACK DOOR	NOTE: This item is displayed, but cannot be tested.

WORK SUPPORT

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

Test item	Description
DOOR LOCK-UNLOCK SET	Selective unlock function mode can be changed to operate (WITH) or not operate (WITHOUT) with this mode.
HORN CHIRP SET	Answer back function (horn) mode can be changed in this mode. For the detail of the setting.
HAZARD LAMP SET	Answer back function (hazard) mode can be changed in this mode. <ul style="list-style-type: none"> • MODE1: Non-operation • MODE2: Lock (non-operation) Unlock (blink once) • MODE3: Lock (blink towice) Unlock (non-operation) • MODE4: Lock (blink towice) Unlock (blink once)
AUTO LOCK SET	Auto door lock time can be changed in this mode. <ul style="list-style-type: none"> • MODE 1: 1 minute • MODE 2: 5 minutes
PANIC ALARM SET	Panic alarm button pressing time on keyfob remote control 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: Non-operation
PW DOWN SET	Unlock button pressing time on keyfob button can be selected from the following with this mode. <ul style="list-style-type: none"> • MODE 1: 3 sec. • MODE 2: Non-operation • MODE 3: 5 se

THEFT ALM

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

INFOID:000000004499064

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-III 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 -RR	Indicates [ON/OFF] condition of rear door request switch (passenger side).
REQ SW -RL	Indicates [ON/OFF] condition of rear door request switch (driver 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.
DOOR SW-BK	NOTE: This is displayed even when it is not equipped.
CDL LOCK SW	Indicates [ON/OFF] condition of lock signal from door lock/unlock switch LH and RH.

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

Monitored Item	Description
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.
KEY CYL SW-TR	NOTE: This is displayed even when it is not equipped.
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	Description
THEFT IND	This test is able to check security indicator lamp operation. The lamp will be turned on when "ON" on CONSULT-III 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-III screen is touched.
HEADLAMP(HI)	This test is able to check vehicle security lamp operation. The headlamps will be activated for 0.5 seconds after "ON" on CONSULT-III screen is touched.
FLASHER	This test is able to check vehicle security hazard lamp operation. The hazard lamps will be activated after "ON" on CONSULT-III screen is touched.

IMMU

IMMU : CONSULT-III Function (BCM - IMMU)

INFOID:000000004499065

DATA MONITOR

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

ACTIVE TEST

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

U1000 CAN COMM CIRCUIT

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

COMPONENT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description

INFOID:000000004499071

CAN (Controller Area Network) is a serial communication line for real time applications. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Modern vehicle is equipped with many electronic control unit, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN-H line, CAN-L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only. CAN Communication Signal Chart, refer to [LAN-25, "CAN Communication Signal Chart"](#).

DTC Logic

INFOID:000000004499072

DTC DETECTION LOGIC

CONSULT-III 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 (ABS)• Receiving (METER/M&A)• Receiving (TCM)• Receiving (IPDM E/R)

Diagnosis Procedure

INFOID:000000004499073

1.PERFORM SELF DIAGNOSTIC

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

Is "CAN COMM CIRCUIT" displayed?

- YES >> Refer to [LAN-8, "CAN Communication Control Circuit"](#).
NO >> Refer to [GI-42, "Intermittent Incident"](#).

SEC

U1010 CONTROL UNIT (CAN)

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

U1010 CONTROL UNIT (CAN)

DTC Logic

INFOID:000000004499074

DTC DETECTION LOGIC

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

Diagnosis Procedure

INFOID:000000004499075

1. REPLACE BCM

When DTC U1010 is detected, replace BCM.

>> Replace BCM. Refer to [BCS-96, "Removal and Installation"](#).

B2013 ID DISCORD, IMMU-STRG

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B2013 ID DISCORD, IMMU-STRG

Description

INFOID:000000004499076

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

DTC Logic

INFOID:000000004499077

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">Steering wheel lock unit

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-III.

Is DTC detected?

- YES >> Refer to [SEC-435. "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499078

1.PERFORM INITIALIZATION

Perform initialization with CONSULT-III. Re-register all keyfobs.
For initialization and registration of keyfob, refer to "CONSULT-III Operation Manual".

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

- YES >> Steering lock unit was unregistered.
NO >> Replace steering wheel lock unit.

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B2014 CHAIN OF STRG-IMMU

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B2014 CHAIN OF STRG-IMMU

Description

INFOID:000000004499079

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

DTC Logic

INFOID:000000004499080

DTC DETECTION LOGIC

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

Is DTC detected?

YES >> Refer to [SEC-436, "Diagnosis Procedure"](#).

NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499081

1.CHECK STEERING LOCK UNIT POWER SUPPLY

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

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

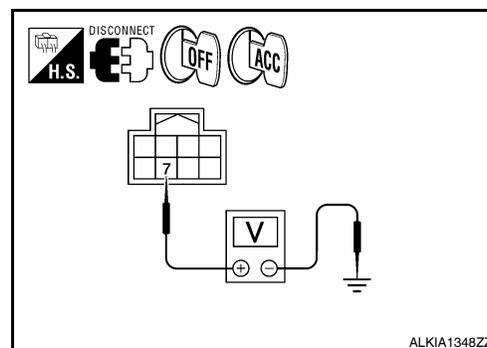
Is the inspection result normal?

YES >> GO TO 3

NO >> GO TO 2

2.CHECK STEERING LOCK UNIT POWER SUPPLY CIRCUIT

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



B2014 CHAIN OF STRG-IMMU

[SEDAN WITHOUT INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

- Check continuity between steering lock unit harness connector M32 (A) terminal 7 and BCM harness connector M19 (B) terminal 94.

Steering lock unit		BCM		Continuity
Connector	Terminal	connector	Terminal	
A: M32	7	B: M19	94	Yes

- Check continuity between steering lock unit harness connector M32 (A) terminal 7 and ground.

Steering lock unit		Ground	Continuity
Connector	Terminal		
A: M32	7	Ground	No

Is the inspection result normal?

YES >> GO TO 6

NO >> Repair harness or connector.

3. CHECK STEERING LOCK UNIT GROUND CIRCUIT

- Turn ignition switch OFF.
- Check continuity between steering lock unit and ground.

Steering lock unit		Ground	Continuity
Connector	Terminal		
M32	5	Ground	Yes
	6		

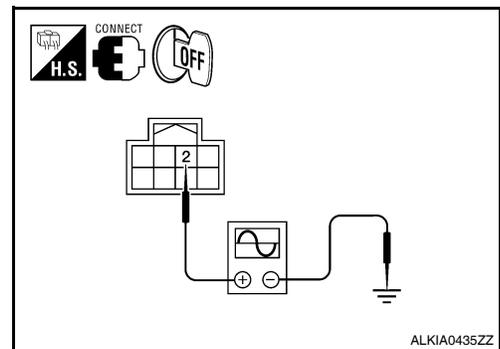
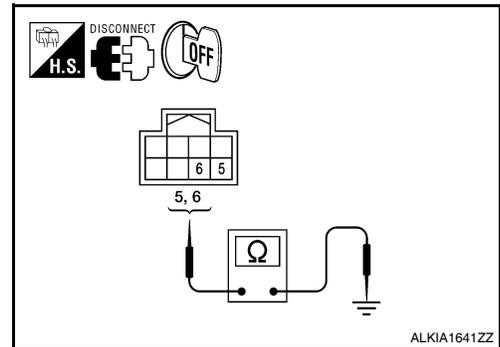
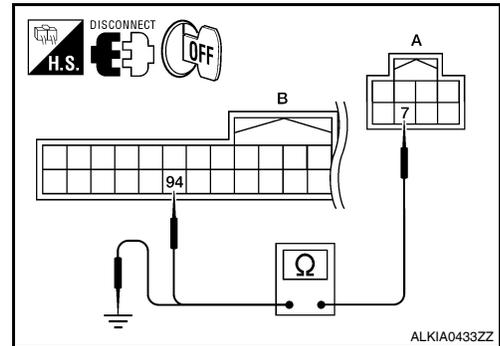
Is the inspection result normal?

YES >> GO TO 4

NO >> Repair harness or connector.

4. CHECK STEERING LOCK UNIT COMMUNICATION SIGNAL

- Connect steering lock unit harness connector.
- Using an oscilloscope, read voltage signal between steering lock unit harness connector and ground.

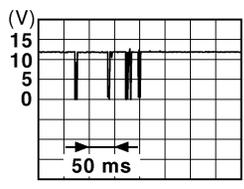


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B2014 CHAIN OF STRG-IMMU

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

Steering lock unit		Ground	Steering lock unit condition	Value
Connector	Terminal			
M32	2	Ground	Lock	Battery voltage
			Lock or unlock	 <small>JMKIA0066GB</small>
			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 result normal?

YES >> Replace steering lock unit.
 NO >> GO TO 5

5. CHECK STEERING LOCK UNIT COMMUNICATION CIRCUIT

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

BCM		Steering lock unit		Continuity
Connector	Terminal	connector	Terminal	
A: M19	99	B: M32	2	Yes

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

BCM		Ground	Continuity
Connector	Terminal		
A: M19	99	Ground	No

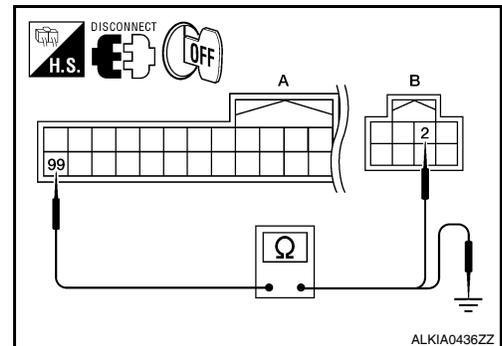
Is the inspection normal?

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

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B2108 STEERING LOCK RELAY

Description

INFOID:000000004499082

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:000000004499083

DTC DETECTION LOGIC

NOTE:

- If DTC B2108 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-433, "DTC Logic"](#).
- If DTC B2108 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-434, "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-III.

Is DTC detected?

- YES >> Refer to [SEC-439, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499084

1.CHECK FUSE

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

Is the inspection result normal?

- YES >> Replace IPDM E/R. Refer to [PCS-48, "Removal and Installation"](#).
NO >> Check the following.
 - Harness for open or short between IPDM E/R and battery
 - Fuse

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B2109 STEERING LOCK RELAY

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B2109 STEERING LOCK RELAY

Description

INFOID:000000004499085

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:000000004499086

DTC DETECTION LOGIC

NOTE:

- If DTC B2109 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-433, "DTC Logic"](#).
- If DTC B2109 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-434, "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-III.

Is DTC detected?

- YES >> Refer to [SEC-440, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499087

1.CHECK POWER SUPPLY CIRCUIT

Check IPDM E/R power supply circuit. Refer to [PCS-23, "Diagnosis Procedure"](#).

Is the inspection result 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 result normal?

- YES >> Replace IPDM E/R. Refer to [PCS-48, "Removal and Installation"](#).
NO >> Check the following.
 - Harness for open or short between IPDM E/R and battery
 - Fuse

B210A STEERING LOCK CONDITION SWITCH

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B210A STEERING LOCK CONDITION SWITCH

Description

INFOID:000000004499088

There are 2 switches in the electronic steering column lock. 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:000000004499089

DTC DETECTION LOGIC

NOTE:

- If DTC B210A is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-433, "DTC Logic"](#).
- If DTC B210A is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-434, "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-III.

Is DTC detected?

- YES >> Refer to [SEC-441, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499090

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

< COMPONENT DIAGNOSIS >

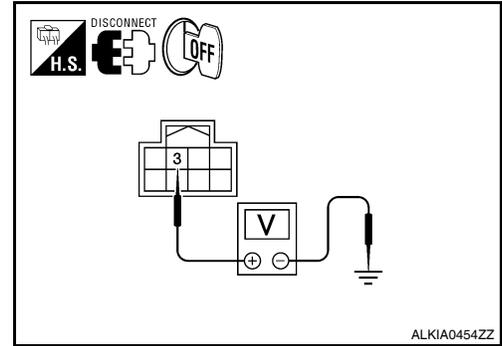
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3. Check voltage between electronic steering column lock harness connector and ground.

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.

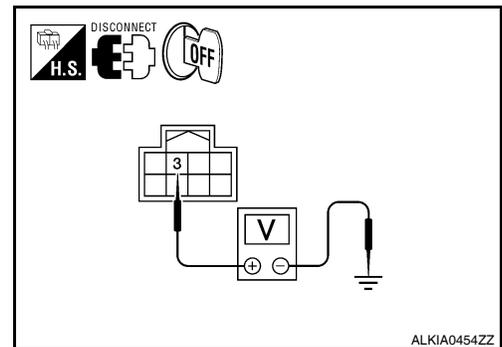
4. CHECK IPDM E/R OUTPUT SIGNAL

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

B210A STEERING LOCK CONDITION SWITCH

[SEDAN WITHOUT INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

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.
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

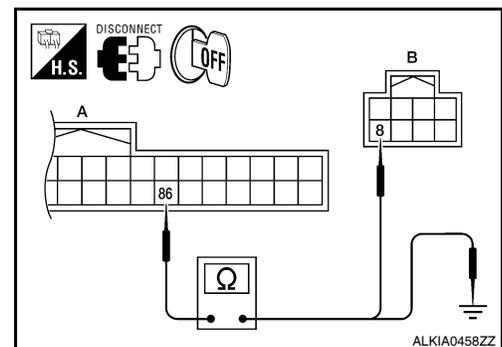
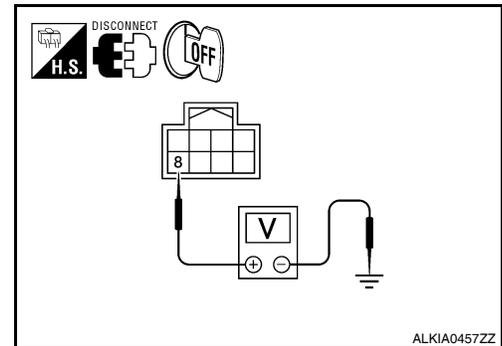
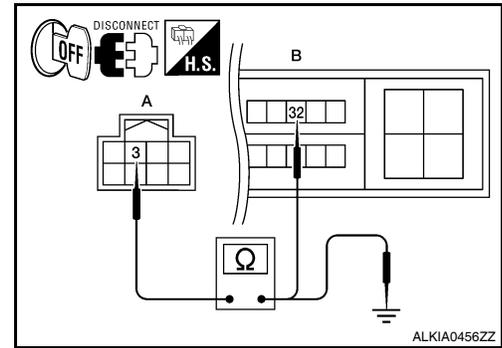
1. Disconnect BCM harness connector M122.
2. Check continuity between BCM harness connector M19 (A) terminal 86 and electronic steering column lock harness connector M32 (B) terminal 8.

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?



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B210A STEERING LOCK CONDITION SWITCH

[SEDAN WITHOUT INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

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

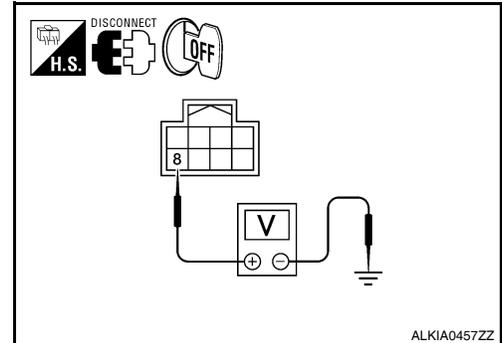
9. CHECK IPDM E/R OUTPUT SIGNAL

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

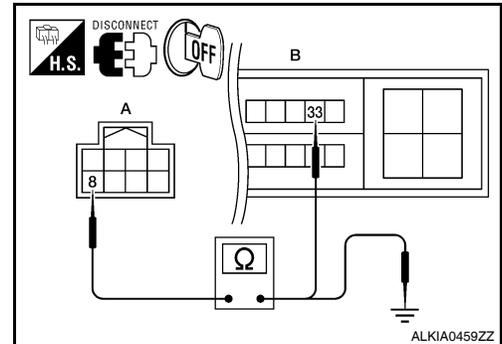


10. CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-II

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

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B210B STARTER CONTROL RELAY

Description

INFOID:000000004499091

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:000000004499092

DTC DETECTION LOGIC

NOTE:

- If DTC B210B is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-433, "DTC Logic"](#).
- If DTC B210B is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-434, "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 following conditions are met for about 1 second. <ul style="list-style-type: none">• Starter control relay ON/OFF signal from BCM• Shift park neutral position (PNP) 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-III.

Is DTC detected?

- YES >> Refer to [SEC-445, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499093

1. INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT-III.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**
See [PCS-45, "DTC Index"](#).

Is the DTC B210B displayed again?

- YES >> Replace IPDM E/R. Refer to [PCS-48, "Removal and Installation"](#).
NO >> Inspection End.

B210C STARTER CONTROL RELAY

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B210C STARTER CONTROL RELAY

Description

INFOID:000000004499094

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:000000004499095

DTC DETECTION LOGIC

NOTE:

- If DTC B210C is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-433, "DTC Logic"](#).
- If DTC B210C is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-434, "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 following conditions are met for about 1 second. <ul style="list-style-type: none">• Starter control relay ON/OFF signal from BCM• Shift park neutral position (PNP) 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-III.

Is DTC detected?

- YES >> Refer to [SEC-446, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499096

1. INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT-III.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**
Refer to [PCS-45, "DTC Index"](#).

Is the DTC B210C displayed again?

- YES >> Replace IPDM E/R. Refer to [PCS-48, "Removal and Installation"](#).
NO >> Inspection End.

B210D STARTER RELAY

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B210D STARTER RELAY

Description

INFOID:000000004499097

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:000000004499098

DTC DETECTION LOGIC

NOTE:

- If DTC B210D is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-433, "DTC Logic"](#).
- If DTC B210D is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-434, "DTC Logic"](#).
- If DTC B210D is displayed with DTC B2617, first perform the trouble diagnosis for DTC B2617. Refer to [SEC-496, "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 following conditions are met for about 1 second. <ul style="list-style-type: none"> • Starter control relay ON/OFF signal from BCM • Shift park neutral position (PNP) 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 in the P or N position
 - Do not depress the brake pedal
2. Check "Self diagnostic result" with CONSULT-III.

Is DTC detected?

- YES >> Refer to [SEC-447, "Diagnosis Procedure"](#).
 NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499099

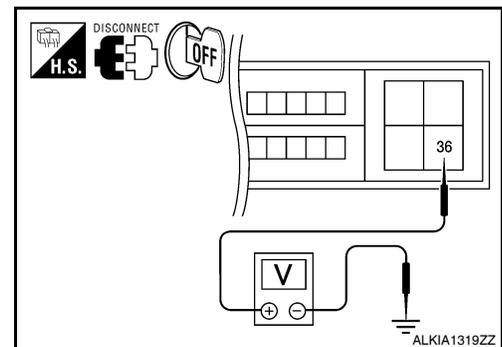
1. CHECK STARTER RELAY POWER SUPPLY CIRCUIT

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

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-48, "Removal and Installation"](#).
 NO >> Check harness for open or short between IPDM E/R and battery.



B210E STARTER RELAY

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B210E STARTER RELAY

Description

INFOID:000000004499100

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:000000004499101

DTC DETECTION LOGIC

NOTE:

- If DTC B210E is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-433, "DTC Logic"](#).
- If DTC B210E is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-434, "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 following conditions are met for about 1 second. <ul style="list-style-type: none"> • Starter control relay ON/OFF signal from BCM • Shift park neutral position (PNP) 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-III.

Is DTC detected?

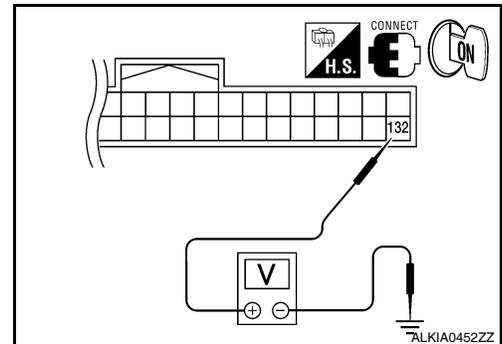
- YES >> Refer to [SEC-448, "Diagnosis Procedure"](#).
 NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499102

1. CHECK STARTER RELAY OUTPUT SIGNAL

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	Brake pedal	CVT selector lever	
M21	132	Ground	ON	Depressed	P or N	Battery voltage
					Other than above	0

B210E STARTER RELAY

[SEDAN WITHOUT INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

Is the inspection result normal?

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

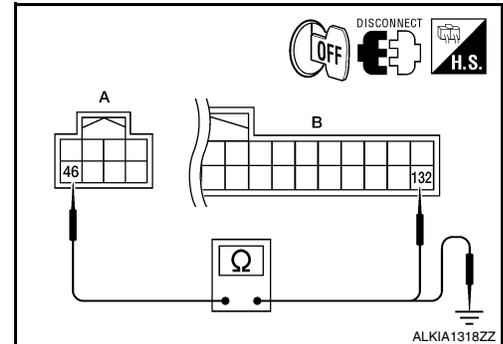
2. CHECK STARTER RELAY OUTPUT SIGNAL CIRCUIT

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

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

3. Check continuity between BCM harness connector and ground.

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



Is the inspection result normal?

- YES >> Replace IPDM E/R. Refer to [PCS-48. "Removal and Installation"](#).
- NO >> Repair harness connector.

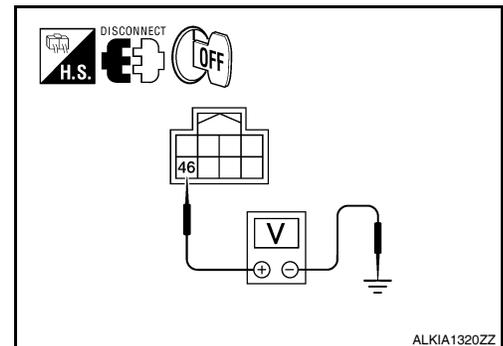
3. CHECK STARTER RELAY POWER SUPPLY CIRCUIT

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

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

Is the inspection result normal?

- YES >> Replace IPDM E/R. Refer to [PCS-48. "Removal and Installation"](#).
- NO >> Check harness for open or short between IPDM E/R and battery.



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SEC

B210F PNP/CLUTCH INTERLOCK SWITCH

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B210F PNP/CLUTCH INTERLOCK SWITCH

Description

INFOID:000000004499103

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

- Park/neutral position (PNP) switch
- Shift position signal from BCM (CAN)

DTC Logic

INFOID:000000004499104

DTC DETECTION LOGIC

NOTE:

- If DTC B210F is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-433, "DTC Logic"](#)
- If DTC B210F is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-433, "DTC Logic"](#).

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

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-III.

Is DTC detected?

- YES >> Refer to [SEC-450, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499105

1. CHECK DTC WITH BCM

Refer to [BCS-91, "DTC Index"](#).

Is the inspection result normal?

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

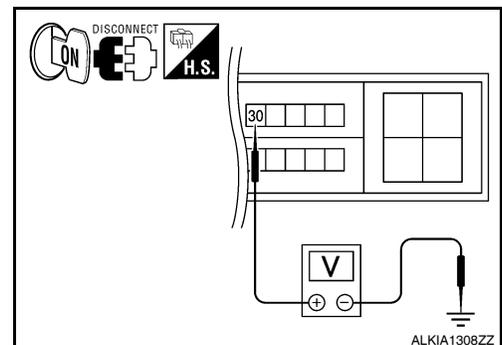
2. CHECK PNP SWITCH INPUT SIGNAL

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 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-48, "Removal and Installation"](#).



B210F PNP/CLUTCH INTERLOCK SWITCH

[SEDAN WITHOUT INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

NO >> GO TO 3

3. CHECK PNP SWITCH CIRCUIT FOR CONTINUITY

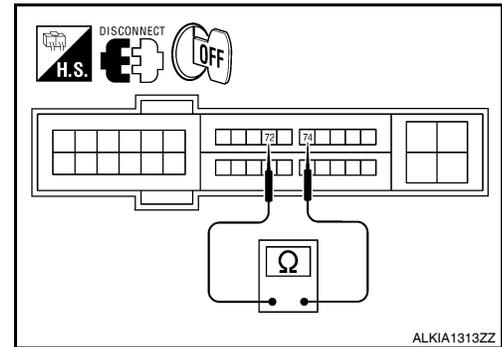
1. Turn ignition switch OFF.
2. Check continuity between IPDM E/R harness connector terminals 72 and 74.

IPDM E/R			Condition	Continuity
Connector	Terminals			
F10	72	74	PNP switch position	Yes
			Other	No

Is the inspection result normal?

YES >> GO TO 4

NO >> GO TO 5



4. CHECK PNP SWITCH CIRCUIT FOR SHORT

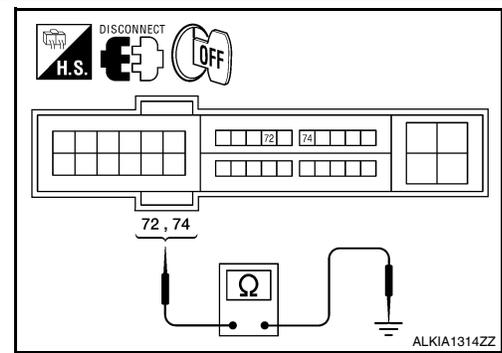
Check continuity between IPDM E/R harness connector terminals 72, 74 and ground.

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-48. "Removal and Installation"](#).

NO >> Repair or replace harness.

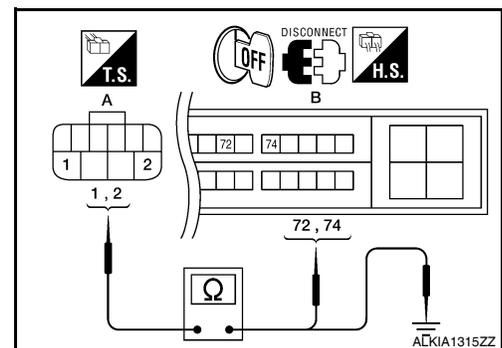


5. CHECK PNP SWITCH INPUT SIGNAL CIRCUIT

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

Park/neutral position switch		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: F25	1	B: F10	74	Yes
	2		72	

3. Check continuity between PNP switch harness connector and ground.



Park/neutral position switch		Ground	Continuity
Connector	Terminal		
A: F25	1	Ground	No
	2		

Is the inspection result normal?

YES >> Replace PNP switch.

NO >> Repair harness or connector.

B2110 PNP/CLUTCH INTERLOCK SWITCH

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B2110 PNP/CLUTCH INTERLOCK SWITCH

Description

INFOID:000000004499107

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

- Park/neutral position (PNP) switch
- Shift position signal from BCM (CAN)

DTC Logic

INFOID:000000004499108

DTC DETECTION LOGIC

NOTE:

- If DTC B2110 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-433, "DTC Logic"](#).
- If DTC B2110 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-434, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2110	INTER LOCK/PNP SW	IPDM E/R detects mismatch between the signals below for 1 second or more. • Shift NP switch input signal	<ul style="list-style-type: none"> • Harness or connectors [Park/neutral position (PNP) switch circuit is open or shorted] • Park/neutral position (PNP) switch

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-III.

Is DTC detected?

- YES >> Refer to [SEC-452, "Diagnosis Procedure"](#).
 NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499109

1. CHECK DTC WITH BCM

Refer to [BCS-91, "DTC Index"](#).

Is the inspection result normal?

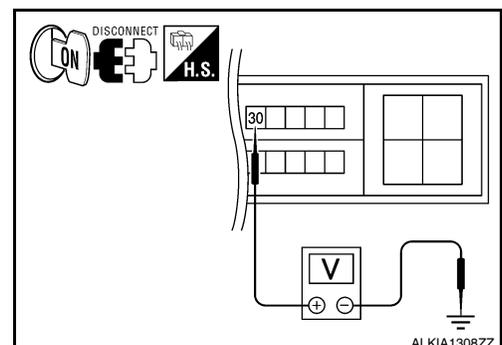
- YES >> GO TO 2
 NO >> Repair or replace malfunctioning parts.

2. CHECK PNP 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 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?



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B2110 PNP/CLUTCH INTERLOCK SWITCH

[SEDAN WITHOUT INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

- YES >> Replace IPDM E/R. Refer to [PCS-48, "Removal and Installation"](#).
 NO >> GO TO 3

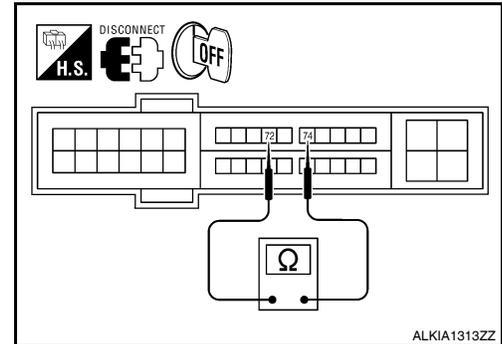
3.CHECK PNP SWITCH CIRCUIT FOR CONTINUITY

- Turn ignition switch OFF.
- Check continuity between IPDM E/R harness connector terminals 72 and 74.

IPDM E/R			Condition	Continuity
Connector	Terminals			
F10	72	74	PNP switch position	Yes
			P or N Other	No

Is the inspection result normal?

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



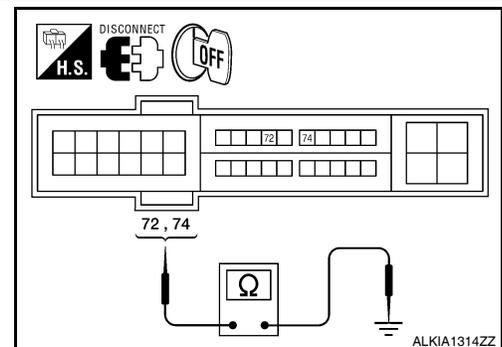
4.CHECK PNP SWITCH CIRCUIT FOR SHORT

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-48, "Removal and Installation"](#).
 NO >> Repair or replace harness.



5.CHECK PNP SWITCH INPUT SIGNAL CIRCUIT

- Disconnect PNP switch harness connector.
- Check continuity between PNP switch and IPDM E/R harness connectors.

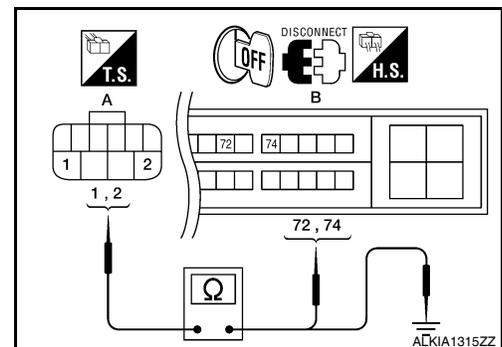
Park/neutral position switch		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: F25	1	B: F10	74	Yes
	2		72	

- Check continuity between PNP switch harness connector and ground.

Park/neutral position switch		Ground	Continuity
Connector	Terminal		
A: F25	1	Ground	No
	2		

Is the inspection result normal?

- YES >> Replace PNP switch.
 NO >> Repair harness or connector.



Component Inspection

1.CHECK CLUTCH INTERLOCK SWITCH

- Turn ignition switch OFF.

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B2110 PNP/CLUTCH INTERLOCK SWITCH

< COMPONENT DIAGNOSIS >

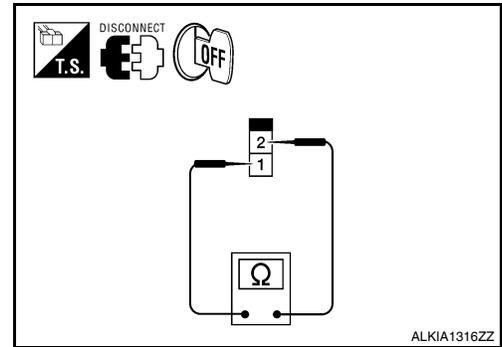
[SEDAN WITHOUT INTELLIGENT KEY]

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

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B2190, P1610 NATS ANTENNA AMP

Description

INFOID:000000004499111

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

DTC Logic

INFOID:000000004499112

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 keyfob into the key slot.
2. Check "Self Diagnostic Result" with CONSULT-III.

Is DTC detected?

- YES >> Refer to [SEC-455, "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-III.

Is DTC detected?

- YES >> Refer to [SEC-455, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499113

1. INSPECTION START

Check the case in which DTC is detected.

- Case1: It is detected when keyfob is inserted into key slot.
- Case2: It is detected after keyfob 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

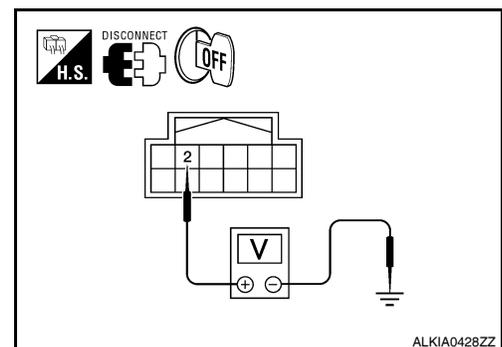
2. CHECK KEY SLOT INPUT SIGNAL

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

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

Is the inspection result normal?

- YES >> Replace key slot. Refer to [SEC-596, "Removal and Installation"](#).
NO >> GO TO 3



B2190, P1610 NATS ANTENNA AMP

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

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

Key slot		Ground	Continuity
Connector	Terminal		
M40	3	Ground	Yes

Is the inspection result normal?

- YES >> Replace key slot. Refer to [SEC-596. "Removal and Installation"](#).
 NO >> GO TO 6

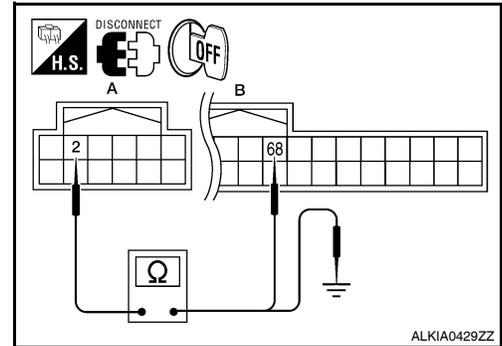
6. CHECK KEY SLOT COMMUNICATION SIGNAL CIRCUIT

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

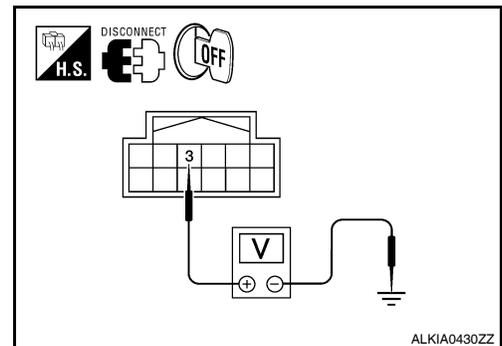
Key slot		BCM		Continuity
Connector	Terminal	Connector	Terminal	
A: M40	3	B: M19	69	Yes

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

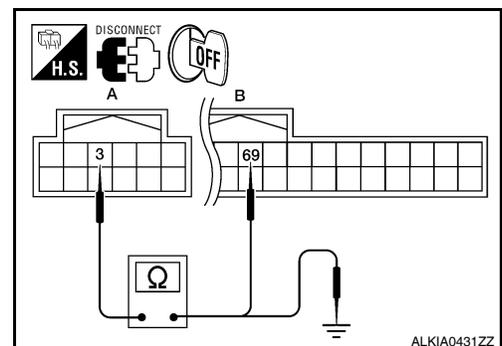
Key slot		Ground	Continuity
Connector	Terminal		
A: M40	3	Ground	No



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B2190, P1610 NATS ANTENNA AMP

[SEDAN WITHOUT INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

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.
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?

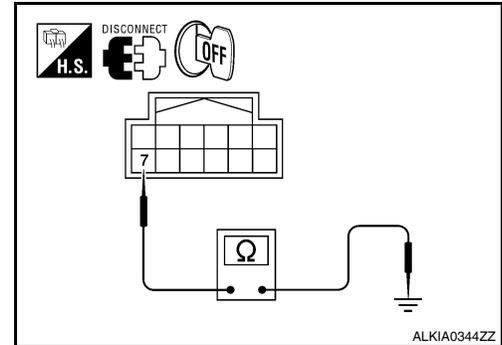
YES >> GO TO 8

NO >> Repair harness or connector.

8. CHECK INTERMITTENT INCIDENT

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

>> Inspection End.



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B2191, P1615 DIFFERENCE OF KEY

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B2191, P1615 DIFFERENCE OF KEY

Description

INFOID:000000004499114

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

DTC Logic

INFOID:000000004499115

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 keyfob are NG. The registration is necessary.	• Keyfob

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Press the push-button ignition switch.
2. Check "Self Diagnostic Result" with CONSULT-III.

Is DTC detected?

- YES >> Refer to [SEC-458. "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499116

1.PERFORM INITIALIZATION

Perform initialization with CONSULT-III. Re-register all keyfobs. For initialization and registration of keyfob, refer to CONSULT-III Operation Manual.

Can the system be initialized and can the engine be started with re-registered keyfob?

- YES >> Keyfob was unregistered.
NO >> BCM is malfunctioning.
 - Replace BCM. Refer to [BCS-96. "Removal and Installation"](#).
 - Perform initialization again.

B2192, P1611 ID DISCORD, IMMU-ECM

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B2192, P1611 ID DISCORD, IMMU-ECM

Description

INFOID:000000004499117

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:000000004499118

DTC DETECTION LOGIC

NOTE:

- If DTC B2192 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-433, "DTC Logic"](#).
- If DTC B2192 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-434, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2192	ID DISCORD, IMMU-ECM	The ID verification results between BCM and ECM are NG. The registration is necessary.	• BCM • ECM
P1611			

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-III.

Is DTC detected?

- YES >> Refer to [SEC-459, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499119

1. PERFORM INITIALIZATION

Perform initialization with CONSULT-III. Re-register all keyfobs.

For initialization and registration of keyfob, refer to CONSULT-III Operation Manual.

Can the system be initialized and can the engine be started with re-registered keyfob?

- YES >> ID was unregistered.
NO >> BCM is malfunctioning.
 - Replace BCM. Refer to [BCS-96, "Removal and Installation"](#).
 - Perform initialization again.
 - Replace ECM.

B2193, P1612 CHAIN OF ECM-IMMU

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B2193, P1612 CHAIN OF ECM-IMMU

Description

INFOID:000000004499120

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:000000004499121

DTC DETECTION LOGIC

NOTE:

- If DTC B2193 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-433, "DTC Logic"](#).
- If DTC B2193 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-434, "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-III.

Is DTC detected?

- YES >> Refer to [SEC-460, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499122

1. REPLACE BCM

1. Replace BCM. Refer to [BCS-96, "Removal and Installation"](#).
2. Perform initialization with CONSULT-III.
For initialization, refer to "CONSULT-III Operation Manual."

Does the engine start?

- YES >> BCM is malfunctioning.
 - Replace BCM. Refer to [BCS-96, "Removal and Installation"](#).
 - Perform initialization again.
- NO >> ECM is malfunctioning.
 - Replace ECM.
 - Perform ECM re-communicating function.

B2555 STOP LAMP

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B2555 STOP LAMP

Description

INFOID:000000004499123

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:000000004499124

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2555	STOP LAMP	BCM makes a comparison between the upper voltage and lower voltage of stop lamp switch. It judges from their values to detect the malfunctioning circuit.	<ul style="list-style-type: none"> Harness or connectors (stop lamp switch circuit is open or shorted) Stop lamp switch Fuse

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Depress the brake pedal and wait for at least 1 second.
- Check "Self Diagnostic Result" with CONSULT-III.

Is DTC detected?

- YES >> Refer to [SEC-461, "Diagnosis Procedure"](#).
 NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499125

1. CHECK STOP LAMP SWITCH INPUT SIGNAL

- Turn ignition switch OFF.
- Disconnect BCM harness connector.
- 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 >> Stop lamp switch is OK.
 NO >> GO TO 2

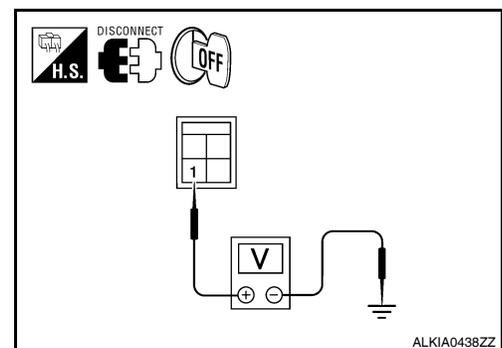
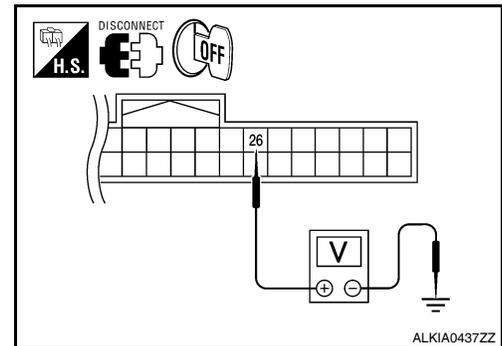
2. CHECK STOP LAMP SWITCH POWER SUPPLY CIRCUIT

- Disconnect stop lamp switch harness connector.
- 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.



B2555 STOP LAMP

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

3. CHECK STOP LAMP SWITCH CIRCUIT

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

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

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

Stop lamp switch		Ground	Continuity
Connector	Terminal		
A: 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-462. "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

INFOID:000000004499126

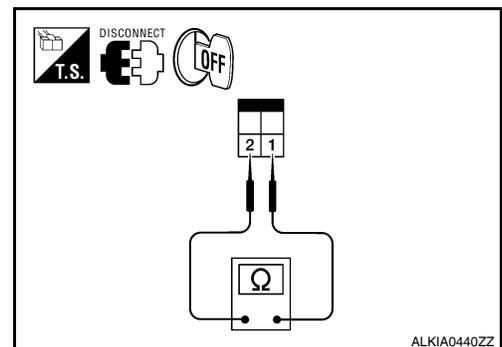
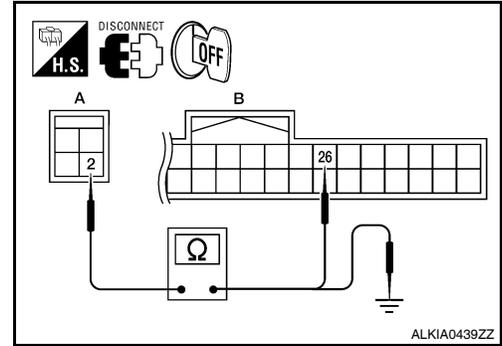
1. CHECK STOP LAMP SWITCH

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

Stop lamp switch		Condition	Continuity
Terminal			
1	2	Not depressed	No
		Depressed	Yes

Is the inspection result normal?

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



B2556 PUSH-BUTTON IGNITION SWITCH

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B2556 PUSH-BUTTON IGNITION SWITCH

Description

INFOID:000000004499127

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:000000004499128

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-III.

Is DTC detected?

- YES >> Refer to [SEC-463, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499129

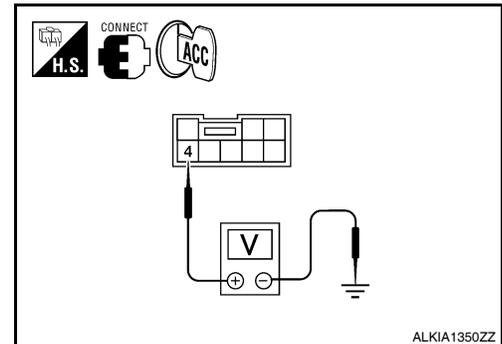
1. CHECK PUSH-BUTTON IGNITION SWITCH INPUT SIGNAL

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 result normal?

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



2. CHECK PUSH-BUTTON IGNITION SWITCH

Refer to [SEC-464, "Component Inspection"](#).

Is the inspection result normal?

- YES >> GO TO 3
NO >> Replace push-button ignition switch. Refer to [SEC-597, "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.

B2556 PUSH-BUTTON IGNITION SWITCH

[SEDAN WITHOUT INTELLIGENT KEY]

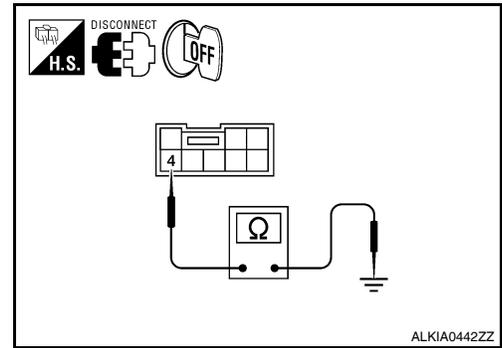
< COMPONENT DIAGNOSIS >

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 result normal?

- YES >> Replace BCM. Refer to [BCS-96. "Removal and Installation"](#).
- NO >> Repair harness or connector.



INFOID:000000004499130

Component Inspection

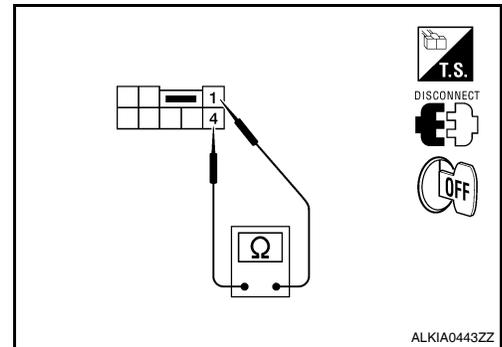
1. CHECK PUSH-BUTTON IGNITION SWITCH

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-597. "Removal and Installation"](#).



B2557 VEHICLE SPEED

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B2557 VEHICLE SPEED

Description

INFOID:000000004499131

BCM receives the 2 vehicle speed signals via CAN communication. One 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:000000004499132

DTC DETECTION LOGIC

NOTE:

- If DTC B2557 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-433, "DTC Logic"](#).
- If DTC B2557 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-434, "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 10 km/h or more and the other is 4 km/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-III.

Is DTC detected?

- YES >> Refer to [SEC-465, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499133

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

Check “Self Diagnostic Result” with CONSULT-III. Refer to [BRC-51, "DTC No. Index"](#).

Is the inspection result normal?

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

2.CHECK UNIFIED METER.

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

>> Inspection End.

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B2560 STARTER CONTROL RELAY

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B2560 STARTER CONTROL RELAY

Description

INFOID:000000004499134

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:000000004499135

DTC DETECTION LOGIC

NOTE:

- If DTC B2560 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-433, "DTC Logic"](#).
- If DTC B2560 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-434, "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-III.

Is DTC detected?

- YES >> Refer to [SEC-466, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499136

1. CHECK DTC WITH IPDM E/R

Check "Self Diagnostic Result" with CONSULT-III. Refer to [PCS-45, "DTC Index"](#).

Is the inspection result normal?

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

2. CHECK INTERMITTENT INCIDENT

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

>> Inspection End.

B2601 SHIFT POSITION

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B2601 SHIFT POSITION

Description

INFOID:000000004499137

BCM confirms the shift position with the following 2 signals.

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

DTC Logic

INFOID:000000004499138

DTC DETECTION LOGIC

NOTE:

- If DTC B2601 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-433, "DTC Logic"](#).
- If DTC B2601 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-434, "DTC Logic"](#).
- If DTC B2601 is displayed with DTC B2605, first perform the trouble diagnosis for DTC B2605. Refer to [SEC-477, "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 device circuit is open or shorted.) • CVT device

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-III.
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-III.

Is DTC detected?

- YES >> Refer to [SEC-467, "Diagnosis Procedure"](#).
 NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499139

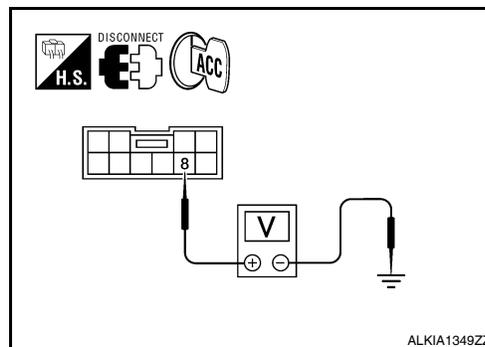
1. CHECK CVT DEVICE POWER SUPPLY

1. Turn ignition switch to ACC.
2. Disconnect CVT device (park position switch) harness connector.
3. Check voltage between CVT device (park position switch) harness connector and ground.

CVT device (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 DEVICE POWER SUPPLY CIRCUIT

1. Disconnect BCM harness connector.

B2601 SHIFT POSITION

[SEDAN WITHOUT INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

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

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

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

BCM		Ground	Continuity
Connector	Terminal		
A: M19	84	Ground	No

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-96. "Removal and Installation"](#).

NO >> Repair harness or connector.

3. CHECK CVT DEVICE CIRCUIT (BCM)

- Disconnect BCM harness connector and IPDM E/R harness connector.
- Check continuity between BCM harness connector M19 (A) terminal 87 and CVT device (park position switch) harness connector M23 (B) terminal 9.

BCM		CVT device (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

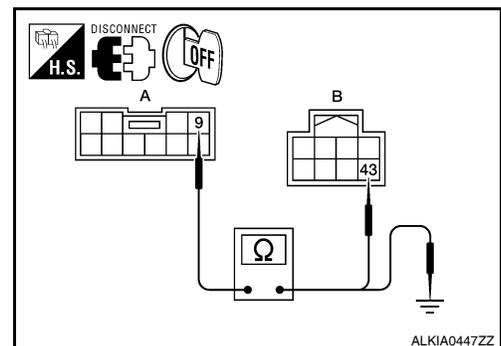
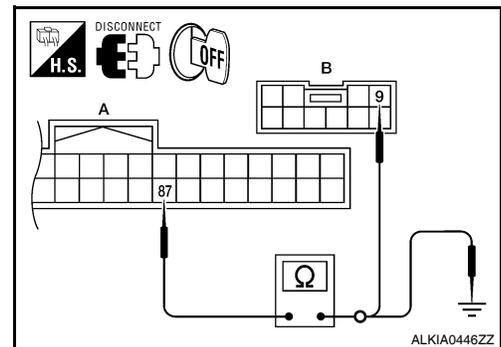
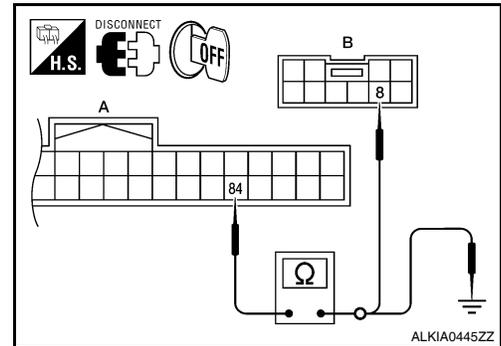
NO >> Repair harness or connector.

4. CHECK CVT DEVICE CIRCUIT (IPDM E/R)

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

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

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



B2601 SHIFT POSITION

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

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

Is the inspection result normal?

YES >> GO TO 5

NO >> Repair harness or connector.

5.CHECK CVT DEVICE

Refer to [SEC-469, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 6

NO >> Replace CVT device. Refer to [TM-431, "Removal and Installation"](#).

6.CHECK INTERMITTENT INCIDENT

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

>> Inspection End.

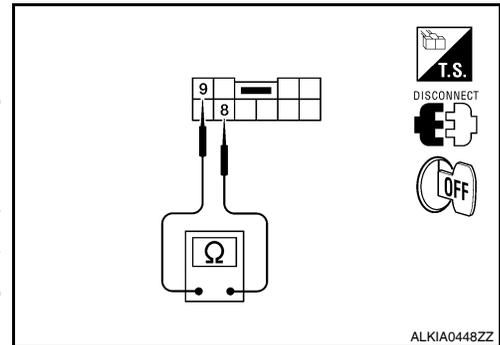
Component Inspection

INFOID:000000004499140

1.CHECK CVT DEVICE (PARK POSITION SWITCH)

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

CVT device (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 device. Refer to [TM-431, "Removal and Installation"](#).

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B2602 SHIFT POSITION

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B2602 SHIFT POSITION

Description

INFOID:000000004499141

BCM confirms the shift position with the following 2 signals.

- CVT selector lever
- Speed signal from meter

DTC Logic

INFOID:000000004499142

DTC DETECTION LOGIC

NOTE:

- If DTC B2602 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-433, "DTC Logic"](#).
- If DTC B2602 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-434, "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 device (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-III.

Is DTC detected?

- YES >> Refer to [SEC-470, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499143

1. CHECK DTC WITH "COMBINATION METER"

Check "Self diagnostic result" with CONSULT-III. Refer to [MWI-95, "DTC Index"](#).

Is the inspection result normal?

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

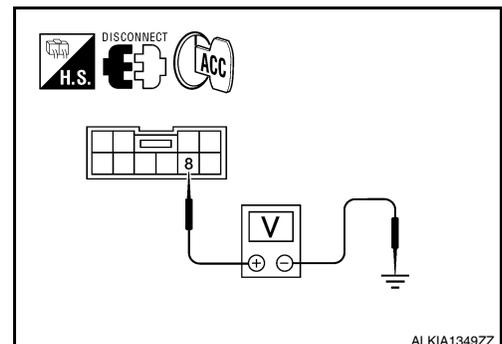
2. CHECK CVT DEVICE POWER SUPPLY

1. Turn ignition switch to ACC.
2. Disconnect CVT device (park position switch) harness connector.
3. Check voltage between CVT device (park position switch) harness connector and ground.

CVT device (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



B2602 SHIFT POSITION

[SEDAN WITHOUT INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

3. CHECK CVT DEVICE POWER SUPPLY CIRCUIT

1. Disconnect BCM harness connector.
2. Check continuity between BCM harness connector M19 (A) terminal 84 and CVT device (park position switch) harness connector M23 (B) terminal 8.

BCM		CVT device (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-96, "Removal and Installation"](#).
 NO >> Repair harness or connector.

4. CHECK CVT DEVICE CIRCUIT

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

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

3. Check continuity between CVT device (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 DEVICE

Refer to [SEC-469, "Component Inspection"](#).

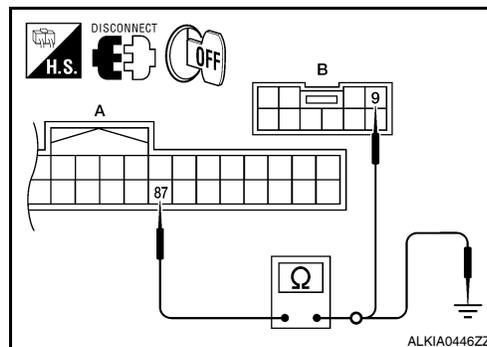
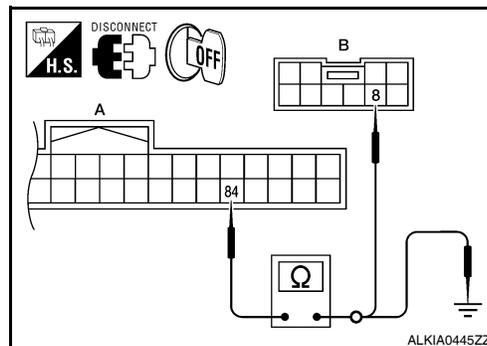
Is the inspection result normal?

- YES >> GO TO 6
 NO >> Replace CVT device. Refer to [TM-431, "Removal and Installation"](#).

6. CHECK INTERMITTENT INCIDENT

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

>> Inspection End.



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B2603 SHIFT POSITION STATUS

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B2603 SHIFT POSITION STATUS

Description

INFOID:000000004499144

BCM confirms the shift position with the following 2 signals.

- CVT selector lever
- P/N position switch

DTC Logic

INFOID:000000004499145

DTC DETECTION LOGIC

NOTE:

- If DTC B2603 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-433, "DTC Logic"](#).
- If DTC B2603 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-434, "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">• Park/neutral position (PNP) switch: approx. 0V• CVT device (park position switch): approx 0V	<ul style="list-style-type: none">• Harness or connector (CVT device circuit is open or shorted.)• Harness or connectors [Park/neutral position (PNP) switch circuit is open or shorted.]• CVT device (park position switch)• Park/neutral position (PNP) 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-III.

Is DTC detected?

- YES >> Refer to [SEC-472, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499146

1.CHECK DTC WITH IPDM E/R

Check "Self diagnostic result" with CONSULT-III. Refer to [PCS-45, "DTC Index"](#).

Is the inspection result normal?

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

2.CHECK PNP SWITCH CIRCUIT

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

B2603 SHIFT POSITION STATUS

[SEDAN WITHOUT INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

- Check continuity between TCM harness connector F16 (A) terminal 20 and BCM harness connector M18 (B) terminal 48.

TCM		BCM		Continuity
Connector	Terminal	Connector	Terminal	
A: F16	20	B: M18	48	Yes

- Check continuity between TCM harness connector F16 (A) terminal 20 and ground.

TCM		Ground	Continuity
Connector	Terminal		
A: F16	20	Ground	No

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair harness or connector.

3. CHECK CVT DEVICE POWER SUPPLY

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

CVT device (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 DEVICE POWER SUPPLY CIRCUIT

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

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

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

BCM		Ground	Continuity
Connector	Terminal		
A: M19	84	Ground	No

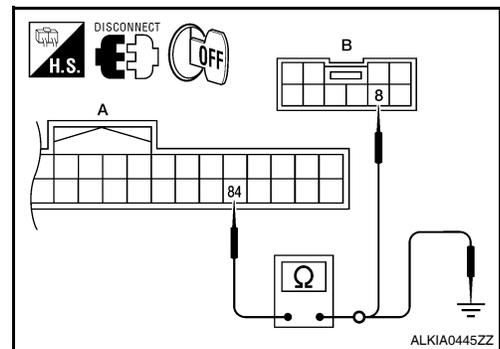
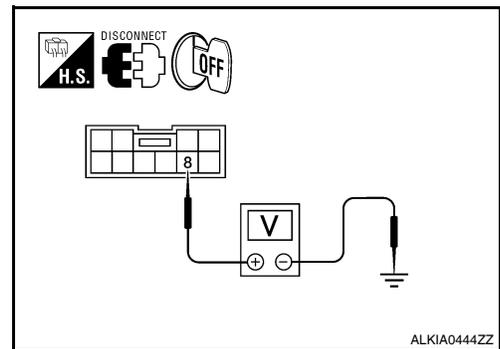
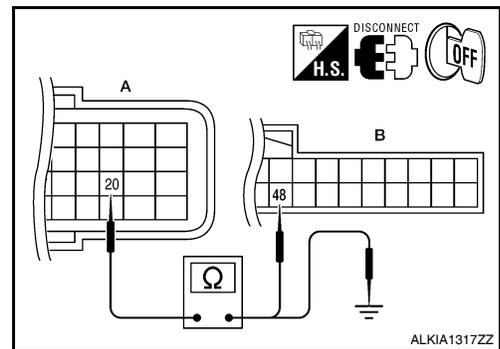
Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-96, "Removal and Installation"](#).

NO >> Repair harness or connector.

5. CHECK CVT DEVICE CIRCUIT

- Disconnect BCM harness connector.



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B2603 SHIFT POSITION STATUS

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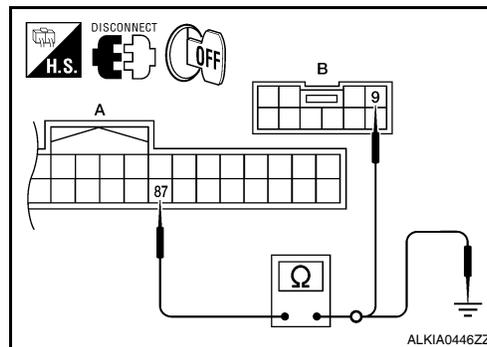
< COMPONENT DIAGNOSIS >

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

BCM		CVT device (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 DEVICE

Refer to [SEC-469. "Component Inspection"](#).

Is the inspection result normal?

- YES >> GO TO 7
- NO >> Replace CVT device. Refer to [TM-431. "Removal and Installation"](#).

7. CHECK INTERMITTENT INCIDENT

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

>> Inspection End.

B2604 PNP SWITCH

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B2604 PNP SWITCH

Description

INFOID:000000004499147

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:000000004499148

DTC DETECTION LOGIC

NOTE:

- If DTC B2604 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-433, "DTC Logic"](#).
- If DTC B2604 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-434, "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 park/neutral position (PNP) switch circuit is open or shorted.]• Park/ neutral position (PNP) switch• TCM

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. 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-III.

Is DTC detected?

- YES >> Refer to [SEC-475, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499149

1. CHECK DTC WITH TCM

Check "Self diagnostic result" with CONSULT-III. Refer to [TM-399, "DTC Index"](#).

Is the inspection result normal?

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

2. CHECK PNP SWITCH CIRCUIT

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

B2604 PNP SWITCH

[SEDAN WITHOUT INTELLIGENT KEY]

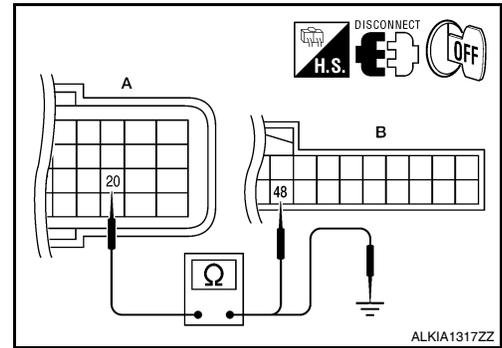
< COMPONENT DIAGNOSIS >

3. Check continuity between TCM harness connector and BCM harness connector.

TCM		BCM		Continuity
Connector	Terminal	Connector	Terminal	
A: F16	20	B: M18	48	Yes

4. Check continuity between TCM harness connector and ground.

TCM		Ground	Continuity
Connector	Terminal		
A: F16	20	Ground	No



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.

B2605 PNP SWITCH

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B2605 PNP SWITCH

Description

INFOID:000000004499150

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:000000004499151

DTC DETECTION LOGIC

NOTE:

- If DTC B2605 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-433, "DTC Logic"](#).
- If DTC B2605 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-434, "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 park/neutral position (PNP) switch circuit is open or shorted.]• Park/neutral position (PNP) 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 second.
 - CVT selector lever is in the P or N position
 - Do not depress the brake pedal.
2. Check "Self diagnostic result" with CONSULT-III.

Is DTC detected?

YES >> Refer to [SEC-477, "Diagnosis Procedure"](#).

NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499152

1. CHECK DTC WITH IPDM E/R

Check "Self diagnostic result" with CONSULT-III. Refer to [PCS-45, "DTC Index"](#).

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace malfunctioning parts.

2. CHECK PNP SWITCH CIRCUIT

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

B2605 PNP SWITCH

[SEDAN WITHOUT INTELLIGENT KEY]

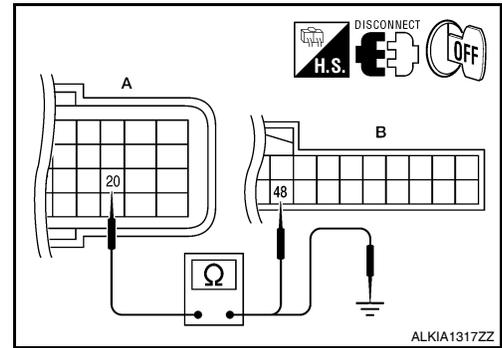
< COMPONENT DIAGNOSIS >

3. Check continuity between TCM connector and BCM harness connector.

TCM		BCM		Continuity
Connector	Terminal	Connector	Terminal	
A: F16	20	B: M18	48	Yes

4. Check continuity between TCM harness connector and ground.

TCM		Ground	Continuity
Connector	Terminal		
A: F16	20	Ground	No



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.

B2606 STEERING LOCK RELAY

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B2606 STEERING LOCK RELAY

Description

INFOID:000000004499153

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:000000004499154

DTC DETECTION LOGIC

NOTE:

- If DTC B2606 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-433, "DTC Logic"](#).
- If DTC B2606 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-434, "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">• Steering lock unit ON signal transmitted by IPDM E/R• The steering lock unit 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-III.

Is DTC detected?

- YES >> Refer to [SEC-479, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499155

1. CHECK DTC WITH IPDM E/R

Check "Self diagnostic result" with CONSULT-III. Refer to [PCS-45, "DTC Index"](#).

Is the inspection result normal?

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

2. INTERMITTENT INCIDENT

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

>> Inspection End.

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B2607 STEERING LOCK RELAY

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B2607 STEERING LOCK RELAY

Description

INFOID:000000004499156

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:000000004499157

DTC DETECTION LOGIC

NOTE:

- If DTC B2607 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-433, "DTC Logic"](#).
- If DTC B2607 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-434, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2607	STEERING LOCK RELAY	<p>BCM detects that there is a difference between the following statuses.</p> <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-III.

Is DTC detected?

- YES >> Refer to [SEC-480, "Diagnosis Procedure"](#).
 NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499158

1. CHECK DTC WITH IPDM E/R

Check "Self diagnostic result" with CONSULT-III. Refer to [PCS-45, "DTC Index"](#).

Is the inspection result normal?

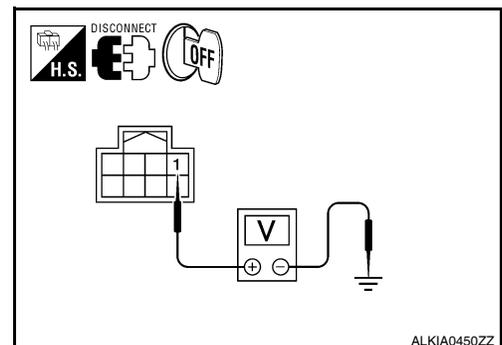
- YES >> GO TO 2
 NO >> Repair or replace malfunctioning parts.

2. CHECK ELECTRONIC STEERING COLUMN LOCK POWER SUPPLY CIRCUIT

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



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B2607 STEERING LOCK RELAY

[SEDAN WITHOUT INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

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

3. CHECK ELECTRONIC STEERING COLUMN LOCK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R harness connector.
3. 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

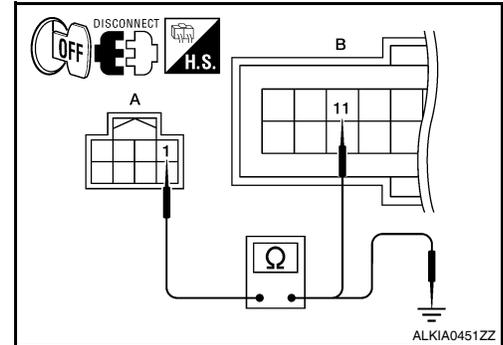
Is the inspection result normal?

- YES >> Replace IPDM E/R. Refer to [PCS-48, "Removal and Installation"](#).
- NO >> Repair harness or connector.

4. CHECK INTERMITTENT INCIDENT

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

>> Inspection End.



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B2608 STARTER RELAY

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B2608 STARTER RELAY

Description

INFOID:000000004499159

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:000000004499160

DTC DETECTION LOGIC

NOTE:

- If DTC B2608 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-433, "DTC Logic"](#).
- If DTC B2608 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-434, "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-III.

Is DTC detected?

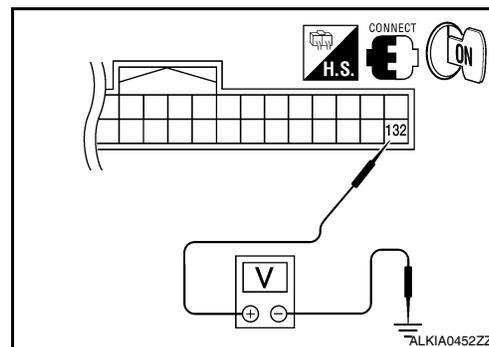
- YES >> Refer to [SEC-482, "Diagnosis Procedure"](#).
 NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499161

1.CHECK STARTER RELAY

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



BCM		Ground	Condition	Voltage (V)
Connector	Terminal			
M21	132	Ground	CVT selector lever	N or P position Battery voltage
				Other than above 0

Is the measurement value within the specification?

- YES >> GO TO 3

B2608 STARTER RELAY

[SEDAN WITHOUT INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

NO >> GO TO 2

2. CHECK STARTER RELAY CIRCUIT

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

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

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

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

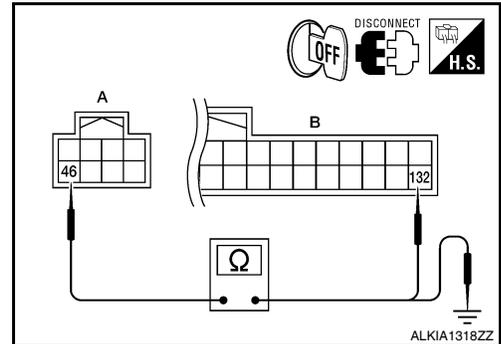
Is the inspection result normal?

- YES >> Replace IPDM E/R. Refer to [PCS-48. "Removal and Installation"](#).
NO >> Repair harness or connector.

3. CHECK INTERMITTENT INCIDENT

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

>> Inspection End.



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B2609 STEERING STATUS

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B2609 STEERING STATUS

Description

INFOID:000000004499162

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:000000004499163

DTC DETECTION LOGIC

NOTE:

- If DTC B2609 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-433, "DTC Logic"](#).
- If DTC B2609 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-434, "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-III.

Is DTC detected?

- YES >> Refer to [SEC-484, "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-III.

Is DTC detected?

- YES >> Refer to [SEC-484, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499164

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

B2609 STEERING STATUS

[SEDAN WITHOUT INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

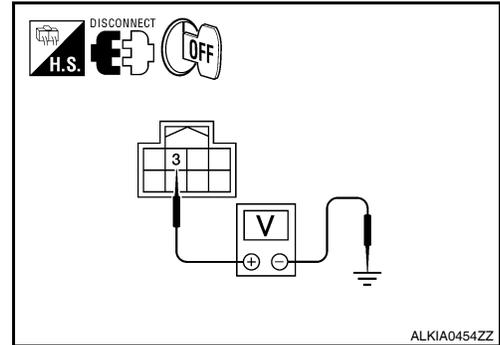
2. CHECK BCM OUTPUT SIGNAL

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.

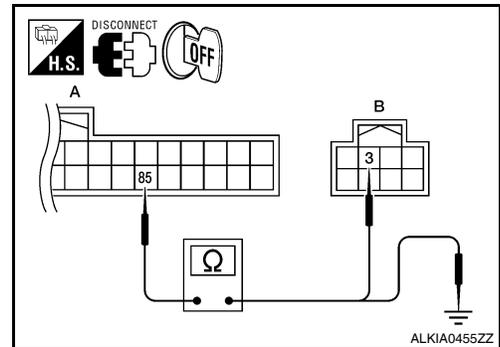
BCM		Electronic steering column lock		Continuity
Connector	Terminal	Connector	Terminal	
A: M19	85	B: M32	3	Yes

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.



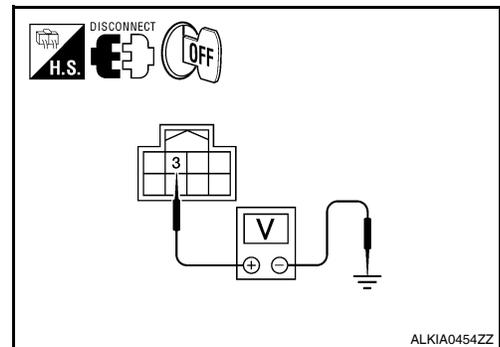
4. CHECK IPDM E/R OUTPUT SIGNAL

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

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B2609 STEERING STATUS

[SEDAN WITHOUT INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

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.
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

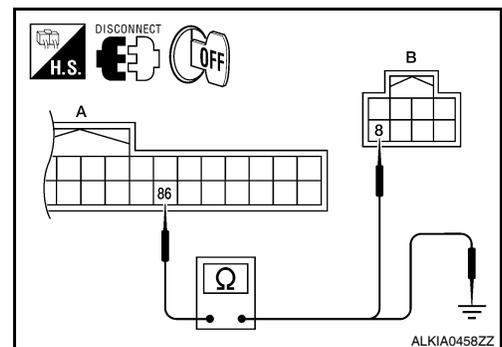
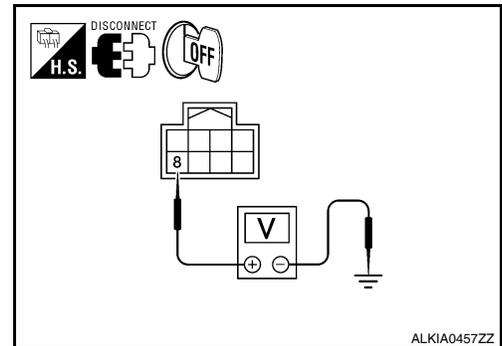
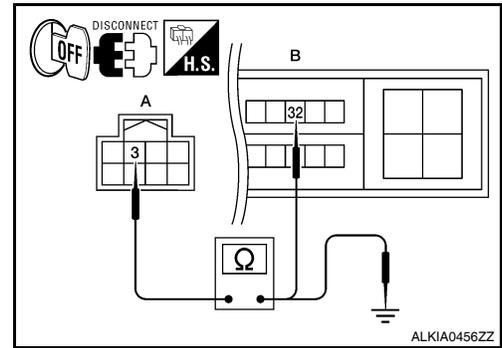
1. Disconnect BCM harness connector M19.
2. Check continuity between BCM harness connector M19 (A) terminal 86 and electronic steering column lock harness connector M32 (B) terminal 8.

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?



B2609 STEERING STATUS

[SEDAN WITHOUT INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

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

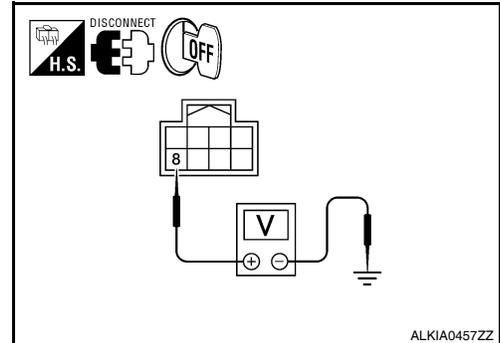
9. CHECK IPDM E/R OUTPUT SIGNAL

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



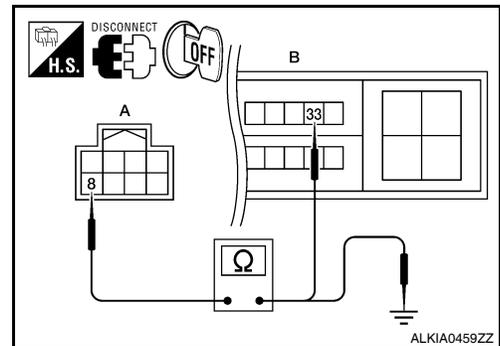
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10. CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-II

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.



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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.

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B260B STEERING LOCK UNIT

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B260B STEERING LOCK UNIT

Description

INFOID:000000004499165

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

DTC Logic

INFOID:000000004499166

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B260B	STEERING LOCK UNIT	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-III.

Is DTC detected?

- YES >> Refer to [SEC-488. "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499167

1.INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT-III.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**
See [SEC-488. "DTC Logic"](#).

Is the DTC B260B displayed again?

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

B260C STEERING LOCK UNIT

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B260C STEERING LOCK UNIT

Description

INFOID:0000000004499168

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

DTC Logic

INFOID:0000000004499169

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B260C	STEERING LOCK UNIT	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-III.

Is DTC detected?

- YES >> Refer to [SEC-489, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000004499170

1. INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT-III.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**
See [SEC-489, "DTC Logic"](#).

Is the DTC B260C displayed again?

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

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B260D STEERING LOCK UNIT

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B260D STEERING LOCK UNIT

Description

INFOID:000000004499171

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:000000004499172

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B260D	STEERING LOCK UNIT	BCM detects malfunctioning of electronic steering column lock after steering locking.	<ul style="list-style-type: none">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-III.

Is DTC detected?

- YES >> Refer to [SEC-490, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499173

1. INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT-III.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**
See [SEC-490, "DTC Logic"](#).

Is the DTC B260D displayed again?

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

B260F ENGINE STATUS

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B260F ENGINE STATUS

Description

INFOID:000000004499174

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

DTC Logic

INFOID:000000004499175

DTC DETECTION LOGIC

NOTE:

- If DTC B260F is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-433, "DTC Logic"](#).
- If DTC B260F is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-434, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B260F	INTERRUPTION OF ENGINE STATUS SIGNAL	BCM has 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-III.

Is DTC detected?

- YES >> Refer to [SEC-491, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499176

1. INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT-III.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**
See [SEC-491, "DTC Logic"](#).

Is the DTC B260F displayed again?

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

2. REPLACE ECM

1. Replace ECM.
2. Refer to [EC-560, "BASIC INSPECTION : Special Repair Requirement"](#) (QR25DE except California) or [EC-24, "BASIC INSPECTION : Special Repair Requirement"](#) (QR25DE California).

>> Inspection End.

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B2612 STEERING STATUS

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B2612 STEERING STATUS

Description

INFOID:000000004499177

There are 2 switches in the electronic steering column lock. 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:000000004499178

DTC DETECTION LOGIC

NOTE:

- If DTC B2612 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-433, "DTC Logic"](#).
- If DTC B2612 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-434, "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-III.

Is DTC detected?

- YES >> Refer to [SEC-492, "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-III.

Is DTC detected?

- YES >> Refer to [SEC-492, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499179

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

B2612 STEERING STATUS

[SEDAN WITHOUT INTELLIGENT KEY]

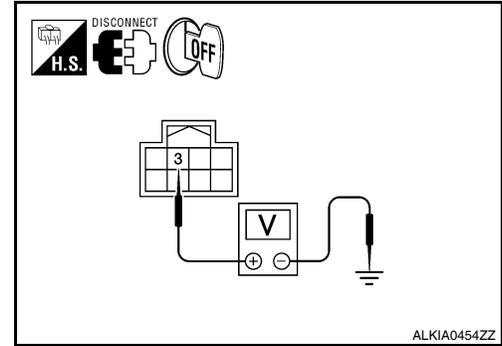
< COMPONENT DIAGNOSIS >

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.

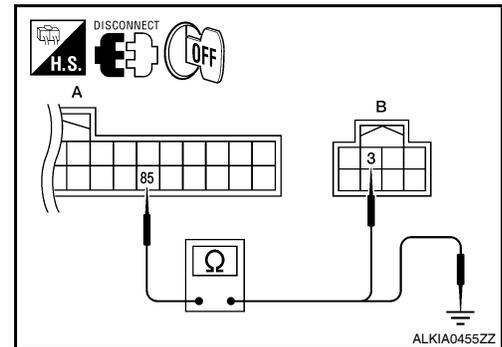
BCM		Electronic steering column lock		Continuity
Connector	Terminal	Connector	Terminal	
A: M19	85	B: M32	3	Yes

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.



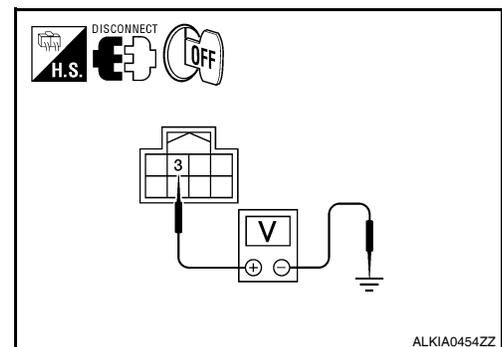
4.CHECK IPDM E/R OUTPUT SIGNAL

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

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B2612 STEERING STATUS

[SEDAN WITHOUT INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

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.
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

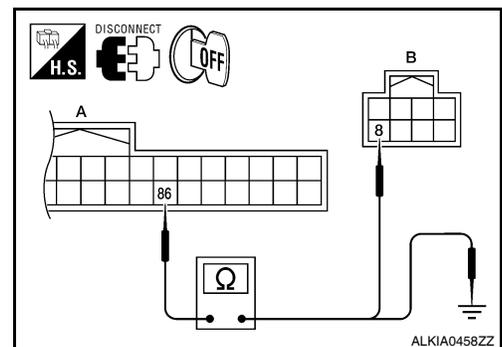
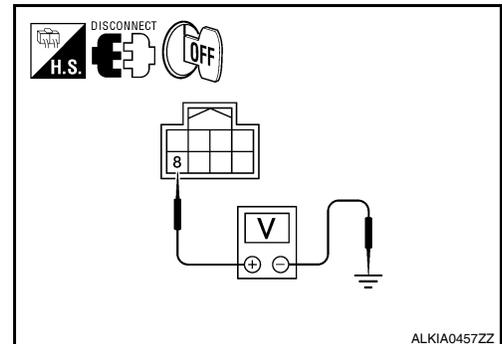
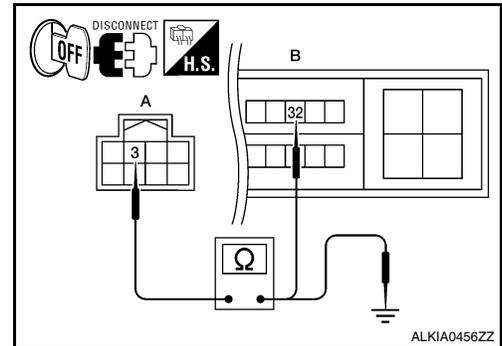
1. Disconnect BCM harness connector.
2. Check continuity between BCM harness connector M19 (A) terminal 86 and electronic steering column lock harness connector M32 (B) terminal 8.

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?



B2612 STEERING STATUS

[SEDAN WITHOUT INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

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

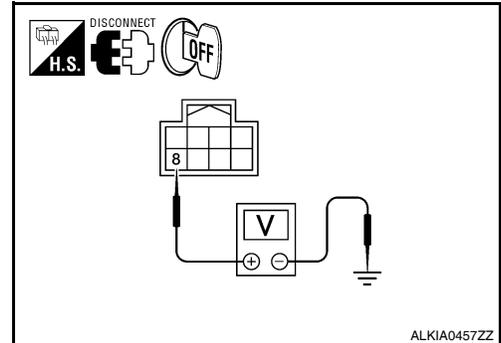
9. CHECK IPDM E/R OUTPUT SIGNAL

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

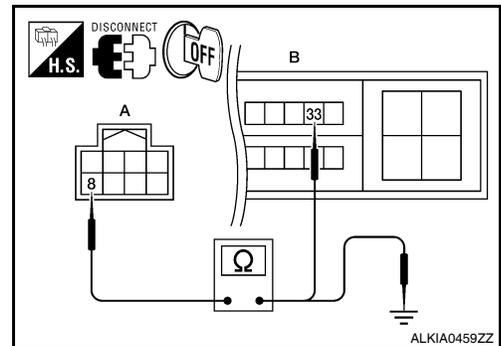


10. CHECK ELECTRONIC STEERING COLUMN LOCK CIRCUIT-II

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.

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B2617 STARTER RELAY CIRCUIT

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B2617 STARTER RELAY CIRCUIT

Description

INFOID:000000004499180

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:000000004499181

DTC DETECTION LOGIC

NOTE:

- If DTC B2617 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-433, "DTC Logic"](#).
- If DTC B2617 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-434, "DTC Logic"](#).
- If DTC B2617 is displayed with DTC B210E, first perform the trouble diagnosis for DTC B210E. Refer to [SEC-496, "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-III.

Is DTC detected?

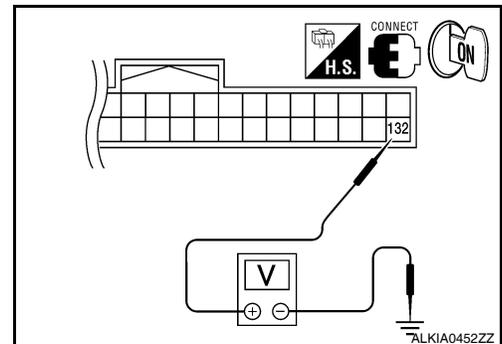
- YES >> Refer to [SEC-496, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499182

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

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

BCM		Ground	Transmission type	Condition	Voltage (V)
Connector	Terminal				
M21	132	Ground	Select lever in Park	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

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

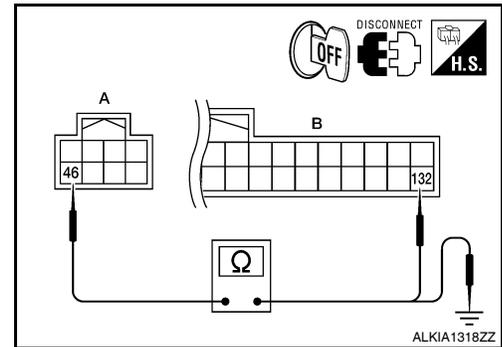
YES >> Replace BCM. Refer to [BCS-96. "Removal and Installation"](#).

NO >> Repair harness or connector.

3. CHECK INTERMITTENT INCIDENT

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

>> Inspection End.



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B2619 BCM**Description**

INFOID:000000004499183

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

DTC Logic

INFOID:000000004499184

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 steering lock unit 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-III.

Is DTC detected?

- YES >> Refer to [SEC-498. "Diagnosis Procedure"](#).
 NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499185

1. INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT-III.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**
See [SEC-498. "DTC Logic"](#).

Is the DTC B2619 displayed again?

- YES >> Replace BCM. Refer to [BCS-96. "Removal and Installation"](#).
 NO >> Inspection End.

B261A PUSH-BUTTON IGNITION SWITCH

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B261A PUSH-BUTTON IGNITION SWITCH

Description

INFOID:000000004499186

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:000000004499187

DTC DETECTION LOGIC

NOTE:

- If DTC B261A is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-433, "DTC Logic"](#).
- If DTC B261A is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-434, "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-III.

Is DTC detected?

- YES >> Refer to [SEC-499, "Diagnosis Procedure"](#).
 NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499188

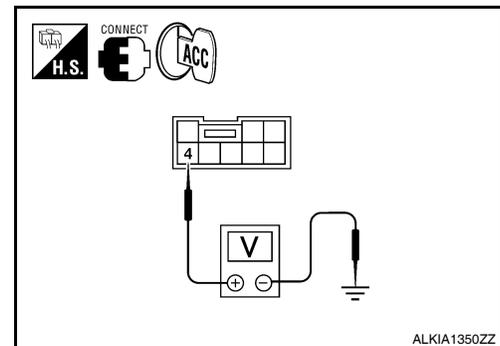
1. CHECK PUSH-BUTTON IGNITION SWITCH OUTPUT SIGNAL 1

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.

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.

B261A PUSH-BUTTON IGNITION SWITCH

[SEDAN WITHOUT INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

- 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

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

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

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair harness or connector.

3. CHECK PUSH-BUTTON IGNITION SWITCH

- Disconnect IPDM E/R harness connector.
- 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

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

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

Is the inspection result normal?

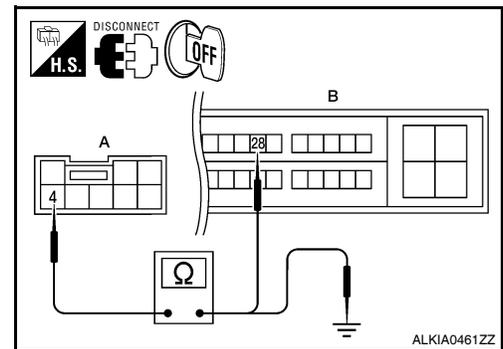
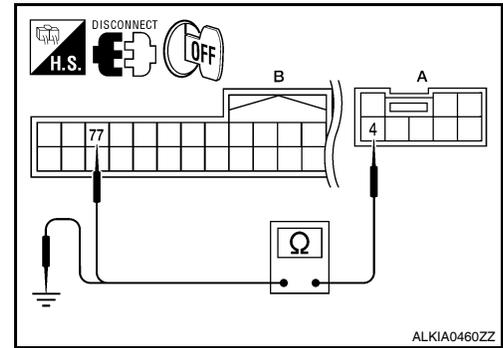
YES >> GO TO 4

NO >> Repair harness or connector.

4. CHECK INTERMITTENT INCIDENT

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

>> Inspection End.



B26E1 NO RECEPTION OF ENGINE STATUS SIGNAL

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B26E1 NO RECEPTION OF ENGINE STATUS SIGNAL

Description

INFOID:000000004499192

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

DTC Logic

INFOID:000000004499193

DTC DETECTION LOGIC

NOTE:

- If DTC B26E1 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-433, "DTC Logic"](#).
- If DTC B26E1 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-434, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B26E1	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-III.

Is DTC detected?

- YES >> Refer to [SEC-501, "Diagnosis Procedure"](#).
NO >> Inspection End.

Diagnosis Procedure

INFOID:000000004499194

1. INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT-III.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**
See [SEC-501, "DTC Logic"](#).

Is the DTC B26E1 displayed again?

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

2. REPLACE ECM

1. Replace ECM.
2. Refer to [EC-560, "BASIC INSPECTION : Special Repair Requirement"](#) (QR25DE except California) or [EC-24, "BASIC INSPECTION : Special Repair Requirement"](#) (QR25DE California).

>> Inspection End.

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SEC

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM : Diagnosis Procedure

INFOID:000000004499195

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?

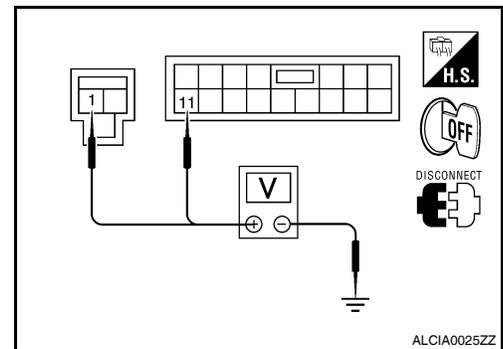
YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

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		
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

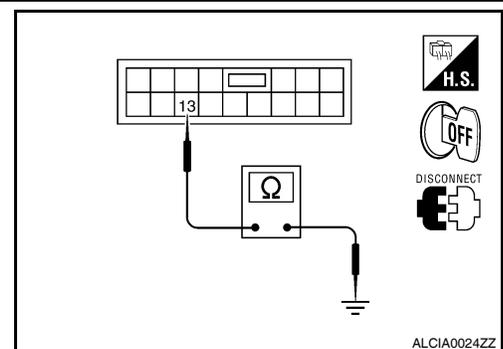
Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M17	13		Yes

Does continuity exist?

YES >> Inspection End.

NO >> Repair or replace harness.



BCM : Special Repair Requirement

INFOID:000000004499196

1. REQUIRED WORK WHEN REPLACING BCM

Initialize control unit. Refer to [BCS-6. "CONFIGURATION \(BCM\) : 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

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

agnosis Procedure

INFOID:00000004499198

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?

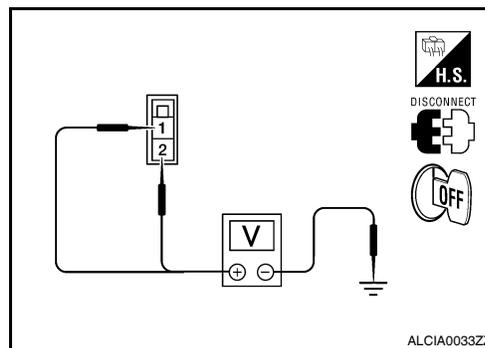
YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

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

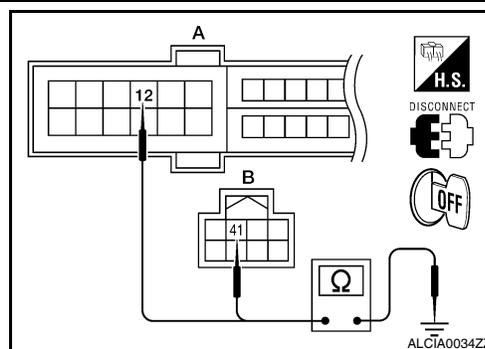
Check continuity between IPDM E/R harness connectors and ground.

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.



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KEY SLOT

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

KEY SLOT

Diagnosis Procedure

INFOID:000000004499200

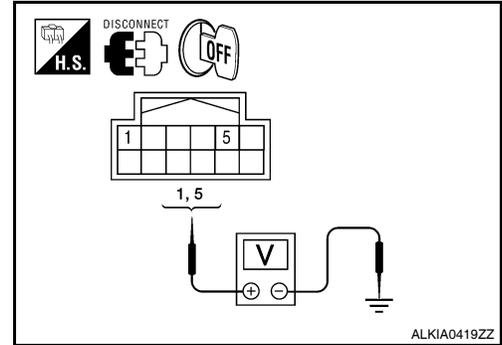
1. CHECK KEY SLOT POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect key slot connector.
3. Check voltage between slot connector and ground.

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

Is the inspection result normal?

- YES >> GO TO 2
NO >> Repair or replace key slot power supply circuit.



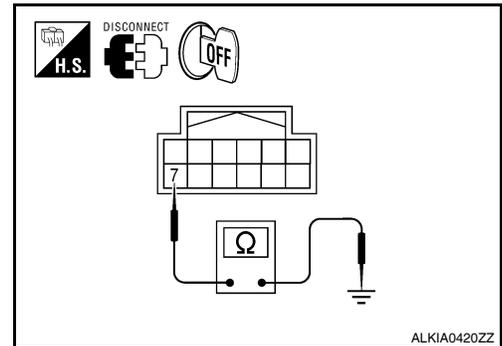
2. CHECK KEY SLOT GROUND CIRCUIT

Check continuity between key slot connector and ground.

Key slot		Ground	Continuity
Connector	Terminal		
M40	7	Ground	Yes

Is the inspection result normal?

- YES >> GO TO 3
NO >> Repair or replace key slot ground circuit.



3. CHECK INTERMITTENT INCIDENT

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

>> Inspection End.

KEY SLOT ILLUMINATION

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

KEY SLOT ILLUMINATION

Description

INFOID:000000004499201

Blinks when keyfob insertion is required.

Component Function Check

INFOID:000000004499202

1.CHECK FUNCTION

With CONSULT-III

Check key slot illumination ("KEY SLOT ILLUMI") Active Test mode.

Is the inspection result normal?

YES >> Key slot function is OK.

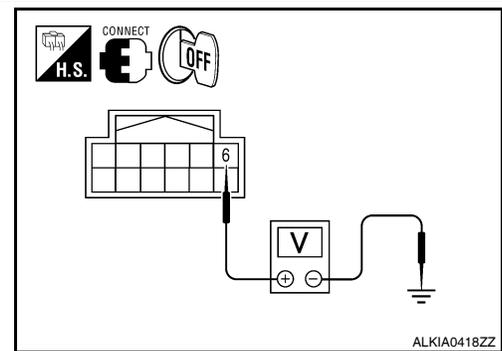
NO >> Refer to [SEC-505. "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000004499203

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	Keyfob inserted	OFF	Battery voltage
			Keyfob removed	ON	0

Is the inspection result normal?

YES >> GO TO 6

NO >> GO TO 2

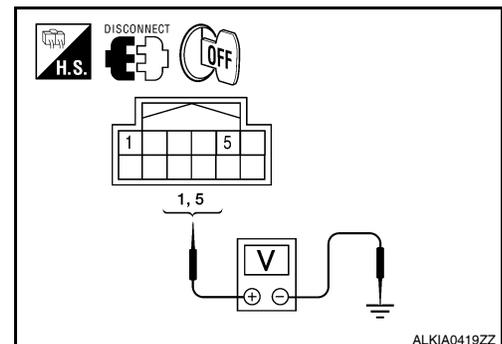
2.CHECK KEY SLOT POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect key slot connector.
3. Check voltage between slot connector and ground.

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

Is the inspection result normal?

YES >> GO TO 3



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KEY SLOT ILLUMINATION

[SEDAN WITHOUT INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

NO >> Repair or replace key slot power supply circuit.

3. CHECK KEY SLOT GROUND CIRCUIT

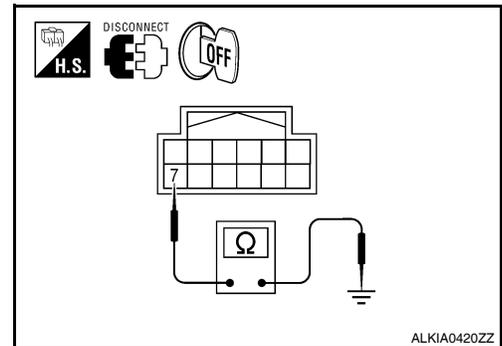
Check continuity between key slot connector and ground.

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

- Turn ignition switch OFF.
- Disconnect BCM and key slot connector.
- Check continuity between BCM connector and key slot connector.

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-505. "Description"](#).

Is the inspection result normal?

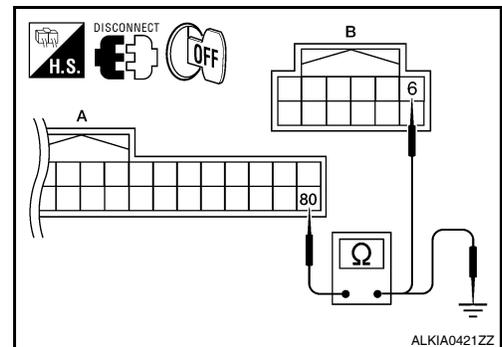
YES >> GO TO 6

NO >> Replace key slot. Refer to [SEC-596. "Removal and Installation"](#).

6. CHECK INTERMITTENT INCIDENT

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

>> Inspection End.



KEY CYLINDER SWITCH

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

KEY CYLINDER SWITCH

Description

INFOID:000000004499204

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:000000004499205

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-III. Refer to [DLK-231. "Work Flow"](#).

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.

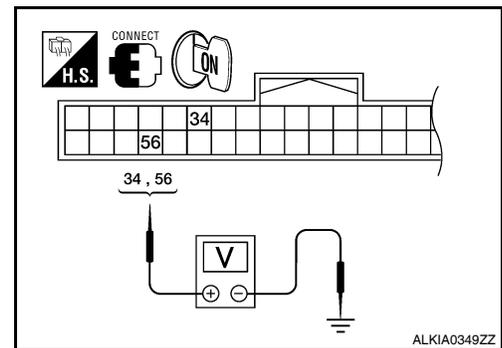
NO >> Refer to [DLK-306. "Diagnosis Procedure \(With LH Anti-Pinch Only\)"](#).

Diagnosis Procedure

INFOID:000000004499207

1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

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



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 [PWC-186. "Removal and Installation"](#).

KEY CYLINDER SWITCH

[SEDAN WITHOUT INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

NO >> GO TO 2

2.CHECK DOOR KEY CYLINDER SWITCH GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect front door lock assembly LH (key cylinder switch) connector.
3. 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

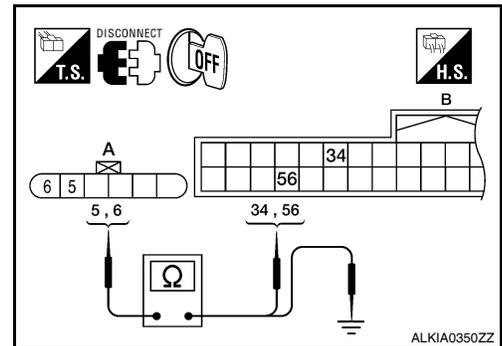
NO >> Repair or replace harness.

3.CHECK DOOR KEY CYLINDER SIGNAL CIRCUIT

1. Disconnect BCM connector M18.
2. 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	

3. 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.

4.CHECK DOOR KEY CYLINDER SWITCH

Check door key cylinder switch.

Refer to [SEC-508. "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-451. "FRONT DOOR LOCK : Removal and Installation"](#).

Component Inspection

INFOID:000000004499208

COMPONENT INSPECTION

1.CHECK DOOR KEY CYLINDER SWITCH

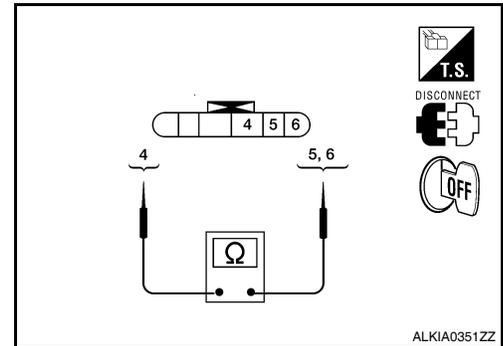
KEY CYLINDER SWITCH

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

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-451, "FRONT DOOR LOCK : Removal and Installation"](#).

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HORN

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

HORN

Description

INFOID:000000004499210

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

Component Function Check

INFOID:000000004499211

1.CHECK FUNCTION

1. Select HORN in "ACTIVE TEST" mode with CONSULT-III.
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-510, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000004499212

1.CHECK HORN FUNCTION

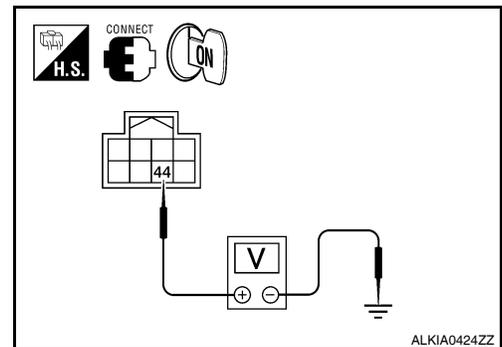
Check horn function with horn switch

Do the horns sound?

- YES >> GO TO 2
NO >> Refer to [HRN-7, "Wiring Diagram - Sedan"](#).

2.CHECK HORN RELAY POWER SUPPLY

1. Turn ignition switch ON.
2. Perform "ACTIVE TEST" ("HORN") with CONSULT-III.
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 >> Repair or replace harness between IPDM E/R and horn relay.
NO >> GO TO 3

3.CHECK HORN RELAY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R and horn relay connector.

HORN

[SEDAN WITHOUT INTELLIGENT KEY]

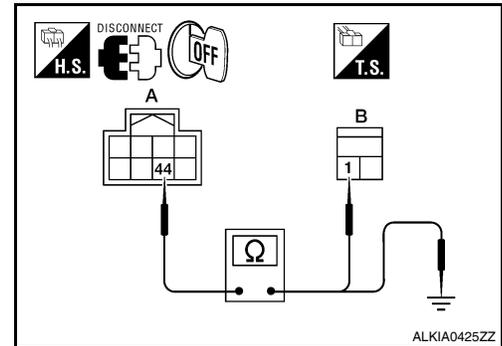
< COMPONENT DIAGNOSIS >

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-48. "Removal and Installation"](#).

NO >> Repair or replace the malfunctioning part.

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HEADLAMP

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

HEADLAMP

Description

INFOID:000000004499213

Headlamp lighting when theft warning system is in alarm phase.

Component Function Check

INFOID:000000004499214

1.CHECK HEADLAMP OPERATION

Check if headlamps operate by lighting switch.

Does headlamp come on when turning switch "ON"?

YES >> Headlamp circuit is OK.

NO >> Check headlamp system. Refer to [SEC-512, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000004499215

1.CHECK HEADLAMP OPERATION

Refer to [EXL-61, "Wiring Diagram - Sedan"](#).

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace malfunctioning parts.

2.CHECK INTERMITTENT INCIDENT

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

>> Inspection End.

WARNING LAMP

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

WARNING LAMP

Description

INFOID:000000004499216

- Warning lamp is built in combination meter.
- Remote keyless entry system malfunction is reported to the driver by the warning lamp illumination.

Component Function Check

INFOID:000000004499217

1.CHECK FUNCTION

1. Perform "INDICATOR" in the "Active Test" mode with CONSULT-III.
2. Check warning lamp operation.

Test item		Description	
INDICATOR	ON	Warning lamp	ON
	OFF		OFF

Is the inspection result normal?

- YES >> Inspection End.
NO >> Refer to [SEC-513, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000004499218

1.CHECK "COMBINATION METER."

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

Is the inspection result normal?

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

2.CHECK INTERMITTENT INCIDENT

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

>> Inspection End.

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VEHICLE SECURITY INDICATOR

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

VEHICLE SECURITY INDICATOR

Description

INFOID:000000004499219

- Vehicle security indicator is built in combination meter.
- NVIS (Nissan Vehicle Immobilizer System-NATS) and vehicle security system conditions are indicated by blink or illumination of vehicle security indicator.

Component Function Check

INFOID:000000004499220

1.CHECK FUNCTION

1. Perform "THEFT IND" in the "ACTIVE TEST" mode with CONSULT-III.
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 >> Refer to [SEC-514, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000004499221

1.CHECK COMBINATION METER

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

Is the inspection result normal?

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

2.CHECK INTERMITTENT INCIDENT

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

>> Inspection End.

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

ECU DIAGNOSIS

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:000000004499225

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 - 7	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 door RH closed	OFF
	Rear door RH opened	ON
DOOR SW-RL	Rear door LH closed	OFF
	Rear door LH opened	ON

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

Monitor Item	Condition	Value/Status
DOOR SW-BK	NOTE: This item is displayed, but cannot be monitored.	OFF
CDL LOCK SW	Other than power door lock switch LOCK	OFF
	Power door lock switch LOCK	ON
CDL UNLOCK SW	Other than power door lock switch UNLOCK	OFF
	Power door lock switch UNLOCK	ON
KEY CYL LK-SW	Other than driver door key cylinder LOCK position	OFF
	Driver door key cylinder LOCK position	ON
KEY CYL UN-SW	Other than driver door key cylinder UNLOCK position	OFF
	Driver door key cylinder UNLOCK position	ON
KEY CYL SW-TR	NOTE: This item is displayed, but cannot be monitored.	OFF
HAZARD SW	When hazard switch is not pressed	OFF
	When hazard switch is pressed	ON
REAR DEF SW	When rear window defogger switch is pressed	ON
TR CANCEL SW	Trunk lid opener cancel switch OFF	OFF
	Trunk lid opener cancel switch ON	ON
TR/BD OPEN SW	Trunk lid opener switch OFF	OFF
	While the trunk lid opener switch is turned ON	ON
TRNK/HAT MNTR	Trunk lid closed	OFF
	Trunk lid opened	ON
RKE-LOCK	When LOCK button of Intelligent Key is not pressed	OFF
	When LOCK button of Intelligent Key is pressed	ON
RKE-UNLOCK	When UNLOCK button of Intelligent Key is not pressed	OFF
	When UNLOCK button of Intelligent Key is pressed	ON
RKE-TR/BD	When TRUNK OPEN button of Intelligent Key is not pressed	OFF
	When TRUNK OPEN button of Intelligent Key is pressed	ON
RKE-PANIC	When PANIC button of Intelligent Key is not pressed	OFF
	When PANIC button of Intelligent Key is pressed	ON
RKE-P/W OPEN	When UNLOCK button of Intelligent Key is not pressed and held	OFF
	When UNLOCK button of Intelligent Key is pressed and held	ON
RKE-MODE CHG	When LOCK/UNLOCK button of Intelligent Key is not pressed and held simultaneously	OFF
	When LOCK/UNLOCK button of Intelligent Key is pressed and held simultaneously	ON
OPTICAL SENSOR	When outside of the vehicle is bright	Close to 5 V
	When outside of the vehicle is dark	Close to 0 V
REQ SW-DR	When driver door request switch is not pressed	OFF
	When driver door request switch is pressed	ON
REQ SW-AS	When passenger door request switch is not pressed	OFF
	When passenger door request switch is pressed	ON
REQ SW-BD/TR	When trunk request switch is not pressed	OFF
	When trunk request switch is pressed	ON
PUSH SW	When engine switch (push switch) is not pressed	OFF
	When engine switch (push switch) is pressed	ON

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

Monitor Item	Condition	Value/Status
IGN RLY2-F/B	Ignition switch OFF or ACC	OFF
	Ignition switch ON	ON
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

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

Monitor Item	Condition	Value/Status
DOOR STAT-DR	Driver door LOCK status	LOCK
	Wait with selective UNLOCK operation (5 seconds)	READY
	Driver door UNLOCK status	UNLK
DOOR STAT-AS	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
PRMT RKE STAT	NOTE: This item is displayed, but cannot be monitored.	RESET
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
RKE OPE COUN2	NOTE: This item is displayed, but cannot be monitored.	Operation frequency of Intelligent Key
CONFIRM ID ALL	The key ID that the key slot receives does not accord with any key ID registered to BCM.	YET
	The key ID that the key slot receives accords with any key ID registered to BCM.	DONE
CONFIRM ID4	The key ID that the key slot receives does not accord with the fourth key ID registered to BCM.	YET
	The key ID that the key slot receives accords with the fourth key ID registered to BCM.	DONE
CONFIRM ID3	The key ID that the key slot receives does not accord with the third key ID registered to BCM.	YET
	The key ID that the key slot receives accords with the third key ID registered to BCM.	DONE
CONFIRM ID2	The key ID that the key slot receives does not accord with the second key ID registered to BCM.	YET
	The key ID that the key slot receives accords with the second key ID registered to BCM.	DONE
CONFIRM ID1	The key ID that the key slot receives does not accord with the first key ID registered to BCM.	YET
	The key ID that the key slot receives accords with the first key ID registered to BCM.	DONE
TP 4	The ID of fourth key is not registered to BCM	YET
	The ID of fourth key is registered to BCM	DONE
TP 3	The ID of third key is not registered to BCM	YET
	The ID of third key is registered to BCM	DONE
TP 2	The ID of second key is not registered to BCM	YET
	The ID of second key is registered to BCM	DONE
TP 1	The ID of first key is not registered to BCM	YET
	The ID of first key is registered to BCM	DONE
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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

Monitor Item	Condition	Value/Status
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
BUZZER	Tire pressure warning alarm is not sounding	OFF
	Tire pressure warning alarm is sounding	ON

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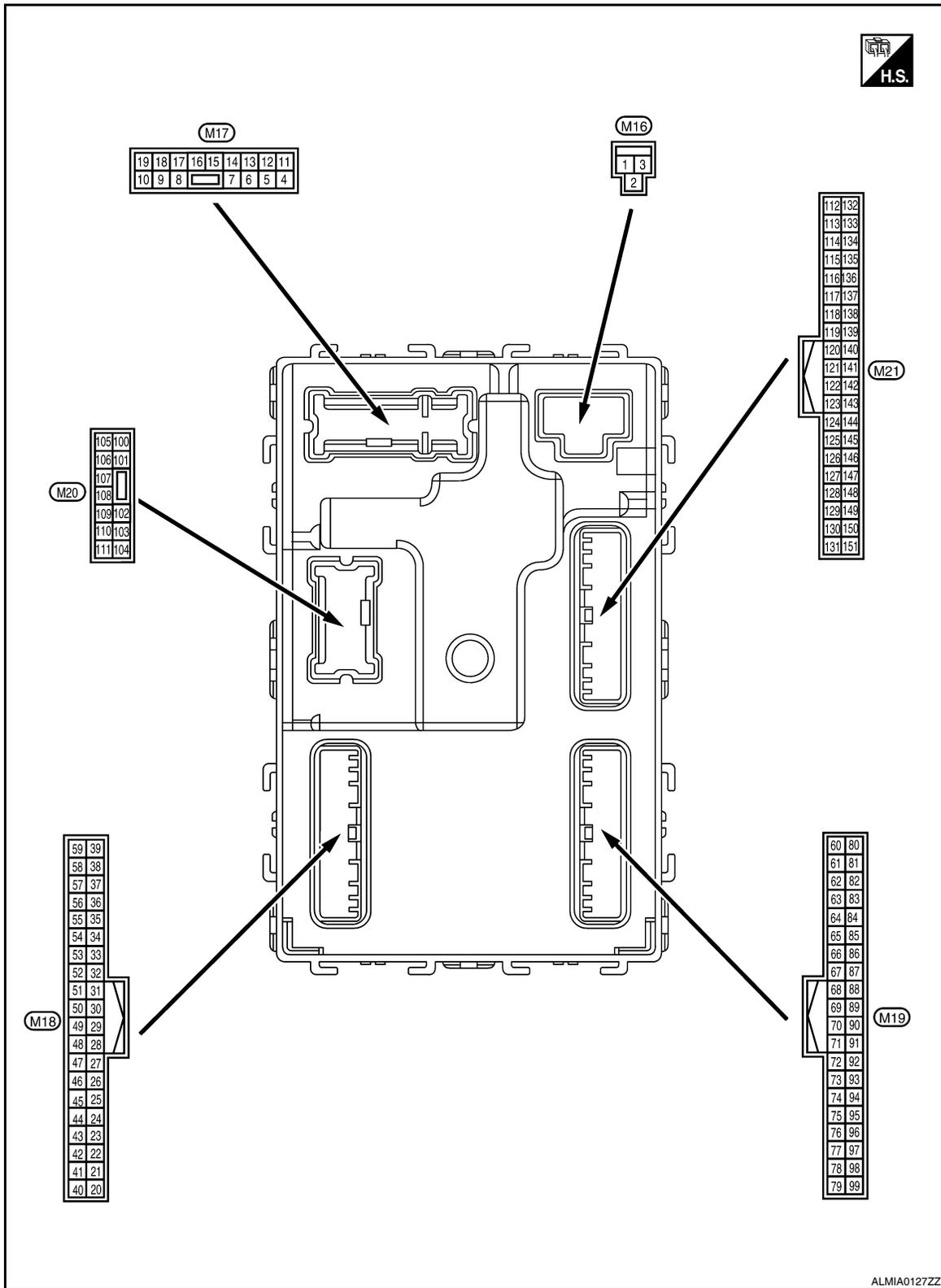
BCM (BODY CONTROL MODULE)

[SEDAN WITHOUT INTELLIGENT KEY]

< ECU DIAGNOSIS >

Terminal Layout

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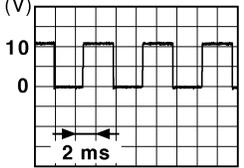
Physical Values

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

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 (R/Y)	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: right; font-size: small;">JSNIA0010GB</p>
15 (Y/L)	Ground	ACC indicator lamp	Output	Ignition switch	OFF	Battery voltage
					ACC or ON	0V

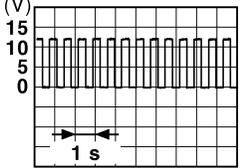
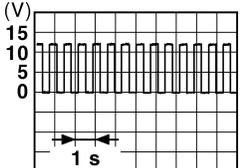
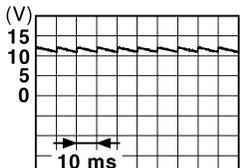
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BCM (BODY CONTROL MODULE)

[SEDAN WITHOUT INTELLIGENT KEY]

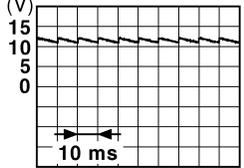
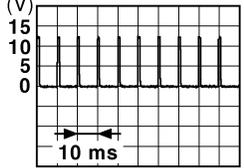
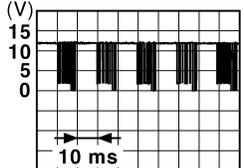
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Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
17 (G/B)	Ground	Turn signal (RH)	Output	Ignition switch ON	Turn signal switch OFF	0V
					Turn signal switch RH	 <p style="text-align: center;">6.5 V</p>
18 (G/Y)	Ground	Turn signal (LH)	Output	Ignition switch ON	Turn signal switch OFF	0V
					Turn signal switch LH	 <p style="text-align: center;">6.5 V</p>
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 vehi- cle is bright	Close to 5V
					When outside of the vehi- cle is dark	Close to 0V
22 (R/Y)	Ground	Clutch interlock switch	Input	Clutch interlock switch	OFF (clutch pedal is not depressed)	0V
					ON (clutch pedal is de- pressed)	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 de- pressed)	0V
					ON (brake pedal is de- pressed)	Battery voltage
27 (G/W)	Ground	Front door lock as- sembly LH (unlock sensor)	Input	Front door LH	LOCK status	 <p style="text-align: center;">11.8V</p>
					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

BCM (BODY CONTROL MODULE)

[SEDAN WITHOUT INTELLIGENT KEY]

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
(+)	(-)					
31 (G)	Ground	Rear window defogger feedback signal	Input	Rear window defogger 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)	 <p style="text-align: right; margin-right: 50px;">JPMIA0011GB</p>
					ON (when front door RH opens)	0V
33 (SB)	Ground	Compressor ON signal	Input	A/C switch	OFF	5V
					ON	0V
34 ² (L/R)	Ground	Front door lock assembly LH (key cylinder switch) (unlock)	Input	Front door lock assembly LH (key cylinder switch)	OFF (neutral)	5V
					ON (unlock)	0V
36 ² (GR)	Ground	Lock switch signal	Input	Door lock/unlock switch	Lock	Battery voltage
					Unlock	0V
37 (O)	Ground	Trunk lid opener cancel switch	Input	Trunk lid opener cancel switch	CANCEL	 <p style="text-align: right; margin-right: 50px;">JPMIA0012GB</p>
					ON	0V
38 (GR/W)	Ground	Rear window defogger ON signal	Input	Rear window defogger switch	OFF	5V
					ON	0V
39 ² (GR/R)	Ground	Unlock switch signal	Input	Door lock/unlock switch	Unlock	Battery voltage
					Lock	0V
40 ³ (Y/G)	Ground	Power window serial link	Input/ Output	Ignition switch ON	 <p style="text-align: right; margin-right: 50px;">JPMIA0013GB</p>	
				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	

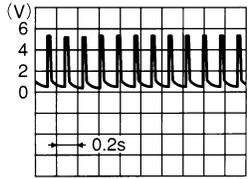
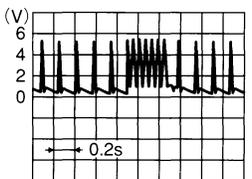
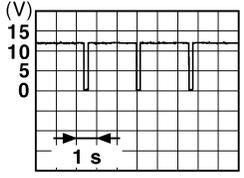
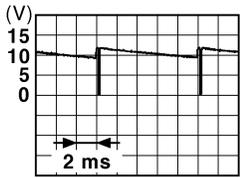
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BCM (BODY CONTROL MODULE)

[SEDAN WITHOUT INTELLIGENT KEY]

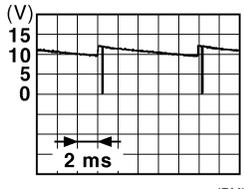
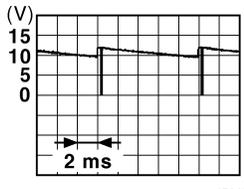
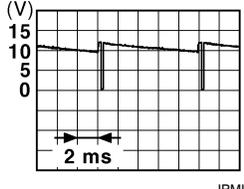
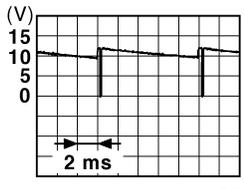
< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
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	
					When receiving the signal from the transmitter	
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	
50 (LG/ B)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper intermittent dial 4)	OFF	Battery voltage
					All switch OFF	0V
					Lighting switch 1ST	
					Lighting switch high-beam	
					Lighting switch 2ND	
Turn signal switch RH						

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< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
(+)	(-)	Signal name	Input/ Output		
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 intermittent dial 4)	All switch OFF 0V
				Lighting switch AUTO	Front wiper switch INT Front wiper switch LO
					
54 (G/Y)	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper intermittent dial 4)	All switch OFF 0V
				Turn signal switch LH	Front fog lamp switch ON Lighting switch 2ND Lighting switch flash-to-pass
					
55 (BR/ W)	Ground	Front blower monitor	Input	Front blower motor switch	ON Battery voltage OFF 0V
56 ² (L/B)	Ground	Front door lock assembly LH (key cylinder switch) (lock)	Input	Front door lock assembly LH (key cylinder switch)	OFF (neutral) 5V
					ON (lock) 0V
57 (W)	Ground	Tire pressure warning check switch	Input	—	5V

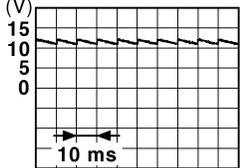
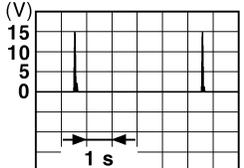
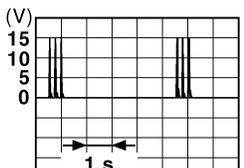
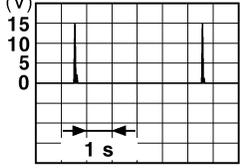
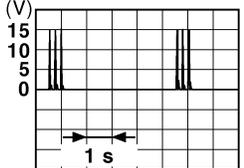
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
(+)	(-)	Signal name	Input/ Output			
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</p> <p style="text-align: center;">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>
				Ignition switch OFF	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>
				Ignition switch OFF	When Intelligent Key is not in the passenger compartment	 <p style="text-align: right; font-size: small;">JMKIA0063GB</p>

BCM (BODY CONTROL MODULE)

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Terminal No. (Wire color)		Description		Condition	Value (Approx.)
(+)	(-)	Signal name	Input/ Output		
62 ⁴ (B/Y)	Ground	Front outside handle RH antenna (-)	Output	When Intelligent Key is in the antenna detection area	<p>JMKIA0062GB</p>
				When Intelligent Key is not in the antenna detection area	<p>JMKIA0063GB</p>
63 ⁴ (LG)	Ground	Front outside handle RH antenna (+)	Output	When Intelligent Key is in the antenna detection area	<p>JMKIA0062GB</p>
				When Intelligent Key is not in the antenna detection area	<p>JMKIA0063GB</p>
64 ⁴ (V)	Ground	Front outside handle LH antenna (-)	Output	When Intelligent Key is in the antenna detection area	<p>JMKIA0062GB</p>
				When Intelligent Key is not in the antenna detection area	<p>JMKIA0063GB</p>

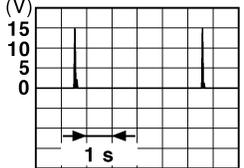
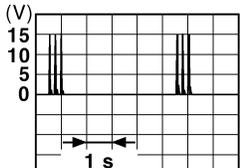
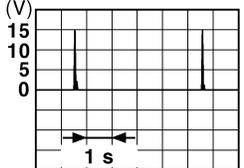
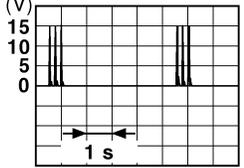
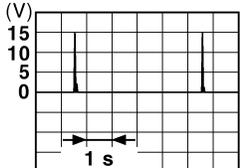
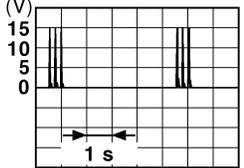
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BCM (BODY CONTROL MODULE)

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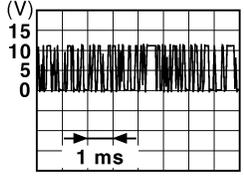
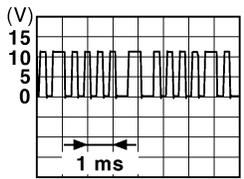
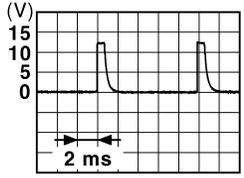
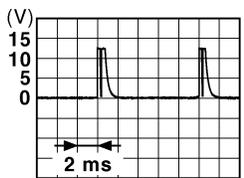
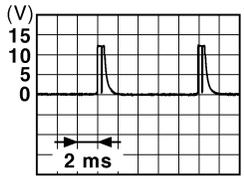
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Terminal No. (Wire color)		Description		Condition	Value (Approx.)
(+)	(-)	Signal name	Input/ Output		
65 ⁴ (P)	Ground	Front outside handle LH antenna (+)	Output	When the front door LH request switch is operat- ed with ignition switch OFF	When Intelligent Key is in the antenna detection area  <small>JMKIA0062GB</small>
				When Intelligent Key is not in the antenna detection area  <small>JMKIA0063GB</small>	
66 (R)	Ground	Instrument panel an- tenna (-)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment  <small>JMKIA0062GB</small>
				When Intelligent Key is not in the passenger compart- ment  <small>JMKIA0063GB</small>	
67 (G)	Ground	Instrument panel an- tenna (+)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment  <small>JMKIA0062GB</small>
				When Intelligent Key is not in the passenger compart- ment  <small>JMKIA0063GB</small>	

BCM (BODY CONTROL MODULE)

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[SEDAN WITHOUT INTELLIGENT KEY]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
(+)	(-)	Signal name	Input/ Output			
68 (G/O)	Ground	NATS antenna amp (built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
69 (O)	Ground	NATS antenna amp (built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
70 (R/B)	Ground	Ignition relay-2 con- trol	Output	Ignition switch	OFF or ACC	0V
					ON	Battery voltage
71 (L/O)	Ground	Remote keyless entry receiver signal	Input/ Output	During waiting		 <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>
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;">JPMIA0041GB</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;">JPMIA0037GB</p> <p style="text-align: center;">1.3V</p>
					Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7	 <p style="text-align: right; font-size: small;">JPMIA0040GB</p> <p style="text-align: center;">1.3V</p>

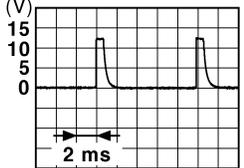
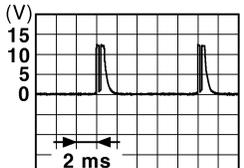
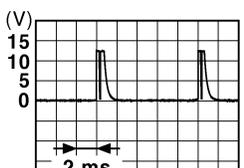
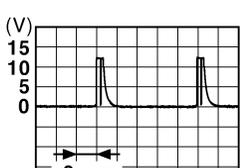
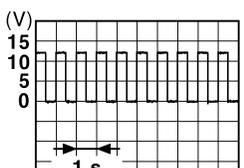
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

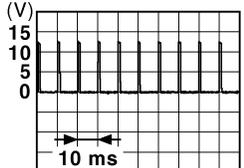
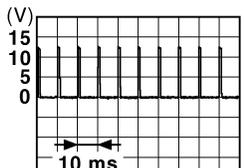
[SEDAN WITHOUT INTELLIGENT KEY]

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)

[SEDAN WITHOUT INTELLIGENT KEY]

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
(+)	(-)					
81 (LG)	Ground	ON indicator lamp	Output	Ignition switch	OFF or ACC	0V
					ON	Battery voltage
83 (L)	Ground	ACC relay control	Output	Ignition switch	OFF	0V
					ACC or ON	Battery voltage
84 (Y/R)	Ground	CVT device	Output	—		Battery voltage
85 (L/O)	Ground	Electronic steering column lock condition No. 1	Input	Electronic steer- ing column lock	Lock status	0V
					Unlock status	Battery voltage
86 (G/R)	Ground	Electronic steering column lock condition No. 2	Input	Electronic steer- ing column lock	Lock status	Battery voltage
					Unlock status	0V
87 (G/B)	Ground	Selector lever P posi- tion switch	Input	Selector lever	P position	0V
					Any position other than P	Battery voltage
88 ⁴ (P/L)	Ground	Front door RH re- quest switch	Input	Front door RH re- quest switch	ON (pressed)	0V
					OFF (not pressed)	 <p style="text-align: right; font-size: small;">JPMIA0016GB 1.0V</p>
89 ⁴ (B/W)	Ground	Front door LH re- quest switch	Input	Front door LH re- quest 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 re- lay control	Output	Ignition switch	OFF or ACC	0V
					ON	Battery voltage
91 (L/R)	Ground	Remote keyless entry receiver power sup- ply	Output	Ignition switch OFF		Battery voltage
94 (G/Y)	Ground	Steering wheel lock unit power supply	Output	Ignition switch	OFF or ACC	Battery voltage
					ON	0V

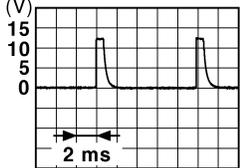
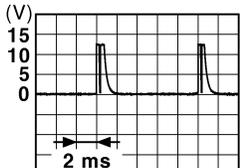
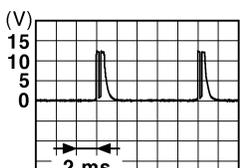
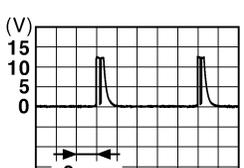
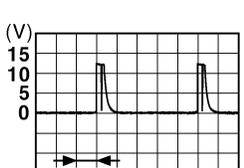
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BCM (BODY CONTROL MODULE)

[SEDAN WITHOUT INTELLIGENT KEY]

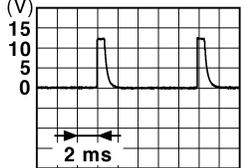
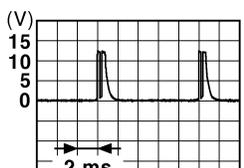
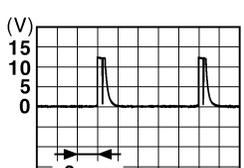
< ECU DIAGNOSIS >

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)

[SEDAN WITHOUT INTELLIGENT KEY]

< ECU DIAGNOSIS >

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) <div style="text-align: right;">  <p style="font-size: small; margin: 0;">JPMIA0041GB</p> <p style="margin: 0;">1.4V</p> </div>
				Lighting switch AUTO (Wiper intermittent dial 4)	Lighting switch AUTO (Wiper intermittent dial 4) <div style="text-align: right;">  <p style="font-size: small; margin: 0;">JPMIA0038GB</p> <p style="margin: 0;">1.3V</p> </div>
				Lighting switch 1ST (Wiper intermittent dial 4)	Lighting switch 1ST (Wiper intermittent dial 4) <div style="text-align: right;">  <p style="font-size: small; margin: 0;">JPMIA0036GB</p> <p style="margin: 0;">1.3V</p> </div>
				Any of the conditions below with all switch OFF	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 <div style="text-align: right;">  <p style="font-size: small; margin: 0;">JPMIA0039GB</p> <p style="margin: 0;">1.3V</p> </div>

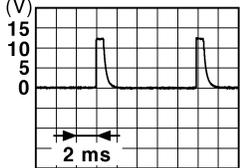
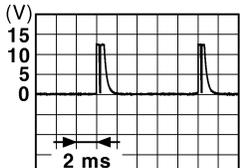
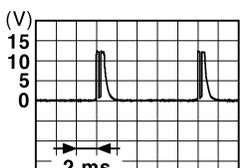
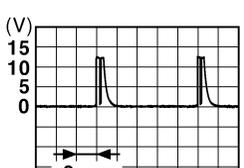
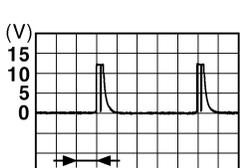
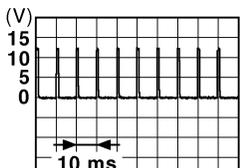
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BCM (BODY CONTROL MODULE)

[SEDAN WITHOUT INTELLIGENT KEY]

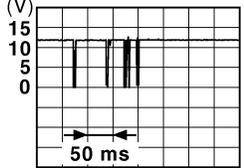
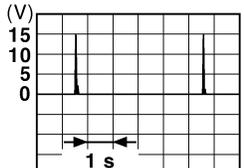
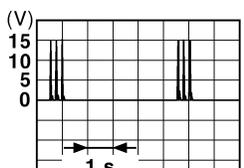
< ECU DIAGNOSIS >

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)

[SEDAN WITHOUT INTELLIGENT KEY]

< ECU DIAGNOSIS >

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	
					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	Rear parcel shelf an- tenna 1 (-)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	
					When Intelligent Key is not in the passenger compart- ment	

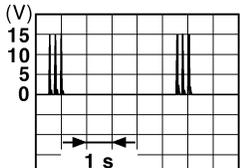
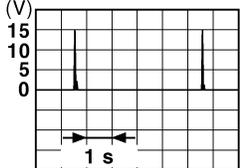
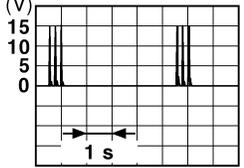
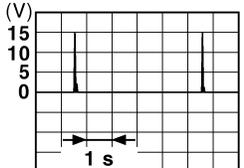
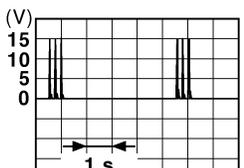
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BCM (BODY CONTROL MODULE)

[SEDAN WITHOUT INTELLIGENT KEY]

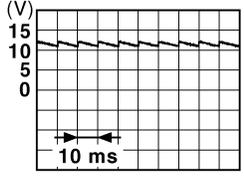
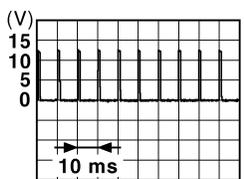
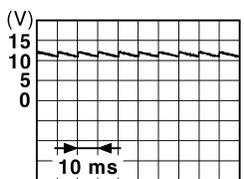
< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
(+)	(-)	Signal name	Input/ Output		
115 (W)	Ground	Rear parcel shelf antenna 1 (+)	Output		
				When Intelligent Key is not in the passenger compartment	 <p style="text-align: right; font-size: small;">JMKIA0063GB</p>
118 ⁴ (L/O)	Ground	Rear bumper antenna (-)	Output	When the trunk lid request switch is operated with ignition switch OFF	 <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 ⁴ (BR/W)	Ground	Rear bumper antenna (+)	Output	When the trunk lid request switch is operated with ignition switch OFF	 <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)

[SEDAN WITHOUT INTELLIGENT KEY]

< ECU DIAGNOSIS >

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: right;">JPMIA0011GB 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: right;">JPMIA0016GB 1.0V</p>
144 ⁴ (GR)	Ground	Intelligent Key warn- ing buzzer	Output	Request switch buzzer	Sounding	0V
					Not sounding	Battery voltage
144 ⁵ (GR)	Ground	Outside warning buzzer	Output	Outside warning 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: right;">JPMIA0011GB 11.8V</p>
					ON (when rear door RH opens)	0V

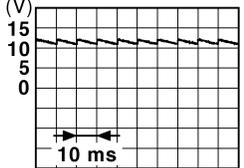
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BCM (BODY CONTROL MODULE)

[SEDAN WITHOUT INTELLIGENT KEY]

< ECU DIAGNOSIS >

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: center;">11.8V</p> <p style="text-align: right; font-size: small;">JPMIA0011GB</p>
				ON (when rear door LH opens)	0V	

- 1: Sedan only
- 2: With LH front window anti-pinch
- 3: With LH and RH front window anti-pinch
- 4: With Intelligent Key
- 5: Without Intelligent Key

BCM (BODY CONTROL MODULE)

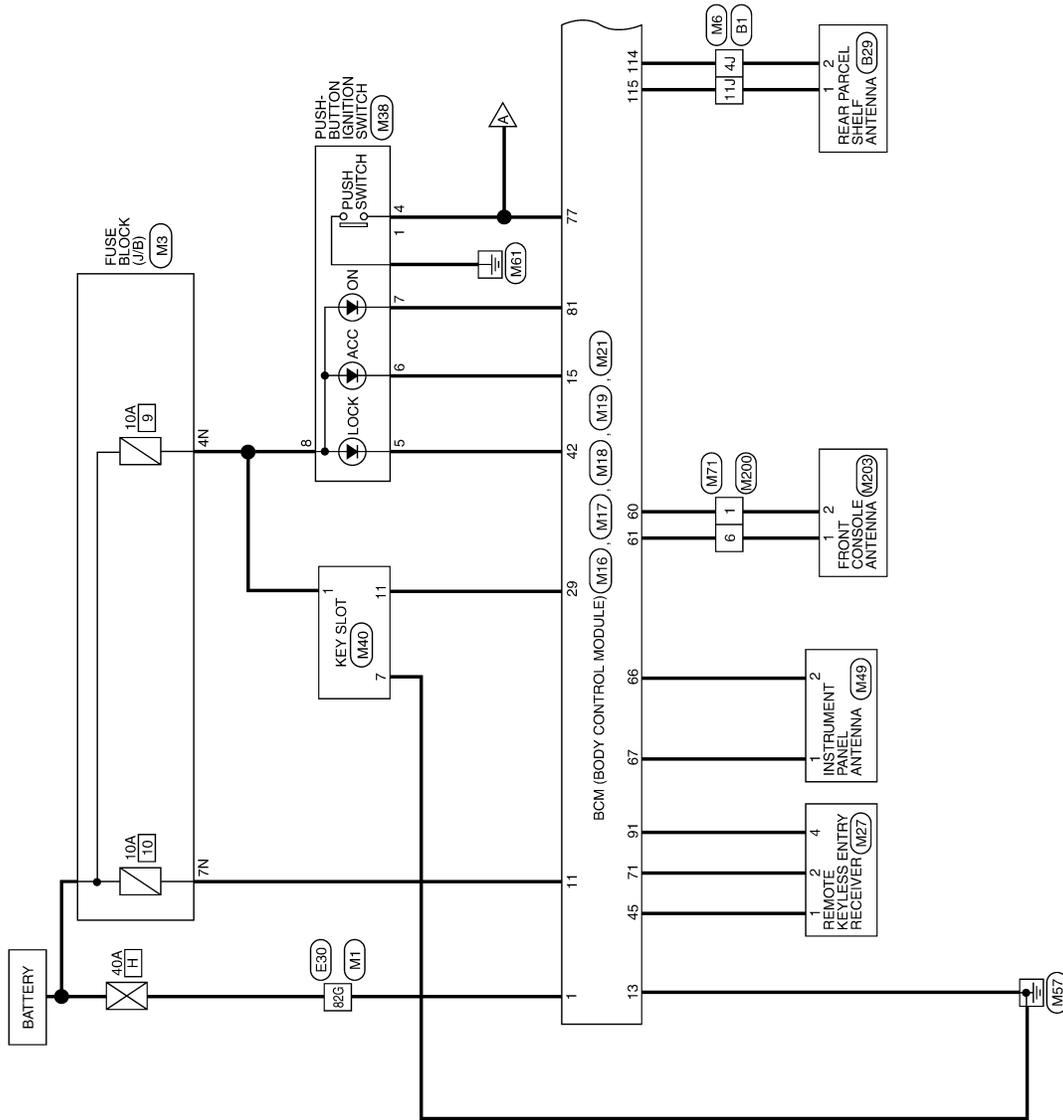
[SEDAN WITHOUT INTELLIGENT KEY]

< ECU DIAGNOSIS >

Wiring Diagram - ENGINE START FUNCTION - WITH REMOTE KEYLESS ENTRY

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ENGINE START FUNCTION - WITH REMOTE KEYLESS ENTRY



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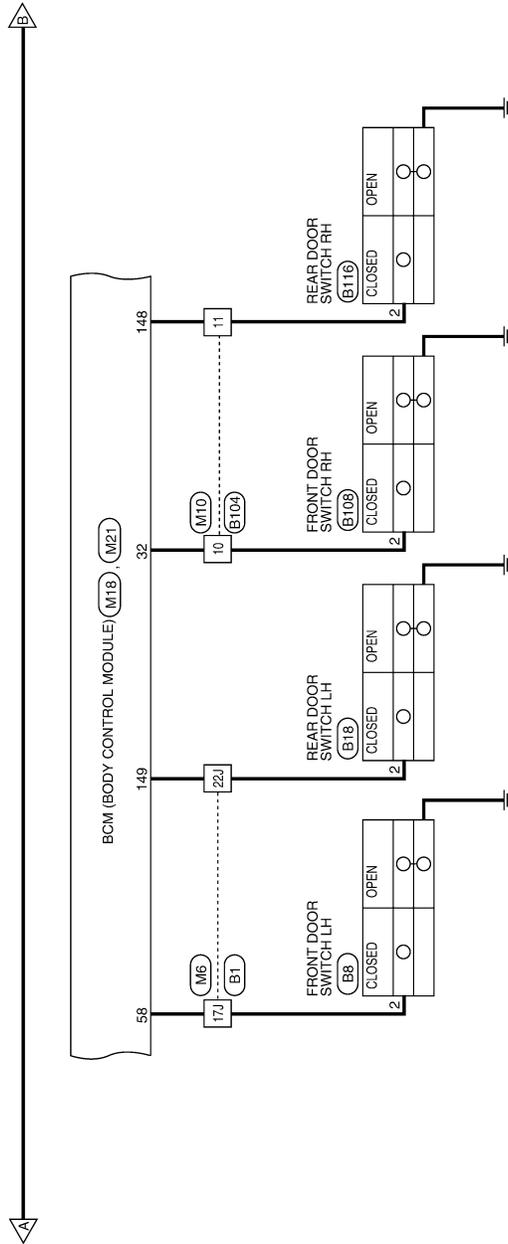
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BCM (BODY CONTROL MODULE)

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[SEDAN WITHOUT INTELLIGENT KEY]



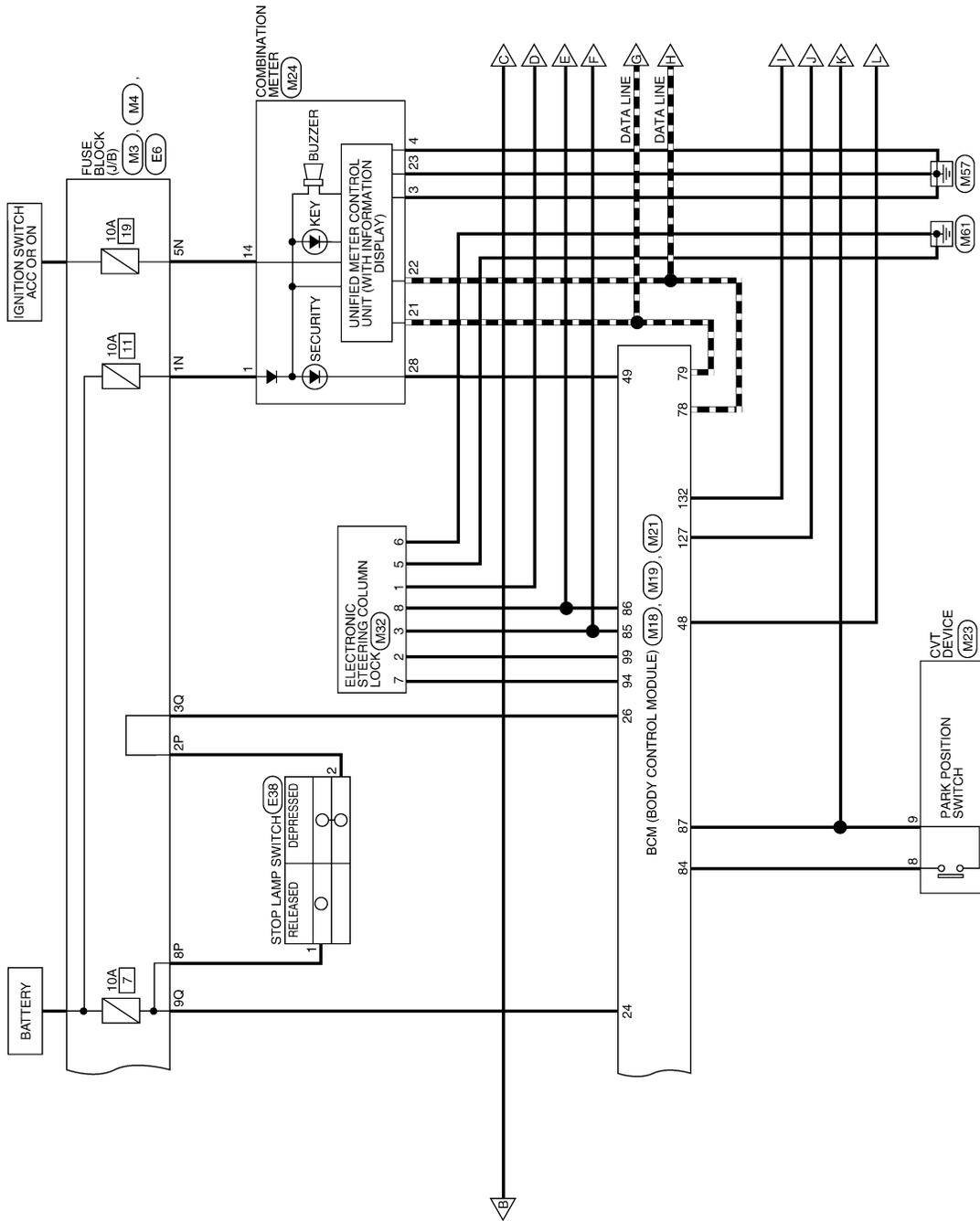
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BCM (BODY CONTROL MODULE)

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[SEDAN WITHOUT INTELLIGENT KEY]

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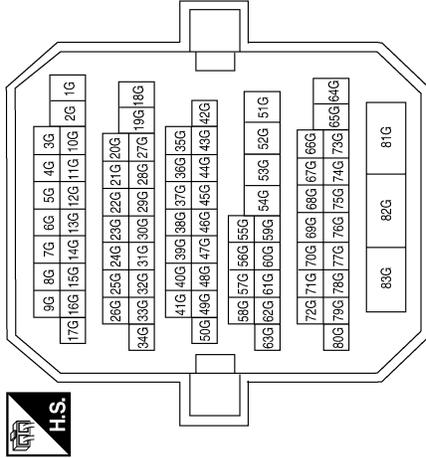
BCM (BODY CONTROL MODULE)

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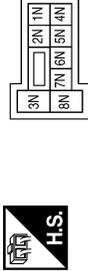
ENGINE START FUNCTION CONNECTORS - WITH REMOTE KEYLESS ENTRY

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



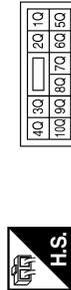
Terminal No.	Color of Wire	Signal Name
8G	P	-
15G	L	-
19G	G/B	-
20G	R	-
21G	P/L	-
22G	G/R	-
27G	BR/W	-
28G	L/O	-
29G	BR	-
33G	R/G	-
51G	L	-
52G	P	-
82G	W/B	-

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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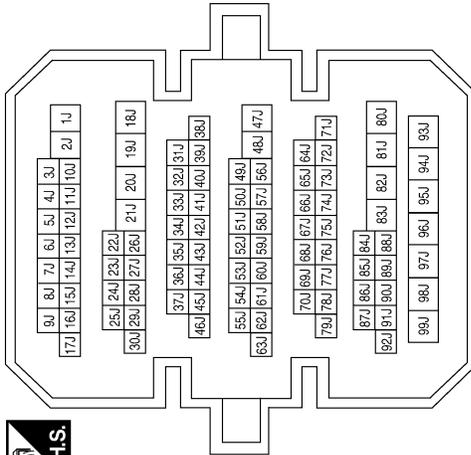
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BCM (BODY CONTROL MODULE)

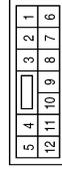
[SEDAN WITHOUT INTELLIGENT KEY]

< ECU DIAGNOSIS >

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



Connector No.	M10
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

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



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



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

Terminal No.	Color of Wire	Signal Name
11	Y/R	BAT_BCM_FUSE
13	B	GND1
15	Y/L	ACC_LED

ABKIA0855GB

BCM (BODY CONTROL MODULE)

[SEDAN WITHOUT INTELLIGENT KEY]

< ECU DIAGNOSIS >

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
66	R	ROOM_ANT_1_B
67	G	ROOM_ANT_1_A

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



39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20
59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40

Terminal No.	Color of Wire	Signal Name
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 DEVICE
Connector Color	WHITE



1	3	7	9		
2	4	5	6	8	10

Terminal No.	Color of Wire	Signal Name
114	B	TRUNK_ANT_1_B
115	W	TRUNK_ANT_1_A
127	BR/W	IGN_USM_CONT1
132	R	ST_CONT_USM
148	R/W	RR_DOOR_SW
149	R/B	RL_DOOR_SW

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



131	130	129	128	127	126	125	124	123	122	121	120	119	118	117	116	115	114	113	112
151	150	149	148	147	146	145	144	143	142	141	140	139	138	137	136	135	134	133	132

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

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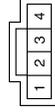
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BCM (BODY CONTROL MODULE)

[SEDAN WITHOUT INTELLIGENT KEY]

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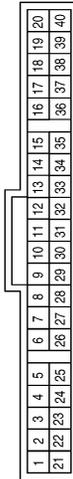
Connector No.	M27
Connector Name	REMOTE KEYLESS ENTRY RECEIVER
Connector Color	BLACK



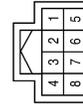
Terminal No.	Color of Wire	Signal Name
1	P	GND
2	L/O	SIGNAL
4	L/R	12V

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

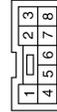
Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE



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

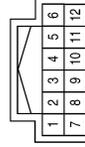


Connector No.	M38
Connector Name	PUSH-BUTTON IGNITION SWITCH
Connector Color	BROWN



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.	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

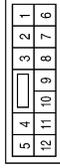
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BCM (BODY CONTROL MODULE)

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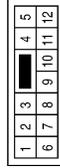
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Connector No.	M200
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

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



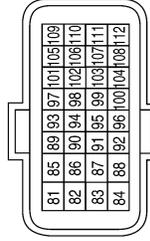
Terminal No.	Color of Wire	Signal Name
1	B/R	-
6	W/R	-

Connector No.	M49
Connector Name	INSTRUMENT PANEL ANTENNA
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	G	ANT+
2	R	ANT-

Connector No.	E10
Connector Name	ECM
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
97	P	CAN-L
98	L	CAN-H

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



Terminal No.	Color of Wire	Signal Name
2P	LG	-
8P	R	-

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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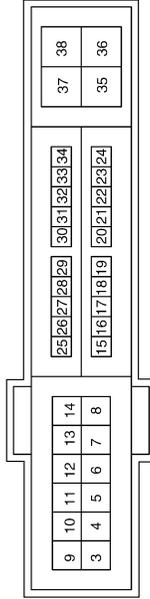
BCM (BODY CONTROL MODULE)

[SEDAN WITHOUT INTELLIGENT KEY]

< ECU DIAGNOSIS >

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
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

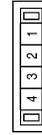


Connector No.	E17
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
39	P	CAN-L
40	L	CAN-H
41	B	GND (POWER)
43	Y	DETENT_SW
46	BR	START_CONT

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



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



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

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

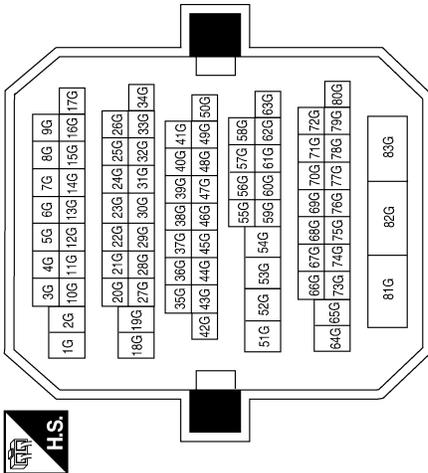
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BCM (BODY CONTROL MODULE)

[SEDAN WITHOUT INTELLIGENT KEY]

< ECU DIAGNOSIS >

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	-
27G	W	-
28G	P	-
29G	SB	-
33G	BR	-
51G	L	-
52G	P	-
82G	LG	-

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



Terminal No.	Color of Wire	Signal Name
1	R	B+
2	LG	HIGH_SW

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



Terminal No.	Color of Wire	Signal Name
1	R	B+
2	LG	HIGH_SW

Connector No.	E46
Connector Name	JUNCTION BLOCK
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
27	BR	-

Connector No.	E50
Connector Name	JUNCTION BLOCK
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
55	BR	-

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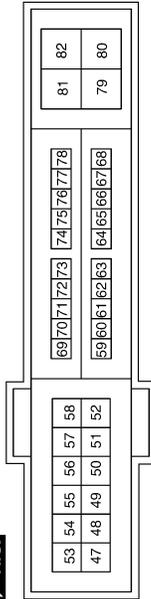
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BCM (BODY CONTROL MODULE)

[SEDAN WITHOUT INTELLIGENT KEY]

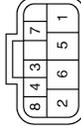
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Connector No.	F10
Connector Name	IPDM/E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



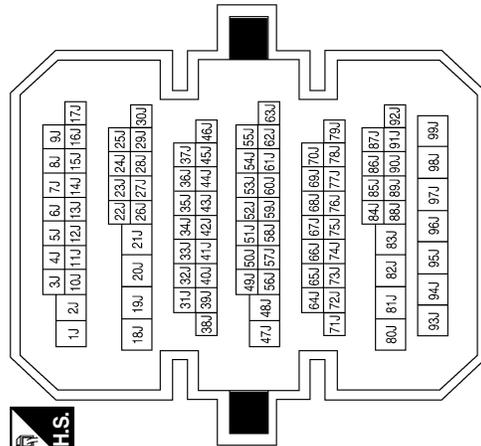
Terminal No.	Color of Wire	Signal Name
72	R/B	NPSW
74	Y	START_I_G_EGI
80	B/W	STARTER_MOTOR

Connector No.	F25
Connector Name	PARK/NEUTRAL POSITION (PNP) SWITCH
Connector Color	BLACK



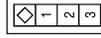
Terminal No.	Color of Wire	Signal Name
1	Y	IGN_P_N
2	R/B	P_N_OUTPUT

Connector No.	B1
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.	B8
Connector Name	FRONT DOOR SWITCH LH
Connector Color	WHITE



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

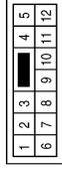
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BCM (BODY CONTROL MODULE)

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< ECU DIAGNOSIS >

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



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

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



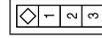
Terminal No.	Color of Wire	Signal Name
1	W	ANT+
2	B	ANT-

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



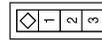
Terminal No.	Color of Wire	Signal Name
2	R/B	DOOR SW (RL)

Connector No.	B116
Connector Name	REAR DOOR SWITCH RH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	R/W	DOOR SW (RR)

Connector No.	B108
Connector Name	FRONT DOOR SWITCH RH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	R/B	DOOR SW (AS)

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BCM (BODY CONTROL MODULE)

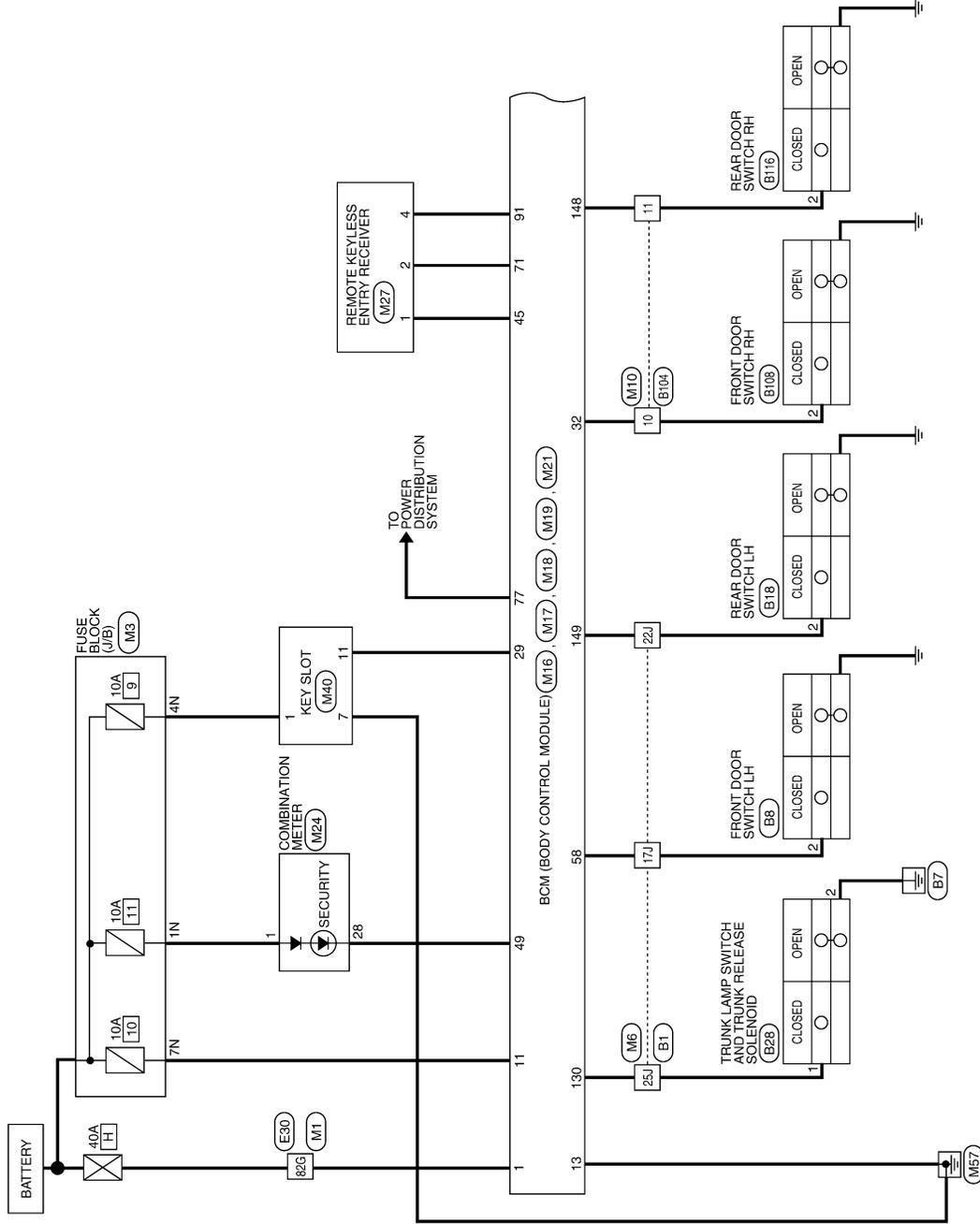
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Wiring Diagram - VEHICLE SECURITY SYSTEM - WITH REMOTE KEYLESS ENTRY

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VEHICLE SECURITY SYSTEM - WITH REMOTE KEYLESS ENTRY



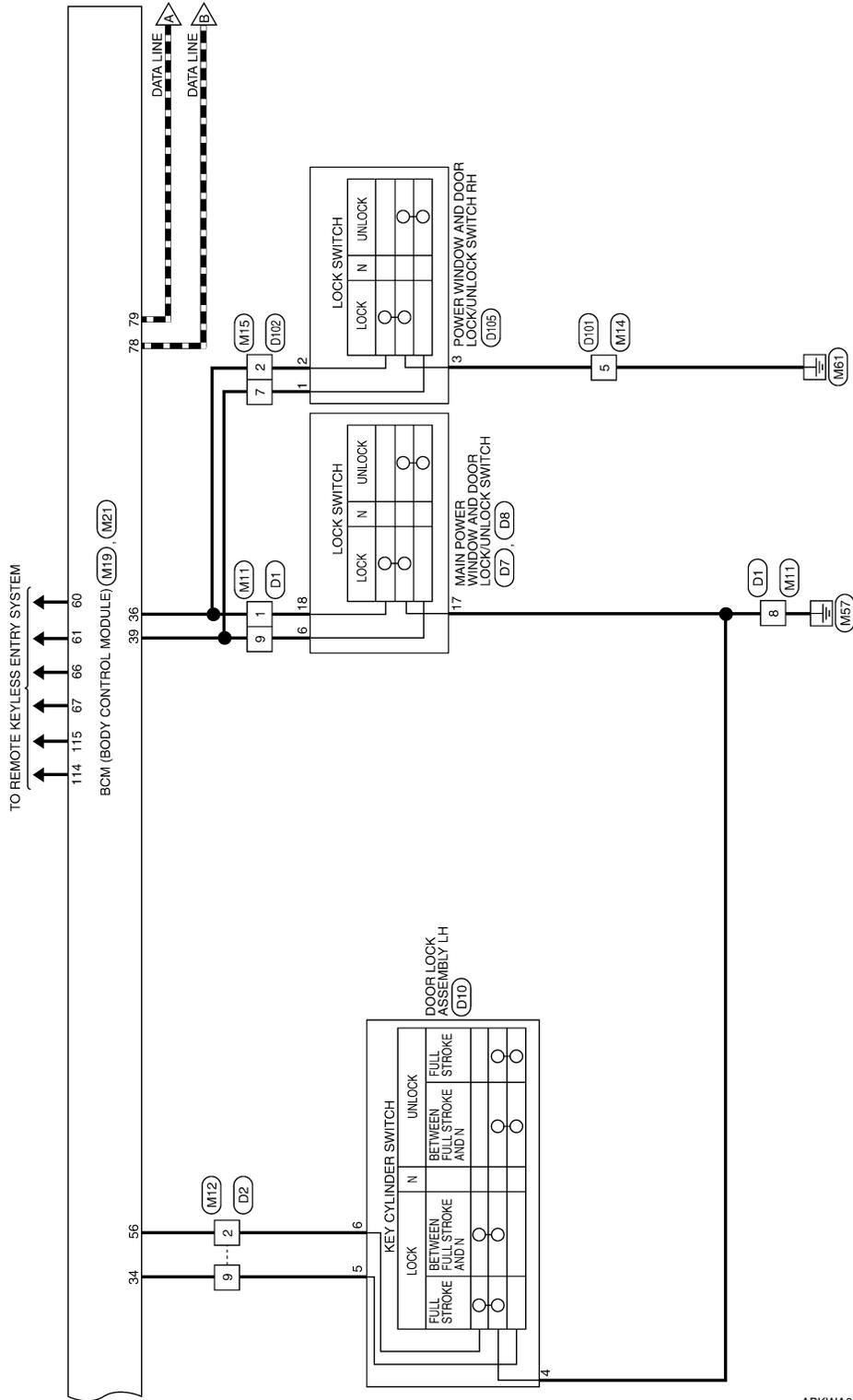
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BCM (BODY CONTROL MODULE)

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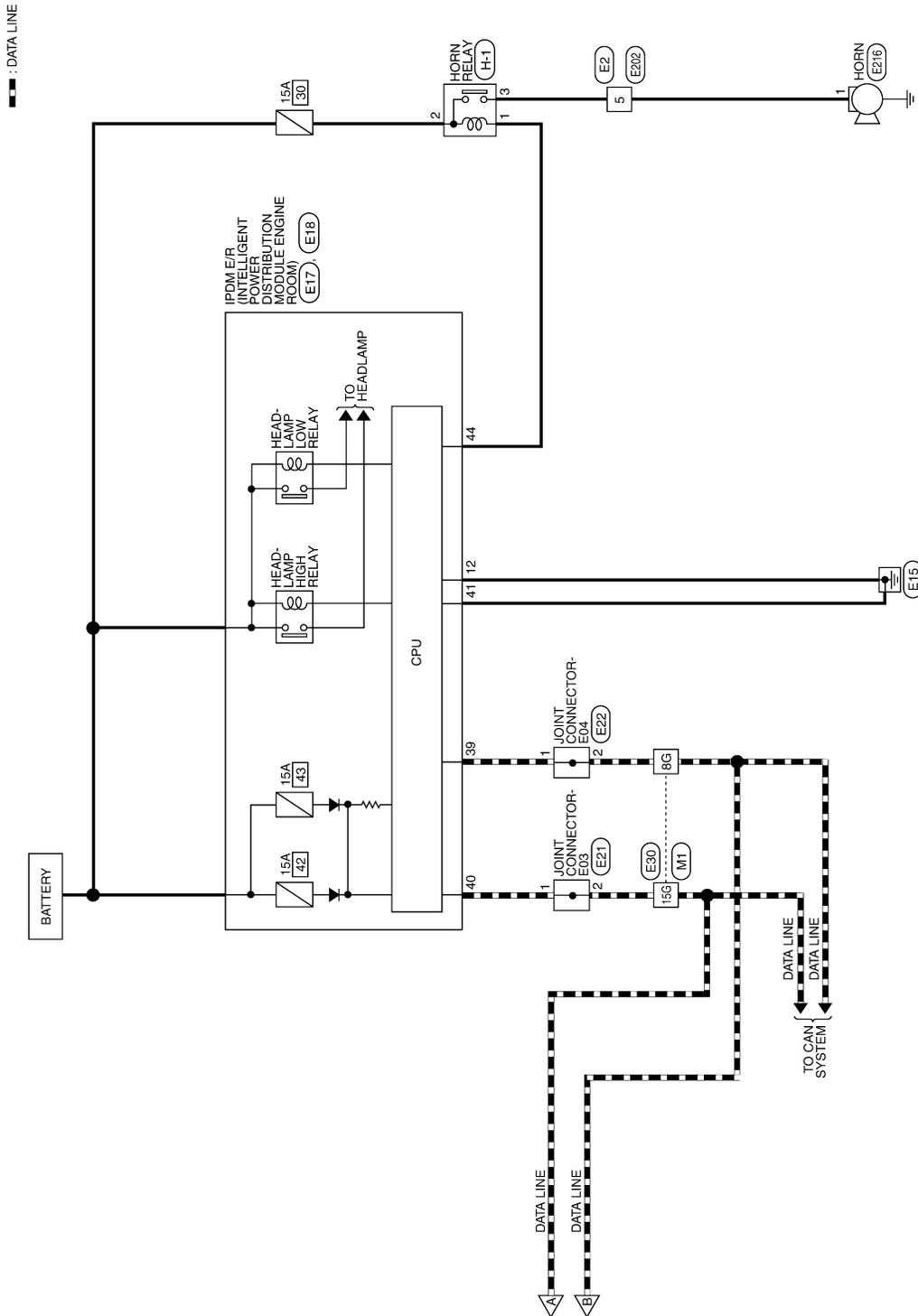
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BCM (BODY CONTROL MODULE)

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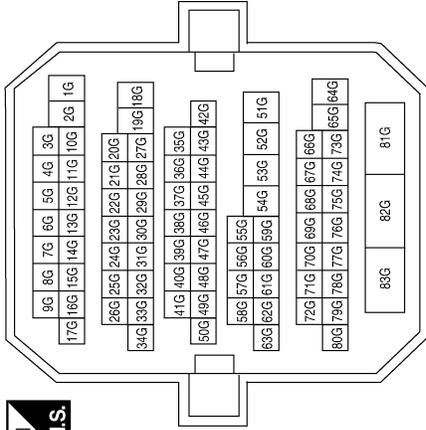
BCM (BODY CONTROL MODULE)

[SEDAN WITHOUT INTELLIGENT KEY]

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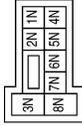
VEHICLE SECURITY SYSTEM CONNECTORS - WITH REMOTE KEYLESS ENTRY

Connector No.	M1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



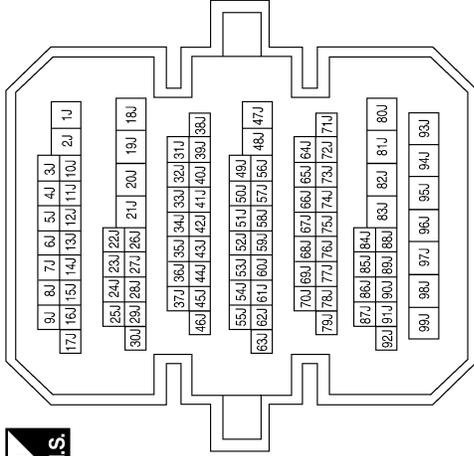
Terminal No.	Color of Wire	Signal Name
8G	P	-
15G	L	-
82G	W/B	-

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
17J	SB	-
22J	R/B	-
25J	Y/G	-

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BCM (BODY CONTROL MODULE)

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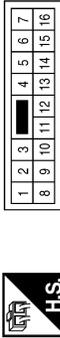
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Connector No.	M12
Connector Name	WIRE TO WIRE
Connector Color	WHITE



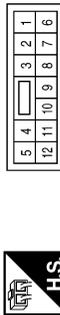
Terminal No.	Color of Wire	Signal Name
2	L/B	-
9	L/R	-

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	-

Connector No.	M10
Connector Name	WIRE TO WIRE
Connector Color	BROWN



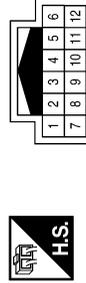
Terminal No.	Color of Wire	Signal Name
10	R/B	-
11	R/W	-

Connector No.	M16
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



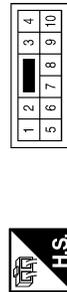
Terminal No.	Color of Wire	Signal Name
1	W/B	BAT_POWER_F/L

Connector No.	M15
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	GR	-
7	GR/R	-

Connector No.	M14
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5	B	-

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BCM (BODY CONTROL MODULE)

[SEDAN WITHOUT INTELLIGENT KEY]

< ECU DIAGNOSIS >

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
45	P	GND_RF2_AVL
49	L/O	IMMO_LED
56	L/B	DOOR_KEY/C_LOCK_SW
58	SB	DR_DOOR_SW

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

Connector No.	M17
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE



4	5	6	7	8	9	10		
11	12	13	14	15	16	17	18	19

Terminal No.	Color of Wire	Signal Name
11	Y/R	BAT_BCM_FUSE
13	B	GND1

Connector No.	M21
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GRAY



131	130	129	128	127	126	125	124	123	122	121	120	119	118	117	116	115	114	113	112
151	150	149	148	147	146	145	144	143	142	141	140	139	138	137	136	135	134	133	132

Terminal No.	Color of Wire	Signal Name
114	B	TRUNK_ANT_1_B
115	W	TRUNK_ANT_1_A
130	Y/G	TRUNK_SW
148	R/W	RR_DOOR_SW
149	R/B	RL_DOOR_SW

Terminal No.	Color of Wire	Signal Name
60	B/R	ROOM_ANT_2_B
61	W/R	ROOM_ANT_2_A
66	R	ROOM_ANT_1_B
67	G	ROOM_ANT_1_A
71	L/O	RF1_TUNER_SIGNAL
77	BR	ENG_START_SW
78	P	CAN-L
79	L	CAN-H
91	L/R	RF1_POWER_SUPPLY

Connector No.	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

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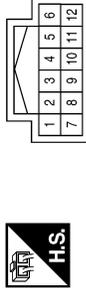
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BCM (BODY CONTROL MODULE)

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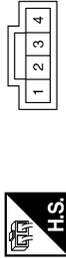
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Connector No.	M40
Connector Name	KEY SLOT
Connector Color	WHITE



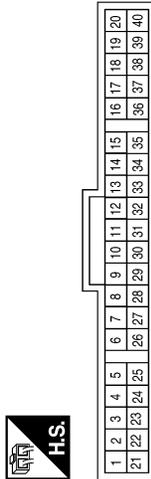
Terminal No.	Color of Wire	Signal Name
1	G/Y	B+
7	B	GND
11	Y	CARD_SW_1

Connector No.	M27
Connector Name	REMOTE KEYLESS ENTRY RECEIVER
Connector Color	BLACK



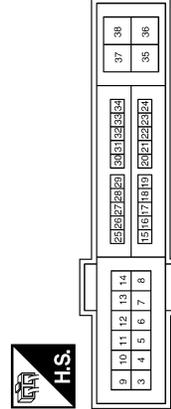
Terminal No.	Color of Wire	Signal Name
1	P	GND
2	L/O	SIGNAL
4	L/R	12V

Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	W/L	BAT
28	L/O	SECURITY

Connector No.	E18
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
12	B	GND (POWER)

Connector No.	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	G/W	HORN_RLY

Connector No.	E2
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5	O	-

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BCM (BODY CONTROL MODULE)

[SEDAN WITHOUT INTELLIGENT KEY]

< ECU DIAGNOSIS >

Connector No.	E21
Connector Name	JOINT CONNECTOR-E03
Connector Color	WHITE



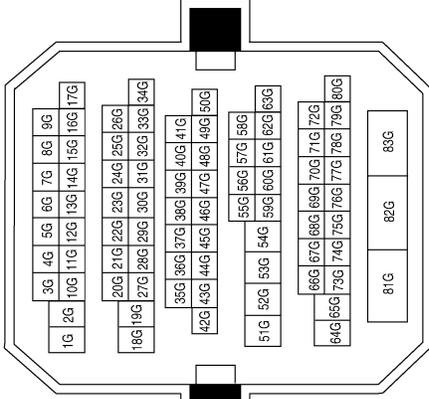
Terminal No.	Color of Wire	Signal Name
1	L	-
2	L	-

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



Terminal No.	Color of Wire	Signal Name
8G	P	-
15G	L	-
82G	LG	-

Connector No.	E202
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5	G	-

Connector No.	E216
Connector Name	HORN
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	G	-

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SEC

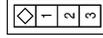
ABKIA0868GB

BCM (BODY CONTROL MODULE)

[SEDAN WITHOUT INTELLIGENT KEY]

< ECU DIAGNOSIS >

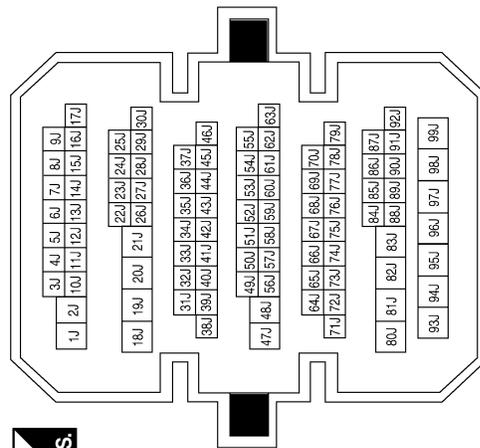
Connector No.	B8
Connector Name	FRONT DOOR SWITCH LH
Connector Color	WHITE



Terminal No.	2	Color of Wire	SB	Signal Name	DOOR SW (DR)
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Terminal No.	17J	Color of Wire	SB	Signal Name	-
22J	R/B	-	-	-	
25J	Y/G	-	-	-	

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Connector No.	B104
Connector Name	WIRE TO WIRE
Connector Color	BROWN



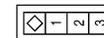
Terminal No.	10	Color of Wire	R/B	Signal Name	-
11	R/W	-	-	-	

Connector No.	B28
Connector Name	TRUNK LAMP SWITCH AND TRUNK RELEASE SOLENOID
Connector Color	WHITE



Terminal No.	1	Color of Wire	Y/G	Signal Name	TRUNK_REQUEST_SW
2	B	-	-	GND	

Connector No.	B18
Connector Name	REAR DOOR SWITCH LH
Connector Color	WHITE



Terminal No.	2	Color of Wire	R/B	Signal Name	DOOR SW (RL)
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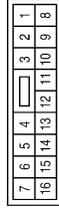
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BCM (BODY CONTROL MODULE)

[SEDAN WITHOUT INTELLIGENT KEY]

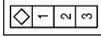
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Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	GR	-
8	B	-
9	GR/R	-

Connector No.	B116
Connector Name	REAR DOOR SWITCH RH
Connector Color	WHITE



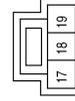
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2	R/W	DOOR SW (RR)

Connector No.	B108
Connector Name	FRONT DOOR SWITCH RH
Connector Color	WHITE



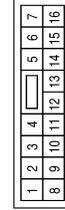
Terminal No.	Color of Wire	Signal Name
2	R/B	DOOR SW (AS)

Connector No.	D8
Connector Name	MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH
Connector Color	WHITE



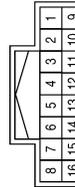
Terminal No.	Color of Wire	Signal Name
17	B	GND

Connector No.	D7
Connector Name	MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
6	GR/R	UNLOCK

Connector No.	D2
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	L/B	-
9	L/R	-

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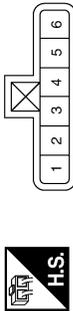
SEC

BCM (BODY CONTROL MODULE)

[SEDAN WITHOUT INTELLIGENT KEY]

< ECU DIAGNOSIS >

Connector No.	D10
Connector Name	FRONT DOOR LOCK ASSEMBLY LH
Connector Color	GRAY



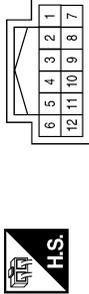
Terminal No.	Color of Wire	Signal Name
4	B	GND
5	L/R	DOOR_KEY/C_UNLOCK_SW
6	L/B	DOOR_KEY/D/C_LOCK_SW

Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Color	WHITE



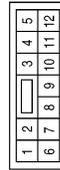
Terminal No.	Color of Wire	Signal Name
5	B	-

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	GR	-
7	GR/R	-

Connector No.	D105
Connector Name	POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	GR	LOCK
2	GR/R	UNLOCK
3	B	GND

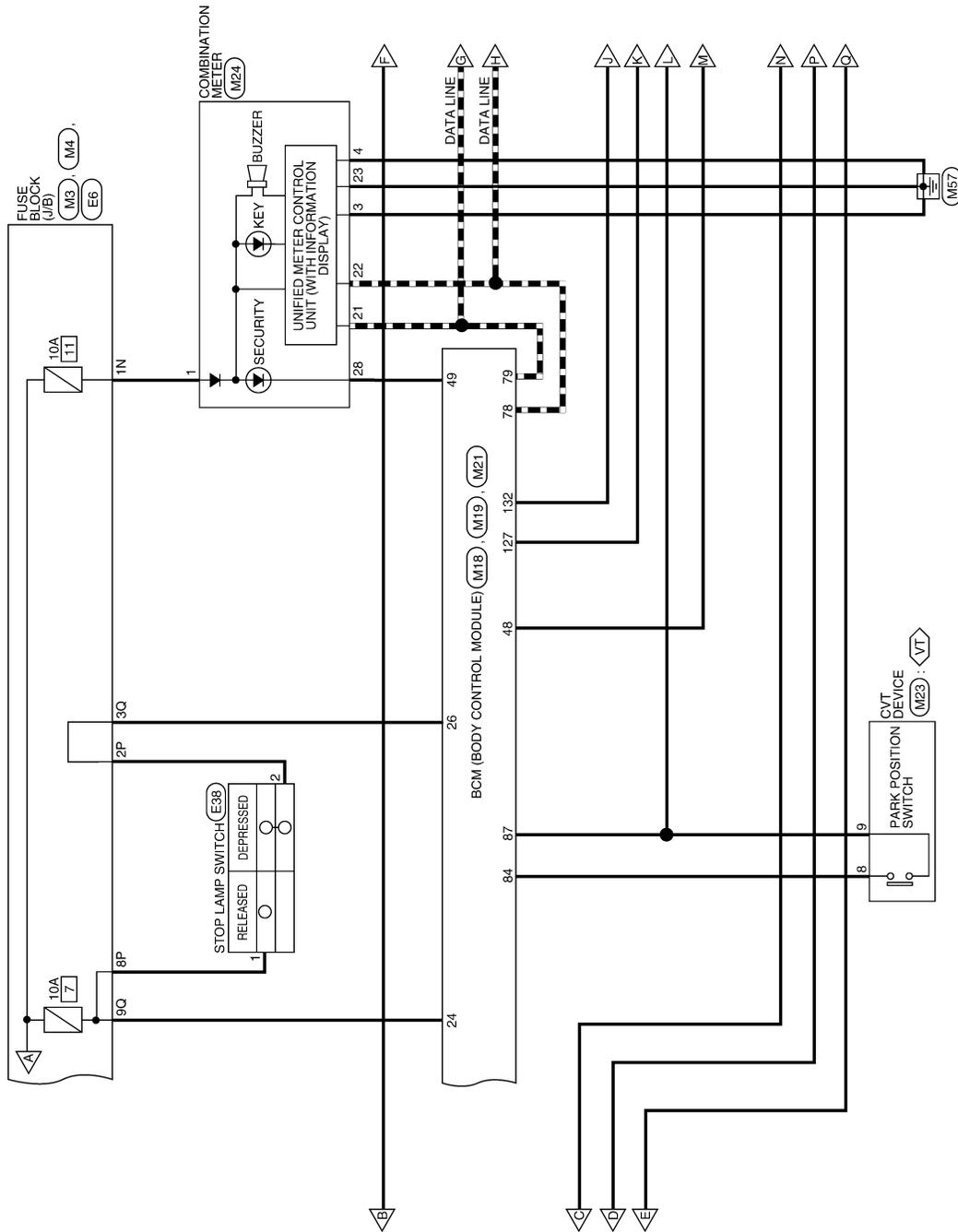
ABKIA0871GB

BCM (BODY CONTROL MODULE)

[SEDAN WITHOUT INTELLIGENT KEY]

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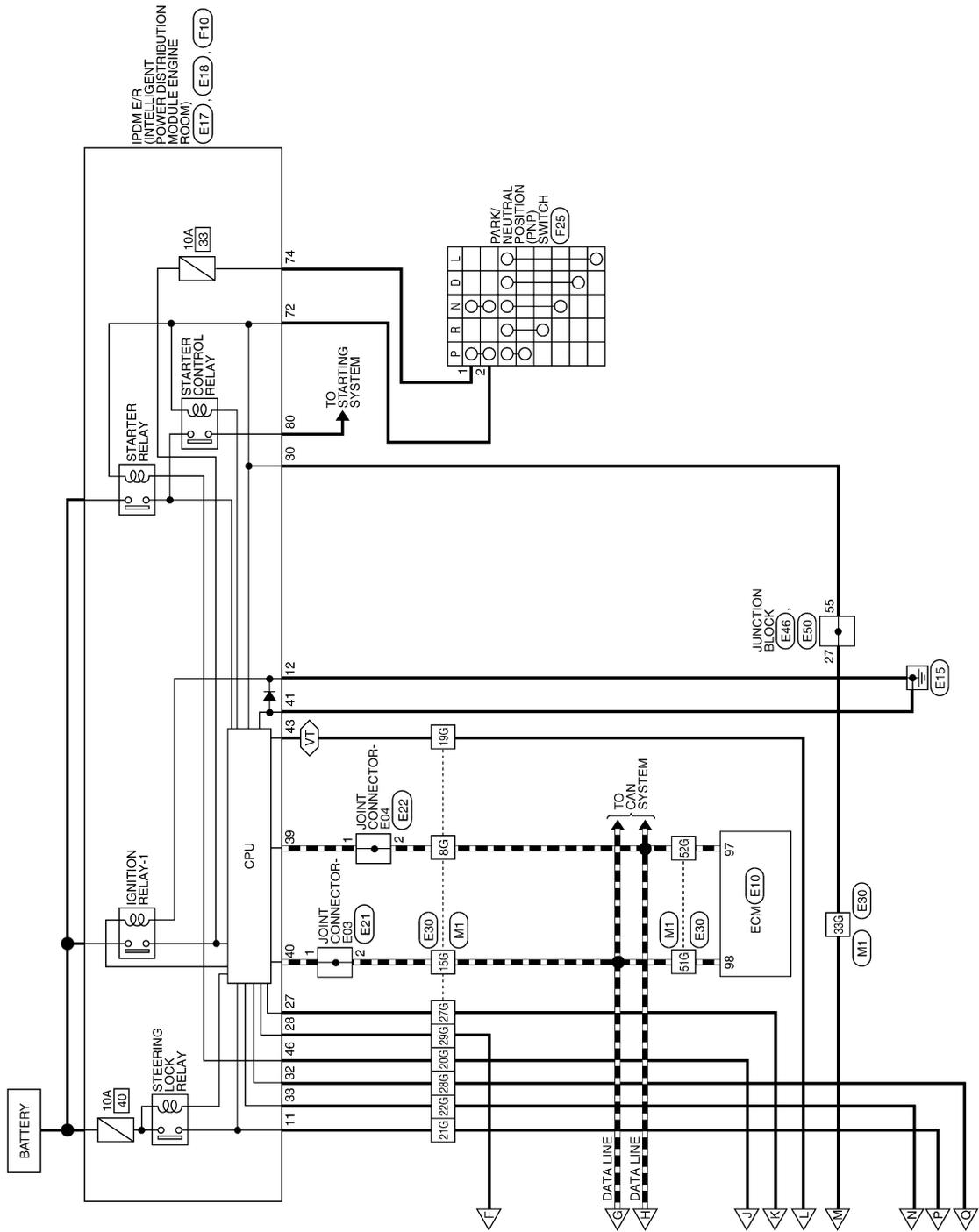
ABKWA0258Gf

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

— : DATA LINE



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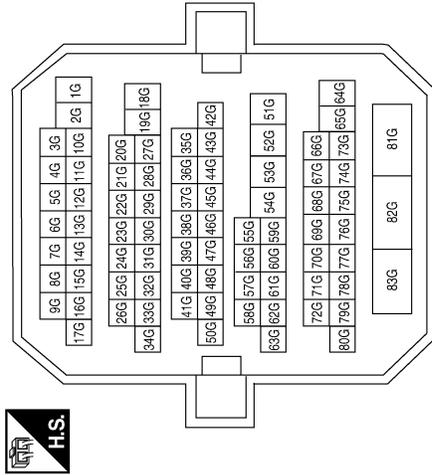
BCM (BODY CONTROL MODULE)

[SEDAN WITHOUT INTELLIGENT KEY]

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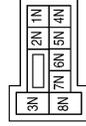
NVIS CONNECTORS-WITH REMOTE KEYLESS ENTRY

Connector No.	M1
Connector Name	WIRE TO WIRE
Connector Color	WHITE



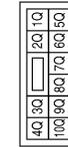
Terminal No.	Color of Wire	Signal Name
8G	P	-
15G	L	-
20G	R	-
21G	P/L	-
22G	G/R	-
27G	BR/W	-
28G	L/O	-
29G	BR	-
33G	R/G	-
51G	L	-
52G	P	-
82G	W/B	-

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	-
7N	Y/R	-

Connector No.	M4
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



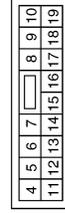
Terminal No.	Color of Wire	Signal Name
3Q	O/L	-
9Q	R/W	-

Connector No.	M16
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	W/B	BAT_POWER_F/L

Connector No.	M17
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
11	Y/R	BAT_BCM_FUSE
13	B	GND1
15	Y/L	ACC_LED

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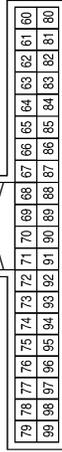
BCM (BODY CONTROL MODULE)

[SEDAN WITHOUT INTELLIGENT KEY]

< ECU DIAGNOSIS >

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



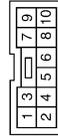
Terminal No.	Color of Wire	Signal Name
68	G/O	FOB_READER_CLOCK
69	O	FOB_READER_DATA

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GREEN



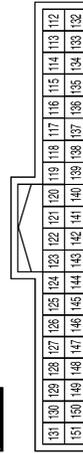
Terminal No.	Color of Wire	Signal Name
24	R/W	STOP_LAMP_LOW_SW
26	O/L	STOP_LAMP_HIGH_SW
29	Y	FOB_IN_SW_1
42	R	S/L_LOCK_LED
48	R/G	SHIFT_N/P
49	L/O	IMMO_LED

Connector No.	M23
Connector Name	CVT DEVICE
Connector Color	WHITE



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



Terminal No.	Color of Wire	Signal Name
127	BR/W	IGN_USM_CONT1
132	R	ST_CONT_USM

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A B C D E F G H I J L M N O P

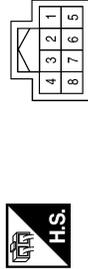
SEC

BCM (BODY CONTROL MODULE)

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< ECU DIAGNOSIS >

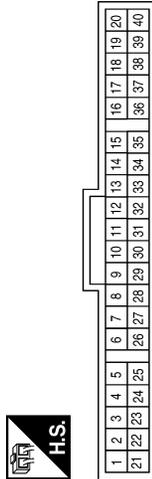
Connector No.	M32
Connector Name	ELECTRONIC STEERING COLUMN LOCK
Connector Color	WHITE



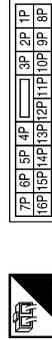
Terminal No.	Color of Wire	Signal Name
1	P/L	S/L_12V_MECHANICAL
2	L/Y	S/L_COM
3	L/O	S/L_CONDITION_1
5	B	GND
6	B	GND
7	G/Y	S/L_12V_CPU (V2)
8	G/R	S/L_CONDITION_2

Terminal No.	Color of Wire	Signal Name
1	W/L	BAT
3	B	GND
4	B	GND
14	V/Y	ACC
21	L	CAN-H
22	P	CAN-L
23	B	GND
28	L/O	SECURITY

Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE



Connector No.	E6
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2P	LG	-
8P	R	-

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+

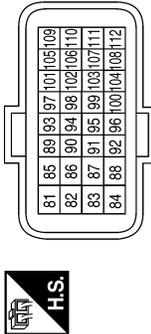
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BCM (BODY CONTROL MODULE)

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< ECU DIAGNOSIS >

Connector No.	E10
Connector Name	ECM
Connector Color	BLACK



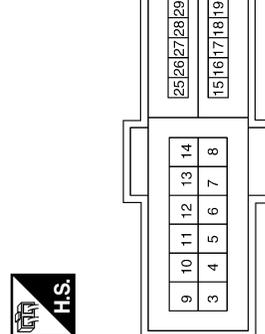
Terminal No.	Color of Wire	Signal Name
97	P	CAN-L
98	L	CAN-H

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	DETENT_SW
46	BR	START_CONT

Connector No.	E18
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
11	O	ESCL
12	B	GND (POWER)
27	W	IGN_SIGNAL
28	SB	PUSH_START_SW
30	R	CLUTCH_I/L_SW
32	P	SL_CONDITION_1
33	G	SL_CONDITION_2

Connector No.	E21
Connector Name	JOINT CONNECTOR-E03
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	L	-
2	L	-

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SEC

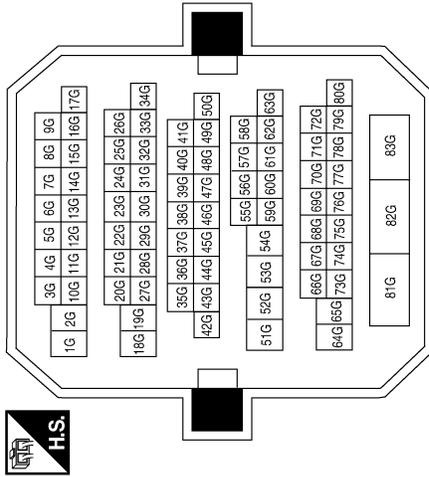
BCM (BODY CONTROL MODULE)

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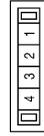
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Terminal No.	Color of Wire	Signal Name
8G	P	-
15G	L	-
19G	Y	-
20G	BR	-
21G	O	-
22G	G	-
27G	W	-
28G	P	-
29G	SB	-
33G	BR	-
51G	L	-
52G	P	-
82G	LG	-

Connector No.	E30
Connector Name	WIRE TO WIRE (WITH M/T)
Connector Color	WHITE



Connector No.	E22
Connector Name	JOINT CONNECTOR-E04
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	P	-
2	P	-

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	B+
2	LG	HIGH_SW

Connector No.	E38
Connector Name	STOP LAMP SWITCH (WITH CVT)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	R	B+
2	LG	HIGH_SW

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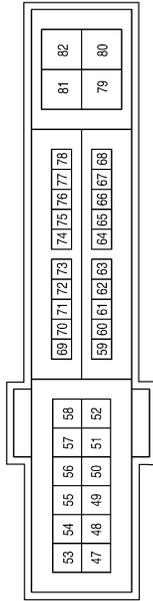
BCM (BODY CONTROL MODULE)

[SEDAN WITHOUT INTELLIGENT KEY]

< ECU DIAGNOSIS >

Terminal No.	Color of Wire	Signal Name
72	R/B	NPSW
74	Y	START_IG-EGI
80	B/W	STARTER_MOTOR

Connector No.	F10
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE

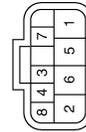


Connector No.	E50
Connector Name	JUNCTION BLOCK
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
55	BR	-

Connector No.	F25
Connector Name	PARK/NEUTRAL POSITION (PNP) SWITCH (WITH CVT)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	Y	NPSW
2	R/B	START_IG-EGI

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Fail Safe

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INFOID:000000004499231

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

BCM (BODY CONTROL MODULE)

[SEDAN WITHOUT INTELLIGENT KEY]

< ECU DIAGNOSIS >

Display contents of CONSULT	Fail-safe	Cancellation
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
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/PNP 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) - PNP 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)

BCM (BODY CONTROL MODULE)

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[SEDAN WITHOUT INTELLIGENT KEY]

Display contents of CONSULT	Fail-safe	Cancellation
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
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
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)

DTC Inspection Priority Chart

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SEC

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

BCM (BODY CONTROL MODULE)

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[SEDAN WITHOUT INTELLIGENT KEY]

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 • 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 • B26E1: ENG STATE NO RECIV • C1729: VHCL SPEED SIG ERR • U0415: VEHICLE SPEED SIG
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
6	<ul style="list-style-type: none"> • B2621: INSIDE ANTENNA • B2622: INSIDE ANTENNA • B2623: INSIDE ANTENNA

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NOTE:

BCM (BODY CONTROL MODULE)

[SEDAN WITHOUT INTELLIGENT KEY]

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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-38
U1010: CONTROL UNIT (CAN)	—	—	—	BCS-39
U0415: VEHICLE SPEED SIG	—	—	—	BCS-40
B2013: ID DISCORD BCM-S/L	×	—	—	SEC-38
B2014: CHAIN OF S/L-BCM	×	—	—	SEC-39
B2190: NATS ANTENNA AMP	×	—	—	SEC-64
B2191: DIFFERENCE OF KEY	×	—	—	SEC-67
B2192: ID DISCORD BCM-ECM	×	—	—	SEC-68
B2193: CHAIN OF BCM-ECM	×	—	—	SEC-69
B2553: IGNITION RELAY	—	—	—	PCS-60
B2555: STOP LAMP	—	—	—	SEC-70
B2556: PUSH-BTN IGN SW	—	×	—	SEC-72
B2557: VEHICLE SPEED	×	×	—	SEC-74
B2560: STARTER CONT RELAY	×	×	—	SEC-75
B2562: LOW VOLTAGE	—	—	—	BCS-41
B2601: SHIFT POSITION	×	×	—	SEC-76
B2602: SHIFT POSITION	×	×	—	SEC-79
B2603: SHIFT POSI STATUS	×	×	—	SEC-81
B2604: PNP SW	×	×	—	SEC-84
B2605: PNP SW	×	×	—	SEC-86
B2606: S/L RELAY	×	×	—	SEC-88
B2607: S/L RELAY	×	×	—	SEC-89
B2608: STARTER RELAY	×	×	—	SEC-91
B2609: S/L STATUS	×	×	—	SEC-93
B260A: IGNITION RELAY	×	×	—	PCS-62
B260B: STEERING LOCK UNIT	—	×	—	SEC-97
B260C: STEERING LOCK UNIT	—	×	—	SEC-98
B260D: STEERING LOCK UNIT	—	×	—	SEC-99
B260F: ENG STATE SIG LOST	×	×	—	SEC-100
B2612: S/L STATUS	×	×	—	SEC-101
B2614: ACC RELAY CIRC	—	×	—	PCS-65
B2615: BLOWER RELAY CIRC	—	×	—	PCS-68
B2616: IGN RELAY CIRC	—	×	—	PCS-71
B2617: STARTER RELAY CIRC	×	×	—	SEC-105
B2618: BCM	×	×	—	PCS-74

BCM (BODY CONTROL MODULE)

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[SEDAN WITHOUT INTELLIGENT KEY]

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
B2619: BCM	×	×	—	SEC-107
B261A: PUSH-BTN IGN SW	—	×	—	SEC-108
B2621: INSIDE ANTENNA	—	—	—	DLK-59
B2622: INSIDE ANTENNA	—	—	—	DLK-62
B2623: INSIDE ANTENNA	—	—	—	DLK-65
B26E1: ENG STATE NO RES	×	×	—	SEC-110
C1704: LOW PRESSURE FL	—	—	×	WT-52
C1705: LOW PRESSURE FR	—	—	×	WT-52
C1706: LOW PRESSURE RR	—	—	×	WT-52
C1707: LOW PRESSURE RL	—	—	×	WT-52
C1708: [NO DATA] FL	—	—	×	WT-14
C1709: [NO DATA] FR	—	—	×	WT-14
C1710: [NO DATA] RR	—	—	×	WT-14
C1711: [NO DATA] RL	—	—	×	WT-14
C1712: [CHECKSUM ERR] FL	—	—	×	WT-16
C1713: [CHECKSUM ERR] FR	—	—	×	WT-16
C1714: [CHECKSUM ERR] RR	—	—	×	WT-16
C1715: [CHECKSUM ERR] RL	—	—	×	WT-16
C1716: [PRESSDATA ERR] FL	—	—	×	WT-18
C1717: [PRESSDATA ERR] FR	—	—	×	WT-18
C1718: [PRESSDATA ERR] RR	—	—	×	WT-18
C1719: [PRESSDATA ERR] RL	—	—	×	WT-18
C1720: [CODE ERR] FL	—	—	×	WT-16
C1721: [CODE ERR] FR	—	—	×	WT-16
C1722: [CODE ERR] RR	—	—	×	WT-16
C1723: [CODE ERR] RL	—	—	×	WT-16
C1724: [BATT VOLT LOW] FL	—	—	×	WT-16
C1725: [BATT VOLT LOW] FR	—	—	×	WT-16
C1726: [BATT VOLT LOW] RR	—	—	×	WT-16
C1727: [BATT VOLT LOW] RL	—	—	×	WT-16
C1729: VHCL SPEED SIG ERR	—	—	×	WT-19
C1734: CONTROL UNIT	—	—	×	WT-20

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

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[SEDAN WITHOUT INTELLIGENT KEY]

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

Reference Value

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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
		<ul style="list-style-type: none"> • Front fog lamp switch ON • Daytime running light activated (Only for Canada models) 	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

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

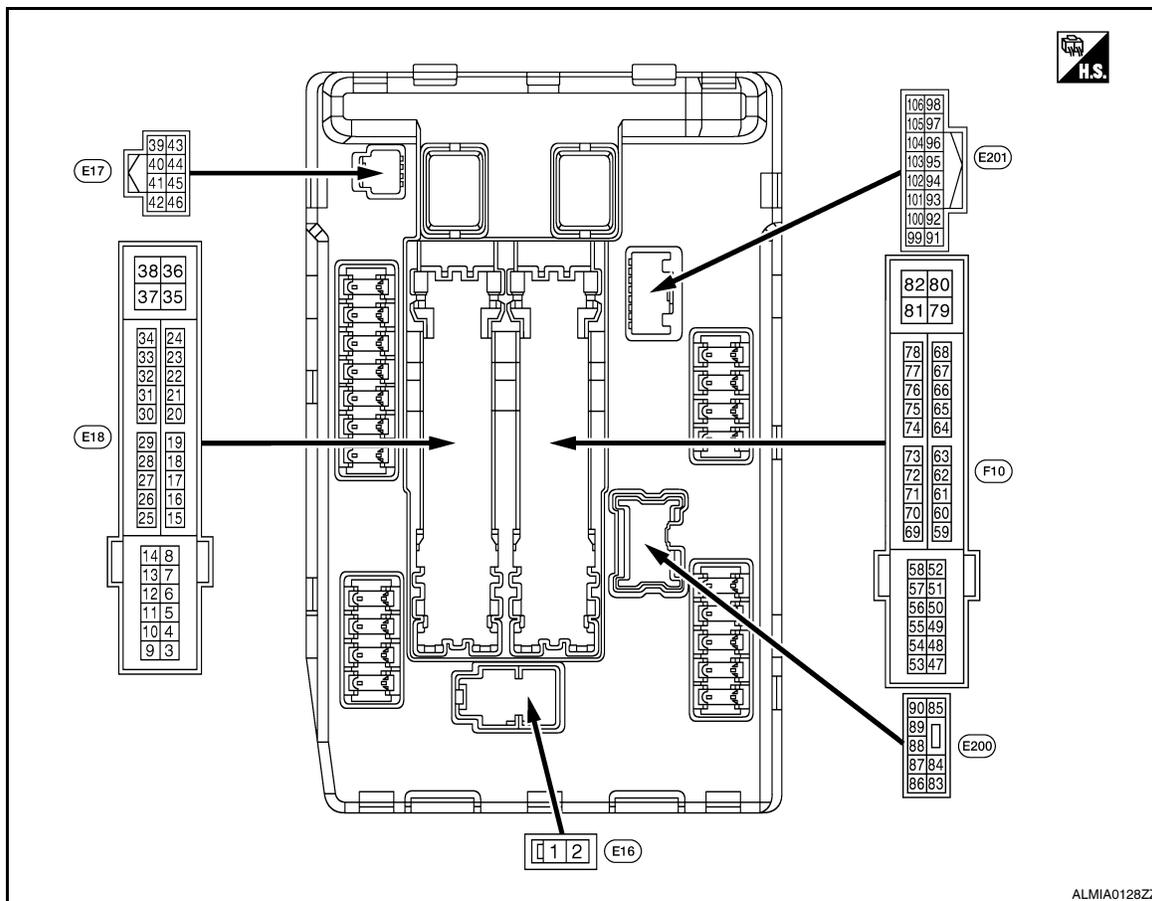
Monitor Item	Condition	Value/Status
IHBT RLY -REQ	Ignition switch ON	Off
	At engine cranking	On
ST/INHI RLY	Ignition switch ON	Off
	At engine cranking	ST →INHI
	The status of starter relay or starter control relay cannot be recognized by the battery voltage malfunction, etc. when the starter relay is 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
DTRL REQ	NOTE: This item is displayed, but cannot be monitored.	Off
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
CRNRNG LMP REQ	NOTE: This item is displayed, but cannot be monitored.	Off

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

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[SEDAN WITHOUT INTELLIGENT KEY]

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 (L/R)	Ground	Front wiper LO	Output	Ignition switch OFF	Front wiper switch OFF	0V
				Ignition switch ON	Front wiper switch LO	Battery voltage
5 (L/B)	Ground	Front wiper HI	Output	Ignition switch OFF	Front wiper switch OFF	0V
				Ignition switch ON	Front wiper switch HI	Battery voltage
6 (SB)	Ground	Daytime light relay power supply (Canada models only)	Output	Ignition switch OFF		Battery voltage
7 (R/L)	Ground	Tail, license plate lamps & interior lamps	Output	Ignition switch OFF	Lighting switch OFF	0V
				Ignition switch ON	Lighting switch 1ST	Battery voltage
10 (R/B)	Ground	ECM relay power supply	Output	Ignition switch OFF (For a few seconds after turning ignition switch OFF)		0V
				<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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[SEDAN WITHOUT INTELLIGENT KEY]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
11 (P/L)	Ground	Steering lock unit 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		0V
12 (B)	Ground	Ground	—	Ignition switch ON		0V
13 (W)	Ground	Fuel pump power supply	Output	Approximately 1 second or more after turning the ignition switch ON		0V
				<ul style="list-style-type: none"> • Approximately 1 second after turning the ignition switch ON • Engine running 		Battery voltage
15 (G/W)	Ground	Ignition relay-1 power supply	Output	Ignition switch OFF		0V
				Ignition switch ON		Battery voltage
16 (L/Y)	Ground	Front wiper auto stop	Input	Ignition switch ON	Front wiper stop position	0V
					Any position other than front wiper stop position	Battery voltage
19 (L/Y)	Ground	Ignition relay-1 power supply	Output	Ignition switch OFF		0V
				Ignition switch ON		Battery voltage
20 (B/Y)	Ground	Ambient sensor ground	—	Ignition switch ON		0V
21 (O/B)	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		0V
				Ignition switch ON		Battery voltage
27 (BR/W)	Ground	Ignition relay monitor	Input	Ignition switch OFF or ACC		Battery voltage
				Ignition switch ON		0V
28 (BR)	Ground	Push-button ignition switch	Input	Press the push-button ignition switch		0V
				Release the push-button ignition switch		Battery voltage
30 (R/B)	Ground	Starter relay control	Input	CVT models	CVT selector lever in any position other than P or N (ignition switch ON)	0V
					CVT selector lever P or N (ignition switch ON)	Battery voltage
				M/T models	Release the clutch pedal	0V
					Depress the clutch pedal	Battery voltage

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

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[SEDAN WITHOUT INTELLIGENT KEY]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
32 (L/O)	Ground	Electronic steering column lock unit condition-1	Input	Electronic steering column lock is activated	0V	A
				Electronic steering column lock is deactivated	Battery voltage	B
33 (G/R)	Ground	Electronic steering column lock unit condition-2	Input	Electronic steering column lock is activated	Battery voltage	C
				Electronic steering column lock is deactivated	0V	D
34 (O/L)	Ground	Cooling fan relay-3 control	Input	Ignition switch OFF or ACC	0V	E
				Ignition switch ON	0.7V	E
35 (L/B)	Ground	Cooling fan motor control	Output	Ignition switch OFF or ACC	0V	F
				Ignition switch ON	0.7V	F
36 (G)	Ground	Battery power supply	Input	Ignition switch OFF	Battery voltage	G
38 (R/W)	Ground	Cooling fan motor control	Output	Ignition switch OFF or ACC	0V	H
				Ignition switch ON	0.7V	H
39 (P)	—	CAN - L	Input/ Output	—	—	I
40 (L)	—	CAN - H	Input/ Output	—	—	I
41 (B)	Ground	Ground	—	Ignition switch ON	0V	J
42 (SB)	Ground	Cooling fan relay-2 control	Input	Ignition switch OFF or ACC	0V	J
				Ignition switch ON	0.7V	J
43 (G/B)	Ground	CVT device (Detention switch)	Input	Ignition switch ON	Press the CVT selector button (CVT selector lever P)	Battery voltage
				Ignition switch ON	<ul style="list-style-type: none"> • CVT selector lever in any position other than P • Release the CVT selector button (CVT selector lever P) 	0V
44 (G/W)	Ground	Horn relay control	Input	The horn is deactivated	Battery voltage	L
				The horn is activated	0V	L
45 (L/O)	Ground	Anti theft horn relay control	Input	The horn is deactivated	Battery voltage	M
				The horn is activated	0V	M
46 (R)	Ground	Starter relay control	Input	CVT models	CVT selector lever in any position other than P or N (ignition switch ON)	0V
					CVT selector lever P or N (ignition switch ON)	Battery voltage
				M/T models	Release the clutch pedal	0V
					Depress the clutch pedal	Battery voltage
48 (Y/R)	Ground	A/C relay power supply	Output	Engine running	A/C switch OFF	0V
					A/C switch ON (A/C compressor is operating)	Battery voltage

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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

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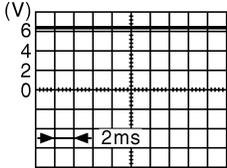
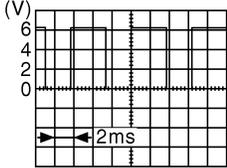
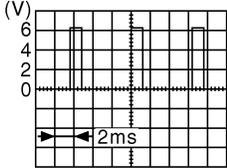
[SEDAN WITHOUT INTELLIGENT KEY]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
49 (R/B)	Ground	ECM relay power supply (with VQ35DE)	Output	Ignition switch OFF (For a few seconds after turning ignition switch OFF)	0V
				<ul style="list-style-type: none"> • Ignition switch ON • Ignition switch OFF (More than a few seconds after turn- ing ignition switch OFF) 	Battery voltage
49 (B/R)	Ground	ECM relay power supply (without VQ35DE)	Output	Ignition switch OFF (For a few seconds after turning ignition switch OFF)	0V
				<ul style="list-style-type: none"> • Ignition switch ON • Ignition switch OFF (More than a few seconds after turn- ing ignition switch OFF) 	Battery voltage
51 (LG)	Ground	Ignition relay power supply	Output	Ignition switch OFF	0V
				Ignition switch ON	Battery voltage
52 (Y/G)	Ground	Ignition relay power supply	Output	Ignition switch OFF	0V
				Ignition switch ON	Battery voltage
53 (B/R)	Ground	ECM relay power supply (with VQ35DE)	Output	Ignition switch OFF (For a few seconds after turning ignition switch OFF)	0V
				<ul style="list-style-type: none"> • Ignition switch ON • Ignition switch OFF (More than a few seconds after turn- ing ignition switch OFF) 	Battery voltage
53 (R/B)	Ground	ECM relay power supply (without VQ35DE)	Output	Ignition switch OFF (For a few seconds after turning ignition switch OFF)	0V
				<ul style="list-style-type: none"> • Ignition switch ON • Ignition switch OFF (More than a few seconds after turn- ing ignition switch OFF) 	Battery voltage
54 (G/W)	Ground	Throttle control motor re- lay power supply	Output	Ignition switch OFF (For a few seconds after turning ignition switch OFF)	0V
				<ul style="list-style-type: none"> • Ignition switch ON • Ignition switch OFF (More than a few seconds after turn- ing ignition switch OFF) 	Battery voltage
55 (W/L)	Ground	ECM power supply	Output	Ignition switch OFF	Battery voltage
56 (R/Y)	Ground	Ignition relay power supply	Output	Ignition switch OFF	0V
				Ignition switch ON	Battery voltage
57 (O)	Ground	Ignition relay power supply	Output	Ignition switch OFF	0V
				Ignition switch ON	Battery voltage
58 (Y)	Ground	Ignition relay power supply	Output	Ignition switch OFF	0V
				Ignition switch ON	Battery voltage

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
69 (W/B)	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 - 1.5V
70 (O)	Ground	Throttle control motor relay control	Output	Ignition switch ON → OFF	0 - 1.0V ↓ Battery voltage ↓ 0V
				Ignition switch ON	0 - 1.0V
72 (R/B)	Ground	PNP switch signal	Input	Ignition switch ON	Battery voltage
				CVT selector lever in P or N position	0V
74 (Y)	Ground	Ignition relay power supply	Output	Ignition switch OFF	0V
				Ignition switch ON	Battery voltage
75 (P/L)	Ground	Oil pressure switch	Input	Ignition switch ON	0V
				Engine stopped	Battery voltage
76 (G/R)	Ground	Power generation command signal	Output	Ignition switch ON	 <p style="text-align: right; margin-right: 20px;">JPMIA0001GB</p> <p style="text-align: center;">6.3V</p>
				40% is set on "Active test", "ALTERNATOR DUTY" of "ENGINE"	 <p style="text-align: right; margin-right: 20px;">JPMIA0002GB</p> <p style="text-align: center;">3.8V</p>
				80% is set on "Active test", "ALTERNATOR DUTY" of "ENGINE"	 <p style="text-align: right; margin-right: 20px;">JPMIA0003GB</p> <p style="text-align: center;">1.4V</p>
77 (B/R)	Ground	Fuel pump relay control	Output	<ul style="list-style-type: none"> • Approximately 1 second after turning the ignition switch ON • Engine running 	0 - 1.0V
				Approximately 1 second or more after turning the ignition switch ON	Battery voltage

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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
80 (B/W)	Ground	Starter motor	Output	At engine cranking		Battery voltage
83 (R/Y)	Ground	Headlamp LO (RH)	Output	Ignition switch ON	Lighting switch OFF	0V
					Lighting switch 2ND	Battery voltage
84 (L)	Ground	Headlamp LO (LH)	Output	Ignition switch ON	Lighting switch OFF	0V
					Lighting switch 2ND	Battery voltage
86 (W/R)	Ground	Front fog lamp (RH)	Output	Lighting switch 2ND	<ul style="list-style-type: none"> • Front fog lamp switch ON • Daytime running light activated (Only for Canada models) 	Battery voltage
						Front fog lamp switch OFF
87 (L/Y)	Ground	Front fog lamp (LH)	Output	Lighting switch 2ND	<ul style="list-style-type: none"> • Front fog lamp switch ON • Daytime running light activated (Only for Canada models) 	Battery voltage
						Front fog lamp switch OFF
88 (R/W)	Ground	Washer pump power supply	Output	Ignition switch ON		Battery voltage
89 (L/W)	Ground	Headlamp HI (RH)	Output	Ignition switch ON	<ul style="list-style-type: none"> • Lighting switch HI • lighting switch PASS 	Battery voltage
						Lighting switch OFF
90 (G)	Ground	Headlamp HI (LH)	Output	Ignition switch ON	<ul style="list-style-type: none"> • Lighting switch HI • Lighting switch PASS 	Battery voltage
						Lighting switch OFF
91 (LG/R)	Ground	Parking lamp (RH)	Output	Ignition switch ON	Lighting switch 1ST	Battery voltage
						Lighting switch OFF
92 (LG/B)	Ground	Parking lamp (LH)	Output	Ignition switch ON	Lighting switch 1ST	Battery voltage
						Lighting switch OFF
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	—	<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
103 (P)	Ground	Refrigerant pressure sensor power supply	—	Ignition switch ON		5V
105 (V)	Ground	Daytime light relay control	Output	Ignition switch ON	Daytime light system active	Battery voltage
				Ignition switch ON	Daytime light system inactive	0V

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

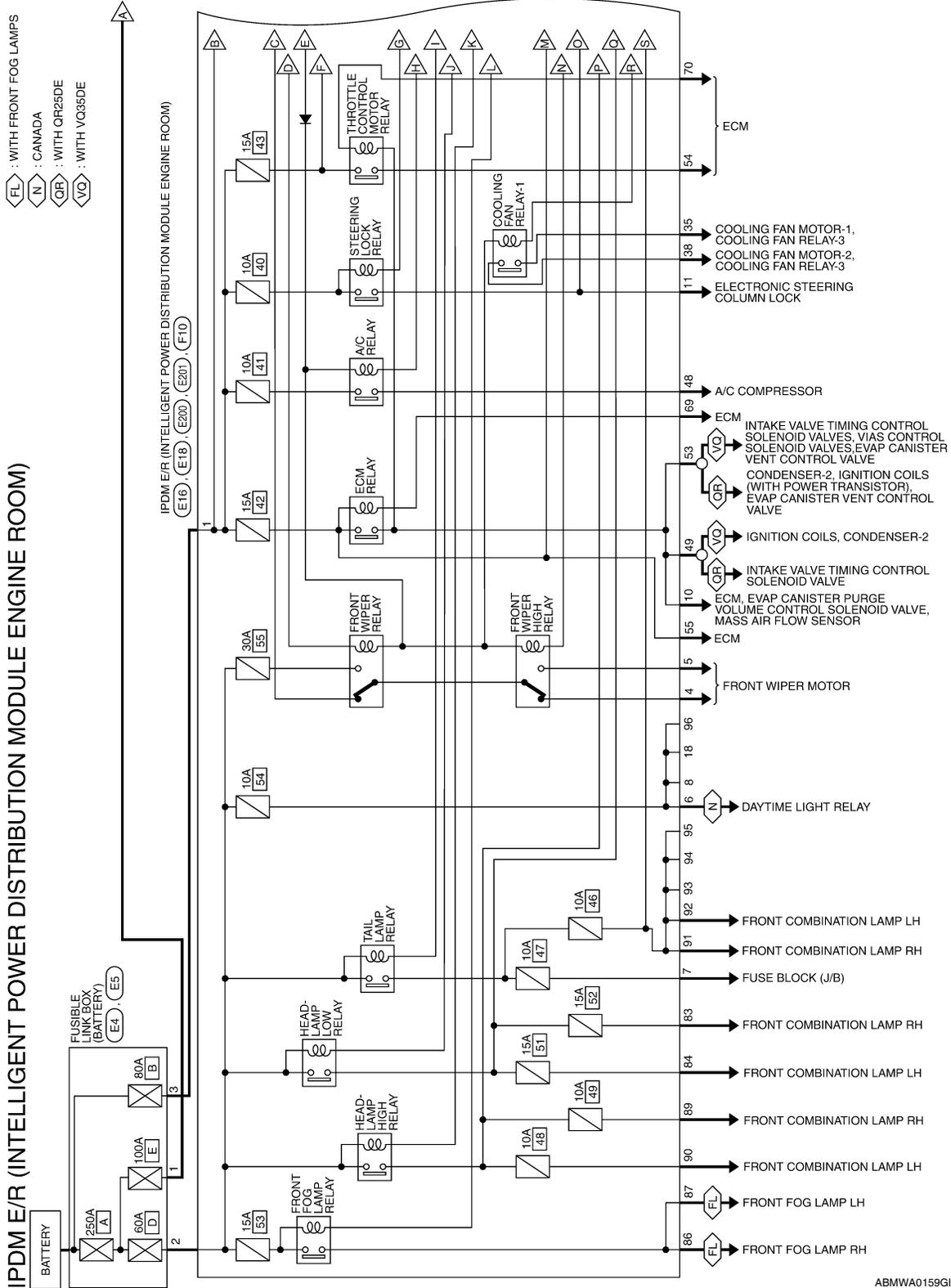
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[SEDAN WITHOUT INTELLIGENT KEY]

Wiring Diagram — Sedan

INFOID:000000004499238

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)



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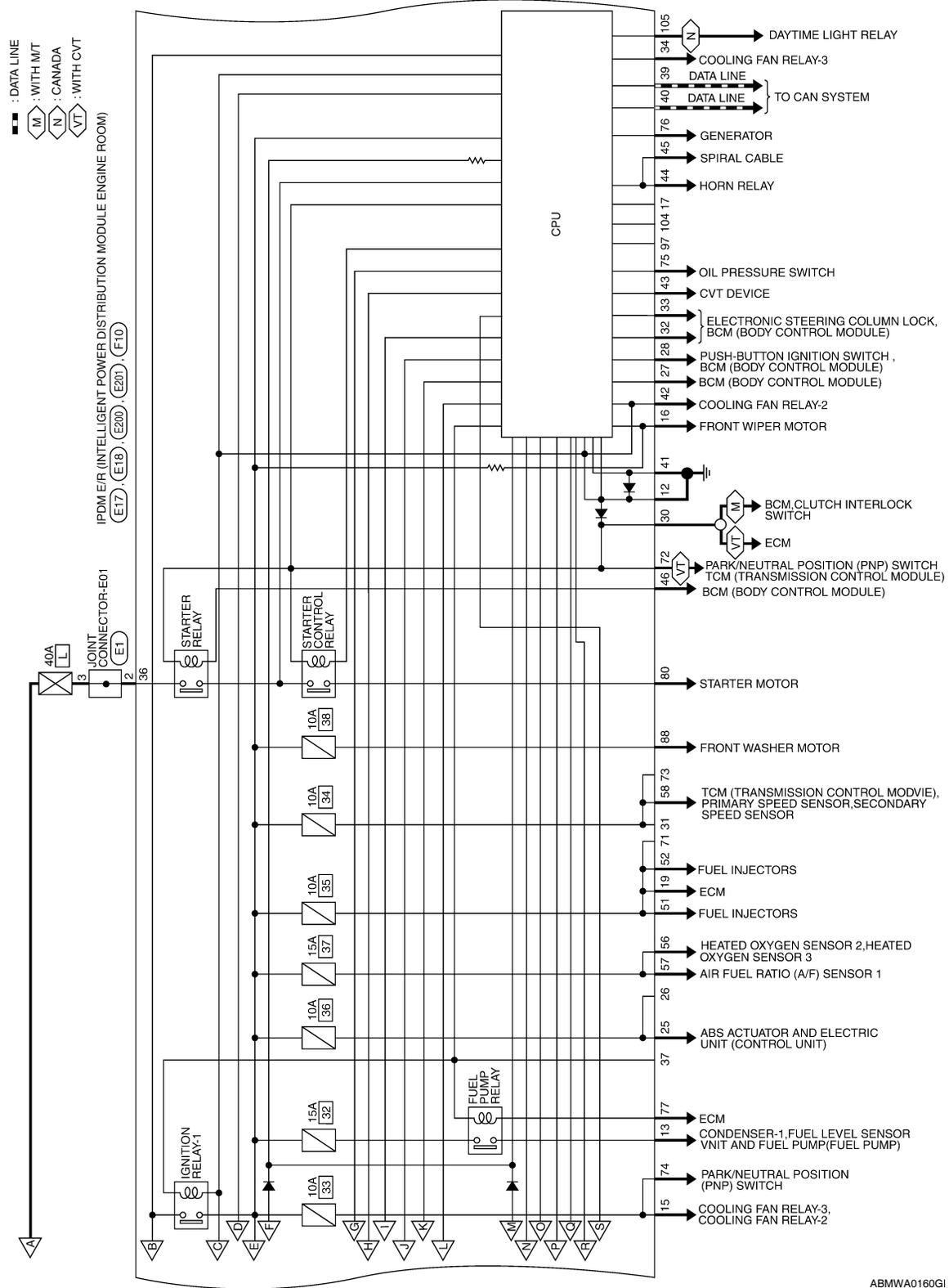
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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

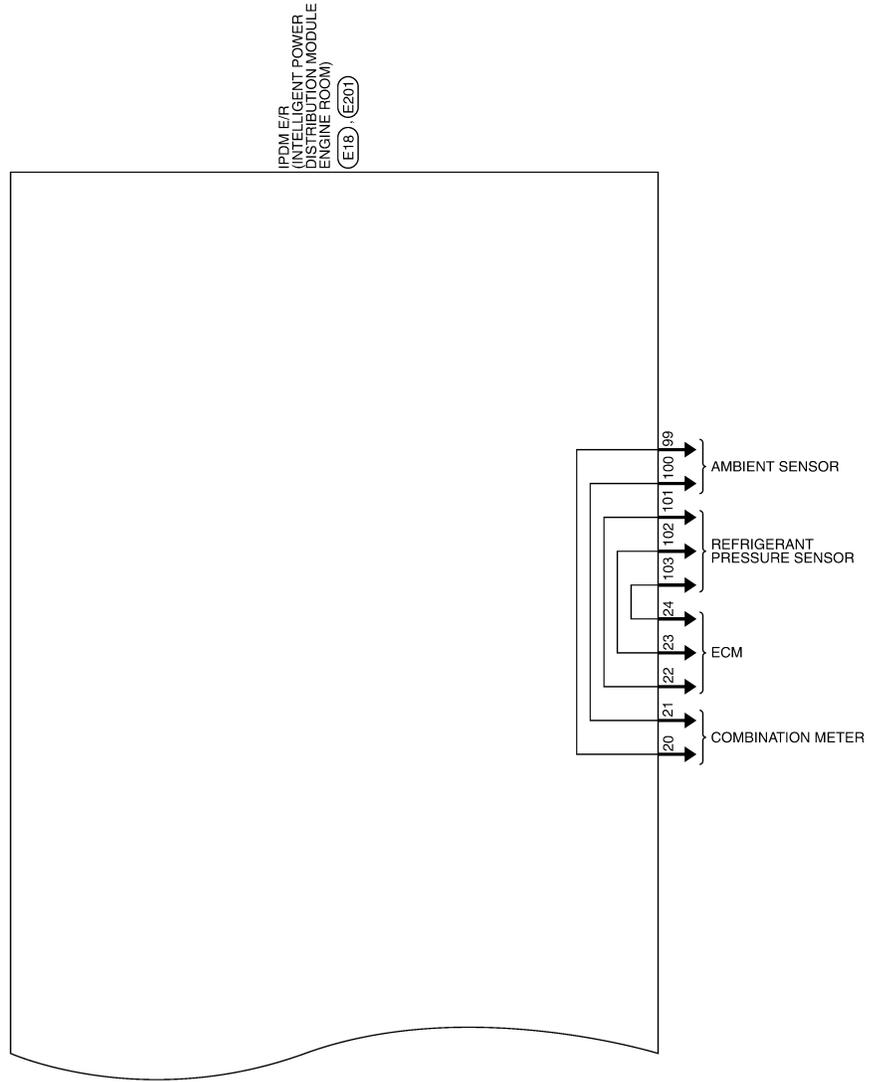
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[SEDAN WITHOUT INTELLIGENT KEY]



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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
< ECU DIAGNOSIS > **[SEDAN WITHOUT INTELLIGENT KEY]**



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ABMWA0161GI

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) CONNECTORS

Connector No.	E1
Connector Name	JOINT CONNECTOR-E01
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	G	-
3	G	-

Connector No.	E4
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	B/W	-
2	B/Y	-

Connector No.	E5
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
3	R	-

Connector No.	E16
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	R	F/L_MAIN
2	L	F/L_USM

Connector No.	E17
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



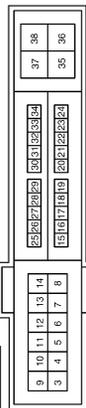
Terminal No.	Color of Wire	Signal Name
39	P	CAN-L
40	L	CAN-H
41	B	GND (SIGNAL)
42	SB	MOTOR_FAN_RLY_MID
43	G/B	DETENT_SW
44	G/W	HORN_RLY
45	L/O	HORN_SW
46	R	START_CONT

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

Connector No.	E18
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE

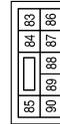


Terminal No.	Color of Wire	Signal Name
3	-	-
4	L/R	FR_WIPER_LO
5	L/B	FR_WIPER_HI
6	SB	DTRL
7	R/L	TAIL/ILLUMI

Terminal No.	Color of Wire	Signal Name
8	-	-
9	-	-
10	R/B	ECM_VB
11	P/L	ESCL
12	B	GND (POWER)
13	W	FUEL_PUMP
14	-	-
15	G/W	START_IG-E/R
16	L/Y	WIPER_AUTOSTOP
17	-	-
18	-	-
19	L/Y	BCM_IGNSW
20	B/Y	AMB_SENS_GND-E/R
21	O/B	AMB_SENS_SIG-E/R
22	W/R	PD_SENS_GND-E/R

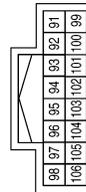
Terminal No.	Color of Wire	Signal Name
23	B/R	PD_SENS_SIG-E/R
24	BR/W	PD_SENS_PWR-E/R
25	GR	ABS_ECU
26	-	-
27	BR/W	IGN_SIGNAL
28	BR	PUSH_START_SW
29	-	-
30	R/B	CLUTCH_I/L_SW
31	-	-
32	L/O	SL_CONDITION_1
33	G/R	SL_CONDITION_2
34	O/L	MOTOR_FAN_RLY_HI
35	L/B	MOTOR_FAN_LO
36	G	F/L_IGNSW
37	-	-
38	R/W	F/L_MOTOR_FAN

Connector No.	E200
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
83	R/Y	HEADLAMP_LO_RH
84	L	HEADLAMP_LO_LH
85	-	-
86	W/R	FR_FOG_LAMP_RH
87	L/Y	FR_FOG_LAMP_LH
88	R/W	WASHER_MTR
89	L/W	HEADLAMP_HI_RH
90	G	HEADLAMP_HI_LH

Connector No.	E201
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
91	LG/R	CLEARANCE_RH
92	LG/B	CLEARANCE_LH
93	-	-
94	-	-
95	-	-
96	-	-
97	-	-

Terminal No.	Color of Wire	Signal Name
98	-	-
99	BR/W	AMB_SENS_GND-FEM
100	SB	AMB_SENS_SIG-FEM
101	O/L	PD_SENS_GND-FEM
102	R/B	PD_SENS_SIG-FEM
103	P	PD_SENS_PWR-FEM
104	-	-
105	V	DTRL_RLY
106	-	-

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SEC

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

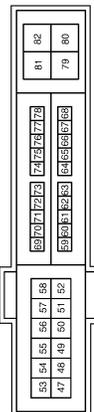
< ECU DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

Terminal No.	Color of Wire	Signal Name
65	-	-
66	-	-
67	-	-
68	-	-
69	W/B	SSOF
70	O	MOTRLY
71	-	-
72	R/B	NPSW
73	-	-
74	Y	START_IG-EGI
75	P/L	OIL_PRESSURE_SW
76	GR	ALT_C
77	B/R	FPR
78	-	-
79	-	-
80	B/W	STARTER_MOTOR
81	-	-
82	-	-

Terminal No.	Color of Wire	Signal Name
50	-	-
51	LG	INJECTOR_#1
52	Y/G	INJECTOR_#2
53	R/B	IGN_SOL (WITH QR25DE)
53	B/R	ENG_SOL (WITH VQ35DE)
54	G/W	ETC
55	W/L	ECM_BAT
56	R/Y	O2_SENS_#1
57	O	O2_SENS_#2
58	Y	AT_ECU
59	-	-
60	-	-
61	-	-
62	-	-
63	-	-
64	-	-

Connector No.	F10
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
47	-	-
48	Y/R	A/C COMP
49	B/R	ENG SOL (WITH QR25DE)
49	R/B	IGN_SOL (WITH VQ35DE)

ABMIA0473GB

INFOID:000000004499239

Fail Safe

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

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

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.
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	Electronic steering column 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.

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

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:000000004499240

CONSULT-III display	Fail-safe	TIME ^{NOTE}		Refer to
No DTC is detected. further testing may be required.	—	—	—	—
U1000: CAN COMM CIRCUIT	×	CRNT	1 – 39	PCS-20
B2098: IGN RELAY ON	×	CRNT	1 – 39	PCS-21
B2099: IGN RELAY OFF	—	CRNT	1 – 39	PCS-22
B2108: STRG LCK RELAY ON	—	CRNT	1 – 39	SEC-42
B2109: STRG LCK RELAY OFF	—	CRNT	1 – 39	SEC-43
B210A: STRG LCK STATE SW	—	CRNT	1 – 39	SEC-44
B210B: START CONT RLY ON	—	CRNT	1 – 39	SEC-48
B210C: START CONT RLY OFF	—	CRNT	1 – 39	SEC-49
B210D: STARTER RELAY ON	—	CRNT	1 – 39	SEC-50
B210E: STARTER RELAY OFF	—	CRNT	1 – 39	SEC-51
B210F: INTRLCK/PNP SW ON	—	CRNT	1 – 39	SEC-54
B2110: INTRLCK/PNP SW OFF	—	CRNT	1 – 39	SEC-59

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.

ENGINE START FUNCTION SYMPTOMS

< SYMPTOM DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

SYMPTOM DIAGNOSIS

ENGINE START FUNCTION SYMPTOMS

Symptom Table

INFOID:000000004499244

Engine cannot be started with all keyfobs.

CAUTION:

- Follow Trouble Diagnosis Flowchart referring to “[SEC-411, "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-III.
- Use keyfob with registered keyfob ID.
- One or more of keyfobs with registered keyfob ID is in the passenger compartment.

Diagnosis/service procedure		Reference page
1. Check power supply and ground circuit	BCM	BCS-42
	IPDM E/R	PCS-23
2. Check push button ignition switch		SEC-499
3. Check Intermittent Incident		GI-42

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SEC

VEHICLE SECURITY SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

VEHICLE SECURITY SYSTEM SYMPTOMS

Symptom Table

INFOID:000000004499245

Procedure		Diagnostic procedure	Refer to page
Symptom			
1	Vehicle security system cannot be set by	Door switch	Check door switch DLK-293
		Trunk	Check trunk room lamp switch DLK-316
		Door outside key	Check key cylinder switch DLK-305
		Keyfob	Check keyfob. DLK-526
		—	Check Intermittent Incident GI-42
	Security indicator does not turn ON.		Check vehicle security indicator SEC-514
		Check Intermittent Incident GI-42	
2	* Vehicle security system does not sound alarm when	Any door is opened.	Check door switch DLK-293
			Check Intermittent Incident GI-42
3	Vehicle security alarm does not activate.	Horn alarm	Check horn DLK-344
			Check Intermittent Incident GI-42
	Head lamp alarm	Check head lamp alarm SEC-512	
		Check Intermittent Incident GI-42	
4	Vehicle security system cannot be canceled by	Door outside key	Check key cylinder switch SEC-507
			Check Intermittent Incident GI-42
	Keyfob	Check keyfob DLK-526	
		Check Intermittent Incident GI-42	

*: Check that the system is in the armed phase.

NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS SYMPTOMS

< SYMPTOM DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS SYMPTOMS

Symptom Table

INFOID:000000004499246

Security indicator does not turn ON or flash.

CAUTION:

- Follow Trouble Diagnosis Flowchart referring to "[SEC-411, "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)

- Keyfob is not inserted into key slot.
- Engine switch is not depressed.

Action	Reference page
1. Check vehicle security indicator	SEC-514
2. Check Intermittent Incident	GI-42

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ON-VEHICLE REPAIR

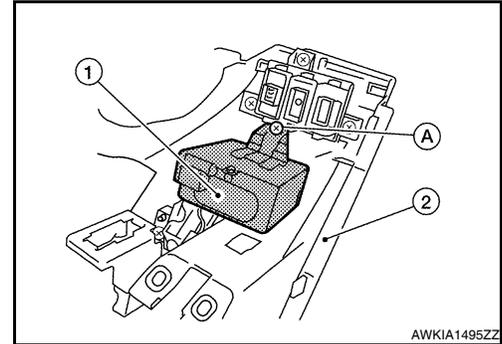
KEY SLOT

Removal and Installation

INFOID:000000004499249

REMOVAL

1. Remove the instrument lower panel LH. Refer to [JP-12. "Removal and Installation"](#).
2. Disconnect key slot connector.
3. Remove the key slot screw (A), 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

< ON-VEHICLE REPAIR >

[SEDAN WITHOUT INTELLIGENT KEY]

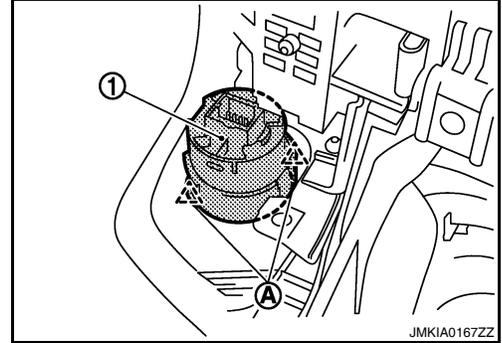
PUSH BUTTON IGNITION SWITCH

Removal and Installation

INFOID:000000004499250

REMOVAL

1. Remove the cluster lid A assembly. Refer to [IP-12. "Removal and Installation"](#).
2. Release the pawls (A) and remove the push-button ignition switch (1) from cluster lid A.



INSTALLATION

Installation is in the reverse order of removal.

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SEC