SECURITY CONTROL SYSTEM

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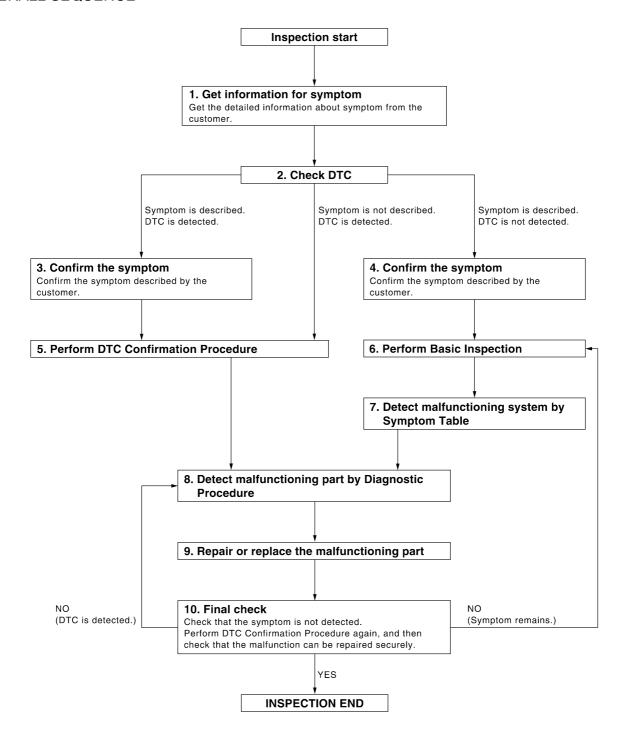
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BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

OVERALL SEQUENCE



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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 relationship between the symptom and the condition when the symptom is detected.

>> GO TO 5

4.CONFIRM THE SYMPTOM

Confirm the symptom described by the customer.

Connect CONSULT-III to the vehicle in "Data Monitor" mode and check real time diagnosis results.

Verify relationship between the symptom and the condition when the symptom is detected.

>> GO TO 6

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 DLK-148, "DTC Inspection Priority Chart" (coupe), DLK-372, "DTC Inspection Priority Chart" (sedan with intelligent key) DLK-554, "DTC Inspection Priority Chart" (sedan without intelligent key) 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-41, "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: <u>SEC-179</u>, "Symptom Table".

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DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION > [COUPE]

- Vehicle security system: SEC-180, "Symptom Table".
- Nissan vehicle immobilizer system-NATS: <u>SEC-181</u>, "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.
- Reconnect parts or connectors disconnected during Diagnostic Procedure again after repair or replacement.
- 3. Check DTC. If DTC is displayed, erase it.

>> GO TO 10

10. FINAL CHECK

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

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

Is the inspection result normal?

NO (DTC is detected)>>GO TO 8

NO (Symptom remains)>>GO TO 6

YES >> Inspection End.

PRE-INSPECTION FOR DIAGNOSTIC

< BASIC INSPECTION > [COUPE]

PRE-INSPECTION FOR DIAGNOSTIC

Basic Inspection

The engine start function, door lock function, power distribution system and NATS-IVIS/NVIS in the Intelligent Key system are closely related to each other regarding control. 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

. 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 <u>DLK-186</u>, "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 <u>SEC-179</u>, "Symptom Table".

3.CHECK POWER SUPPLY INDICATOR SWITCHING

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

Is each position indicator illuminating?

YES >> GO TO 4

NO >> Refer to PCS-81, "Component Function Check".

4. CHECK VEHICLE SECURITY SYSTEM

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 <u>SEC-13</u>, "Vehicle <u>Security Operation Check"</u>.

Vehicle Security Operation Check

1.INSPECTION START

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

NOTE:

Before starting operation check, open front windows.

>> GO TO 2

2.CHECK SECURITY INDICATOR LAMP

1. Lock doors using Intelligent Key or mechanical key.

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

Does security indicator lamp illuminate?

YES >> GO TO 3

NO >> Perform diagnosis and repair. Refer to SEC-106, "Component Function Check".

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PRE-INSPECTION FOR DIAGNOSTIC

< BASIC INSPECTION > [COUPE]

3. CHECK ALARM FUNCTION

- 1. After 30 seconds, security indicator lamp will start to blink.
- 2. Open any door or hood before unlocking with Intelligent Key or mechanical key, or open trunk lid without Intelligent Key or mechanical key.

Does the alarm function properly?

YES >> GO TO 4

NO >> Che

- >> Check the following.

 The vehicle security system does not phase in alarm mode. Refe
 - The vehicle security system does not phase in alarm mode. Refer to <u>SEC-180, "Symptom Table"</u>.
 - Alarm (horn, headlamp and hazard lamp) do not operate. Refer to SEC-180, "Symptom Table".

4. CHECK ALARM CANCEL OPERATION

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

Does the alarm (horn, headlamp and hazard lamp) stop?

YES >> Inspection End.

NO >> Check door lock function. Refer to <u>DLK-25</u>, "INTELLIGENT KEY: System Description".

INSPECTION AND ADJUSTMENT

[COUPE] < BASIC INSPECTION > INSPECTION AND ADJUSTMENT ECM RE-COMMUNICATING FUNCTION ECM RE-COMMUNICATING FUNCTION: Description INFOID:0000000005429478 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

1. PERFORM ECM RE-COMMUNICATING FUNCTION

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

Can engine be started?

YES >> Procedure is completed.

NO >> Initialize control unit. Refer to CONSULT-III Operation Manual.

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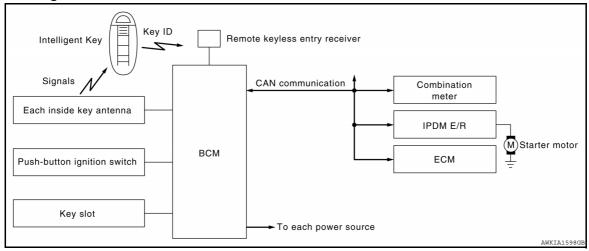
SEC-15 2010 Altima Revision: September 2009

FUNCTION DIAGNOSIS

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

System Diagram

INFOID:0000000005429480



System Description

INFOID:0000000005429481

INPUT/OUTPUT SIGNAL CHART

Switch	Input signal to BCM	BCM function	Actuator		
Push-button ignition switch	Push switch	h switch			
CVT shift selector (CVT models)	P range	Engine start function			
Transmission range switch (CVT models)	N, P range			2	
Clutch interlock switch (M/T models)	Clutch ON/OFF		 Starter relay (IPDM E/R) Starter control relay (IPDM E/R) Starter motor 		
Stop lamp switch	Brake ON/OFF				
Each inside key antenna	Request signal • KEY warning		KEY warning lamp		
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 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

< FUNCTION DIAGNOSIS >

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 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

- 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.
- 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 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). 6.
- BCM transmits the starter request signal via CAN communication to IPDM E/R and turns the starter relav 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.

10. 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.)

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-21, "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 Intelligent Key failures (Intelligent Key warning indicator is not ON)

Reset Condition of Battery Saver System

CVT models

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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< FUNCTION DIAGNOSIS >

[COUPE]

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.

- 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.

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
- 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.

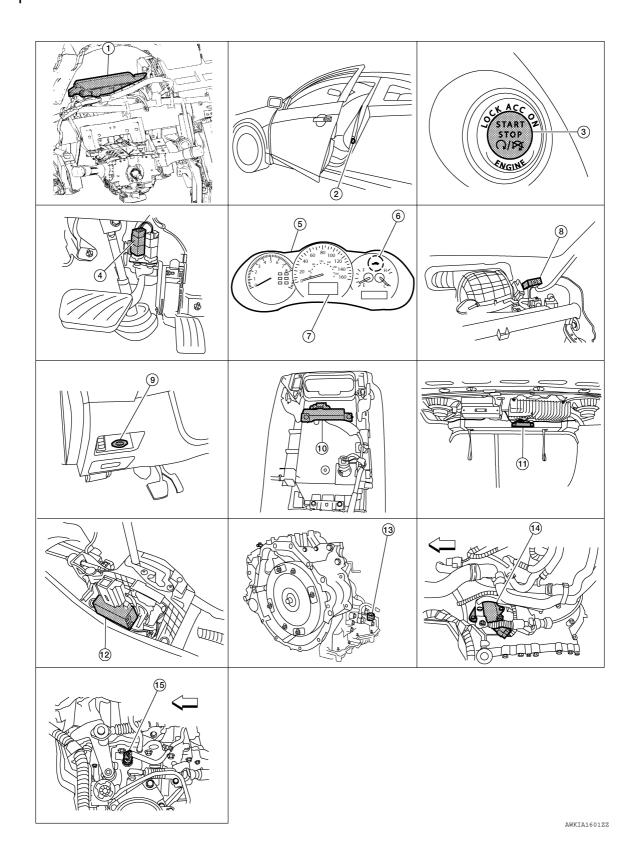
	Engine star	Push-button ignition switch op-		
Power supply position	Brake pedal (CVT) /clutch pedal (M/T) CVT selector lever position		eration frequency	
$LOCK \to ACC$	Not depressed	Any position	1	
$LOCK \to ACC \to ON$	Not depressed	Any position	2	
$\begin{array}{c} LOCK \to ACC \to ON \to \\ OFF \end{array}$	Not depressed	Any position	3	
LOCK → START ACC → START ON → START (Engine start)	Depressed	P or N position (*1)	I [If the switch is pressed once, the engine starts from any pow- er 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)

Component Parts Location

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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< FUNCTION DIAGNOSIS > [COUPE]

1.	Body control module M16, M17, M18, M19, M21 (view with instrument panel removed)	2.	Door switch LH B68 RH B109	3.	Push button ignition switch M38
4.	Stop lamp switch E38 (with CVT) Stop lamp switch E52 (with M/T) (view with lower driver instrument panel removed)	5.	Combination meter M24	6.	Security indicator lamp
7.	Information display	8.	Remote keyless entry receiver M27 (view with instrument panel removed)	9.	Key slot M40
10.	Front console antenna M203 (bottom view of console)	11.	Rear parcel shelf antenna B29	12.	CVT shift selector (park position switch) M23 with CVT
13.	Transmission range switch connector (TCM connector) F33	14.	Transmission range switch F25 (with CVT/QR)	15.	Park neutral position switch F32 (with M/T)

Component Description

(with CVT/VQ)

INFOID:0000000005429483

Component	Reference
Push-button ignition switch	<u>SEC-90</u>
Door switch	<u>DLK-67</u>
CVT shift selector (park position switch)	<u>SEC-67</u>
Inside key antenna	<u>DLK-60</u>
Remote keyless entry receiver	DLK-112
Stop lamp switch	<u>SEC-60</u>
Transmission range switch	<u>SEC-77</u>
Clutch switch	<u>SEC-43</u>
Starter relay	<u>SEC-81</u>
Starter control relay	<u>SEC-66</u>
Security indicator	<u>SEC-106</u>
Key warning lamp	SEC-105

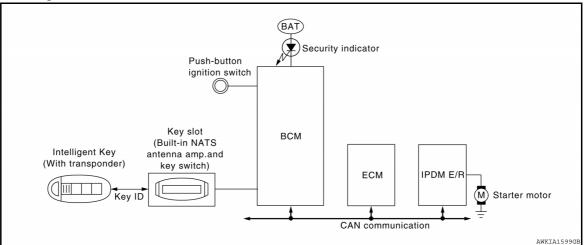
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NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

System Diagram



System Description

INFOID:0000000005429485

INPUT/OUTPUT SIGNAL CHART

Switch	Input signal to BCM	BCM function	Actuator
Push-button ignition switch	Push switch		
CVT shift selector (CVT models)	P range		
Transmission range switch (CVT models)	N, P range • Starter relay		Starter relay (IPDM E/R) Starter control relay (IPDM E/R)
Clutch interlock switch (M/T models)	Clutch ON/OFF		Starter motor
Stop lamp switch	Brake ON/OFF		KEY warning lamp
Key slot	Key ID		Security indicator lamp
Each door switch	Door open/close		
ECM	Engine status signal		

SYSTEM DESCRIPTION

Revision: September 2009

- 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.

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NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

< FUNCTION DIAGNOSIS >

[COUPE]

- Possible symptom of NVIS (NATS) malfunction is "Engine cannot start". In L32, the engine can be started
 with the Intelligent Key system and NVIS (NATS). Identify the possible causes according to "Work Flow",
 Refer to <u>SEC-10</u>, "Work Flow".
- If ECM other than Genuine NISSAN is installed, the engine cannot be started. For ECM replacement procedure, refer to <u>SEC-15</u>, "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.

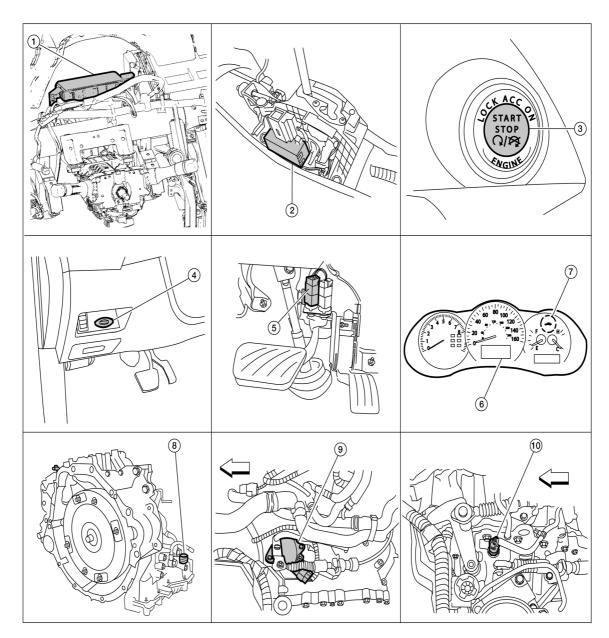
NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

< FUNCTION DIAGNOSIS >

[COUPE]

Component Parts Location

INFOID:0000000005429486



AWKIA1602ZZ

Body control module M16, M17, M18, M19, M21 2. CVT shift selector (park position 3. (view with instrument panel removed)

Key slot M40

switch) M23 (with CVT)

Stop lamp switch E38 (with CVT) 6. Stop lamp switch E52 (with M/T) (view with lower LH instrument panel removed)

Push button ignition switch M38

Security indicator lamp

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NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

< FUNCTION DIAGNOSIS > [COUPE]

7. Information display

8. TCM (Transmission control mod- 9. ule connector F33 (with CVT/VQ)

Transmission range switch F25 (with CVT/QR)

 Park/neutral position (PNP) switch F32 (with M/T)

Component Description

INFOID:0000000005429487

Component	Reference
Push-button ignition switch	<u>SEC-90</u>
Door switch	DLK-67
CVT shift selector (park position switch)	<u>SEC-67</u>
Inside key antenna	DLK-60
Remote keyless entry receiver	DLK-112
Stop lamp switch	<u>SEC-60</u>
Transmission range switch	<u>SEC-77</u>
Clutch switch	<u>SEC-43</u>
Starter relay	<u>SEC-81</u>
Starter control relay	<u>SEC-66</u>
Security indicator	<u>SEC-106</u>
Key warning lamp	<u>SEC-105</u>

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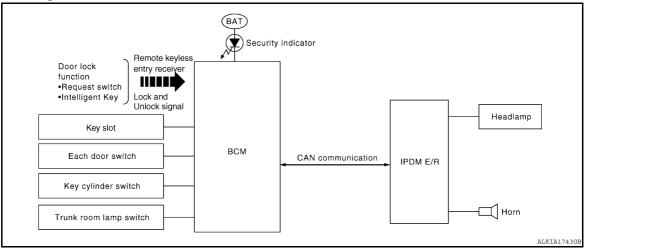
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VEHICLE SECURITY SYSTEM

System Diagram

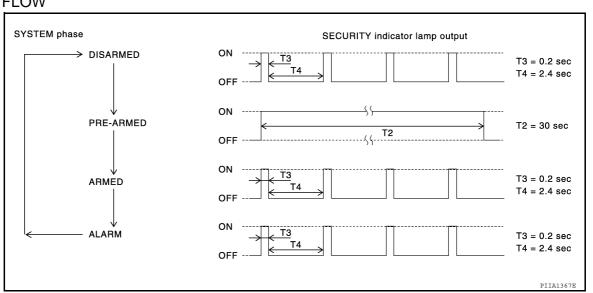


System Description

INPUT/OUTPUT SIGNAL CHART

Switch	Input signal to BCM	BCM system	Actuator	
All door switch	Open or close			
Trunk room lamp switch	— Open of close			
Door key cylinder switch			IPDM E/R	
Door lock and unlock switch	Lock or unlock	Vahiala assurity avatara	Head lamp	
Door request switch		Vehicle security system	Horn Security in disease leaves	
Intelligent May	Lock or unlock		Security indicator lamp	
Intelligent Key	Panic alarm			
Key slot	Intelligent Key sensing			

OPERATION FLOW



SETTING THE VEHICLE SECURITY SYSTEM

Initial Condition

Ignition switch is in OFF position.

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VEHICLE SECURITY SYSTEM

< FUNCTION DIAGNOSIS > [COUPE]

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.
- 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.

Component Parts Location

INFOID:0000000005429490

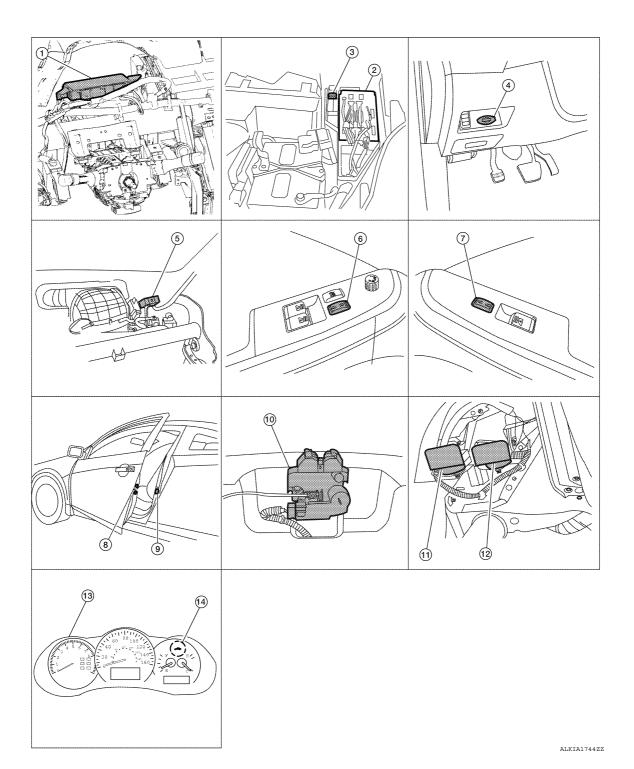
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- Body control module M16, M17, M18, 2. M19, M21 (view with instrument panel removed)
- 4. Key slot M40
- 7. Power window and door lock/unlock switch RH D110
- IPDM E/R E17, E18
- 5. Remote keyless entry receiver M27 (view with instrument panel removed)
- Door lock assembly LH (key cylinder switch) D25 (with left power window antipinch system)
 D26 (with left and right power window antipinch system)
- 3. Horn relay H-1
- Main power window and door lock/ unlock switch D28
- Door switch LH B68 RH B109

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VEHICLE SECURITY SYSTEM

< FUNCTION DIAGNOSIS > [COUPE]

10. Trunk lamp switch and trunk release solenoid T4

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:0000000005429491

Component	Reference
BCM	<u>SEC-25</u>
Horn relay	SEC-102
Security indicator	SEC-106
Door switch	<u>DLK-67</u>
Door lock actuator	DLK-102
Trunk lid lock assembly	<u>DLK-105</u>
Door key cylinder switch	<u>DLK-79</u>
Door lock and unlock switch	<u>DLK-70</u>
Key slot	<u>DLK-77</u>
Remote keyless entry receiver	DLK-112

< FUNCTION DIAGNOSIS >

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DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM: Diagnosis Description

INFOID:0000000005778825

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 DIAGNOSTIC RESULT	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	 Read and save the vehicle specification. Write the vehicle specification when replacing BCM.

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.

Custom	Sub system selection item	Diagnosis mode		
System		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 system1	MULTI REMOTE ENT	×	×	×
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER	×	×	×
Air conditioner	AIR CONDITONER		×	
Intelligent Key system2	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	×	×	×

^{1:} With remote keyless entry system

COMMON ITEM: CONSULT-III Function

INFOID:0000000005778826

ECU IDENTIFICATION

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^{2:} With intelligent Key system

Displays the BCM part No.

SELF-DIAG RESULT

Refer to SEC-130, "DTC Index".

INTELLIGENT KEY

INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY) INFOID:000000005778827

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. • MODE1: 1 minute • MODE2: 5 minutes • MODE3: 30 seconds • MODE4: 2 minutes
LOCK/UNLOCK BY I-KEY	Door lock/unlock function by door request switch mode can be changed to operate (ON) or not operate (OFF) in this mode.
ENGINE START BY I-KEY	Engine start function mode can be changed to operate (ON) or not operate (OFF) with this mode.
TRUNK/GLASS HATCH OPEN	Buzzer reminder function mode by back door 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. • MODE1: 0.5 sec. • MODE2: Non-operation • MODE3: 1.5 sec.
PW DOWN SET	Unlock button pressing time on Intelligent Key button can be selected from the following with this mode. • MODE1: 3 sec. • MODE2: Non-operation • MODE3: 5 sec.
TRUNK OPEN DELAY	Trunk button pressing time on Intelligent Key button can be selected from the following with this mode. • MODE1: 0.5 sec. • MODE2: 1.5 sec. • MODE3: OFF: No delay
LO- BATT OF KEY FOB WARN	Intelligent Key low battery warning mode can be changed to operate (ON) or not operate (OFF) with this mode.
ANTI KEY LOCK IN FUNCTI	Key reminder function mode can be changed to operate (ON) or not operate (OFF) with this mode.
HAZARD ANSWER BACK	Hazard reminder function mode can be selected from the following with this mode. • LOCK ONLY: Door lock operation only • UNLOCK ONLY: Door unlock operation only • LOCK/UNLOCK: Lock/unlock operation • OFF: Non-operation
ANS BACK I-KEY LOCK	Buzzer reminder function (lock operation) mode by door request switch (driver side and passenger side) can be selected from the following with this mode. • Horn chirp: Sound horn • Buzzer: Sound Intelligent Key warning buzzer • OFF: Non-operation
ANS BACK I-KEY UNLOCK	Buzzer reminder function (unlock operation) mode by door request switch can be changed to operate (ON) or not operate (OFF) with this mode.
SHORT CRANKING OUTPUT	Starter motor can be forcibly activated.
INSIDE ANT DIAGNOSIS	This function allows inside key antenna self-diagnosis.
HORN WITH KEYLESS LOCK	Horn reminder function mode by Intelligent Key button can be changed to operate (ON) or not operate (OFF) with this mode.

SELF-DIAG RESULT

Refer to BCS-70, "DTC Index".

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

 $^{^{\}star 1}$: It is displayed but does not operate on M/T models.

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 $^{^{\}star2}$: OFF is displayed when brake pedal is depressed while brake switch power supply is OFF.

Test item	Description	
BATTERY SAVER	This test is able to check interior room lamp operation. The interior room lamp is activated after "ON" on CONSULT-III screen is touched.	
PW REMOTO DOWN SET	This test is able to check power window down operation. The power window down is activated after "ON" on CONSULT-III screen is touched.	
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation. The Intelligent Key warning buzzer is activated after "ON" on CONSULT-III screen is touched.	
INSIDE BUZZER	This test is able to check warning chime in combination meter operation. • Take away warning chime sounds when "TAKE OUT" on CONSULT-III screen is touched. • Key warning chime sounds when "KEY" on CONSULT-III screen is touched. • OFF position warning chime sounds when "KNOB" on CONSULT-III screen is touched.	
INDICATOR	This test is able to check warning lamp operation. • "KEY" Warning lamp illuminates when "KEY ON" on CONSULT-III screen is touched. • "KEY" Warning lamp blinks when "KEY IND" on CONSULT-III screen is touched.	
INT LAMP	This test is able to check interior room lamp operation. The interior room lamp is activated after "ON" on CONSULT-III screen is touched.	
LCD	 This test is able to check meter display information Engine start information displays when "BP N" on CONSULT-III screen is touched. Engine start information displays when "BP I" on CONSULT-III screen is touched. Key ID warning displays when "ID NG" on CONSULT-III screen is touched. P position warning displays when "SFT P" on CONSULT-III screen is touched. Intelligent Key insert information displays when "INSRT" on CONSULT-III screen is touched. Intelligent Key low battery warning displays when "BATT" on CONSULT-III screen is touched. Take away through window warning displays when "NO KY" on CONSULT-III screen is touched. Take away warning display when "OUTKEY" on CONSULT-III screen is touched. OFF position warning display when "LK WN" on CONSULT-III screen is touched. 	
FLASHER	This test is able to check hazard warning lamp operation. The hazard warning lamps are activated after "LH/RH/OFF" on CONSULT-III screen is touched.	
HORN	This test is able to check horn operation. The horn is activated after "ON" on CONSULT-III screen is touched.	
P RANGE	This test is able to check CVT shift selector power supply CVT shift selector power is supplied when "ON" on CONSULT-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. ACC indicator in push-ignition switch illuminates when "ON" on CONSULT-III screen is touched.	
IGNITION ON IND	This test is able to check ON indicator in push-ignition switch operation. ON indicator in push-ignition switch illuminates when "ON" on CONSULT-III screen is touched.	
KEY SLOT ILLUMI	This test is able to check key slot illumination operation. Key slot illumination blinks when "ON" on CONSULT-III screen is touched.	
TRUNK/BACK DOOR	This test is able to check back door opener actuator open operation. This actuator opens when "OPEN" on CONSULT-III screen is touched.	

THEFT ALM

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

INFOID:0000000005778828

WORK SUPPORT

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

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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.	
CDL LOCK SW	Indicates [ON/OFF] condition of lock signal from door lock/unlock switch LH and RH.	
CDL UNLOCK SW	Indicates [ON/OFF] condition of unlock signal from door lock/unlock switch LH and RH.	
KEY CYL LK-SW	Indicates [ON/OFF] condition of lock signal from front door key cylinder switch.	
KEY CYL UN-SW	Indicates [ON/OFF] condition of unlock signal from front door key cylinder switch.	
TR/BD OPEN SW	Indicates [ON/OFF] condition of trunk opener switch.	
TRNK/HAT MNTR	Indicates [ON/OFF] condition of trunk lid.	
RKE-LOCK	Indicates [ON/OFF] condition of LOCK signal from Intelligent Key.	
RKE-UNLOCK	Indicates [ON/OFF] condition of UNLOCK signal from Intelligent Key.	
RKE-TR/BD	Indicates [ON/OFF] condition of TRUNK OPEN signal from Intelligent Key.	

^{* :} Sedan

ACTIVE TEST

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

IMMU

IMMU: CONSULT-III Function (BCM - IMMU)

INFOID:0000000005778829

DATA MONITOR

Revision: September 2009 SEC-33 2010 Altima

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DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

[COUPE]

Monitor item	Content	
CONFRM ID ALL		
CONFIRM ID4		
CONFIRM ID3	Indicates [YET] at all time. Switch to [DONE] when a registered Intelligent Key is inserted into the key slot.	
CONFIRM ID2		
CONFIRM ID1		
TP 4		
TP 3	Indicates the number of ID which has been registered.	
TP 2	Indicates the number of 1D which has been registered.	
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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COMPONENT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description INFOID:000000005429497

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-26, "CAN Communication Signal Chart".

DTC Logic

DTC DETECTION LOGIC

CONSULT-III dis- play description	DTC Detection Condition	Possible cause
CAN COMM CIR- CUIT [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. Transmission Receiving (ECM) Receiving (VDC/TCS/ABS) Receiving (METER/M&A) Receiving (TCM) Receiving (MULTI AV) Receiving (IPDM E/R)

Diagnosis Procedure

INFOID:0000000005429499

1.PERFORM SELF DIAGNOSTIC

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

Is "CAN COMM CIRCUIT" displayed?

YES >> Refer to LAN-8, "CAN Communication Control Circuit".

NO >> Refer to GI-41, "Intermittent Incident".

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U1010 CONTROL UNIT (CAN)

< COMPONENT DIAGNOSIS >

[COUPE]

U1010 CONTROL UNIT (CAN)

DTC Logic

DTC DETECTION LOGIC

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

Diagnosis Procedure

INFOID:0000000005429501

1. REPLACE BCM

When DTC U1010 is detected, replace BCM.

>> Replace BCM. Refer to BCS-96, "Removal and Installation".

B210B STARTER CONTROL RELAY

< COMPONENT DIAGNOSIS >

[COUPE]

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B210B STARTER CONTROL RELAY

Description INFOID:000000005429517

Starter control relay, integrated in IPDM E/R, permits the starter relay operation when in N or P position.

DTC Logic

DTC DETECTION LOGIC

NOTE:

• If DTC B210B is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-35, "DTC Logic".

• If DTC B210B 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
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. Starter control relay ON/OFF signal from BCM Clutch interlock or transmission range switch input signal	• 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 <u>SEC-37</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000005429519

1. INSPECTION START

- Turn ignition switch ON.
- 2. Check "Self diagnostic result" with CONSULT-III.
- 3. Touch "ERASE".
- 4. Perform DTC Confirmation Procedure.

See PCS-32, "DTC Index".

Is the DTC B210B displayed again?

YES >> Replace IPDM E/R. Refer PCS-47, "Removal and Installation".

NO >> Inspection End.

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B210C STARTER CONTROL RELAY

Description INFOID:000000005429520

Starter control relay, integrated in IPDM E/R, permits the starter relay operation when in N or P position.

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B210C is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-35, "DTC Logic".
- If DTC B210C is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-36</u>, "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. Starter control relay ON/OFF signal from BCM Clutch interlock or transmission range switch input signal	• 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 <u>SEC-38</u>, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000005429522

1. INSPECTION START

- Turn ignition switch ON.
- 2. Check "Self diagnostic result" with CONSULT-III.
- Touch "ERASE".
- 4. Perform DTC Confirmation Procedure.

See PCS-32, "DTC Index".

Is the DTC B210C displayed again?

YES >> Replace IPDM E/R. Refer to PCS-47, "Removal and Installation".

NO >> Inspection End.

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B210D STARTER RELAY

Description INFOID:0000000005429523

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

DTC DETECTION LOGIC

NOTE:

- If DTC B210D is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-35, "DTC Logic".
- If DTC B210D is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-36, "DTC Logic".
- If DTC B210D is displayed with DTC B2617, first perform the trouble diagnosis for DTC B2617. Refer to <u>SEC-87, "DTC Logic"</u>.

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. Starter control relay ON/OFF signal from BCM Clutch interlock or transmission range switch input	• 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 <u>SEC-39</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to <u>BCS-75, "COUPE: Wiring Diagram"</u>.

1. CHECK STARTER RELAY POWER SUPPLY CIRCUIT

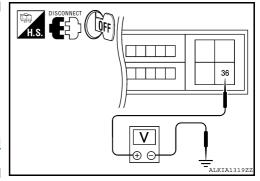
- Turn ignition switch OFF.
- 2. Disconnect IPDM E/R harness connector.
- Check voltage between IPDM E/R harness connector and ground.

IPDN	M E/R	Ground	Voltage (V)	
Connector	Terminal	Ground	voltage (v)	
E18	36	Ground	Battery voltage	

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to <u>PCS-47</u>, "Removal and <u>Installation"</u>.

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



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INFOID:0000000005429525

Revision: September 2009 SEC-39 2010 Altima

B210E STARTER RELAY

Description INFOID:000000005429526

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

DTC DETECTION LOGIC

NOTE:

- If DTC B210E is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-35, "DTC Logic".
- If DTC B210E is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-36</u>, "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. • Starter control relay ON/OFF signal from BCM • Clutch interlock or transmission range switch input	• 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 <u>SEC-40</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000005429528

Regarding Wiring Diagram information, refer to SEC-169, "Wiring Diagram".

1. INSPECTION START

Check which type of transmission the vehicle is equipped with.

Which type of transmission

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

2.CHECK STARTER RELAY OUTPUT SIGNAL/CVT MODELS

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

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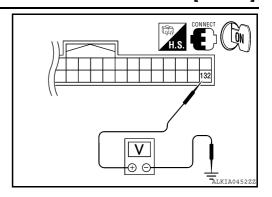
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3. Check voltage between BCM harness connector and ground.



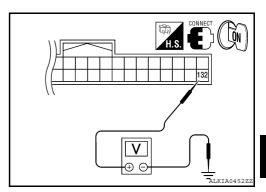
BCM connector		Ground		Condition		Voltage (V)
Connector	Terminal	Glound	Ignition switch Brake pedal		CVT selector lever	voltage (v)
M21	132	Ground	ON	Depressed	P or N	Battery voltage
IVIZI	132	Glound	ON	Depressed	Other than above	0

Is the inspection result normal?

YES >> GO TO 5 NO >> GO TO 4

${\bf 3.} {\tt CHECK} \ {\tt STARTER} \ {\tt RELAY} \ {\tt OUTPUT} \ {\tt SIGNAL} \ / \ {\tt M/T} \ {\tt MODELS}$

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



BCM connector		Ground	C	ondition	Voltage (V)	
Connector	Terminal	Glound	Ignition switch Clutch pedal		vollage (v)	
M21	132	Ground	OFF	Not depressed	0	
IVIZ I	132	Giodila	OFF	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.

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B210E STARTER RELAY

< COMPONENT DIAGNOSIS >

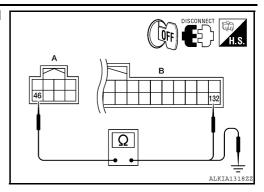
[COUPE]

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

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

3. Check continuity between BCM harness connector and ground.

IPDN	/I E/R	Ground	Continuity	
Connector Terminal		Glound	Continuity	
A: E17	46	Ground	No	



Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-47, "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.
- Check voltage between IPDM E/R harness connector and ground.

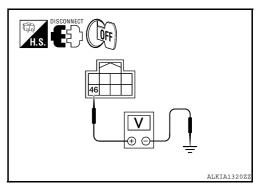
IPDN	/I E/R	Ground	Voltage (V)
Connector	Terminal	Ground	voltage (v)
E17	46	Ground	Battery voltage

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-47, "Removal and Installation".

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

>> Check harness for open or short between IPDM E/R and battery.



< COMPONENT DIAGNOSIS >

B210F TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

Description INFOID:0000000005429529

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

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

DTC Logic INFOID:0000000005429530

DTC DETECTION LOGIC

NOTE:

- If DTC B210F is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-35, "DTC Logic"
- If DTC B210F is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-35, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B210F	INTER LOCK/TRANS- MISSION RANGE SW ON	IPDM E/R detects a mismatch between the signals below for 1 second or more. • Clutch interlock input signal (M/T models) • Shift transmission range switch input signal (CVT models) • Shift position signal from BCM (CAN)	Harness or connectors [Transmission range switch circuit is open or shorted (CVT models)] or (Clutch interlock switch circuit is open or shorted.) Clutch interlock switch (M/T models) Transmission range switch (CVT models)

SEC-43

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 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
- Check "Self diagnostic result" with CONSULT-III.

Is DTC detected?

>> Refer to SEC-43, "Diagnosis Procedure". YES

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-169, "Wiring Diagram".

1.INSPECTION START

Check which type of transmission the vehicle is equipped with.

Which type of transmission

CVT >> GO TO 2

M/T >> GO TO 5

2.CHECK DTC WITH BCM

Refer to BCS-70. "DTC Index".

Is the inspection result normal?

Revision: September 2009

YES >> GO TO 3

NO >> Repair or replace malfunctioning parts.

3.CHECK TRANSMISSION RANGE SWITCH INPUT SIGNAL

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< COMPONENT DIAGNOSIS >

- 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	Conc	dition	Voltage (V)
Connector	Terminal	Ground	Condition		voltage (v)
			CVT selector	P or N	0
E18	30	Ground	lever	Other than above	Battery voltage

UN DISCONNECT H.S.

Is the inspection result normal?

>> Replace IPDM E/R. Refer to PCS-47, "Removal and YES Installation".

NO >> (VQ35DE) GO TO 4

NO >> (QR25DE) GO TO 10

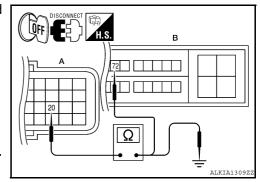
4. CHECK TRANSMISSION RANGE SWITCH CIRCUIT

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

TCM		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: F33	20	B: E18	72	Yes

Check continuity between TCM harness connector and ground.

TCM		Ground	Continuity	
Connector	Terminal	Glound	Continuity	
A: F33	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.

ВСМ						
Connec- tor	Terminal	Ground	Condition		Voltage (V)	
M18	22	Ground	Clutch	Not depressed	0	
IVITO	22	Giodila	pedal	Depressed	Battery voltage	

Is the inspection result normal?

YES >> GO TO 6 NO >> GO TO 7

6. CHECK CLUTCH INTERLOCK SWITCH INPUT SIGNAL

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

< COMPONENT DIAGNOSIS >

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

IPDM E/R		Ground	(Condition	Voltage (V)
Connector	Terminal	Ground	Condition		voltage (v)
E18	30	Ground	Clutch	Not depressed	0
L10	30	Giodila	pedal	Depressed	Battery voltage

Is the inspection result normal?

YES >> Replace the IPDM E/R. Refer to PCS-47, "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	Giodila	vollage (v)	
E36	1	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 8

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

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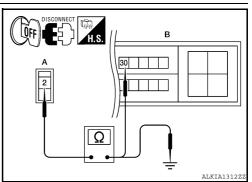
8. CHECK CLUTCH INTERLOCK SWITCH CIRCUIT

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

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

Check continuity between clutch interlock switch harness connector and ground.

Clutch interlock switch		Ground	Continuity	
Connector	Terminal	Giodila	Continuity	
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-47, "Component Inspection".

Is the inspection result normal?

>> Replace the IPDM E/R. Refer to PCS-47, "Removal and Installation". YES

NO >> Replace clutch interlock switch.

10.CHECK TRANSMISSION RANGE SWITCH CIRCUIT FOR CONTINUITY

Turn ignition switch OFF.

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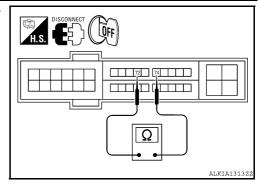
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< COMPONENT DIAGNOSIS >

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

IPDM E/R			Condition		Continuity
Connector	Tern	ninals	Condition		Continuity
			Transmis-	P or N	Yes
F10	72	74	sion range switch posi- tion	Other	No



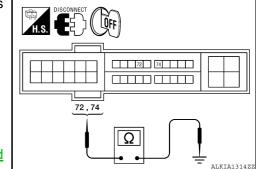
Is the inspection result normal?

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

11. CHECK TRANSMISSION RANGE SWITCH CIRCUIT FOR SHORT

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

IPDM E/R		Ground	Continuity	
Connector	Terminal	Glound	Continuity	
F10	72	Ground	No	
1 10	74	Glound	NO	



Is the inspection result normal?

YES >> Replace the IPDM E/R. Refer to PCS-47, "Removal and Installation".

NO >> Repair or replace harness.

12. CHECK TRANSMISSION RANGE SWITCH INPUT SIGNAL CIRCUIT

- Disconnect transmission range switch harness connector.
- 2. Check continuity between transmission range switch and IPDM [E/R harness connectors.

Transmission range switch		IPDM E/R		Continuity
Connector	Terminal	Connector Terminal		Continuity
۸۰ ۲۵۶	1	B: F10	74	Yes
A: F25	2	D. F10	72	162

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

	T.S. OFF B	
	1 2 72 74 1 1 1 2	
	72,74	ᆁ
,	ALKIA131	5ZZ

Transmission	range switch	Ground	Continuity	
Connector	Terminal	Giodila		
A: F25	1	Ground	No	
A. 1 23	2	Glound	NO	

Is the inspection result normal?

YES >> Replace transmission range switch.

NO >> Repair harness or connector.

13. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

YES >> Inspection End.

< COMPONENT DIAGNOSIS >

Component Inspection

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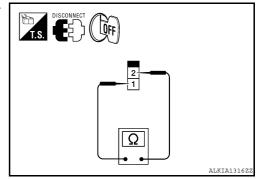
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1. CHECK CLUTCH INTERLOCK SWITCH

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

	interlock vitch	C	Condition Continuity		
Terr	minal				
1	2	Clutch pedal	Not depressed	No	
	2	Ciutch pedal	Depressed	Yes	



Is the inspection result normal?

YES >> Inspection End.

NO >> Replace clutch interlock switch.

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< COMPONENT DIAGNOSIS >

B2110 TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

Description INFOID:0000000005429533

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

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

DTC Logic INFOID:0000000005429534

DTC DETECTION LOGIC

NOTE:

- If DTC B2110 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-35, "DTC Logic".
- If DTC B2110 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
B2110	INTER LOCK/ TRANSMISSION RANGE SW	IPDM E/R detects mismatch between the signals below for 1 second or more. • Clutch interlock input signal (M/T models) • Shift transmission range switch input signal (CVT models)	Harness or connectors [Transmission range switch circuit is open or shorted (CVT models)] or (Clutch interlock switch circuit is open or shorted.) Clutch inter lock switch (MT models) Transmission range switch (CVT models)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 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
- Check "Self diagnostic result" with CONSULT-III.

Is DTC detected?

YFS >> Refer to SEC-48, "Diagnosis Procedure".

>> Inspection End. NO

Diagnosis Procedure

INFOID:0000000005429535

Regarding Wiring Diagram information, refer to SEC-169, "Wiring Diagram".

1.INSPECTION START

Check which type of transmission the vehicle is equipped with.

Which type of transmission

CVT >> GO TO 2

M/T >> GO TO 5

2.CHECK DTC WITH BCM

Refer to BCS-70, "DTC Index".

Is the inspection result normal?

YES >> GO TO 3

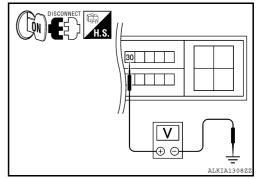
>> Repair or replace malfunctioning parts. NO

${f 3.}$ CHECK TRANSMISSION RANGE SWITCH INPUT SIGNAL

< COMPONENT DIAGNOSIS >

- Turn ignition switch OFF.
- Disconnect IPDM E/R harness connector.
- 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	Glound	Cond	ition	voitage (v)
			CVT selector	P or N	0
E18	30	Ground	lever	Other than above	Battery voltage



Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-47, "Removal and Installation".

NO >> (VQ35DE) GO TO 4 NO >> (QR25DE) GO TO 10

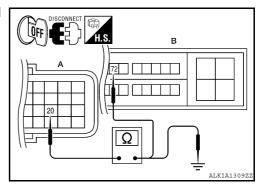
4. CHECK TRANSMISSION RANGE SWITCH CIRCUIT

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

To	СМ	IPDN	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
A: F33	20	B: E18	72	Yes

4. Check continuity between TCM harness connector and ground.

TO	CM	Ground	Continuity
Connector	Terminal	Glound	Continuity
A: F33	20	Ground	No



Is the inspection result normal?

YES >> GO TO 13

NO >> Repair harness or connector.

CHECK CLUTCH INTERLOCK SWITCH INPUT SIGNAL (BCM)

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

ВСМ		Ground	Condition		Voltage (V)
Connector	Terminal	Ground	Condition		voltage (v)
M18	22	Ground	Clutch	Not depressed	0
IVITO	22	Giodila	pedal	Depressed	Battery voltage

Is the inspection result normal?

YES >> GO TO 6 NO >> GO TO 7

6. CHECK CLUTCH INTERLOCK SWITCH INPUT SIGNAL

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

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

IPDM E/R		Ground Con		ndition	Voltage (V)
Connector	Terminal	Glodila	Condition		voltage (v)
E18	30	Ground	Clutch pedal	Not depressed	0
	30	Giodila	Ciutch pedal	Depressed	Battery voltage

Is the inspection result normal?

YES >> Replace the IPDM E/R. Refer to PCS-47, "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.
- 2. Check voltage between clutch interlock switch harness connector and ground.

Clutch inte	rlock switch	Ground	Voltage (V)	
Connector	Terminal	Giodila		
E36	1	Ground	Battery voltage	

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Is the inspection result normal?

YES >> GO TO 8

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

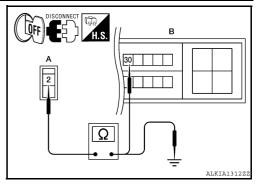
8. CHECK CLUTCH INTERLOCK SWITCH CIRCUIT

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

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

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

Clutch inte	rlock switch	Ground	Continuity	
Connector	Terminal	Ground	Continuity	
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-52, "Component Inspection".

Is the inspection result normal?

>> Replace the IPDM E/R. Refer to PCS-47, "Removal and Installation". YES

NO >> Replace clutch interlock switch.

10.CHECK TRANSMISSION RANGE SWITCH CIRCUIT FOR CONTINUITY

Turn ignition switch OFF.

< COMPONENT DIAGNOSIS >

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

IPDM E/R		Condition		Continuity	
Connector	Tern	ninals	Condition		Continuity
			Transmis-	P or N	Yes
F10	72	74	sion range switch posi- tion	Other	No

72 74

72 74

72,74

Is the inspection result normal?

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

11. CHECK TRANSMISSION RANGE SWITCH CIRCUIT FOR SHORT

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

IPDI	IPDM E/R		Continuity
Connector	Terminal	Ground	Continuity
F10	72	Ground	No
1 10	74	Glound	INO

Is the inspection result normal?

YES >> Replace the IPDM E/R. Refer to PCS-47, "Removal and Installation".

NO >> Repair or replace harness.

12. CHECK TRANSMISSION RANGE SWITCH INPUT SIGNAL CIRCUIT

- Disconnect transmission range switch harness connector.
- 2. Check continuity between transmission range switch and IPDM E/R harness connectors.

Transmission range switch		IPDM E/R		Continuity
Connector	Terminal	Connector Terminal		Continuity
A: F25	1	B: F10	74	Yes
A: F25 2	B: F10	72	res	

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

Transmission range switch		Ground	Continuity
Connector	Terminal	Giodila	Continuity
A: F25	1	Ground	No
A. 1 25	2	Ground	NO

72 74 1,2 72,74 Ω

Is the inspection result normal?

YES >> Replace transmission range switch.

NO >> Repair harness or connector.

13. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

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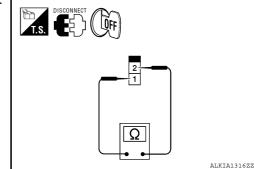
Component Inspection

INFOID:0000000005429536

1. CHECK CLUTCH INTERLOCK SWITCH

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

	interlock vitch	Condition		Continuity
Teri	minal			
1	2	Clutch podal	Not depressed	No
'	1 2	Clutch pedal Depressed		Yes



Is the inspection result normal?

YES >> Inspection End.

NO >> Replace clutch interlock switch.

B2190, P1610 NATS ANTENNA AMP

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B2190, P1610 NATS ANTENNA AMP

Description INFOID:0000000005429537

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

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2190			Harness or connectors
P1610	NATS ANTENNA AMP	Inactive communication between key slot and BCM.	(The key slot circuit is open or shorted)Key slotBCM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

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

Is DTC detected?

YES >> Refer to <u>SEC-53</u>, "<u>Diagnosis Procedure</u>".

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 <u>SEC-53</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-169, "Wiring Diagram".

1. INSPECTION START

Check the case in which DTC is detected.

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

In which case is DTC detected?

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

2.CHECK KEY SLOT INPUT SIGNAL

- Turn ignition switch OFF.
- Disconnect key slot harness connector.

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INFOID:0000000005429539

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< COMPONENT DIAGNOSIS >

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

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

Is the inspection result normal?

YES >> Replace key slot. Refer to <u>SEC-184, "Removal and Installation"</u>.

NO >> GO TO 3

H.S. OFF

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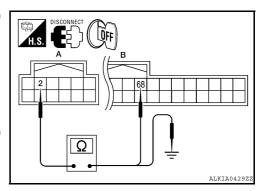
3. CHECK KEY SLOT CIRCUIT

- 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	Continuity
A: M40	2	B: M19	68	Yes

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

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

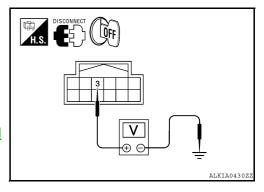
Is the inspection result normal?

YES >> Replace key slot. Refer to <u>SEC-184, "Removal and Installation"</u>.

NO >> GO TO 6

6. CHECK KEY SLOT COMMUNICATION SIGNAL CIRCUIT

Disconnect BCM harness connector.



B2190, P1610 NATS ANTENNA AMP

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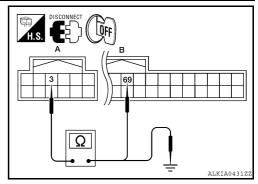
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Check continuity between key slot harness connector M40 (A) terminal 3 and BCM harness connector M19 (B) terminal 69.

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

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

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



Is the inspection result normal?

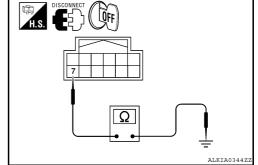
YES >> GO TO 8

NO >> Repair harness or connector.

7. CHECK KEY SLOT GROUND CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect key slot harness connector.
- 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-41, "Intermittent Incident".

>> Inspection End.

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B2191, P1615 DIFFERENCE OF KEY

< COMPONENT DIAGNOSIS >

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B2191, P1615 DIFFERENCE OF KEY

Description INFOID:000000005429540

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

DTC Logic

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

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

Is DTC detected?

YES >> Refer to <u>SEC-56</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000005429542

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, IMMU-ECM

< COMPONENT DIAGNOSIS >

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B2192, P1611 ID DISCORD, IMMU-ECM

Description INFOID:000000005429543

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

DTC DETECTION LOGIC

NOTE:

• If DTC B2192 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-35, "DTC Logic".

 If DTC B2192 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-36</u>, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2192	ID DISCORD, IMMU-	The ID verification results between BCM and ECM	• BCM
P1611	ECM	are NG. The registration is necessary.	• 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 <u>SEC-57</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000005429545

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

Description INFOID:000000005429546

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

DTC DETECTION LOGIC

NOTE:

- If DTC B2193 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-35, "DTC Logic".
- If DTC B2193 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-36</u>, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2193			Harness or connectors (The CAN)
P1612	CHAIN OF ECM- IMMU	Inactive communication between ECM and BCM	(The CAN communication line is open or shorted)BCMECM

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.
- Check "Self diagnostic result" with CONSULT-III.

Is DTC detected?

YES >> Refer to <u>SEC-58</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000005429548

1.REPLACE BCM

- Replace BCM. Refer to <u>BCS-96</u>, "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.

B2195 ANTI-SCANNING

< COMPONENT DIAGNOSIS >

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B2195 ANTI-SCANNING

Description INFOID:0000000005778786

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

DTC Logic

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions.

CVT models

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

M/T models

- Do not depress clutch pedal
- 2. Check "Self-diagnostic result" using CONSULT-III.

Is DTC detected?

YES >> Refer to <u>SEC-59</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000005778788

1. CHECK SELF-DIAGNOSTIC RESULT-1

- Perform "Self-diagnostic result" of BCM using CONSULT-III.
- Erase DTC.
- 3. Perform DTC Confirmation Procedure. Refer to SEC-59, "DTC Logic".

Is DTC B2195 detected?

YES >> GO TO 2.

NO >> Inspection End

2. CHECK EQUIPMENT OF THE VEHICLE

Check that unspecified accessory part related to engine start is not installed.

Is unspecified accessory part related to engine start installed?

YES >> GO TO 3.

NO >> Replace BCM. Refer to BCS-96, "Removal and Installation".

3.CHECK SELF-DIAGNOSTIC RESULT-2

- 1. Obtain the customers approval to remove unspecified accessory part related to engine start, and then remove it.
- Perform "Self-diagnostic result" of BCM using CONSULT-III.
- Erase DTC.
- 4. Perform DTC Confirmation Procedure. Refer to SEC-59, "DTC Logic".

Is DTC B2195 detected?

YES >> Replace BCM. Refer to BCS-96, "Removal and Installation".

NO >> Inspection End

Revision: September 2009

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SEC-59 2010 Altima

B2555 STOP LAMP

Description INFOID:000000005429549

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

DTC DETECTION LOGIC

DTC No.	Trouble diagno- sis 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.	Harness or connectors (stop lamp switch circuit is open or shorted) Stop lamp switch Fuse

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

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

Is DTC detected?

YES >> Refer to <u>SEC-60</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

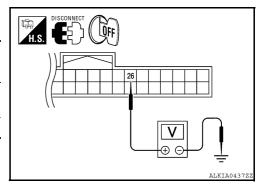
INFOID:0000000005429551

Regarding Wiring Diagram information, refer to BCS-75, "COUPE: Wiring Diagram".

1. CHECK STOP LAMP SWITCH INPUT SIGNAL

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

В	CM	Ground	Stop lamp	Voltage [V]	
Connector	Terminal	Ground	switch position	voitage [v]	
M18 26 Ground		Depressed	Battery volt- age		
			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

1. Disconnect stop lamp switch harness connector.

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Check voltage between stop lamp harness connector and ground.

Stop lan	np switch	Ground	Voltage [V]	
Connector	Connector Terminal		voltage [v]	
E38 (with CVT) E52 (with M/T)	1	Ground	Battery voltage	

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Is the inspection result normal?

YES >> GO TO 3

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

3.check stop lamp switch circuit

Check continuity between stop lamp switch harness connector E38 (with CVT), E52 (with M/T) (A) terminal 2 and BCM harness connector M18 (B) terminal 26.

Stop lamp switch		В	CM	Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: E38 (with CVT) E52 (with M/T)	2	B: M18	26	Yes

Check continuity between stop lamp switch harness connector E38 (with CVT), (E52 with M/T) (A) terminal 2 and ground.

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		26

Stop lan	np switch	Ground	Continuity	
Connector	Terminal		Continuity	
A: E38 (with CVT) E52 (with M/T)	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-61, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5

NO >> Replace stop lamp switch.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

Component Inspection

1. CHECK STOP LAMP SWITCH

Turn ignition switch OFF.

2. Disconnect stop lamp switch harness connector.

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INFOID:0000000005429552

B2555 STOP LAMP

< COMPONENT DIAGNOSIS >

[COUPE]

3. Check continuity between stop lamp switch terminals under the following conditions.

Stop lamp switch		Condition		Continuity	
Terr	minal	Condition		Continuity	
1	2	Brako podal	Not depressed	No	
'		Brake pedal	Depressed	Yes	

DISCONNECT OFF

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace stop lamp switch.

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INFOID:0000000005429555

B2556 PUSH-BUTTON IGNITION SWITCH

Description INFOID:0000000005429553

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:0000000005429554

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2556	PUSH-BUTTON IG- NITION SWITCH	BCM detects the push-button ignition switch stuck to ON for 100 seconds or more	 Harness or connectors (Push-button ignition switch circuit is shorted.) Push-button ignition switch

DTC CONFIRMATION PROCEDURE

${f 1}$.PERFORM DTC CONFIRMATION PROCEDURE

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

Is DTC detected?

YES >> Refer to SEC-63, "Diagnosis Procedure".

>> Inspection End. NO

Diagnosis Procedure

Regarding Wiring Diagram information, refer to <a>SEC-169, "Wiring Diagram".

${f 1}$.CHECK PUSH-BUTTON IGNITION SWITCH INPUT SIGNAL

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

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

Is the inspection result normal?

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

2.CHECK PUSH-BUTTON IGNITION SWITCH

Refer to SEC-64, "Component Inspection".

Is the inspection result normal?

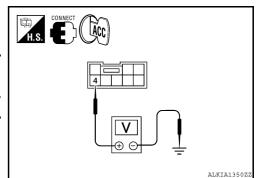
YES >> GO TO 3

NO >> Replace push-button ignition switch. Refer to SEC-185, "Removal and Installation".

3. CHECK INTERMITTENT INCIDENT

Refer to GI-41. "Intermittent Incident".

>> Inspection End.



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4. CHECK PUSH-BUTTON IGNITION SWITCH CIRCUIT FOR SHORT

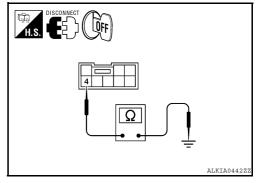
- 1. Disconnect BCM harness connector and IPDM E/R harness connector.
- Check continuity between push-button ignition switch harness connector and ground.

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

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-96, "Removal and Installation"</u>.

NO >> Repair harness or connector.

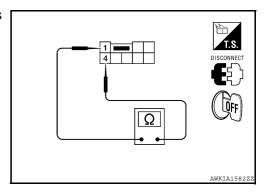


INFOID:0000000005429556

Component Inspection

1. CHECK PUSH-BUTTON IGNITION SWITCH

- 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		Condition	Continuity	
1 4	4	Pressed	Yes	
	4	Not pressed	No	

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace push-button ignition switch. Refer to <u>SEC-185, "Removal and Installation"</u>.

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B2557 VEHICLE SPEED

Description INFOID:000000005429557

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:0000000005429558

DTC DETECTION LOGIC

NOTE:

• If DTC B2557 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-35, "DTC Logic".

 If DTC B2557 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-36, "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 One is 10km/h or more and the other is 4km/h or less.	 Wheel sensor Unified meter ABS actuator and electric unit (control unit)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 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?

YFS >> Refer to SEC-65, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000005429559

${f 1}$.CHECK DTC WITH "ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)"

Check "Self diagnostic result" with CONSULT-III. Refer to BRC-39, "DTC No. Index" (ABS), BRC-132, No. Index" (TCS/ABS) or BRC-132, "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.

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B2560 STARTER CONTROL RELAY

Description INFOID:000000005429560

Starter control relay, integrated in IPDM E/R, permits the starter relay operation when in N or P position.

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2560 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-35, "DTC Logic".
- If DTC B2560 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-36</u>, "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 <u>SEC-66</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000005429562

1. CHECK DTC WITH IPDM E/R

Check "Self diagnostic result" with CONSULT-III. Refer to PCS-32, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace malfunctioning parts.

2. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

B2601 SHIFT POSITION

< COMPONENT DIAGNOSIS >

[COUPE]

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B2601 SHIFT POSITION

Description INFOID:0000000005429563

BCM confirms the shift position with the following 2 signals.

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

DTC Logic INFOID:0000000005429564

DTC DETECTION LOGIC

NOTE:

- If DTC B2601 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-35, "DTC Logic".
- If DTC B2601 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-36, "DTC Logic".
- If DTC B2601 is displayed with DTC B2605, first perform the trouble diagnosis for DTC B2605. Refer to SEC-79, "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	Harness or connectors (CVT shift selector circuit is open or shorted) CVT shift selector (park position switch)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 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.
- Check "Self diagnostic result" with CONSULT-III.
- 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.
- Check "Self diagnostic result" with CONSULT-III.

Is DTC detected?

YES >> Refer to <u>SEC-67</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-145, "Wiring Diagram".

${f 1}$.CHECK CVT SHIFT SELECTOR POWER SUPPLY

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

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< COMPONENT DIAGNOSIS >

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

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

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Is the inspection result normal?

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

2.CHECK CVT SHIFT SELECTOR POWER SUPPLY CIRCUIT

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

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

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

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В	CM	Ground	Continuity
Connector	Terminal	Ground	
A: M19	84	Ground	No

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-96, "Removal and Installation".

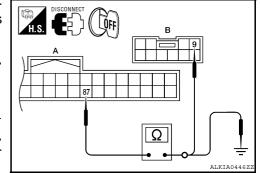
NO >> Repair harness or connector.

3. CHECK CVT SHIFT SELECTOR CIRCUIT (BCM)

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

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

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



В	CM	Ground	Continuity
Connector	Terminal	Ground	
A: M19	87	Ground	No

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair harness or connector.

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

1. Disconnect BCM harness connector.

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

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

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

	H.S. DISCONNECT OFF
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CVT shift selector (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 SHIFT SELECTOR

Refer to SEC-69, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 6

NO >> Replace CVT shift selector. Refer to <u>TM-252</u>, "Removal and Installation" (RE0F09B) or <u>TM-424</u>, "Removal and Installation" (RE0F10A).

6. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

Component Inspection

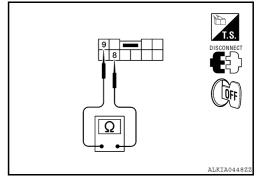
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1. CHECK CVT SHIFT SELECTOR (PARK POSITION SWITCH)

Turn ignition switch OFF.

2. Disconnect CVT shift selector (park position switch) harness connector.

Check continuity between CVT shift selector (park position switch) terminals as follows.



CVT shift selector (park position switch)		Condition		Continuity
Terminal				
8 9		CVT selector lever	P position	No
0	9	CVT Selector level	Other than above	Yes

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B2601 SHIFT POSITION

< COMPONENT DIAGNOSIS >

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Is the inspection result normal?

YES >> Inspection End.

NO >> Replace CVT shift selector. Refer to <u>TM-252</u>, "Removal and Installation" (RE0F09B) or <u>TM-424</u>, "Removal and Installation" (RE0F10A).

B2602 SHIFT POSITION

< COMPONENT DIAGNOSIS >

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B2602 SHIFT POSITION

Description INFOID:000000005429567

BCM confirms the shift position with the following 2 signals.

- CVT selector lever
- Speed signal from meter

DTC Logic

DTC DETECTION LOGIC

NOTE:

• If DTC B2602 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-35, "DTC Logic".

 If DTC B2602 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-36</u>, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2602	SHIFT POSITION	BCM detects the following status for 10 seconds. • Shift position is in P position • Vehicle speed is 4km/h (2 MPH) or more • Ignition switch is in the ON position	Harness or connectors (CVT drive circuit is open or shorted) CVT shift selector (park position switch) Combination meter

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

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

Is DTC detected?

YES >> Refer to <u>SEC-71</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to <a>SEC-145, "Wiring Diagram".

1. CHECK DTC WITH "COMBINATION METER"

Check "Self diagnostic result" with CONSULT-III. Refer to MWI-62, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace malfunctioning parts.

2.CHECK CVT SHIFT SELECTOR POWER SUPPLY

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

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Revision: September 2009 SEC-71 2010 Altimate

< COMPONENT DIAGNOSIS >

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

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

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Is the inspection result normal?

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

3.CHECK CVT SHIFT SELECTOR POWER SUPPLY CIRCUIT

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

В	ВСМ		tor (park position itch)	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.

В	CM	Ground	Continuity
Connector	Connector Terminal		Continuity
A: M19	84	Ground	No

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-96, "Removal and Installation"</u>.

NO >> Repair harness or connector.

4. CHECK CVT SHIFT SELECTOR CIRCUIT

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

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

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

В	СМ	Ground	Continuity
Connector	Connector Terminal		Continuity
A: M19	87	Ground	No

Is the inspection result normal?

YES >> GO TO 5

NO >> Repair harness or connector.

5. CHECK CVT SHIFT SELECTOR

Refer to SEC-69, "Component Inspection".

Is the inspection result normal?

B2602 SHIFT POSITION

< COMPONENT DIAGNOSIS > [COUPE]

YES >> GO TO 6

NO >> Replace CVT shift selector. Refer to <u>TM-252</u>, "Removal and Installation" (RE0F09B) or <u>TM-424</u>, "Removal and Installation" (RE0F10A).

6. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

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B2603 SHIFT POSITION STATUS

Description INFOID:000000005429570

BCM confirms the shift position with the following 2 signals.

- CVT selector lever
- P/N position switch

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2603 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-35, "DTC Logic".
- If DTC B2603 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-36</u>, "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. • Transmission range switch: approx. 0V • CVT shift selector (park position switch): approx 0V	Harness or connector (CVT shift selector circuit is open or shorted.) Harness or connectors [Transmission range switch circuit is open or shorted.] CVT shift selector (park position switch) Transmission range switch

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

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

Is DTC detected?

YES >> Refer to <u>SEC-74</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000005429572

Regarding Wiring Diagram information, refer to SEC-145, "Wiring Diagram".

1. CHECK DTC WITH IPDM E/R

Check "Self diagnostic result" with CONSULT-III. Refer to PCS-32, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace malfunctioning parts.

2.CHECK TRANSMISSION RANGE SWITCH CIRCUIT

- Turn ignition switch OFF.
- Disconnect TCM harness connector and BCM harness connector.

B2603 SHIFT POSITION STATUS

< COMPONENT DIAGNOSIS >

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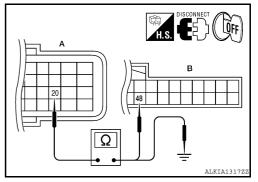
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3. Check continuity between TCM harness connector F33 (A) terminal 20 and BCM harness connector M18 (B) terminal 48.

TCM		В	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
A: F33	20	B: M18	48	Yes

4. Check continuity between TCM harness connector F33 (A) terminal 20 and ground.

TO	CM	Ground	Continuity
Connector	Terminal	Ground	
A: F33	20	Ground	No



Is the inspection result normal?

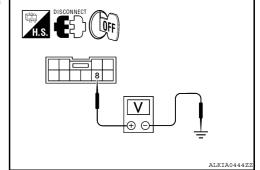
YES >> GO TO 3

NO >> Repair harness or connector.

3.CHECK CVT SHIFT SELECTOR POWER SUPPLY

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

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



Is the inspection result normal?

YES >> GO TO 5 NO >> GO TO 4

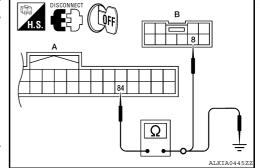
4. CHECK CVT SHIFT SELECTOR POWER SUPPLY CIRCUIT

Disconnect BCM harness connector.

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

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

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



В	CM	Ground	Continuity
Connector	Terminal	Giodila	
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.

CHECK CVT SHIFT SELECTOR CIRCUIT

1. Disconnect BCM harness connector.

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B2603 SHIFT POSITION STATUS

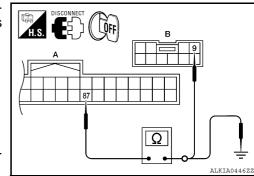
< COMPONENT DIAGNOSIS >

[COUPE]

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

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

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



В	CM	Ground	Continuity
Connector	Terminal	Ground	
A: M19	87	Ground	No

Is the inspection result normal?

YES >> GO TO 6

NO >> Repair harness or connector.

6. CHECK CVT SHIFT SELECTOR

Refer to SEC-69, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 7

NO >> Replace CVT shift selector. Refer to <u>TM-252</u>, "Removal and Installation" (RE0F09B) or <u>TM-424</u>, "Removal and Installation" (RE0F10A).

7. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

B2604 TRANSMISSION RANGE SWITCH

< COMPONENT DIAGNOSIS >

[COUPE]

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B2604 TRANSMISSION RANGE SWITCH

Description INFOID:0000000005429573

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:0000000005429574

DTC DETECTION LOGIC

NOTE:

• If DTC B2604 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-35, "DTC Logic".

 If DTC B2604 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
B2604	TRANSMISSION RANGE SWITCH	 BCM detects the following status for 500 ms or more when the ignition switch is in the ON position. Transmission range switch indicates vehicle is in P or N shift position. Signal from TCM indicates vehicle is in forward or reverse gear. Transmission range switch indicates vehicle is in forward or reverse gear. Signal from TCM indicates vehicle is in P or N. 	Harness or connectors [The transmission range switch circuit is open or shorted.] Transmission range switch TCM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 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
- Use CVT selector lever to select each gear one at a time. Wait at each gear for at least 1 second.
- Check "Self diagnostic result" with CONSULT-III.

Is DTC detected?

>> Refer to SEC-77, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-145, "Wiring Diagram".

1. CHECK DTC WITH TCM

Check "Self diagnostic result" with CONSULT-III. Refer to TM-196, "DTC Index" (RE0F09B) or TM-369, "DTC Index" (RE0F10A).

Is the inspection result normal?

YFS >> GO TO 2

NO >> Repair or replace malfunctioning parts.

2.CHECK TRANSMISSION RANGE SWITCH CIRCUIT

- Turn ignition switch OFF.
- Disconnect TCM harness connector and BCM harness connector.

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INFOID:0000000005429575

B2604 TRANSMISSION RANGE SWITCH

< COMPONENT DIAGNOSIS >

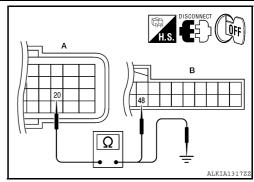
[COUPE]

Check continuity between TCM harness connector and BCM harness connector.

TO	CM	В	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
A: F33	20	B: M18	48	Yes

4. Check continuity between TCM harness connector and ground.

TO	CM	Ground	Continuity
Connector	Terminal	Ground	Continuity
A: F33	20	Ground	No



Is the inspection result normal?

YES >> GO TO 3

NO >> Repair harness or connector.

3.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

B2605 TRANSMISSION RANGE SWITCH

< COMPONENT DIAGNOSIS >

[COUPE]

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B2605 TRANSMISSION RANGE SWITCH

Description INFOID:0000000005429576

BCM confirms the shift position with the following 4 signals.

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

DTC Logic INFOID:0000000005429577

DTC DETECTION LOGIC

NOTE:

• If DTC B2605 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-35, "DTC Logic".

 If DTC B2605 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
B2605	TRANSMISSION RANGE SWITCH	 BCM detects the following status for 500 ms or more when the ignition switch is in ON position 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. 	Harness or connectors [The transmission range switch circuit is open or shorted.] Transmission range switch IPDM E/R

DTC CONFIRMATION PROCEDURE

${f 1}$.PERFORM DTC CONFIRMATION PROCEDURE

- 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.
- Check "Self diagnostic result" with CONSULT-III.

Is DTC detected?

YES >> Refer to <u>SEC-79</u>, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-145. "Wiring Diagram".

1. CHECK DTC WITH IPDM E/R

Check "Self diagnostic result" with CONSULT-III. Refer to PCS-32, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace malfunctioning parts.

2.CHECK TRANSMISSION RANGE SWITCH CIRCUIT

- Turn ignition switch OFF.
- Disconnect TCM harness connector and BCM harness connector.

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INFOID:0000000005429578

B2605 TRANSMISSION RANGE SWITCH

< COMPONENT DIAGNOSIS >

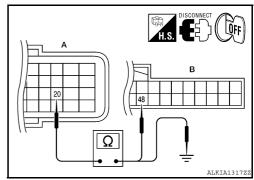
[COUPE]

Check continuity between TCM connector and BCM harness connector.

TO	TCM		ВСМ	
Connector	Terminal	Connector	Terminal	Continuity
A: F33	20	B: M18	48	Yes

4. Check continuity between TCM harness connector and ground.

TO	CM	Ground	Continuity
Connector	Terminal	Ground	Continuity
A: F33	20	Ground	No



Is the inspection result normal?

YES >> GO TO 3

NO >> Repair harness or connector.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

B2608 STARTER RELAY

Description INFOID:0000000005429585

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

DTC DETECTION LOGIC

NOTE:

- If DTC B2608 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-35, "DTC Logic".
- If DTC B2608 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-36</u>, "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	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 <u>SEC-81</u>, "Diagnosis Procedure".

NO >> Inspection End.

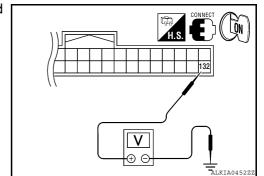
Diagnosis Procedure

INFOID:0000000005429587

Regarding Wiring Diagram information, refer to <u>SEC-145, "Wiring Diagram"</u>.

1. CHECK STARTER RELAY

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



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BCM		- Ground C		Condition	Voltage (V)
Connector	Terminal	Giodila	Condition		voltage (v)
		CVT selector lev	C)/T a ala atau la var	N or P position	Battery voltage
M21 132	122		CV i selector level	Other than above	0
		Clutch sodel	Not depressed	0	
			Clutch pedal	Depressed	Battery voltage

Is the measurement value within the specification?

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

2. CHECK STARTER RELAY CIRCUIT

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

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

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

	(LOFF)	H.S.
A 46	В	132
	Ω	ALKIA1318ZZ

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

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-47, "Removal and Installation".

NO >> Repair harness or connector.

3.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

B260F ENGINE STATUS [COUPE] < COMPONENT DIAGNOSIS > **B260F ENGINE STATUS** Α Description INFOID:000000005778830 BCM receives the engine status signal from ECM via CAN communication. В DTC Logic INFOID:0000000005778831 DTC DETECTION LOGIC NOTE: If DTC B260F is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-35, "DTC Logic". D • If DTC B260F is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-36, "DTC Logic". Е Trouble diagnosis DTC No. DTC detecting condition Possible cause name INTERRUPTION OF BCM is not yet received the engine status signal B260F **ENGINE STATUS** ECM from ECM when ignition switch is in ON position **SIGNAL** DTC CONFIRMATION PROCEDURE G ${f 1}$.PERFORM DTC CONFIRMATION PROCEDURE Turn ignition switch ON under the following conditions. Н CVT selector lever is in the P position. Do not depress the brake pedal. Check "Self diagnostic result" with CONSULT-III. Is DTC detected? YES >> Refer to SEC-83, "Diagnosis Procedure". NO >> Inspection End. Diagnosis Procedure INFOID:0000000005778832 1.INSPECTION START Turn ignition switch ON. Check "Self diagnostic result" with CONSULT-III. 2. Touch "ERASE". **Perform DTC Confirmation Procedure.** See SEC-83, "DTC Logic". Is the DTC B260F displayed again? M YES >> GO TO 2 NO >> Inspection End.

2.REPLACE ECM

Replace ECM.

Refer to EC-1064, "BASIC INSPECTION: Special Repair Requirement" (VQ35DE), EC-26, "BASIC INSPECTION: Special Repair Requirement" (QR25DE California) or EC-569, "BASIC INSPECTION: Special Repair Requirement" (QR25DE except for California).

>> Inspection End.

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B26E8 CLUTCH INTERLOCK SWITCH

< COMPONENT DIAGNOSIS >

[COUPE]

B26E8 CLUTCH INTERLOCK SWITCH

Description

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

DTC Logic

NOTE:

If DTC B26E8 is displayed with DTC B210F, first perform the trouble diagnosis for DTC B210F. Refer to <u>SEC-84, "DTC Logic"</u>.

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detection condition	Possible cause
B26E8	CLUTCH INTERLOCK SWITCH	Detects that ASCD cancel switch is in the ON position for 2 seconds or more while ignition switch and clutch interlock switch are ON.	Clutch interlock switch Harness or connector (Clutch interlock switch circuit open or shorted)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Turn ignition switch ON under the following condition.
- Shift lever is in the neutral position.
- Depress clutch pedal.
- 2. Check "Self-diagnostic result" using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-84, "Diagnosis Procedure".

NO >> Inspection End

Diagnosis Procedure

INFOID:0000000005778791

Regarding Wiring Diagram information, refer to SEC-145, "Wiring Diagram".

1. CHECK CLUTCH INTERLOCK SWITCH POWER SUPPLY

- Turn ignition switch OFF.
- Disconnect clutch interlock switch connector.
- 3. Check voltage between clutch interlock switch harness connector and ground.

(+) Clutch interlock switch		(-)	Voltage (V) (Approx.)
Connector	Connector Terminal		(дрргох.)
E36	1	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 2.

NO-1 >> Check 10 A fuse [No. 31, located in the fuse and fusible link box]

NO-2 >> Check harness for open or short between clutch interlock switch and fuse.

2.CHECK CLUTCH INTERLOCK SWITCH SIGNAL

- Connect clutch interlock switch connector.
- 2. Disconnect BCM connector.
- 3. Check voltage between BCM harness connector and ground.

B26E8 CLUTCH INTERLOCK SWITCH

< COMPONENT DIAGNOSIS >

[COUPE]

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	+) CM	(–)	Condition		Voltage (V) (Approx.)
Connector	Terminal				(-,-,-,-,-,
M18	22	Ground	Clutch podal	Depressed	Battery voltage
IVITO	22	Giodila	Ground Clutch pedal -		0

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-96, "Removal and Installation".

NO >> GO TO 3.

3.check clutch interlock switch signal circuit

Disconnect clutch interlock switch connector.

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

Clutch inte	Clutch interlock switch		BCM	
Connector	Terminal	Connector Terminal		Continuity
E36	2	M18	22	Yes

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

Clutch inte	rlock switch		Continuity
Connector	Connector Terminal		Continuity
E36	2		No

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK CLUTCH INTERLOCK SWITCH

Refer to SEC-85, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace clutch interlock switch. Refer to CL-9, "Exploded View".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End

Component Inspection

1. CHECK CLUTCH INTERLOCK SWITCH

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

Clutch interlock switch		Condition		Continuity	
Terminal					
1	2	Clutch pedal	Depressed	Yes	
ı	2	Ciulon pedal	Released	No	

Is the inspection result normal?

YES >> Inspection End

NO >> Replace clutch interlock switch. Refer to CL-9, "Exploded View".

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INFOID:0000000005778792

B26EA KEY REGISTRATION

Description

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

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B26EA	KEY REGISTRA- TION	Intelligent Key is not registered successfully.	Improper registration operationIntelligent KeyBCM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Perform initialization using CONSULT-III. Reregister all Intelligent Keys.
 For initialization and registration of Intelligent Key, refer to "CONSULT-III Operation Manual NATS-IVIS/NVIS".
- 2. Check "Self-diagnostic result" using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-84, "Diagnosis Procedure".

NO >> Inspection End

Diagnosis Procedure

INFOID:0000000005778798

1. PERFORM INITIALIZATION

- Perform initialization using CONSULT-III. Reregister all Intelligent Keys.
 For initialization and registration of Intelligent Key, refer to "CONSULT-III Operation Manual NATS-IVIS/NVIS".
- 2. Check "Self-diagnostic result" using CONSULT-III.

Is DTC detected?

YES >> GO TO 2.

NO >> Inspection End

2. REPLACE INTELLIGENT KEY

- 1. Replace Intelligent Key. Reregister all Intelligent Keys.
- 2. Perform initialization using CONSULT-III. For initialization, refer to "CONSULT-III Operation Manual NATS-IVIS/NVIS".
- 3. Check "Self-diagnostic result" using CONSULT-III.

Is DTC detected?

YES >> Replace BCM. Refer to BCS-96, "Removal and Installation".

NO >> Inspection End

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B2617 STARTER RELAY CIRCUIT

Description INFOID:0000000005429606

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:0000000005429607

DTC DETECTION LOGIC

NOTE:

- If DTC B2617 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-35, "DTC Logic".
- If DTC B2617 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-36, "DTC Logic".
- If DTC B2617 is displayed with DTC B2611, first perform the trouble diagnosis for DTC B2611. Refer to PCS-64, "DTC Logic".
- If DTC B2617 is displayed with DTC B210E, first perform the trouble diagnosis for DTC B210E. Refer to SEC-87, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2617	STARTER RELAY CIRCUIT	 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 	Harness or connectors (Starter relay circuit is open or shorted.) IPDM E/R

DTC CONFIRMATION PROCEDURE

${f 1}$.PERFORM DTC CONFIRMATION PROCEDURE

- 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.
- Check "Self diagnostic result" with CONSULT-III.

Is DTC detected?

>> Refer to SEC-87, "Diagnosis Procedure".

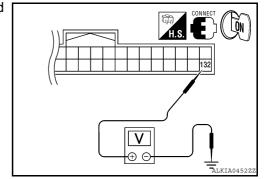
NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-145, "Wiring Diagram".

1. CHECK STARTER RELAY

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



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INFOID:0000000005429608

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< COMPONENT DIAGNOSIS >

BCM		Ground Transmission type		Condition	Voltage (V)
Connector	Terminal	Giodila	Transmission type	Condition	voltage (v)
			CVT: Select lever in Park	Ignition switch cranking or request to start	Battery voltage
M21 132	122	Ground	I aik	Other than above	0
	132	Ground	M/T: Clutch pedal	Ignition switch cranking or request to start	Battery voltage
		depressed		Other than above	0

Is the measurement value within the specification.

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

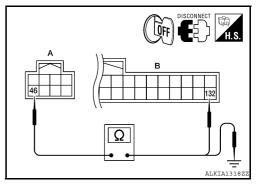
2.CHECK STARTER RELAY CIRCUIT

- 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		Continuity
A: E17	46	B: M21	132	Yes

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

IPDN	И E/R	Ground	Continuity
Connector	Connector Terminal		Continuity
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-41, "Intermittent Incident".

	B261E V	EHICLE TYPE		
< COMPONENT DIAGN			[COUPE]	
B261E VEHICLE	TYPE			А
Description			INFOID:000000005778799	
There are two types of ve HEV Conventional	hicles.			В
DTC Logic			INFOID:0000000005778800	С
SEC-35, "DTC Logic"	ayed with DTC U1000, firs	t perform the trouble diagnosis t perform the trouble diagnosis		D E
DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause	_
B261E	VEHICLE TYPE	Difference of BCM configuration.	BCM	F
	PROCEDURE FIRMATION PROCEDURE ON under the following con-			G
CVT models - Selector lever is in th - Do not depress brake	e P or N position			Н
M/T models - Do not depress clutc 2. Check "Self-diagnost Is DTC detected?	h pedal ic result" using CONSULT-	III.		l J
·	9, "Diagnosis Procedure". nd			OF.
Diagnosis Procedur	е		INFOID:000000005778801	SE
1.INSPECTION START				ı
 Touch "ERASE". Perform DTC Confirm See SEC-89, "DTC L 	ic result" using CONSULT- nation Procedure. .ogic".	III.	-	M
Is the 1st trip DTC B261E YES >> Replace BCM	<u>: displayed again?</u> //. Refer to BCS-96, "Remo	oval and Installation".		Ν

>> Replace BCM. Refer to <u>BCS-96, "Removal and Installation"</u>. >> Inspection End YES

NO

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B261A PUSH-BUTTON IGNITION SWITCH

Description INFOID:000000005429612

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:000000005429613

DTC DETECTION LOGIC

NOTE:

- If DTC B261A is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-35, "DTC Logic".
- If DTC B261A is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-36</u>, "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 • Push-button ignition switch status • Push-button ignition switch status from IPDM E/R (CAN)	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 <u>SEC-90</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000005429614

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Regarding Wiring Diagram information, refer to <a>SEC-169, "Wiring Diagram".

1. CHECK PUSH-BUTTON IGNITION SWITCH OUTPUT SIGNAL 1

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

Push-button	ignition switch	Ground	Voltage (V)	
Connector Terminal		Giodila	voltage (v)	
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

< COMPONENT DIAGNOSIS >

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Check continuity between push-button ignition switch harness connector M38 (A) terminal 4 and BCM harness connector M21 (B) terminal 140.

Push-button	Push-button ignition switch		BCM	
Connector	Terminal	Connector Terminal		Continuity
A: M38	4	B: M21	140	Yes

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

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

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair harness or connector.

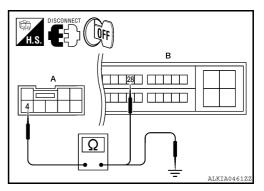
3.check push-button ignition switch

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

Push-butt	Push-button ignition switch		IPDM E/R		Continuity
Connecto		Terminal	Connector Terminal		Continuity
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	Giodila		
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-41, "Intermittent Incident".

>> Inspection End.

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Revision: September 2009

B26E1 NO RECEPTION OF ENGINE STATUS SIGNAL

< COMPONENT DIAGNOSIS >

[COUPE]

B26E1 NO RECEPTION OF ENGINE STATUS SIGNAL

Description INFOID:0000000005429615

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

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B26E1 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-35, "DTC Logic".
- If DTC B26E1 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
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 <u>SEC-92</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000005429617

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 <u>SEC-92</u>, "DTC Logic".

Is the DTC B26E1 displayed again?

YES >> GO TO 2

NO >> Inspection End.

2.REPLACE ECM

- 1. Replace ECM.
- Refer to <u>EC-1064, "BASIC INSPECTION: Special Repair Requirement"</u> (VQ35DE), <u>EC-26, "BASIC INSPECTION: Special Repair Requirement"</u> (QR25DE California), <u>EC-569, "BASIC INSPECTION: Special Repair Requirement"</u> (QR25DE except California).

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POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM: Diagnosis Procedure

INFOID:0000000005778854

Regarding Wiring Diagram information, refer to BCS-75, "COUPE: Wiring Diagram" or BCS-84, "SEDAN: Wiring Diagram".

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	Н
11	Dattery power supply	10

Is the fuse or fusible link blown?

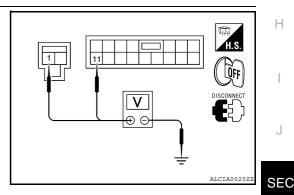
YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

NO >> GO TO 2

2. CHECK POWER SUPPLY CIRCUIT

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

(-	+)	(-)	Voltage (Approx.)
В	BCM		(Approx.)
Connector	Terminal	Ground	
M16	1	Ground	Pottony voltogo
M17	11		Battery voltage



Is the measurement normal?

YES >> GO TO 3

NO >> Repair or replace harness.

${f 3.}$ CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

В	СМ		Continuity
Connector	Connector Terminal		Continuity
M17	13		Yes

Does continuity exist?

YES >> Inspection End.

NO >> Repair or replace harness.

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BCM: Special Repair Requirement

1. REQUIRED WORK WHEN REPLACING BCM

Initialize control unit. Refer to BCS-6, "CONFIGURATION (BCM): Special Repair Requirement".

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INFOID:000000005778855

>> Work End.

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

Regarding Wiring Diagram information, refer to <u>PCS-34, "COUPE : Wiring Diagram"</u> (coupe) or <u>PCS-40, "SEDAN : Wiring Diagram"</u> (sedan).

1. CHECK FUSES AND FUSIBLE LINK

Check that the following IPDM E/R fuses or fusible link are not blown.

Terminal No.	Signal name	Fuses and fusible link No.
1, 2		B, D
_	Battery power supply	42
		43

Is the fuse blown?

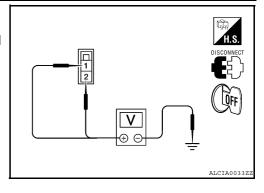
YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

NO >> GO TO 2

2. CHECK POWER SUPPLY CIRCUIT

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

	Terminals			
(+)	(-)	Voltage (V)	
IPDN	IPDM E/R		(Approx.)	
Connector	Terminal			
E16	1	Ground	Battery voltage	
E10	2		Battery Voltage	



Is the measurement value normal?

YES >> GO TO 3

NO >> Repair harness or connector.

3. CHECK GROUND CIRCUIT

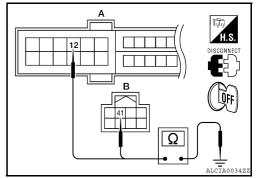
Check continuity between IPDM E/R harness connectors and ground.

IPDM E/R			Continuity	
Connector	Terminal	Ground	Continuity	
A: E18	12	Ground	Yes	
B: E17	41		165	

Does continuity exist?

YES >> Inspection End.

NO >> Repair harness or connector.



KEY SLOT

Diagnosis Procedure

INFOID:0000000005429621

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Regarding Wiring Diagram information, refer to <u>SEC-169</u>, "Wiring Diagram".

1. CHECK KEY SLOT POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- Disconnect key slot connector.
- Check voltage between slot connector and ground.

Key	slot	Ground	Voltage (V)
Connector	Terminal	Giodila	(Approx.)
M40	1	Ground	Battery voltage
10140	5	Giodila	Battery voltage

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	Ground		
M40	7	Ground	Yes	

Is the inspection result normal?

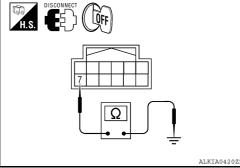
YES >> GO TO 3

NO >> Repair or replace key slot ground circuit.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.



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KEY SLOT ILLUMINATION

Description INFOID:000000005429622

Blinks when Intelligent Key insertion is required.

Component Function Check

INFOID:0000000005429623

1. CHECK FUNCTION

(P) 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 <u>SEC-96</u>, "<u>Diagnosis Procedure</u>".

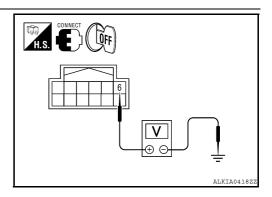
Diagnosis Procedure

INFOID:0000000005429624

Regarding Wiring Diagram information, refer to SEC-169, "Wiring Diagram".

1. CHECK KEY SLOT ILLUMINATION OUTPUT SIGNAL

Check voltage between key slot connector and ground.



	Terminals				
(+)		Condition	Key slot	Voltage (V) (Approx.)
Key slot connector	Terminal	(-)		illumination	
M40	140 6 Ground		Intelligent Key inserted	OFF	Battery voltage
17140	W140 6	Ground	Intelligent Key removed	ON	0

Is the inspection result normal?

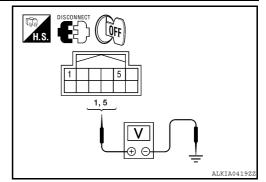
YES >> GO TO 6 NO >> GO TO 2

2. CHECK KEY SLOT POWER SUPPLY CIRCUIT

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

Check voltage between slot connector and ground.

(-	+)	(-)	Voltage (V) (Approx.)
Key slot connector	Terminal	(-)	
M40	1	Ground	Battery voltage
10140	5	Giodila	battery voltage



Is the inspection result normal?

YES >> GO TO 3

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

3.CHECK KEY SLOT GROUND CIRCUIT

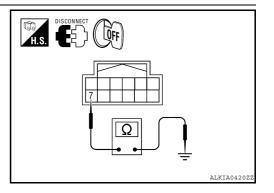
Check continuity between key slot connector and ground.

Key slot connector	Terminal	Ground	Continuity
M40	7	Ground	Yes

Is the inspection result normal?

>> GO TO 4 YES

NO >> Repair or replace key slot ground circuit.



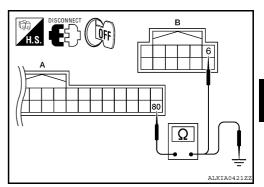
4. CHECK KEY SLOT CIRCUIT

- 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

Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
A: M19	80	Ground	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-82, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 6

NO >> Replace key slot. Refer to <u>SEC-184</u>, "Removal and Installation".

O.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

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SEC-97 2010 Altima Revision: September 2009

KEY CYLINDER SWITCH

Description INFOID:000000005429625

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:0000000005429626

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 <u>DLK-53</u>, "<u>DOOR LOCK</u>: <u>CONSULT-III Function</u> (<u>BCM - DOOR LOCK</u>)".

Monitor item	Condition		
KEY CYL LK-SW	Lock	: ON	
RET CTL LN-SW	Neutral / Unlock	: OFF	
KEY CYL UN-SW	Unlock	: ON	
RET CTL ON-SW	Neutral / Lock	: OFF	

Is the inspection result normal?

YES >> Key cylinder switch is OK.

NO >> With LH and RH anti-pinch, refer to <u>SEC-98</u>. "<u>Diagnosis Procedure (With LH and RH Anti-Pinch)</u>".

NO >> With LH anti-pinch only, refer to SEC-99, "Diagnosis Procedure (With LH Anti-Pinch Only)".

Diagnosis Procedure (With LH and RH Anti-Pinch)

INFOID:0000000005429627

Regarding Wiring Diagram information, refer to <u>SEC-158</u>. "Wiring Diagram".

1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

- Turn ignition switch ON.
- 2. Check voltage between main power window and door lock/unlock switch connector and ground.

Terminals					
(+) Main power window and door lock/unlock switch connector				Voltage (V)	
		(-)	Key position	(Approx.)	
	6		Lock	0	
D28		Ground	Neutral / Unlock	Battery voltage	
520	7	Giodila	Unlock	0	
			Neutral / Lock	Battery voltage	

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to PWC-252, "Removal and lnstallation".

NO >> GO TO 2

2. CHECK DOOR KEY CYLINDER SIGNAL CIRCUIT

1. Turn ignition switch OFF.

KEY CYLINDER SWITCH

< COMPONENT DIAGNOSIS >

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2. Disconnect main power window and door lock/unlock switch connector and door lock assembly LH (key cylinder switch) connector.

cylinder switch) connector.
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: D28	6	B: D25	6	Yes
A. D20	7	D. D23	5	165

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

Power window main switch connector	Terminal		Continuity
A: D28	6	Ground	No
A. D20	7		140

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

${f 3}.$ check door key cylinder switch ground circuit

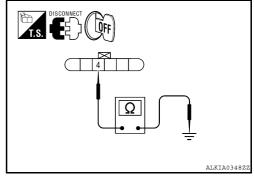
Check continuity between door lock assembly LH connector and ground.

Door lock assembly LH connector	Terminal	Ground	Continuity
D26	4	Giodila	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-101, "Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".

NO >> Replace door lock assembly LH (key cylinder switch). Refer to DL

>> Replace door lock assembly LH (key cylinder switch). Refer to <u>DLK-220, "FRONT DOOR LOCK:</u> <u>Removal and Installation"</u>.

Diagnosis Procedure (With LH Anti-Pinch Only)

Regarding Wiring Diagram information, refer to <a>SEC-169, "Wiring Diagram".

1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

1. Turn ignition switch ON.

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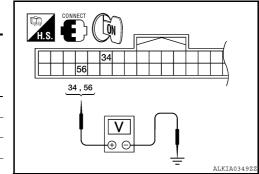
INFOID:0000000005429628

Revision: September 2009 SEC-99 2010 Altima

< COMPONENT DIAGNOSIS >

Check voltage between BCM connector and ground.

Terminals				V 16 0.0	
(+)		(-)	Key position	Voltage (V) (Approx.)	
BCM connector	Terminal	()		, , ,	
56			Lock	0	
M25	30	Ground	Neutral / Unlock	Battery voltage	
IVIZO	34	0.00.00		Unlock	0
			Neutral / Lock	Battery voltage	



Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to PWC-78, "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.
- Check continuity between door lock assembly LH (key cylinder switch) connector and ground.

Door lock assembly LH con- nector	Terminal	Ground	Continuity
D25	4		Yes

Main power window and door lock/unlock switch H.S. CONNECT THE LIIA0566B

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 door lock assembly LH (key cylinder switch) connector D25 terminals 5, 6 and BCM connector M18 (B) terminals 34, 56.

Door lock assembly LH connector	Terminal	BCM connector	Terminal	Continuity
A: D25	5	B: M18	34	Yes
A. D25	6	D. W 10	56	162

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

DISCONNECT OFF	H.S.
A 34 56 5	В
<u>5,6</u> <u>34,56</u> <u>Ξ</u>	ALKIA0350ZZ

Door lock assembly LH connector	Terminal		Continuity
A: D25	5	Ground	No
A. D25	6		NO

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-101, "Component Inspection".

Is the inspection result normal?

KEY CYLINDER SWITCH

< COMPONENT DIAGNOSIS >

[COUPE]

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".

>> Replace door lock assembly LH (key cylinder switch). Refer to DLK-220, "FRONT DOOR LOCK: NO Removal and Installation".

Component Inspection

INFOID:0000000005429629

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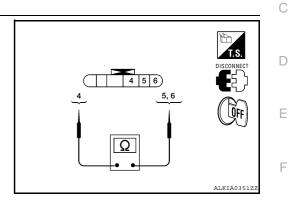
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COMPONENT INSPECTION

1. CHECK DOOR KEY CYLINDER SWITCH

Check door lock assembly LH (key cylinder switch).

Term	Terminal		Continuity	
Door lock assembly LH (key cylinder switch)		Key position		
5	4	Unlock	Yes	
		Neutral / Lock	No	
6	4	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-220, "FRONT DOOR LOCK: Removal and Installation".

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SEC-101 Revision: September 2009 2010 Altima

HORN

Description INFOID:000000005429630

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

Component Function Check

INFOID:0000000005429631

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 <u>SEC-102</u>, "<u>Diagnosis Procedure</u>".

Diagnosis Procedure

INFOID:0000000005429632

Regarding Wiring Diagram information, refer to SEC-158, "Wiring Diagram".

1. CHECK HORN FUNCTION

Check horn function with horn switch

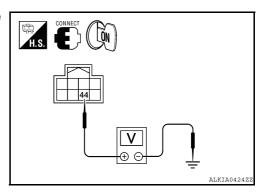
Do the horns sound?

YES >> GO TO 2

NO >> Refer to <u>HRN-3</u>, "COUPE : Wiring Diagram".

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.



IPD	M E/R	Ground Test item Voltage		Voltage (V)		
Connector	Terminal	Giodila	rest item		(Approx.)	
E17	44	Ground	HORN		Battery voltage →0 → Battery voltage	
LII	44	Giodila	TIOKIN	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.

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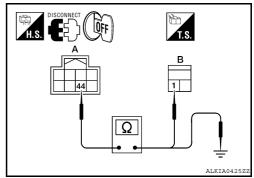
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- 2. Disconnect IPDM E/R and horn relay connector.
- 3. Check continuity between IPDM E/R harness connector and horn relay harness connector.

IPDI	IPDM E/R		relay	Continuity
Connector	Terminal	Connector	Terminal	Continuity
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	Giodila	Continuity
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-41, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace IPDM E/R.Refer to PCS-47, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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HEADLAMP

< COMPONENT DIAGNOSIS > [COUPE]

HEADLAMP

Description INFOID:000000005429633

Headlamp lighting when theft warning system is alarm phase.

Component Function Check

INFOID:0000000005429634

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 <u>SEC-104, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000005429635

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 INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

Is the inspection result normal?

WARNING LAMP

< COMPONENT DIAGNOSIS > [COUPE]

WARNING LAMP

Description INFOID:000000005429636

- 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:0000000005429637

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1. CHECK FUNCTION

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

Test item		Description	
INDICATOR	ON	Warning Jamp	ON
	OFF	Warning lamp	OFF

Is the inspection result normal?

YES >> Inspection End.

NO >> Refer to <u>SEC-105, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000005429638

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-41, "Intermittent Incident".

>> Inspection End.

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VEHICLE SECURITY INDICATOR

< COMPONENT DIAGNOSIS >

[COUPE]

VEHICLE SECURITY INDICATOR

Description INFOID:000000005429639

- 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:0000000005429640

1. CHECK FUNCTION

- 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 <u>SEC-106</u>, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000005429641

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-41, "Intermittent Incident".

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS > [COUPE]

ECU DIAGNOSIS

BCM (BODY CONTROL MODULE)

Reference Value

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
ED WIDED III	Other than front wiper switch HI	OFF
FR WIPER HI	Front wiper switch HI	ON
ED MIDED LOW	Other than front wiper switch LO	OFF
FR WIPER LOW	Front wiper switch LO	ON
ED MACHED OM	Front washer switch OFF	OFF
FR WASHER SW	Front washer switch ON	ON
FR WIPER INT	Other than front wiper switch INT	OFF
FR WIPER IN	Front wiper switch INT	ON
FR WIPER STOP	Front wiper is not in STOP position	OFF
FR WIPER STOP	Front wiper is in STOP position	ON
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	Wiper intermittent dial position
TUDNI CICNIAL D	Other than turn signal switch RH	OFF
TURN SIGNAL R	Turn signal switch RH	ON
TURN SIGNAL L	Other than turn signal switch LH	OFF
TURIN SIGNAL L	Turn signal switch LH	ON
TAIL LAMD CW	Other than lighting switch 1ST and 2ND	OFF
TAIL LAMP SW	Lighting switch 1ST or 2ND	ON
	Other than lighting switch HI	OFF
HI BEAM SW	Lighting switch HI	ON
HEAD LAMP SW 1	Other than lighting switch 2ND	OFF
HEAD LAIMP SW 1	Lighting switch 2ND	ON
HEAD LAMB SW 2	Other than lighting switch 2ND	OFF
HEAD LAMP SW 2	Lighting switch 2ND	ON
PASSING SW	Other than lighting switch PASS	OFF
FASSING SW	Lighting switch PASS	ON
AUTO LIGHT SW	Other than lighting switch AUTO	OFF
AUTO LIGITI SW	Lighting switch AUTO	ON
FR FOG SW	Front fog lamp switch OFF	OFF
FR FOG SW	Front fog lamp switch ON	ON
DOOR SW-DR	Driver door closed	OFF
DOOR SW-DR	Driver door opened	ON
DOOD SW AS	Passenger door closed	OFF
DOOR SW-AS	Passenger door opened	ON
DOOD SW DD	Rear door RH closed	OFF
DOOR SW-RR	Rear door RH opened	ON
DOOD SW DI	Rear door LH closed	OFF
DOOR SW-RL	Rear door LH opened	ON

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS > [COUPE]

Monitor Item	Condition	Value/Status
CDL LOCK SW	Other than power door lock switch LOCK	OFF
CDL LOCK SW	Power door lock switch LOCK	ON
CDL UNLOCK SW	Other than power door lock switch UNLOCK	OFF
CDL UNLOCK SW	Power door lock switch UNLOCK	ON
KEY CYL LK-SW	Other than driver door key cylinder LOCK position	OFF
RETUTE LR-SW	Driver door key cylinder LOCK position	ON
KEY CYL UN-SW	Other than driver door key cylinder UNLOCK position	OFF
RET CTL UN-SW	Driver door key cylinder UNLOCK position	ON
HAZADD CM	When hazard switch is not pressed	OFF
HAZARD SW	When hazard switch is pressed	ON
REAR DEF SW	When rear window defogger switch is pressed	ON
TD CANCEL CW	Trunk lid opener cancel switch OFF	OFF
TR CANCEL SW	Trunk lid opener cancel switch ON	ON
TR/BD OPEN SW	Trunk lid opener switch OFF	OFF
IR/BD OPEN SW	While the trunk lid opener switch is turned ON	ON
TONIC/LIAT MAITO	Trunk lid closed	OFF
TRNK/HAT MNTR	Trunk lid opened	ON
DIVE LOCK	When LOCK button of Intelligent Key is not pressed	OFF
RKE-LOCK	When LOCK button of Intelligent Key is pressed	ON
RKE-UNLOCK	When UNLOCK button of Intelligent Key is not pressed	OFF
RRE-UNLOCK	When UNLOCK button of Intelligent Key is pressed	ON
DIVE TD/DD	When TRUNK OPEN button of Intelligent Key is not pressed	OFF
RKE-TR/BD	When TRUNK OPEN button of Intelligent Key is pressed	ON
DICE DANIE	When PANIC button of Intelligent Key is not pressed	OFF
RKE-PANIC	When PANIC button of Intelligent Key is pressed	ON
DIZE DAN ODEN	When UNLOCK button of Intelligent Key is not pressed and held	OFF
RKE-P/W OPEN	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
RKE-MODE CHG	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
OF FICAL SENSOR	When outside of the vehicle is dark	Close to 0 V
DEO CW DD	When driver door request switch is not pressed	OFF
REQ SW-DR	When driver door request switch is pressed	ON
DEO CW AC	When passenger door request switch is not pressed	OFF
REQ SW-AS	When passenger door request switch is pressed	ON
DEO CW DD/TD	When trunk request switch is not pressed	OFF
REQ SW-BD/TR	When trunk request switch is pressed	ON
DUCH CW	When engine switch (push switch) is not pressed	OFF
PUSH SW	When engine switch (push switch) is pressed	ON
ION DIVO E/D	Ignition switch OFF or ACC	OFF
IGN RLY2-F/B	Ignition switch ON	ON
400 BIN 77	Ignition switch OFF	OFF
ACC RLY-F/B	Ignition switch ACC or ON	ON

< ECU DIAGNOSIS > [COUPE]

Monitor Item	Condition	Value/Status
	When the clutch pedal is not depressed	OFF
CLUTCH SW	When the clutch pedal is depressed	ON
BRAKE SW 1	When the brake pedal is not depressed	ON
SKAKE SW I	When the brake pedal is depressed	OFF
DETE/CANCL SW	When selector lever is in P position	OFF
DETE/CANCL SW	When selector lever is in any position other than P	ON
CET DN/NI CW/	When selector lever is in any position other than P or N	OFF
SFT PN/N SW	When selector lever is in P or N position	ON
UNLK SEN-DR	Driver door UNLOCK status	OFF
UNLK SEN-DK	Driver door LOCK status	ON
	When engine switch (push switch) is not pressed	OFF
PUSH SW-IPDM	When engine switch (push switch) is pressed	ON
ICN DIVA E/D	Ignition switch OFF or ACC	OFF
IGN RLY1 F/B	Ignition switch ON	ON
DETE SW -IPDM	When selector lever is in P position	OFF
DETE SW -IPDIVI	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
SET AN -IADIM	When selector lever is in P or N position	ON
SFT P-MET	When selector lever is in any position other than P	OFF
DET P-WET	When selector lever is in P position	ON
SFT N-MET	When selector lever is in any position other than N	OFF
SET IN-IVIET	When selector lever is in N position	ON
	Engine stopped	STOP
ENGINE STATE	While the engine stalls	STALL
ENGINE STATE	At engine cranking	CRANK
	Engine running	RUN
VEH SPEED 1	While driving	Equivalent to speedometer reading
VEH SPEED 2	While driving	Equivalent to speedometer reading
	Driver door LOCK status	LOCK
DOOR STAT-DR	Wait with selective UNLOCK operation (5 seconds)	READY
	Driver door UNLOCK status	UNLK
	Passenger door LOCK status	LOCK
DOOR STAT-AS	Wait with selective UNLOCK operation (5 seconds)	READY
	Passenger door UNLOCK status	UNLK
ID OK FLAG	Ignition switch ACC or ON	RESET
ID OK FLAG	Ignition switch OFF	SET
PRMT ENG STAT	When the engine start is prohibited	RESET
PRIVIT ENG STAT	When the engine start is permitted	SET
ZEV CW. CLOT	When Intelligent Key is not inserted into key slot	OFF
KEY SW -SLOT	When Intelligent Key is inserted into key slot	ON
RKE OPE COUN1	During the operation of Intelligent Key	Operation frequency of Intelligent Ke
CONEDMID ALL	The key ID that the key slot receives does not accord with any key ID registered to BCM.	YET
CONFRM ID ALL	The key ID that the key slot receives accords with any key ID registered to BCM.	DONE

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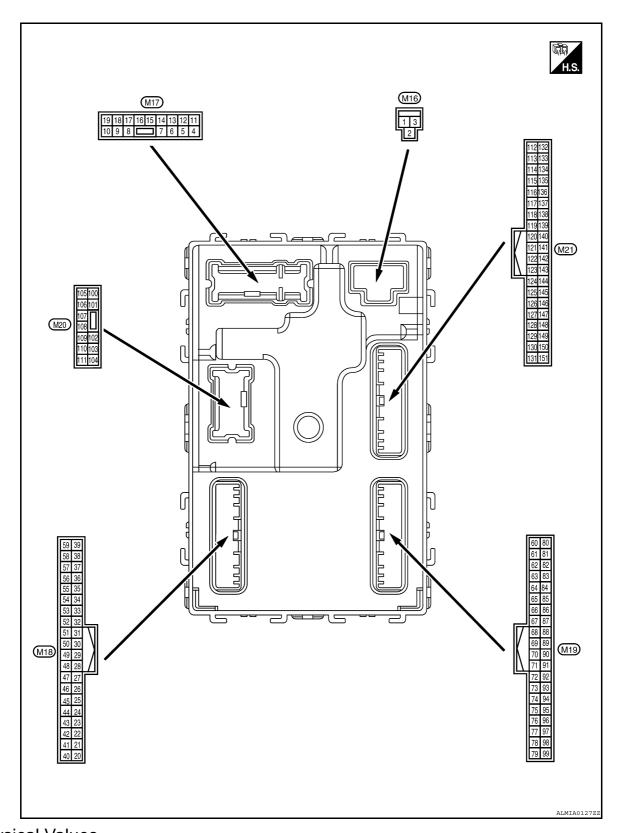
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< ECU DIAGNOSIS >

Monitor Item	Condition	Value/Status
CONFIRM ID4	The key ID that the key slot receives does not accord with the fourth key ID registered to BCM.	YET
CONFIRM ID4	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
CONFIRM IDS	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
CONFIRM ID2	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
CONTINUIDI	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
1P 4	The ID of fourth key is registered to BCM	DONE
TD 0	The ID of third key is not registered to BCM	YET
TP 3	The ID of third key is registered to BCM	DONE
TDO	The ID of second key is not registered to BCM	YET
TP 2	The ID of second key is registered to BCM	DONE
TD 4	The ID of first key is not registered to BCM	YET
TP 1	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
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
ID NEGOT TET	When ID of front LH tire transmitter is not registered	YET
ID REGST FR1	When ID of front RH tire transmitter is registered	DONE
ID REGGI I KI	When ID of front RH tire transmitter is not registered	YET
ID DECCT DD4	When ID of rear RH tire transmitter is registered	DONE
ID REGST RR1	When ID of rear RH tire transmitter is not registered	YET
ID DECCT DL4	When ID of rear LH tire transmitter is registered	DONE
ID REGST RL1	When ID of rear LH tire transmitter is not registered	YET
MADAUNIO LARAD	Tire pressure indicator OFF	OFF
WARNING LAMP	Tire pressure indicator ON	ON
DUZZED	Tire pressure warning alarm is not sounding	OFF
BUZZER	Tire pressure warning alarm is sounding	ON

[COUPE]

Terminal Layout



Physical Values

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	inal No. e color)	Description				Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
1 (W/B)	Ground	Battery power supply	Input	Ignition switch OF	F	Battery voltage
2 (R/Y)	Ground	Battery power supply output	Output	Ignition switch OF	F	Battery voltage
3 (L/W)	Ground	Ignition power supply output	Output	Ignition switch ON		Battery voltage
4	01	Interior room lamp	0 1 1	After passing the in er operation time	nterior room lamp battery sav-	ov
(P/W)	Ground	power supply	Output	Any other time after lamp battery saver	er passing the interior room roperation time	Battery voltage
5	Cravad	Front door RH UN-	Outout	UNLOCK (actuator is act vated)		Battery voltage
(G/Y)	Ground	LOCK	Output	Front door RH	Other than UNLOCK (actuator is not activated)	ov
7	Ground	Ston Jama	Output	Stan Jama	ON	0V
(R/W)	Ground	Step lamp	Output	Step lamp	OFF	Battery voltage
8	0	All de ese LOOK	Outrout	All de ese	LOCK (actuator is activated)	Battery voltage
(V)	Ground	All doors LOCK	Output	All doors	Other than LOCK (actuator is not activated)	ov
9		Front door LH UN-			UNLOCK (actuator is activated)	Battery voltage
(G)	Ground	LOCK	Output	Front door LH	Other than UNLOCK (actuator is not activated)	ov
10 ¹		Rear door RH and	•	Rear door RH	UNLOCK (actuator is activated)	Battery voltage
(G/Y)	Ground	rear door LH UN- LOCK	Output	and rear door LH	Other than UNLOCK (actuator is not activated)	ov
11 (Y/R)	Ground	Battery power supply	Input	Ignition switch OF	F	Battery voltage
13 (B)	Ground	Ground	_	Ignition switch ON		ov
					OFF	0V
14 ⁶ (R/Y)	Ground	Engine switch (push switch) illumination ground	Input	Tail lamp	ON	NOTE: When the illumination brightening/dimming level is in the neutral position (V) 10 2 ms JSNIA0010GB

< ECU DIAGNOSIS > [COUPE]

Terminal No. (Wire color)		Description				Value
(Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)
14 ¹ (O/W)	Ground	Engine switch (push switch) illumination ground	Input	Tail lamp	OFF	NOTE: When the illumination brightening/dimming level is in the neutral position (V) 10 2 ms JSNIA0010GB
15 (Y/L)	Ground	ACC indicator lamp	Output	Ignition switch	OFF ACC or ON	Battery voltage 0V
					Turn signal switch OFF	0V
17 (G/B)	Ground	Turn signal (RH)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0 1 s PKID0926E
					Turn signal switch OFF	0V
18 (G/Y)	Ground	Turn signal (LH)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 s
19		Room lamp timer		Interior room	OFF	6.5 V Battery voltage
(Y)	Ground	control	Output	lamp	ON	0V
21 (P/B)	Ground	Optical sensor signal	Input	Ignition switch	When outside of the vehi- cle is bright	Close to 5V
(. , 5)				J.,	When outside of the vehi- cle is dark	Close to 0V
22	Ground	Clutch interlock	Innut	Clutch interlock	OFF (clutch pedal is not depressed)	OV
(R/Y)	Giound	switch	Input	switch	ON (clutch pedal is depressed)	Battery voltage
24 (R/W)	Ground	Stop lamp switch 1	Input		-	Battery voltage
26	Ground	Stop lamp switch 2	Input	Stop lamp switch	OFF (brake pedal is not depressed)	0V
(O/L)	Cround	Stop Killip Switch 2	mpat	Stop ramp Switch	ON (brake pedal is depressed)	Battery voltage

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< ECU DIAGNOSIS >

	inal No. e color)	Description			One distant	Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
27 (G/W)	Ground	Front door lock assembly LH (unlock sensor)	Input	Front door LH	LOCK status	(V) 15 10 5 0 10 ms JPMIA0011GB
					UNLOCK status	11.8V
29				When Intelligent K	ey is inserted into key slot	Battery voltage
(Y)	Ground	Key slot switch	Input	_	ey is not inserted into key slot	0V
30					OFF	0
(V/Y)	Ground	ACC feedback signal	Input	Ignition switch	ACC or ON	Battery voltage
31	0	Rear window defog-	l	Rear window de-	OFF	OV
(G)	Ground	ger feedback signal	Input	fogger switch	ON	Battery voltage
32 (R/B)	Ground	Front door RH switch	Input	Front door RH switch	OFF (when front door RH closes)	(V) 15 10 5 0 10 ms 11.8 V
					ON (when front door RH opens)	0V
33	Ground	Compressor ON sig-	Input	A/C switch	OFF	9.0 - 12.0V
(SB)	0.00	nal		7,400	ON	0V
34 ²	Ground	Front door lock as- sembly LH (key cylin-	Input	Front door lock assembly LH (key	OFF (neutral)	5V
(L/R)	Ground	der switch) (unlock)	Input	cylinder switch)	ON (unlock)	0V
36 ² (GR)	Ground	Lock switch signal	Input	Door lock/unlock switch	Lock Unlock	Battery voltage 0V
37 (O)	Ground	Trunk lid opener cancel switch	Input	Trunk lid opener cancel switch	CANCEL	(V) 15 10 5 0 10 ms 1.1V
					ON	0V
38		Rear window defog-		Rear window de-	OFF	5V
(GR/ W)	Ground	ger ON signal	Input	fogger switch	ON	OV
39 ²	Carrie	I lada ak ayyitab ai sa	المراجع والما	Door lock/unlock	Unlock	Battery voltage
(GR/ R)	Ground	Unlock switch signal	Input	switch	Lock	OV

< ECU DIAGNOSIS >

< EUU	DIAGN	10515 >				[6001 L]	
	inal No.	Description				Value	А
(+)	e color)	Signal name	Input/ Output		Condition	(Approx.)	Α
40 ³ (Y/G)	Ground	Power window serial link	Input/ Output	Ignition switch ON		(V) 15 10 5 0 10 ms JPMIA0013GB	B C
				Ignition switch OFI	F or ACC	0V	
41	Ground	Engine switch (push	Output	Engine switch (push switch) illu-	ON	5.5V	Е
(W)	0.000	switch) illumination	o anp an	mination	OFF	0V	
42 (R)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	ON OFF	0V Battery voltage	F
45 (P)	Ground	Receiver & sensor ground	Input	Ignition switch ON		ov ov	
46	Ground	Receiver & sensor	Output	Ignition switch	OFF	OV	G
(V/W)		power supply output	•		ACC or ON	5.0V	
47	Ground	Tire pressure receiv-	Input/	Ignition switch	Standby state	(V) 6 4 2 0 *** 0.2s	H
(G/O)		er signal	Output	ON	When receiving the signal from the transmitter	(V) 6 4 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	SE(
48	Ground	Selector lever P/N	Input	Selector lever	P or N position	12.0V	1 4 1
(R/G)		position signal	•		Except P and N positions	OV	
					ON	0V	Ν
49 (L/O)	Ground	Security indicator signal	Output	Security indicator	Blinking	(V) 15 10 5 0 1 s	O P
						11.3V	
					OFF	Battery voltage	

< ECU DIAGNOSIS >

	inal No. e color)	Description			Condition	Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
					All switch OFF	0V
					Lighting switch 1ST	
				Combination	Lighting switch high-beam	(V) 15
50 (LG/	Ground	Combination switch	Output	switch	Lighting switch 2ND	10
B)	0.00	OUTPUT 5	Саграг	(Wiper intermit- tent dial 4)	Turn signal switch RH	0 JPMIA0031GB
					All switch OFF (Wiper intermittent dial 4)	10.7V 0V
					Front wiper switch HI (Wiper intermittent dial 4)	(V)
51 (L/W)	Ground	Combination switch OUTPUT 1	Output	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	15 10 5 0 2 ms JPMIA0032GB
					All switch OFF (Wiper intermittent dial 4)	ov
					Front washer switch ON (Wiper intermittent dial 4)	(V)
52 (G/B)	Ground	Combination switch OUTPUT 2	Output	Combination switch	Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	15 10 5 0 2 ms JPMIA0033GB
					All switch OFF	OV
					Front wiper switch INT	
				Combination	Front wiper switch LO	(V) 15
53 (LG/ R)	Ground	Combination switch OUTPUT 3	Output	switch (Wiper intermit- tent dial 4)	Lighting switch AUTO	10 5 0 2 ms
					All switch OFF	10.7V
					Front fog lamp switch ON	O V
					Lighting switch 2ND	[(V)
54	0	Combination switch	0	Combination switch	Lighting switch flash-to-	15 10 5 0
(G/Y)	Ground	OUTPUT 4	Output	(Wiper intermit-	pass	ő
				tent dial 4)	Turn signal switch LH	2 ms JPMIA0035GB
55		Ecolor 2		Front blower mo-	ON	Battery voltage
(BR/ W)	Ground	Front blower monitor	Input	tor switch	OFF	0V

< ECU DIAGNOSIS >

	inal No. e color)	Description			One distan	Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
56 ²	_	Front door lock as-		Front door lock	OFF (neutral)	5V
(L/B)	Ground	sembly LH (key cylinder switch) (lock)	Input	assembly LH (key cylinder switch)	ON (lock)	0V
57 (W)	Ground	Tire pressure warning check switch	Input		_	5V
58 (SB)	Ground	Front door LH switch	Input	Front door LH switch	OFF (front door LH CLOSE)	(V) 15 10 5 0 10 ms 10 ms JPMIA0011GB
					ON (front door LH OPEN)	0V
59	0	Rear window defog-	0	Rear window de-	Active	Battery voltage
(G/R)	Ground	ger relay	Output	fogger	Not activated	0V
00				Lamition overtely	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB
60 (B/R)	Ground	Front console antenna 2 (-)	Output	Ignition switch OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 11 1 s JMKIA0063GB
61	Ground	Center console an-	Output	lgnition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB
(W/R)	Giounu	tenna 2 (+)	Cutput	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB

< ECU DIAGNOSIS >

	inal No. e color)	Description	1		Condition	Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
62 ⁴	Ground	Front outside handle	Output	When the front door RH request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB
(B/Y)	Gloulu	RH antenna (-)	Output	switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB
63 ⁴	Ground	Front outside handle	Output	When the front door RH request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB
(LG)	Clound	RH antenna (+)	Cutput	switch is operat- ed with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB
64 ⁴		Front outside handle		When the front door LH request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB
(V)	Ground	LH antenna (-)	Output	switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 1 s JMKIA0063GB

< ECU DIAGNOSIS > [COUPE]

color) (-)	Signal name	Input/ Output		Condition	Value (Approx.)
					(лфрюх.)
	Front outside handle		When the front	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB
Ground	LH antenna (+)	Output	switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB
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.
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.
Ground	Ignition relay-2 control	Output	Ignition switch	OFF or ACC	0V Battery voltage
Ground	Remote keyless entry	Input/	During waiting		(V) 15 10 5 0 1 ms JMKIA0064GB
Jound	receiver signal	Output	When operating e	ither button on Intelligent Key	(V) 15 10 5 1 ms JMKIA0065GB
6 6	round	round NATS antenna amp (built in key slot) round NATS antenna amp (built in key slot) round Ignition relay-2 control Remote keyless entry	round NATS antenna amp (built in key slot) NATS antenna amp (built in key slot) NATS antenna amp (built in key slot) Ignition relay-2 control Output Remote keyless entry Input/	round NATS antenna amp (built in key slot) round NATS antenna amp (built in key slot) round NATS antenna amp (built in key slot) round Ignition relay-2 control round Remote keyless entry receiver signal	Tound NATS antenna amp (built in key slot) NATS antenna amp (built in key slot) Tound Ignition relay-2 control Remote keyless entry LH antenna (+) Switch is operated with ignition switch is pressed while inserting the Intelligent Key is not in the antenna detection area Ignition switch is pressed while inserting the Intelligent Key into the key slot. During waiting Ignition switch is pressed while inserting the Intelligent Key into the key slot. Output Ignition switch Output Output Ignition switch OFF or ACC ON

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< ECU DIAGNOSIS >

	inal No.	Description				Value
(+)	e color)	Signal name	Input/ Output		Condition	(Approx.)
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB
75 (R/Y)	Ground	Combination switch INPUT 5	Input	Combination switch	Front fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3V
					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	(V) 15 10 5 0 2 ms JPMIA0040GB

< ECU DIAGNOSIS >

	inal No. e color)	Description	T			Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB
					Lighting switch high-beam (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms
76 (R/G)	Ground	Combination switch INPUT 3	Input	Combination switch		1.3V
					Lighting switch 2ND (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB
					Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3	(V) 15 10 5 0 2 ms
78 (P)	Ground	CAN-L	Input/ Output		_	1.3V —
79 (L)	Ground	CAN-H	Input/ Output		_	_
80	Ground	Key slot illumination	Output	Key slot illumina-	OFF	0V
(R/L)				tion	ON	6.5V Battery voltage
81			Output		OFF or ACC	0V

< ECU DIAGNOSIS >

	inal No.	Description				Value (Approx.)	
(+)	e color)	Signal name	Input/ Output	Condition			
83	Ground	ACC relay control	Output	Ignition switch	OFF	OV	
(L)	Ground	ACC relay control	Output	ignition switch	ACC or ON	Battery voltage	
84 (Y/R)	Ground	CVT shift selector	Output		_	Battery voltage	
87	Ground	Selector lever P posi-	Input	Selector lever	P position	OV	
(G/B)	Cround	tion switch	mpat	Coloctor level	Any position other than P	Battery voltage	
					ON (pressed)	OV	
88 ⁴ (P/L)	Ground	Front door RH request switch	Input	Front door RH request switch	OFF (not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB	
					ON (pressed)	0V	
89 ⁴ (B/W)	Ground	Front door LH request switch	Input	Front door LH request switch	OFF (not pressed)	(V) 15 10 10 10 ms JPMIA0016GB 1.0V	
90	Ground	Blower fan motor re-	Output	Ignition switch	OFF or ACC	OV	
(Y)	Giodila	lay control	Juipui	ignition switch	ON	Battery voltage	
91 (L/R)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OF		Battery voltage	

< ECU DIAGNOSIS >

[COUPE]

Terminal N					Value	
(Wire colo	Signal name	Input/ Output		Condition	(Approx.)	
				All switch OFF	(V) 15 10 5 0 2 ms JPMIA0041GB	
				Turn signal switch LH	(V) 15 10 5 0 2 ms JPMIA0037GB	
95 (R/W) Gro	und Combination swite	ch Input	Combination switch (Wiper intermit- tent dial 4)	Turn signal switch RH	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3V	
				Front wiper switch LO	(V) 15 10 5 0 JPMIA0038GB 1.3V	
				Front washer switch ON	(V) 15 10 5 0 2 ms JPMIA0039GB	

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< ECU DIAGNOSIS >

	inal No.	Description				Value
(Wire (+)	e color)	Signal name	Input/ Output	Condition		(Approx.)
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0041GB 1.4V
96	Ground	Combination switch	Input	Combination	Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0038GB 1.3V
(P/B)		INPUT 4		switch	Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3V
					Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	(V) 15 10 5 2 ms JPMIA0039GB

< ECU DIAGNOSIS >

	inal No.	Description				Value	
(+)	e color)	Signal name	Input/ Output		Condition	(Approx.)	
					All switch OFF	(V) 15 10 5 0 2 ms JPMIA0041GB	
					Lighting switch flash-to- pass	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3V	
97 (R/B)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermit- tent dial 4)	Lighting switch 2ND	(V) 15 10 5 0 2 ms JPMIA0036GB	
					Front wiper switch INT	(V) 15 10 5 0 2 ms JPMIA0038GB 1.3V	
					Front wiper switch HI	(V) 15 10 5 0 2 ms JPMIA0040GB	
					Pressed	0 V	
98 (G/O)	Ground	Hazard switch	Input	Hazard switch	Not pressed	(V) 15 10 5 0 10 ms JPMIA0012GB	

< ECU DIAGNOSIS >

	inal No. e color)	Description		Condition		Value	
(+)	(-)	Signal name	Input/ Output	Condition		(Approx.)	
103	Ground	Trunk lid opening	Output	Trunk lid	Open (trunk lid opener actuator is activated)	Battery voltage	
(V)	Ground	Trank ha opening	Output	Trunk iid	Close (trunk lid opener actuator is not activated)	OV	
110	Ground	Trunk room lamp	Output	Trunk room lamp	ON	0V	
(V/W)		•	•	•	OFF	Battery voltage	
114	Ground	Rear parcel shelf an-	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 0 1 s JMKIA0062GB	
(B)		Guipui	ŌFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB		
115	Cround	Rear parcel shelf an-	- Ignition switch	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB	
(W)	(around : Output a	_	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB			

< ECU DIAGNOSIS >

	inal No.	Description				Value	
(+)	e color)	Signal name	Input/ Output	Condition		(Approx.)	А
1184		Rear bumper anten-		When the trunk	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB	С
(L/O)	Ground	na (-)	Output	is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB	E
						(V)	G
119 ⁴		Rear bumper anten-		When the trunk	When Intelligent Key is in the antenna detection area	15 10 5 0 1 s JMKIA0062GB	Н
(BR/ W)	Ground	na (+)	Output	is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB	SE
127	Crownd	Ignition relay (IPDM	Outrout	Impition quitab	OFF or ACC	Battery voltage	
(BR/ W)	Ground	E/R) control	Output	Ignition switch	ON	0V	M
130 (Y/G)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (trunk is closed)	(V) 15 10 5 0 10 ms JPMIA0011GB	N
					ON (trunk is open)	11.8V	
					ON (HUITK IS OPEH)	O V	F

	inal No. e color)	Description			Condition	Value	
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)	
				Ignition switch OFF (M/T vehi-	When the clutch pedal is depressed	Battery voltage	
				cle)	When the clutch pedal is not depressed	ov	
132 (R)	Ground	Starter motor relay control	Output	Ignition switch ON (other than M/	When selector lever is in P or N position and the brake is depressed	Battery voltage	
				T vehicle)	When selector lever is in P or N position and the brake is not depressed	0V	
140	Ground	Engine switch (push	Innut	Engine switch	Pressed	0V	
(BR)	Ground	switch)	Input	(push switch)	Not pressed	Battery voltage	
					ON (pressed)	OV	
141 (G/R)	Ground	Trunk request switch	Input	Trunk request switch	OFF (not pressed)	(V) 15 10 5 0 10 ms JPMIA0016G	
144 ⁴	0	Intelligent Key warn-	0	Request switch	Sounding	0V	
(GR)	Ground	ing buzzer	Output	buzzer	Not sounding	Battery voltage	
144 ⁵	Ground	Outside warning	Output	Outside warning	Sounding	0V	
(GR)	Ground	buzzer	Output	buzzer	Not sounding	Battery voltage	
147	Ground	Trunk lid opener	Input	Trunk lid opener	Pressed	0V	
(L/R)	O.Ga.i.a	switch		switch	Not pressed	Battery voltage	
148 ¹ (R/W)	Ground	Rear door RH switch	Input	Rear door RH switch	OFF (when rear door RH closes)	(V) 15 10 5 0 10 ms JPMIA0011G	
					ON (when rear door RH opens)	0V	
149 ¹ (R/B)	Ground	Rear door LH switch	Input	Rear door LH switch	OFF (when rear door LH closes)	(V) 15 10 10 10 ms JPMIA0011G	
					ON (when rear door LH opens)	11.8V 0V	

^{1:} Sedan

^{2:} With LH front window anti-pinch

[COUPE] < ECU DIAGNOSIS >

- 3: With LH and RH front window anti-pinch
- 4: With Intelligent Key
- 5: Without Intelligent Key
- 6: Coupe

Fail Safe INFOID:0000000005778861

Display contents of CONSULT	Fail-safe	Cancellation		
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC		
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC		
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC		
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC		
B2195: ANTI-SCANNING	Inhibit engine cranking	Ignition switch ON \rightarrow OFF		
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has become consistent • Starter control relay signal • Starter relay status signal		
B2562: LO VOLTAGE	Inhibit engine cranking	100 ms after the power supply voltage increases to more than 8.8 V		
B2608: STARTER RELAY Inhibit engine cranking		 500 ms after the following signal communication status becomes consistent Starter motor relay control signal Starter relay status signal (CAN) 		
B260A: IGNITION RELAY	Inhibit engine cranking	 500 ms after the following conditions are fulfilled 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 • Power position changes to ACC • Receives engine status signal (CAN)		
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		
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization		
B26E1: ENG STATE NO RECIV	Inhibit engine cranking	When any of the following conditions is fulfilled • Power position changes to ACC • Receives engine status signal (CAN)		
B26E8: CLUTCH SW	Inhibit engine cranking	When any of the following BCM recognition conditions are fulfilled Status 1 Clutch switch signal (CAN from ECM): ON Clutch interlock switch signal: OFF (0 V) Status 2 Clutch switch signal (CAN from ECM): OFF Clutch interlock switch signal: OFF (Battery voltage)		

DTC Inspection Priority Chart

INFOID:0000000005778862

If some DTCs are displayed at the same time, perform inspections one by one based on the following priority chart.

Priority	DTC
1	B2562: LOW VOLTAGE
2	U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN)

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< ECU DIAGNOSIS > [COUPE]

Priority	DTC	
3	 B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2195: ANTI SCANNING 	
4	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 B2605: PNP SW B2606: IGNITION RELAY B2607: ENG STATE SIG LOST B2614: ACC RELAY CIRC B2615: BLOWER RELAY CIRC B2615: BLOWER RELAY CIRC B2616: IGN RELAY CIRC B2616: IGN RELAY CIRC B2616: BCM B2617: STARTER RELAY CIRC B2618: BCM B2618: CHICLE TYPE B26E1: ENG STATE NO RECIV B26E8: CLUTCH SW B26EA: KEY REGISTRATION C1729: VHCL SPEED SIG ERR U0415: VEHICLE SPEED SIG	
5	 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] RR C1716: [PRESSDATA ERR] FL C1717: [PRESSDATA ERR] FR C1718: [PRESSDATA ERR] RR C1719: [PRESSDATA ERR] RR C1720: [CODE ERR] FL C1721: [CODE ERR] FR C1722: [CODE ERR] RR C1723: [CODE ERR] RR C1724: [BATT VOLT LOW] FL C1727: [BATT VOLT LOW] RR C1727: [BATT VOLT LOW] RL C1734: CONTROL UNIT 	
6	B2622: INSIDE ANTENNA B2623: INSIDE ANTENNA	

DTC Index

NOTE:

Details of time display

Revision: September 2009 SEC-130 2010 Altima

< ECU DIAGNOSIS > [COUPE]

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.

Intelligent Key Tire pressure CONSULT display Fail-safe warning lamp monitor warning Reference page ON lamp ON No DTC is detected. further testing may be required. U1000: CAN COMM CIRCUIT BCS-38, "Description" U1010: CONTROL UNIT (CAN) BCS-39, "DTC Logic" U0415: VEHICLE SPEED SIG BCS-40, "Description" SEC-53, "Description" (Coupe) SEC-229, "Description" (Sedan with I-B2190: NATS ANTENNA AMP Key) × SEC-399, "Description" (Sedan without I-Key) SEC-56, "Description" (Coupe) SEC-232, "Description" (Sedan with I-**B2191: DIFFERENCE OF KEY** Key) SEC-402, "Description" (Sedan without I-Key) SEC-57, "Description" (Coupe) SEC-233, "Description" (Sedan with I-B2192: ID DISCORD BCM-ECM Key) × SEC-403, "Description" (Sedan without I-Key) SEC-58, "Description" (Coupe) SEC-234, "Description" (Sedan with I-B2193: CHAIN OF BCM-ECM Key) × SEC-404, "Description" (Sedan without I-Key) SEC-59, "Description" (Coupe) SEC-235, "Description" (Sedan with I-**B2195: ANTI SCANNING** Key) × SEC-405, "Description" (Sedan without I-Key) **B2553: IGNITION RELAY** PCS-61, "Description" SEC-60, "Description" (Coupe) SEC-236, "Description" (Sedan with I-B2555: STOP LAMP Key) SEC-406, "Description" (Sedan without I-Key) SEC-63, "Description" (Coupe) SEC-239, "Description" (Sedan with I-B2556: PUSH-BTN IGN SW Key) SEC-409, "Description" (Sedan without I-Key) SEC-65, "Description" (Coupe) SEC-241, "Description" (Sedan with I-**B2557: VEHICLE SPEED** Key) × SEC-411, "Description" (Sedan without I-Key)

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Revision: September 2009 SEC-131 2010 Altima

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CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
B2560: STARTER CONT RELAY	×	×	_	SEC-66, "Description" (Coupe) SEC-242, "Description" (Sedan with I-Key) SEC-412, "Description" (Sedan without I-Key)
B2562: LOW VOLTAGE	×	_	_	BCS-41, "DTC Logic"
B2601: SHIFT POSITION	_	×	_	SEC-67, "Description" (Coupe) SEC-243, "Description" (Sedan with I-Key) SEC-413, "Description" (Sedan without I-Key)
B2602: SHIFT POSITION	_	×	_	SEC-71, "Description" (Coupe) SEC-246, "Description" (Sedan with I-Key) SEC-416, "Description" (Sedan without I-Key)
B2603: SHIFT POSI STATUS	_	×	_	SEC-74, "Description" (Coupe) SEC-249, "Description" (Sedan with I-Key) SEC-419, "Description" (Sedan without I-Key)
B2604: PNP SW	_	×	_	SEC-77, "Description" (Coupe) SEC-252, "Description" (Sedan with I- Key) SEC-422, "Description" (Sedan without I-Key)
B2605: PNP SW	_	×	_	SEC-79, "Description" (Coupe) SEC-254, "Description" (Sedan with I-Key) SEC-424, "Description" (Sedan without I-Key)
B2608: STARTER RELAY	×	×	_	SEC-81, "Description" (Coupe) SEC-256, "Description" (Sedan with I- Key) SEC-426, "Description" (Sedan without I-Key)
B260A: IGNITION RELAY	×	×	_	PCS-63, "Description"
B260F: ENG STATE SIG LOST	×	×	_	SEC-83, "Description" (Coupe) SEC-258, "Description" (Sedan with I-Key) SEC-428, "Description" (Sedan without I-Key)
B2614: ACC RELAY CIRC	_	×	_	PCS-66, "Description"
B2615: BLOWER RELAY CIRC		×	_	PCS-69, "Description"
B2616: IGN RELAY CIRC	_	×	_	PCS-72, "Description"
B2617: STARTER RELAY CIRC	×	×	_	SEC-87, "Description" (Coupe) SEC-262, "Description" (Sedan with I-Key) SEC-432, "Description" (Sedan without I-Key)
B2618: BCM	×	×	_	PCS-75, "Description"
B261A: PUSH-BTN IGN SW	_	×	_	SEC-90, "Description" (Coupe) SEC-265, "Description" (Sedan with I- Key) SEC-435, "Description" (Sedan without I-Key)

[COUPE] < ECU DIAGNOSIS >

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page	
B261E: VEHICLE TYPE	×	× (Turn ON for 15 seconds)	_	SEC-89, "Description" (Coupe) SEC-264, "Description" (Sedan with I-Key) SEC-434, "Description" (Sedan without I-Key)	
32622: INSIDE ANTENNA	_	_	_	DLK-60, "Description" (Coupe) DLK-283, "Description" (Sedan with I- Key) DLK-484, "Description" (Sedan without I-Key)	
32623: INSIDE ANTENNA	_	_	_	DLK-63, "Description" (Coupe) DLK-286, "Description" (Sedan with I- Key) DLK-487, "Description" (Sedan without I-Key)	
326E1: ENG STATE NO RES	×	×	_	SEC-92, "Description" (Coupe) SEC-267, "Description" (Sedan with I-Key) SEC-437, "Description" (Sedan without I-Key)	
326E8: CLUTCH SW	×	×	_	SEC-84, "Description" (Coupe) SEC-259, "Description" (Sedan with I-Key) SEC-429, "Description" (Sedan without I-Key)	
326EA: KEY REGISTRATION	×	× (Turn ON for 15 seconds)	_	SEC-86, "Description" (Coupe) SEC-261, "Description" (Sedan with I-Key) SEC-431, "Description" (Sedan without I-Key)	
C1704: LOW PRESSURE FL	_	_	×		
1705: LOW PRESSURE FR	_	_	×	WT-44, "Self-Diagnosis (With CON-	
C1706: LOW PRESSURE RR	_	_	×	SULT-III)"	
C1707: LOW PRESSURE RL	_	_	×		
C1708: [NO DATA] FL	_	_	×		
C1709: [NO DATA] FR	_	_	×	WT-14, "Description"	
C1710: [NO DATA] RR	_	_	×	W1-14, Description	
C1711: [NO DATA] RL	_	_	×		
C1712: [CHECKSUM ERR] FL	_		×		
C1713: [CHECKSUM ERR] FR	_	_	×	WT-16, "Description"	
C1714: [CHECKSUM ERR] RR	_	_	×	TT. 10, Description	
C1715: [CHECKSUM ERR] RL	_	_	×		
C1716: [PRESSDATA ERR] FL	_	_	×		
C1717: [PRESSDATA ERR] FR	_	_	×	WT-18, "Description"	
C1718: [PRESSDATA ERR] RR	_	_	×		
C1719: [PRESSDATA ERR] RL	_	_	×		

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< ECU DIAGNOSIS > [COUPE]

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
C1720: [CODE ERR] FL	_	_	×	
C1721: [CODE ERR] FR	_	_	×	
C1722: [CODE ERR] RR	_	_	×	
C1723: [CODE ERR] RL	_	_	×	WT-16, "Description"
C1724: [BATT VOLT LOW] FL	_	_	×	wi-16, Description
C1725: [BATT VOLT LOW] FR	_	_	×	
C1726: [BATT VOLT LOW] RR	_	_	×	
C1727: [BATT VOLT LOW] RL	_	_	×	
C1729: VHCL SPEED SIG ERR	_	_	×	WT-19, "Description"
C1734: CONTROL UNIT	_	_	×	WT-20, "Description"

[COUPE] < ECU DIAGNOSIS >

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

Reference Value INFOID:0000000005778867

VALUES ON THE DIAGNOSIS TOOL

Monitor Item		Condition	Value/Status
MOTOR FAN REQ	Engine idle speed	Changes depending on engine coolant temperature, air conditioner operation status, vehicle speed, etc.	0 - 100 %
		A/C switch OFF	Off
AC COMP REQ	Engine running	A/C switch ON (Compressor is operating)	On
TAIL 0.01 D DEO	Lighting switch OFF		Off
TAIL&CLR REQ	Lighting switch 1ST, 2ND, HI or	AUTO (Light is illuminated)	On
o peo	Lighting switch OFF		Off
HL LO REQ	Lighting switch 2ND HI or AUTC	(Light is illuminated)	On
	Lighting switch OFF		Off
HL HI REQ	Lighting switch HI		On
		Front fog lamp switch OFF	Off
FR FOG REQ	Lighting switch 2ND or AUTO (Light is illuminated)	 Front fog lamp switch ON Daytime running light activated (Only for Canada models) 	On
		Front wiper switch OFF	STOP
ED WID DEO	Leaving and the CN	Front wiper switch INT	1LOW
FR WIP REQ	Ignition switch ON	Front wiper switch LO	Low
		Front wiper switch HI	Hi
		Front wiper stop position	STOP P
WIP AUTO STOP	Ignition switch ON	Any position other than front wiper stop position	ACT P
		Front wiper operates normally	Off
WIP PROT	Ignition switch ON	Front wiper stops at fail-safe operation	BLOCK
ION DIVA DEO	Ignition switch OFF or ACC		Off
IGN RLY1 -REQ	Ignition switch ON		On
ION DIV	Ignition switch OFF or ACC		Off
IGN RLY	Ignition switch ON	On	
DUCLICW	Release the push-button ignition	switch	Off
PUSH SW	Press the push-button ignition s	witch	On
	CVT selector lever in any position other than P or N (CVT models)		Off
INTED/ND OVA		Release clutch pedal (M/T models)	
INTER/NP SW	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

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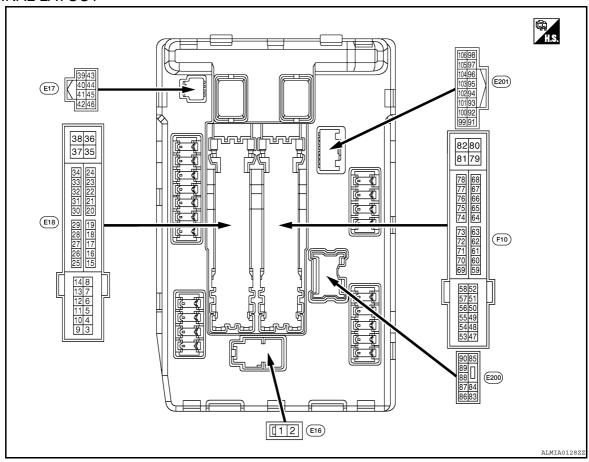
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< ECU DIAGNOSIS > [COUPE]

Monitor Item		Condition	Value/Status		
IHBT RLY -REQ	Ignition switch ON	Off			
INBI KLY -KEQ	At engine cranking		On		
	Ignition switch ON		Off		
	At engine cranking		ST →INHI		
ST/INHI RLY		tarter control relay cannot be recognized by n, etc. when the starter relay is ON and the	UNKWN		
DETENT SW	Ignition switch ON	 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 but NOTE: The lever is fixed ON for M/T	On			
DTRL REQ	DTRL OFF		Off		
DIKLKEQ	DTRL ON		On		
OIL P SW	Ignition switch OFF, ACC or e	ngine running	Open		
OIL P SW	Ignition switch ON	Ignition switch ON			
	Not operated		Off		
THFT HRN REQ	 Panic alarm is activated Horn is activated with VEHITEM 	On			
LIODN CLUDD	Not operated	Off			
HORN CHIRP	Door locking with Intelligent K	Door locking with Intelligent Key (horn chirp mode)			
CRNRNG LMP REQ	NOTE: This item is displayed, but car	nnot be monitored.	Off		

< ECU DIAGNOSIS > [COUPE]

TERMINAL LAYOUT



PHYSICAL VALUES

	nal No.	Description				Value
(Wire	color)	Signal name	Input/ Output			(Approx.)
1 (R)	Ground	Battery power supply	Input	Ignition swi	itch OFF	Battery voltage
2 (L)	Ground	Battery power supply	Input	Ignition swi	itch OFF	Battery voltage
4	Cravind	Frant win or LO	Outrout	Ignition	Front wiper switch OFF	0V
(LG)	Ground	Front wiper LO	Output switch ON		Front wiper switch LO	Battery voltage
5	Craund	Frant win or I II	Outrout	Output Ignition switch ON	Front wiper switch OFF	0V
(Y)	Ground	Ground Front wiper HI	Output		Front wiper switch HI	Battery voltage
6 (SB)	Ground	Daytime light relay power supply (Canada models only)	Output	Ignition swi	itch OFF	Battery voltage
7	Ground	Tail, license plate lamps &	Outrot	Ignition	Lighting switch OFF	0V
(GR)	Ground	interior lamps	Output	switch ON	Lighting switch 1ST	Battery voltage
40				Ignition swi (For a few s switch OFF	seconds after turning ignition	OV
10 (BR)	Ground LCM rolay nowar cumply		Output	Ignition switch ON Ignition switch OFF (More than a few seconds after turning ignition switch OFF)		Battery voltage

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[COUPE] < ECU DIAGNOSIS >

	nal No.	Description				Value
+ (vvire	color)	Signal name	Input/ Output		Condition	(Approx.)
12 (B)	Ground	Ground	_	Ignition sw	itch ON	0V
13					tely 1 second or more after ignition switch ON	OV
(SB)	Ground	Fuel pump power supply	Output		nately 1 second after turning on switch ON unning	Battery voltage
15		Ignition relay-1 power sup-	_	Ignition sw	itch OFF	0V
(W)	Ground	ply	Output	Ignition sw	itch ON	Battery voltage
					Front wiper stop position	0V
16 (L/Y)	Ground	Front wiper auto stop	Input	Ignition switch ON	Any position other than front wiper stop position	Battery voltage
19		Ignition relay-1 power sup-	<u> </u>	Ignition sw	itch OFF	0V
(Y)	Ground	ply	Output	Ignition sw	itch ON	Battery voltage
20 (B/Y)	Ground	Ambient sensor ground	_	Ignition sw	itch ON	0V
21 (O/B)	Ground	Ambient sensor	_	Ignition sw	itch ON	5V
22 (W/R)	Ground	Refrigerant pressure sensor ground	_	Ignition sw	itch ON	0V
23 (B/R)	Ground	Refrigerant pressure sensor	_	 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	Ground	Ignition relay-1 power sup-	Output	Ignition sw	itch OFF	0V
(GR)	Ground	ply	Output	Ignition sw	itch ON	Battery voltage
27	Ground	Ignition relay monitor	Input	Ignition sw	itch OFF or ACC	Battery voltage
(W)	Ground	Ignition relay monitor	πραι	Ignition sw	itch ON	0V
28	Ground	Push-button ignition	Innut	Press the p	bush-button ignition switch	0V
(SB)	Ground	switch	Input	Release th	e push-button ignition switch	Battery voltage
30 (BR)	Ground	Starter relay control	Input	CVT mod-	CVT selector lever in any position other than P or N (ignition switch ON)	OV
(=:\)					CVT selector lever P or N (ignition switch ON)	Battery voltage
30	Ground	Starter relay control	Input	M/T mod-	Release the clutch pedal	0V
(R)	Cround	Startor rollay control	mput	els	Depress the clutch pedal	Battery voltage
34	Ground	Cooling fan relay-3 control	Input	Ignition sw	itch OFF or ACC	0V
(O/L)	Cround	556mig lair rolay 5 control	put	Ignition sw	itch ON	0.7V
35	Ground	Cooling fan motor control	Output	Ignition switch OFF or ACC		0V
(P)	Crodita	556mig idir motor control	Calput	Ignition switch ON		0.7V
36 (G)	Ground	Battery power supply	Input	Ignition sw	itch OFF	Battery voltage
38	Ground	Cooling for motor control	Output	Ignition sw	itch OFF or ACC	0V
(R/W)	Giouria	Cooling fan motor control	Output	Ignition sw	itch ON	0.7V

[COUPE] < ECU DIAGNOSIS >

	nal No.	Description				Value													
(Wire	color)	Signal name	Input/ Output		Condition	(Approx.)													
39 (P)	_	CAN - L	Input/ Output	-		_													
40 (L)		CAN - H	Input/ Output		_	_													
41 (B)	Ground	Ground	_	Ignition swi	itch ON	0V													
42	Ground	Cooling fan relay-2 control	Input	Ignition swi	itch OFF or ACC	0V													
(SB)	Glodila	Cooling lan relay-2 control	input	Ignition swi	itch ON	0.7V													
					Press the CVT selector button (CVT selector lever P)	Battery voltage													
43 (G/B)	Ground	CVT shift selector (Detention switch)	Input	Ignition switch ON	CVT selector lever in any position other than P Release the CVT selector button (CVT selector lever P)	0V													
44				The horn is	deactivated	Battery voltage													
(G/W)	Ground	Horn relay control	Input	The horn is	activated	0V													
45	0	A of the file constant	1	The horn is	deactivated	Battery voltage													
(L/O)	Ground	Anti theft horn relay control	Input The horn i		activated	0V													
	46 (BR) Ground Starter relay control										CVT mod-	CVT selector lever in any position other than P or N (ignition switch ON)	oV						
		Input		CVT selector lever P or N (ignition switch ON)	Battery voltage														
				M/T mod-	Release the clutch pedal	0V													
				els	Depress the clutch pedal	Battery voltage													
					A/C switch OFF	0V													
48 (W)	Ground	A/C relay power supply	Output	Engine running	A/C switch ON (A/C compressor is operating)	Battery voltage													
49		FOM	ECM relevance and the	ECM relay payer symply	FCM releases	FCM relations	FCM relatives	EQM rule	FOM	FOM	FOM release	FCM releases	ECM roley power symbly	ECM rolay power cupals	ECM relay power supply		Ignition swi (For a few s switch OFF	seconds after turning ignition	0V
(V)	Ground	(with VQ35DE)	Output			Battery voltage													
51	Ground	Ignition relay power supply	Output	Ignition swi	itch OFF	0V													
(SB)	Giodila	ignition relay power suppry	Output	Ignition swi	itch ON	Battery voltage													
52	Ground	Ignition relay power supply	Output	Ignition swi	itch OFF	0V													
(Y)	Crodita	.g.maon rolay power supply	Japan	Ignition swi	itch ON	Battery voltage													
53		ECM relay power supply	_	Ignition swi (For a few s switch OFF	seconds after turning ignition	0V													
(G)	Ground	(with VQ35DE)	Output			Battery voltage													

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< ECU DIAGNOSIS > [COUPE]

	nal No.	Description				Value
+	color)	Signal name	Input/ Output		Condition	(Approx.)
53		_ ECM relay power supply		Ignition sw (For a few s switch OFF	seconds after turning ignition	0V
(V)		(without VQ35DE)	Output			Battery voltage
54		Throttle control motor re-		Ignition sw (For a few s switch OFF	seconds after turning ignition	OV
(GR)	Ground	lay power supply	Output	`		Battery voltage
55 (LG)	Ground	ECM power supply	Output	Ignition sw	itch OFF	Battery voltage
56	Ground	Ignition relay power supply	Output	Ignition sw	itch OFF	0V
(R)	Ground	ignition relay power suppry	Output	Ignition sw	itch ON	Battery voltage
57	Ground	Ignition relay power supply	Output	Ignition sw	itch OFF	0V
(O)	C. Guild	.g.m.o.r. roldy power supply	Juipui	Ignition sw	itch ON	Battery voltage
58	Ground	Ignition relay power supply	Output	Ignition switch OFF Ignition switch ON		0V
(BR)	C. Guild	.g.m.o.r. roldy power supply	Juipui			Battery voltage
5				Ignition switch OFF (For a few seconds after turning ignition switch OFF)		Battery voltage
69 (SB)	Ground	ECM relay control	Output	 Ignition switch ON Ignition switch OFF (More than a few seconds after turning ignition switch OFF) 		0 - 1.5V
						0 -1.0V
70		Throttle control motor re- lay control		Ignition switch ON → OFF		↓ Battery voltage
(G)	Ground		Output			\downarrow
				lanitia	itah ON	0V
				Ignition sw	CVT selector lever in P or	0 - 1.0V
72		Transmission range quitab		Ignition	N position	Battery voltage
72 (BR)	Ground	Transmission range switch signal (with VQ35DE)	Input	Ignition switch ON	CVT selector lever in any position other than P or N position	0V
70		Tananaiation		Laurite	CVT selector lever in P or N position	Battery voltage
72 (W)	Ground	Transmission range switch signal (with QR25DE)	Input	Ignition switch ON	CVT selector lever in any position other than P or N position	OV
74	0	Indian alternation	0 1	Ignition sw	itch OFF	0V
(L)	Ground	Ignition relay power supply	Output	Ignition sw	itch ON	Battery voltage
75	0	Oil processesit-1	lee: 1	Ignition	Engine stopped	0V
(LG)	Ground	Oil pressure switch	Input	switch ON	Engine running	Battery voltage

[COUPE] < ECU DIAGNOSIS >

	nal No.	Description				Value
+ (Wire	color)	Signal name	Input/ Output		Condition	(Approx.)
						(V) 6 4
			Ignition swi	itch ON	2 0	
						6.3V
76 (CD)	Ground	Power generation com-	Output		on "Active test", "ALTERNA- " of "ENGINE"	(V) 6 4 2 0
(GR)		mand signal	•			DPMIA0002GB
						3.8V
			80% is set on "Active test", "ALTERNATOR DUTY" of "ENGINE"		6 4 2 0	
					2ms JPMIA0003GB	
77 (CP)	Ground	Fuel pump relay control	el pump relay control Output	Approximately 1 second after turning the ignition switch ON Engine running Approximately 1 second or more after turning the ignition switch ON		0 - 1.0V
(GR)			·			Battery voltage
80 (R)	Ground	Starter motor	Output	At engine of	cranking	Battery voltage
83	Ground	Headlamp LO (RH)	Output	Ignition	Lighting switch OFF	0V
R/Y)		Т т т т т т т т т т т т т т т т т т т т		switch ON	Lighting switch 2ND	Battery voltage
84 (L)	Ground	Headlamp LO (LH)	Output	Ignition switch ON	Lighting switch OFF	0V
(L)				SWILCH ON	Lighting switch 2ND	Battery voltage
86 W/R)	Ground	Front fog lamp (RH)	Output	Lighting switch 2ND	 Front fog lamp switch ON Daytime running light activated (Only for Canada models) 	Battery voltage
					Front fog lamp switch OFF	0V
87 (L/Y)	Ground	Front fog lamp (LH)	Output	Lighting switch 2ND	Front fog lamp switch ON Daytime running light activated (Only for Canada models)	Battery voltage
					Front fog lamp switch OFF	0V
		Washer pump power sup-	Output		itch ON	Battery voltage

< ECU DIAGNOSIS > [COUPE]

	nal No.	Description				Value
+ (Wire	color)	Signal name	Input/ Output	Condition		(Approx.)
89 (L/W)	(Fround Hoad)	Headlamp HI (RH)	Output	Ignition	Lighting switch HI lighting switch PASS	Battery voltage
(L/VV)				switch ON	Lighting switch OFF	0V
90 (G)	Ground	Headlamp HI (LH)	Output Ignition switch ON -		Lighting switch HI Lighting switch PASS	Battery voltage
(0)				Lighting switch OFF	0V	
91	Ground	Parking lamp (RH)	Output	Ignition	Lighting switch 1ST	Battery voltage
(LG/R)	Ground	r arking lamp (IVII)	Output	switch ON Lighting switch OFF		0V
92	Ground	Parking lamp (LH)	Output	Ignition	Lighting switch 1ST	Battery voltage
(LG/B)	Ground	Faiking lamp (Lin)	Output	switch ON Lighting switch OFF		0V
99 (BR/W)	Ground	Ambient sensor ground	_	Ignition switch ON		0V
100 (SB)	Ground	Ambient sensor	_	Ignition swi	itch ON	5V
101 (O/L)	Ground	Refrigerant pressure sensor ground		Ignition swi	itch ON	0V
102 (R/B)	Ground	Refrigerant pressure sensor	_	 Ignition switch ON (READY) Both A/C switch and blower motor switch ON (electric compressor operates) 		1.0 - 4.0V
103 (P)	Ground	Refrigerant pressure sensor power supply	_	Ignition switch ON		5V
105	Ground	Daytime light relay control	0 1 1	Ignition switch ON	Daytime light system active	Battery voltage
(V)	Giodila	Daytime light relay control	Output	Ignition switch ON	Daytime light system inactive	0V

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

Control part	Fail-safe in operation
Cooling fan	 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	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
Parking lampsLicense plate lampsIlluminationTail lamps	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

< ECU DIAGNOSIS > [COUPE]

Control part	Fail-safe in operation
Front wiper	 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

IGNITION RELAY MALFUNCTION DETECTION FUNCTION

- IPDM E/R monitors the voltage at the contact circuit and excitation coil circuit of the ignition relay inside it.
- IPDM E/R judges the ignition relay error if the voltage differs between the contact circuit and the excitation coil circuit.
- If the ignition relay cannot turn OFF due to contact seizure, it activates the tail lamp relay for 10 minutes to alert the user to the ignition relay malfunction when the ignition switch is turned OFF.

DTC	Ignition switch	Ignition relay	Tail lamp relay
_	ON	ON	_
_	OFF	OFF	_
B2098: IGN RELAY ON	OFF	ON	ON (10 minutes)
B2099: IGN RELAY OFF	ON	OFF	_

NOTE:

The tail lamp turns OFF when the ignition switch is turned ON.

FRONT WIPER CONTROL

IPDM E/R detects front wiper stop position by a front wiper auto stop signal.

When a front wiper auto stop signal is in the conditions listed below, IPDM E/R stops power supply to wiper after repeating a front wiper 10 second activation and 20 second stop five times.

Ignition switch	Front wiper switch	Auto stop signal
ON	OFF	Front wiper stop position signal cannot be input 10 seconds.
	ON	The signal does not change for 10 seconds.

NOTE:

This operation status can be confirmed on the IPDM E/R "Data Monitor" that displays "BLOCK" for the item "WIP PROT" while the wiper is stopped.

STARTER MOTOR PROTECTION FUNCTION

IPDM E/R turns OFF the starter control relay to protect the starter motor when the starter control relay remains active for 90 seconds.

DTC Index

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
B210B: START CONT RLY ON	_	CRNT	1 – 39	<u>SEC-37</u>
B210C: START CONT RLY OFF	_	CRNT	1 – 39	<u>SEC-38</u>

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< ECU DIAGNOSIS > [COUPE]

CONSULT-III display	Fail-safe	TIME ^{NOTE}		Refer to
B210D: STARTER RELAY ON	_	CRNT	1 – 39	<u>SEC-39</u>
B210E: STARTER RELAY OFF	_	CRNT	1 – 39	SEC-40
B210F: INTRLCK/TRANSMISSION RANGE SW ON	_	CRNT	1 – 39	SEC-43
B2110: INTRLCK/TRANSMISSION RANGE SW OFF	_	CRNT	1 – 39	<u>SEC-48</u>

NOTE:

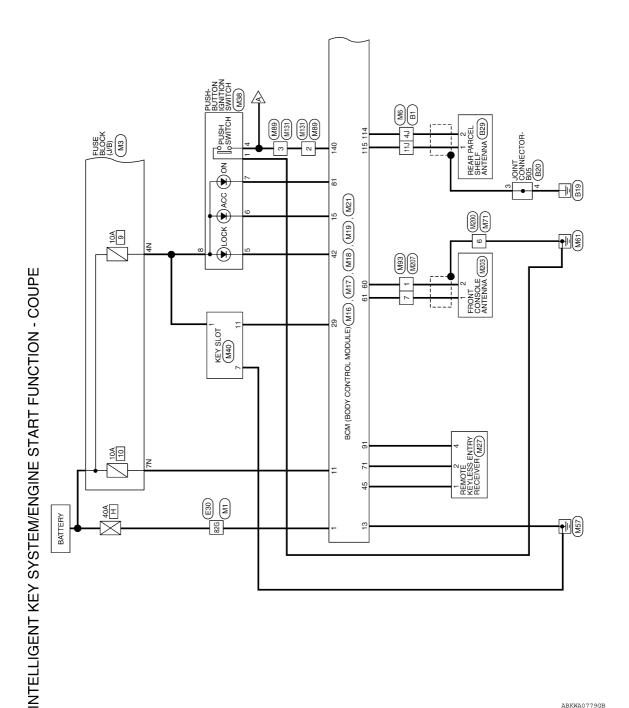
The details of TIME display are as follows.

- 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.

WIRING DIAGRAM

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

Wiring Diagram INFOID:0000000005429645



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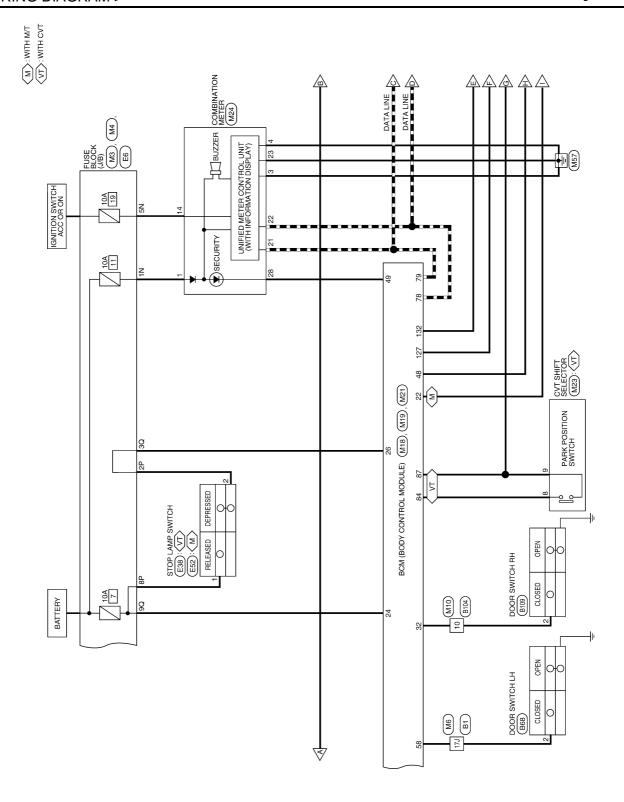
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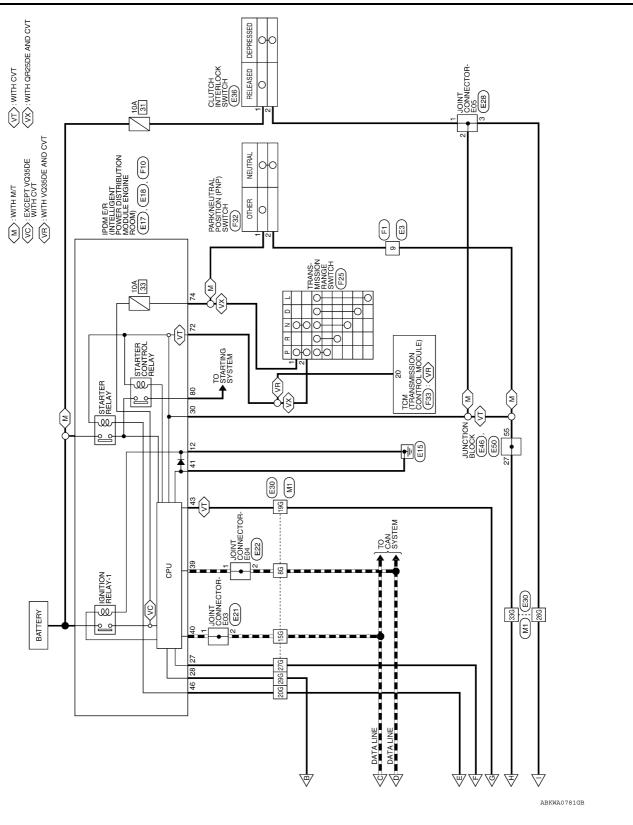
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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION CONNECTORS - COUPE

Connector No.). M3	
Connector Name		FUSE BLOCK (J/B)
Connector Color	olor WHITE	
H.S.	NE NE	7N 6N 5N 4N
Terminal No.	Color of Wire	Signal Name
Z	M/L	ı
A N	G/Y	I
NS.	٨/٨	1
N.	Y/R	1

Signal Name	I	ı	1	ı	I	I	1	1	_
Color of Wire	Ь	٦	G/B	Œ	R/Υ	BR/W	BR	R/G	W/B
Terminal No.	98	15G	19G	20G	26G	27G	29G	33G	82G

	26 16	516	656 646
	46 36 - 116 106 - 216 206 - 286 276 16	36G 35G 44G 43G 4 53G 52G	810 810
M1 WIRE TO WIRE WHITE	76 66 56 46 136 126 6 236 226 3	36 386 376 76 466 456 3 556 3 596 546	3 69G 68G 67G 3 76G 75G 74G 82G
M1 WIRE T	9G 8G 7G 6G 5G 4G 3G 7G 6G 2G 7G 7G 7G 7G 7G 7G 7	500 490 490 470 466 456 446 430 420 500 500 500 500 500 500 500 500 500 5	80G 79G 78G 77G 83G
Connector No. Connector Name Connector Color	H.S.	909	950

Connector No.	. M4	
Connector Name	me FUS	FUSE BLOCK (J/B)
Connector Color WHITE	lor WHI	
原 H.S.	40 30 100 90	40 SQ 10 20 10 10 SQ 8Q 7Q 8Q 5Q 5Q
Terminal No.	Color of Wire	Signal Name
30	O/L	1
C6	B/W	1

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Connector No. M10 Connector Name WIRE TO WIRE Connector Color BROWN 5 4		
Signal Name	M17 BCM (BODY CONTROL MODULE) WHITE \$\begin{array}{c c c c c c c c c c c c c c c c c c c	Signal Name BAT_BCM_FUSE GND1 ACC_LED
Color of Wire SB SB SB		Color of Wire Wire Y/R B
40 41 113 173	Connector No. Connector Name Connector Color	Terminal No. Co. 11 11 13 15 15 15 15 15 15 15 15 15 15 15 15 15
or No. M6 or Name WIRE TO WIRE or Color WHITE Sol	or No. M16 or Name BCM (BODY CONTROL MODULE) or Color BLACK	Oolor of Signal Name W/B BAT_POWER_F/L

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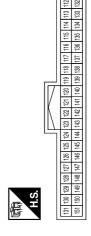
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ctor No. M21	Connector Name BCM (BODY CONTROL MODULE)	Connector Color GRAY	
Connector No.	Connector Na	Connector Co	



Signal Name	CLUTCH_SW	STOP_LAMP_LOW_SW	STOP_LAMP_HIGH_SW	FOB_IN_SW	AS_DOOR_SW	S/L_LOCK_LED	GND_RF2_A/L	SHIFT_N/P	IMMO_LED	DR_DOOR_SW
Color of Wire	R/Υ	B/W	O/L	>	B/B	ш	Ь	R/G	9	SB
Terminal No.	22	24	26	29	32	42	45	48	49	58

ၓ	Connector No.	ect	ō	ဍ		_	M18	8											
ပိ	Connector Name	ect	٥	Na	μ		BCM (BOD MODULE)	≥ĕ	lĕ∃	<u> </u>	\ }	ģ	BCM (BODY CONTROL MODULE)	反	١,				
ပိ	Connector Color	ect	٥	ပြ	<u>o</u>		GREEN	Щ	z										
뗠	偃																		
_	HS.	ιń																	
							L												
									١	/									
88	39 38	37	36	35	34	33	32	31	8	62	88	7 2	37 36 35 34 33 32 31 30 29 28 27 26 25 24 23 22 21 20	24	33	ĸ	21	20	
55	59 58 57 56 55 54 53 52 51 50 49 48 47 46 45 44 43 42 41 40	22	56	55	54	53	22	5	55	49	48	17 4	945	44	43	42	4	40	

ф <u> </u>	Signal Name	RF1_TUNER_SIGNAL	CAN-H	IGN_ON_LED	AT_DEVICE_OUT	SHIFT_P	RF1_POWER_SUPPLY
	Color of Wire	9	- -	ГG	Y/R	G/B	L/R
Terminal No. 71 78 79 84 84 87 64	Terminal No.	7.1	62	81	84	87	91

Connector Name BCM (BODY CONTROL MODULE) Connector Color BLACK BLACK	Connector No.	M19	၈										_
BLACK 1	ector Name	SS	ΣĞ	٣Ħ		⊱	8	Ż	뜨	ō			
82	ector Color	BL	l Q	ا بخ									_
62 82					11/	17							
82	77 76 75 74 73	3 72	11	0/	69	89	37	98	99	64	63	62	19
	97 96 95 94 93	8 92	91	06	89	88	37	98	85	84	83	82	81

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Signal Name	ROOM_ANT_2_B	ROOM_ANT_2_A
Color of Wire	B/R	M/R
Terminal No.	09	61

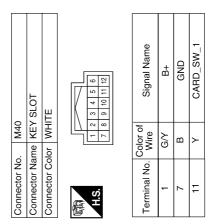
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[COUPE] < WIRING DIAGRAM >

Signal Name	BAT	GND (POWER)	(ILL)	ACC	CAN-H	CAN-L	GND (CIRCUIT)	SECURITY
Color of Wire	M/L	В	В	٨/٨	٦	Ь	В	0/7
Ferminal No.	-	3	4	14	21	22	23	28

Connector Name	$\overset{\circ}{\circ}$											
onnector Color		Ĭ	M N	COMBINATION METER	S	Ξ	H	H				
	WHITE	늘	ш									
高 H.S.												
		$\ \cdot \ $	lK	\parallel / \parallel	닏							
1 2 3 4 5 6 7	∞	6	101	10 11 12 13 14 15 16 17 18 19	13	4	15	9	1	₩	6	8
21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37	7 28	83	30	- 33	æ	怒	35	36		38 39		9

	Connector Name CVT SHIFT SELECTOR	IE	4 5 6 8 10	Signal Name	DETENT_KEY_SW	DETENT_KEY_SW
. M23	me CVT	lor WHI	- 0	Color of Wire	Y/R	G/B
Connector No.	Connector Na	Connector Color WHITE	H.S.	Terminal No.	8	6



Connector No.	. M38	
Connector Name	_	PUSH-BUTTON IGNITION SWITCH
Connector Color	-	BROWN
原 H.S.	<u>- 4</u>	S S S S S S S S S S
Terminal No.	Color of Wire	Signal Name
-	В	GND
4	BR	START_SW
5	В	LOCK
9	Y/L	ACC
7	ГG	NO
8	G/Y	B÷

	REMOTE KEYLESS ENTRY RECEIVER	BLACK	2 6 7	Signal Name	GND	SIGNAL	12V	
, MZ/				Color of Wire	Д	0/7	L/R	
COLINECTOR INC.	Connector Name	Connector Color	H.S.	Terminal No.	1	2	4	

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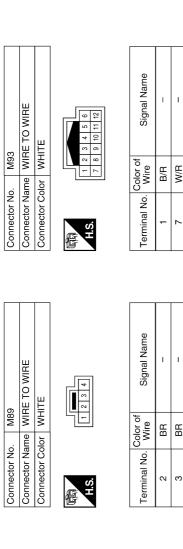
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Sigr			
o ot		~	
Color Wire	B/R	W/R	
Terminal No. Wire	-	2	
Signal Name	I	-	
Color of Wire	BR	BR	
Terminal No. Wire	2	3	
eı			
of Signal Name	ı		
No. Wire	В		
8			

Signal Name	-	
Color of Wire	В	
Terminal No.	9	

Connector Name WIRE TO WIRE Connector Color WHITE

Connector No.

3	FRONT CONSOLE ANTENNA	٨t	1 2	Signal Name	ANT+
. M203		lor GRAY	0	Color of Wire	W/R
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	1

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Connector No. M200 Connector Name WIRE TO WIRE Connector Color WHITE		7		
Connector Name WIF	30 SE TO WIRE	8 3 2		-
Connector No Connector Co Connector Co Connector Co Terminal No.	me WIF	5 7 1 21	Color of Wire	В
	Connector No Connector Na Connector Co	H.S.	Terminal No.	9

Connector No. M131	<u>e</u>	Connector Color WHITE	43 <u>21</u>	Terminal No. Wire Signal Name	2 BR –	c
Connect	Connect	Connect	H.S.	Termina	0	c

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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

[COUPE] < WIRING DIAGRAM >

M207 WHITE Off Sign S	Connector No. E3 Connector No. E6 Connector Name WIRE TO WIRE Connector Name FUSE BLOCK (J/B) Connector Color WHITE	(南)	Terminal No. Color of Signal Name Color of Signal Name Signal Name Color of Color of Signal Name Color of Color of	Connector No.	TRIBUTION Connector Name POWER INSTRIBUTION (GINE ROOM) GINE ROOM) CONNECTOR WHITE	30 R CLUTCH I/L SW (WITH M/T)	grad Name CAN-L 9 10 11 12 13 14 3 4 5 6 7 8 0 (SIGNAL) ESEREZTERE9 (SIGNISE) SIGNISE (SIGNISE) <t< th=""></t<>
Service Control of the control of th	M207 WIRE TO WIRE WHITE	2 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	Signa	E17 IPDM F/R (INTELLIGENT	POWER DISTRIBUTION MODULE ENGINE ROOM)	42 41 40 39 46 45 44 43	Siç

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Connector No. E28	(国本) (日本) (日本) (日本) (日本) (日本) (日本) (日本) (日	Terminal No. Wire Signal Name 1 R 2 R 3 R R	Connector No. E36 Connector Name CLUTCH INTERLOCK SWITCH Connector Color BROWN
E22 JOINT CONNECTOR-E04 WHITE	4 3 2 1	Signal Name	Signal Name
-		Color of Wire P	Color of Wire W W W W W W W W W W W W W W W W W W W
Connector No. Connector Name Connector Color	H.S.	Terminal No.	Terminal No. 8G 8G 15G 20G 20G 20G 27G 27G 29G 82G 82G
nnector No. E21 nnector Name JOINT CONNECTOR-E03 nnector Color WHITE	[] 4 3 2 1 []	minal No. Wire Signal Name 1 L 2 L	16 26 106 116 126 136 146 156 176

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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM > [COUPE]

Con	nnector No. nnector Name nnector Color nninal No. Will 1 F	E38 STOP LAMP SWITCH WHITE	Connector No. E46 Connector Name JUNCTION BLOCK Connector Color WHITE Signal Name Si	Connector No. E50 Connector Name JUNCTION BLOCK Connector Color WHITE Terminal No. Wire Signal Name 55 BR -
Con Con Tem	Connector No. E52 Connector Name STC Connector Color BLA H.S. Color of Terminal No. Wire 1 R 2 LG	E52 (WITH M/T) BLACK Signal Name R -	Connector No. F1 Connector Name WIRE TO WIRE Connector Color WHITE	Connector No. F10 PDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) Connector Color WHITE S3 54 55 56 57 58 S6 57 5
ARKTA2185GR		•		72 W NPSW (WITH QR25DE) 72 BR NPSW (WITH VQ35DE) 74 L START_IG_EGI 80 R STARTER_MOTOR

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Revision: September 2009 SEC-155 2010 Altima

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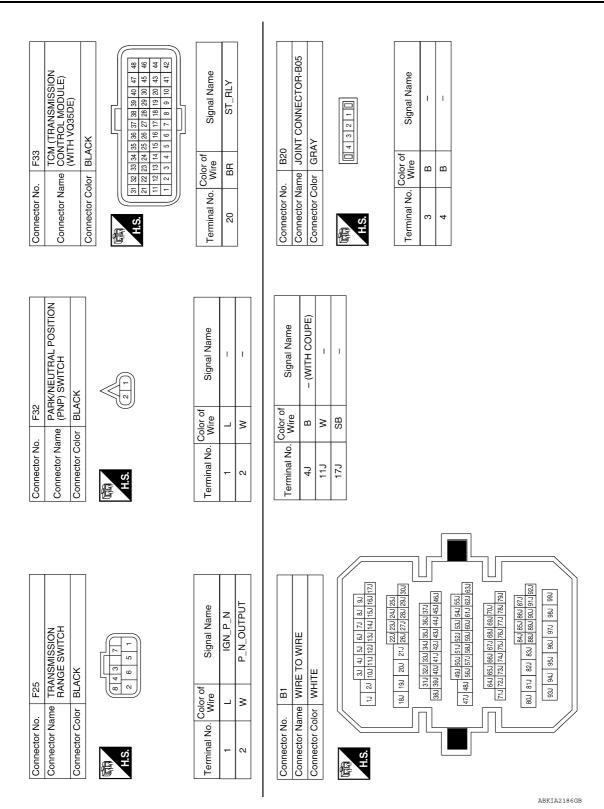
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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< WIRING DIAGRAM > [COUPE]



Connector No.). B104)4
Connector Name		WIRE TO WIRE
Connector Color		BROWN
明S.	1 2 2 2	3
Terminal No.	Color of Wire	Signal Name
10	GR	=

Connector No.). B68	
Connector Name		DOOR SWITCH LH
Connector Color	olor WHITE	ITE
用.S.		
Terminal No.	Color of Wire	Signal Name
2	SB	DOOR SW (DR)

n	REAR PARCEL SHELF ANTENNA	AY	1 2	Signal Name	+LNA	ANT- (WITH COUPE)
. B29		lor GRAY		Color of Wire	Μ	В
connector No.	Connector Name	Connector Color	南 H.S.	Terminal No.	1	2

4o. B109	Name DOOR SWITCH RH	Solor WHITE		Color of Signal Name	(3V) W(3 G) C) G
Connector No.	Connector Name	Connector Color	哥 H.S.	Terminal No.	c

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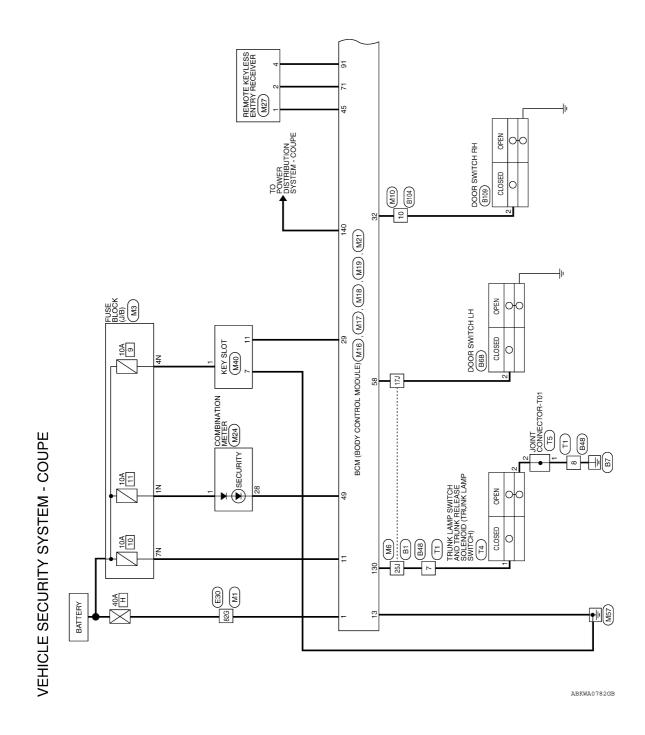
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Revision: September 2009 SEC-157 2010 Altima

VEHICLE SECURITY SYSTEM

Wiring Diagram



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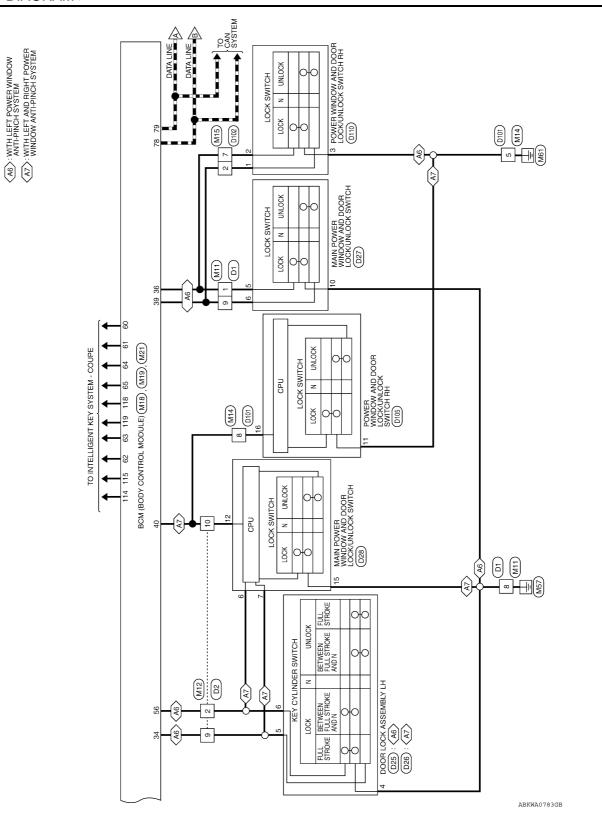
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Revision: September 2009 SEC-159 2010 Altima

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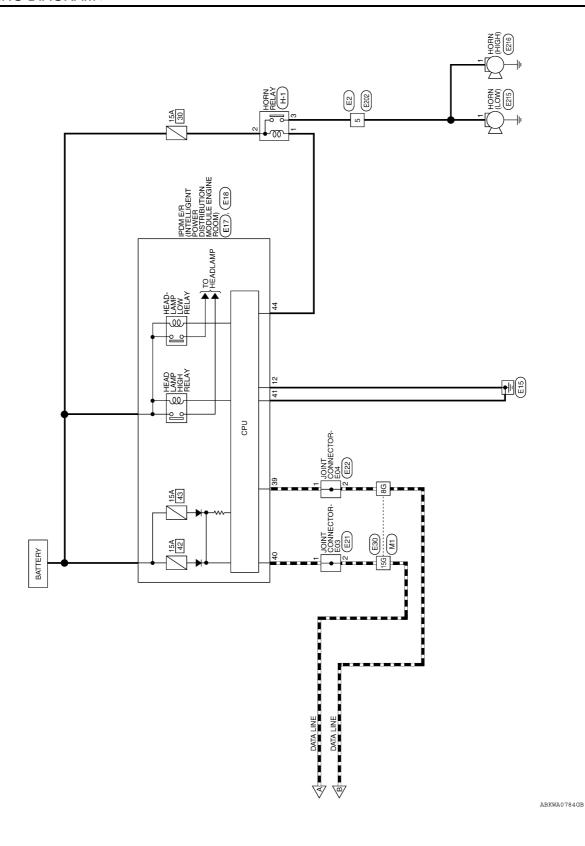
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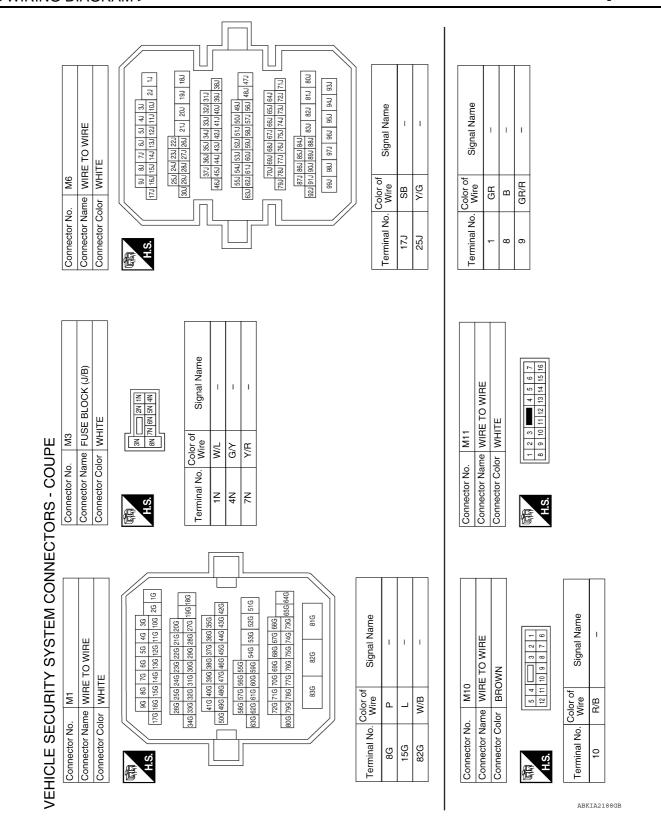
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DOOR_KEY/C_LOCK_ SW DR_DOOR_SW

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Connector No. M12 Connector Name WIRE TO WIRE Connector Color WHITE	Connector No. M14 Connector Name WIRE TO WIRE Connector Color WHITE	Connector No. M15 Connector Name WIRE TO WIRE Connector Color WHITE	M15 WIRE TO WIRE
H.S. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	H.S.	H.S.	2 8 9 10 14 12 12 12 12 12 12 12 12 12 12 12 12 12
Terminal No. Color of Signal Name 2 L/B - 9 L/R - 10 Y/G -	Terminal No. Wire Signal Name 5 B - 8 - 8 Y/G - 1	Terminal No. Wire 2 GR	Signal Name
Connector No. M16 Connector Name BCM (BODY CONTROL MODULE) Connector Color BLACK	Connector No. M17 Connector Name BCM (BODY CONTROL MODULE) Connector Color WHITE	Connector No. M18 Connector Name BCM MOD Connector Color GRE	M18 BCM (BODY CONTROL MODULE) GREEN
H.S.	H.S. (1112 13 14 15 16 17 18 19	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	31 30 29 28 27 26 25 24 23 22 21 20 5 5 5 43 48 47 46 48 48 47 46 48 48 48 48 40 48 48 48 48 48 48 48 48 48 48 48 48 48
Terminal No. Wire Signal Name	Terminal No. Wire Signal Name	Terminal No. Wire	Signal Name FOB_IN_SW_1
	<u> </u>	32 R/B 34 L/R	AS_DOOR_SW DOOR_KEY/C_ UNLOCK_SW
		36 GR/R 39 GR/R	CENTRAL_LOCK_SW CENTRAL_UNLOCK_ SW
			PW_K-LINE
		45 P 49 L/O	GND_RF2_A/L IMMO_LED

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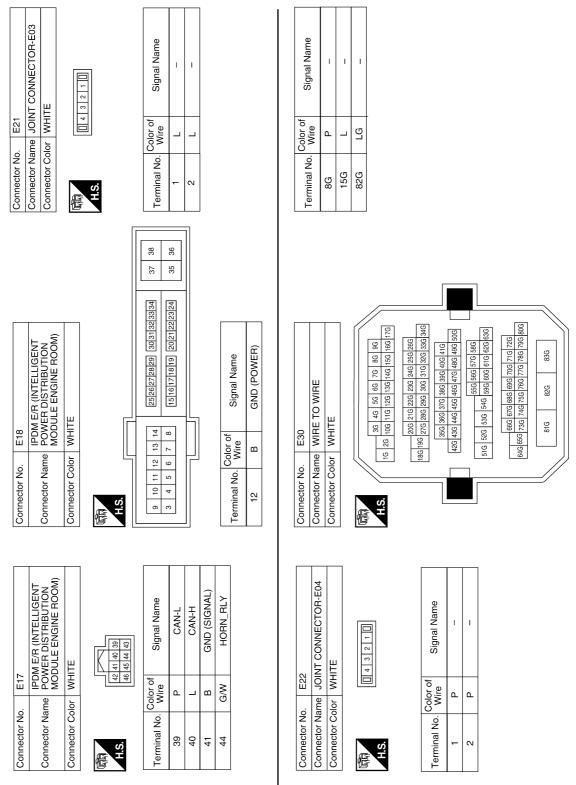
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onnector No.	. M19	6	Connector No.			Connector No.	No.	M24	
onnector Name		BCM (BODY CONTROL	Connector Name		BCM (BODY CONTROL	Connector	Name C	Connector Name COMBINATION METER	
	_	JUULE)	rolo rotocano	-) ()	Connector Color WHITE	Color	/HITE	
onnector Color	_	BLACK		\neg					
			Ø.			僵			
						H.S.			
H.S.						c -	1	\ ;	E
7 27 77 78 79 90 90 90 90 90 90 90 90 90 90 90 90 90	74 73 72 ;	76 75 74 73 72 71 70 89 88 67 66 65 64 83 62 61 60 04 05 04 07 07 07 01 00 80 88 87 88 85 84 88 87 88 81 80 81 80	131 130 129 128 127 151 150 149 148 147	126 125 124 146 145 144	123 122 121 120 119 118 117 116 115 114 113 143 142 141 140 139 138 137 136 136 134 138	112 22 23 1	n 53	29 30 31 32 33 34 35 36 37 38	8 9
2 06 06 76 06	36 06 46	0 0 0 0 0 0 0							
erminal No.	Color of Wire	Signal Name	Terminal No.	Color of Wire	Signal Name	Terminal No.	lo. Color of Wire	of Signal Name	
09	B/B	ROOM_ANT_2_B	114	В	TRUNK_ANT_1_B	-	M/L	BAT	
61	W/R	ROOM_ANT_2_A	115	>	TRUNK_ANT_1_A	28	9	SECURITY	
62	В/У	AS_DOOR_ANT_B	118	9	BACK_DOOR_ANT_B				
63	ГG	AS_DOOR_ANT_A	119	BR/W	BACK_DOOR_ANT_A				
64	۸	DR_DOOR_ANT_B	130	Y/G	TRUNK_SW				
92	Ь	DR_DOOR_ANT_A	140	BB	ENG START SW				
7.1	9	RF1_TUNER_SIGNAL			W/O ESCL				
78	۵	CAN-L							
6/	_	CAN-H							
91	L/R	RF1_POWER_SUPPLY							
		4	N rotocaco	07/14/0		٠	lŀ		
nnector No.			Cormector No.). INI40		Connector No.		E2	
nnector Name		REMOTE KEYLESS ENTRY RECEIVER	Connector Name KEY SLOI	ame KEY SI	SLOI	Connector Name		WIRE TO WIRE	
nnector Color	+	BLACK		_	<u></u>	Connector Color	_	WHITE	
			£				Ĺ		
H.S.		2 3 4	H.S.	7 1 2 8	3 4 5 6 9 10 11 12	H.S.		2 0 1 8 3 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
erminal No.	Color of Wire	Signal Name	Terminal No.	Color of Wire	Signal Name	Terminal No.	No. Wire	of Signal Name	
1	Ь	GND	1	G/Y	B+	5	G	1	
7	9	SIGNAL	7	В	GND				
3	L/R	12V	11	>	CARE_SW_1				

Revision: September 2009 SEC-163 2010 Altima

VEHICLE SECURITY SYSTEM

< WIRING DIAGRAM > [COUPE]



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Connector No. E216 Connector Name HORN (HIGH) Connector Color BLACK LACK ALACK Connector Color of Signal Name 1 G -	Connector No. B48 Connector Name WIRE TO WIRE Connector Color WHITE Salating Salati
Connector No. E215 Connector Name HORN (LOW) Connector Color BLACK	Terminal No. Wire Signal Name 17J SB - 22J BR - 25J W
Connector No. E202 Connector Name WIRE TO WIRE Connector Color WHITE #S \$ 7 6 5 4 Terminal No. Wire Signal Name 5 G	Connector No. B1 Connector Name WIRE TO WIRE Connector Color WHITE 1.1 2u 10u 11u 12u 13u 14u 15u 18u 17u 18u 19u 2u 2u 12u 13u 14u 15u 18u 17u 38u 39u 4uu 11u 12u 13u 14u 15u 18u 17u 38u 39u 4uu 14u 14zu 43u 14u 14zu 43u 14u 49u 56u 56u 56u 66u 70u 54u 56u 56u 66u 70u 54u 56u 56u 66u 70u 54u 56u 17u 12u 13u 17u 17u 17u 17u 17u 80u 18u 18u 18u 18u 18u 18u 18u 18u 18u 18

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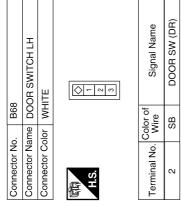
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60	DOOR SWITCH RH	WHITE		Signal Name	DOOR SW (AS)
B109		_		Color of Wire	GR
Connector No.	Connector Name	Connector Color	画 H.S.	Terminal No. Wire	2
	•	•	· <u></u>		

Connector No.	b. B104)4
Connector Name		WIRE TO WIRE
Connector Color	-	BROWN
原列 H.S.	6 1 2	2 3
Terminal No.	Color of Wire	Signal Name
10	GR	-



	15 JOINT CONNECTOR-T01	WHITE	4 3 2 1 1	Signal Name	-	_
		_		Color of Wire	В/Υ	В/У
	Connector No.	Connector Color	明.S.	Terminal No.	1	6

	TRUNK LAMP SWITCH AND TRUNK RELEASE SOLENOID	WHITE	<u>0</u> 4 - 0	Signal Name	-	_
T4				Color of Wire	Μ	В
Connector No.	Connector Name	Connector Color	H.S.	Terminal No. Wire	1	2

	WIRE TO WIRE	WHITE	15 15 15 15 15 15 15 15 15 15 15 15 15 1	Signal Name	I	ı
, T		_	16 15 16	Color of Wire	Μ	Β/Y
Connector No.	Connector Name	Connector Color	是 H.S.	Terminal No.	7	80

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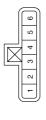
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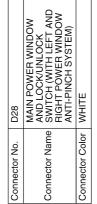
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Connector No.	D25
Connector Name	DOOR LOCK ASSEMBLY LH (WITH LEFT POWER WINDOW ANTI-PINCH SYSTEM)
Connector Color GRAY	GRAY

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Signal Name	GND	DOOR_KEY/C_ UNLOCK_SW	DOOR_KEY/C_ LOCK_SW
Color of Wire	В	L/R	L/B
Terminal No. Wire	4	5	9

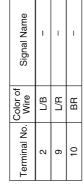




Signal Name	LOCK	UNLOCK	COM	GND
Color of Wire	٦	Я	BR	В
Terminal No. Wire	9	7	12	15

D2	WIRE TO WIRE	WHITE	8 7 6 5 4 3 2 1 16 15 14 13 12 11 10 9
Connector No.	Connector Name WIRE TO WIRE	Connector Color	H.S.





Signal Name	-	I	I	
Color of Wire	L/B	L/R	BR	
Terminal No.	2	6	10	

D27	MAIN POWER WINDOW AND LOCK/UNLOCK SWITCH (WITH LEFT POWER WINDOW ANT- PINCH SYSTEM)	WHITE	
Connector No.	Connector Name	Connector Color WHITE	



Signal Nam	MOG AR	NNFOCI	GND
Color of Wire	G/R	GR/R	В
Terminal No.	2	9	10

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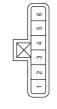
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Connector No.	_	1								
Connector Name WIRE TO WIRE	_	₹	쁘	ĭ	0	l≒	삤			
Connector Color WHITE	_	l¥		ш						
	_	9	2	4	$\ \ $	╓	8	2	-	
9 -	16	15	4	13	16 15 14 13 12 11 10 9	=	9	6	80	
2									۱	_



Signal Name	I	_	
Color of Wire	GR	GR/R	
Terminal No.	1	6	

Connector No.	D26
Connector Name	DOOR LOCK ASSEMBLY LH (WITH LEFT AND RIGHT POWER WINDOW ANTI-PINCH SYSTEM)
Connector Color GRAY	GRAY





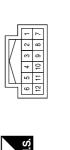
Signal Name	GNÐ	DOOR KEY/C UNLOCK SW	DOOR KEY/C LOCK SW
Color of Wire	В	L/R	L/B
Terminal No.	4	5	9

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Connector No.	D105	
Connector Name	POWE DOOF SWIT AND F	POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH (WITH LEFT AND RIGHT WINDOW ANTI-PINCH SYSTEM)
Connector Color	olor WHITE	
赋 H.S.	8 9 10 11	3 4 7 5 6 7 10 11 12 13 14 15 16
Ferminal No.	Color of Wire	Signal Name
11	В	GND
16	Н	COM

05	POWER WINDO) DOOR LOCK/UN SWITCH RH (WI AND RIGHT WIN ANTI-PINCH SYS	WHITE	3 4 C 5 6 1	of Signal	B
. D105		_	1 2 3 8 9 10	Color of Wire	В
Connector No.	Connector Name	Connector Color	写 图	Terminal No.	11

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



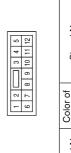
Signal N	_	-	
Color of Wire	GR	GR/R	
Terminal No.	2		

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Connector No.	D101
Connector Name	Connector Name WIRE TO WIRE
Connector Color WHITE	WHITE
斯 H.S.	1 2 m 3 4 5 6 7 8 9 10
Terminal No. Wire	Color of Signal Name

Connector No. D110 POWEI DOOR Connector Name SWITC POWEI PINCH	Connector No. D110 POWER WINDOW AND D00R LOCK/UNLOCK Connector Name SWITCH RH (WITH LEFT POWER WINDOW ANTI-
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Signal Name	LOCK	UNLOCK	GND
Color of Wire	GR	GR/R	В
Terminal No.	-	2	ဗ

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NVIS

Wiring Diagram

BON IRODY CONTROL MODULE) (MIG) (MIT) (MIB) (MIS) (MIS)

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Revision: September 2009 SEC-169 2010 Altima

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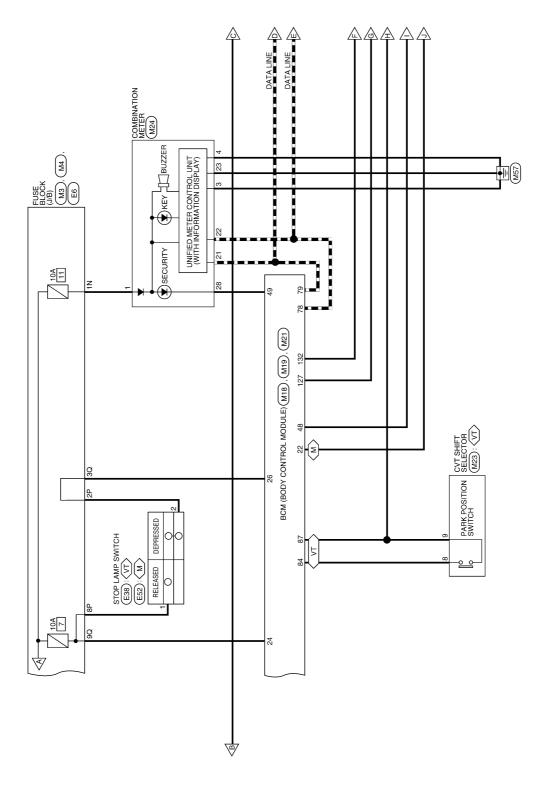
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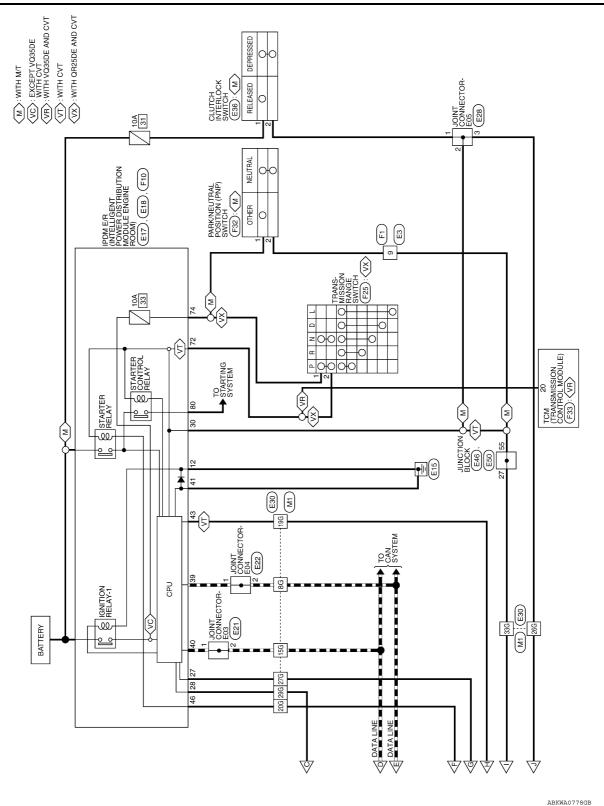
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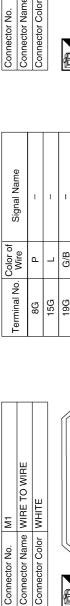
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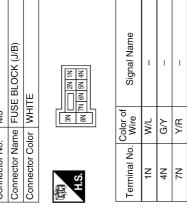
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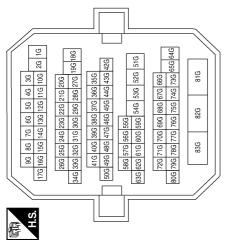
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NVIS CONNECTORS - COUPE

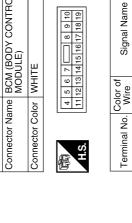




Signal Name	1	I	ı	1	_	ı	ı	1	ı
Color of Wire	Ъ	_	G/B	æ	R/Y	BR/W	BR	B/G	M/B
Terminal No.	8G	15G	19G	20G	26G	27G	29G	33G	82G







BAT_BCM_FUSE

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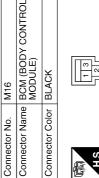
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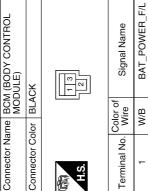
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GND1

ACC_LED

Y/L





Connector No.	M4	
Connector Name	ıme FUS	FUSE BLOCK (J/B)
Connector Color WHITE	lor WHI	TE
H.S.	40 30 100 90	40 30 30 30 10 30 10 10 10 10 10 10 10 10 10 10 10 10 10
Terminal No.	Color of Wire	Signal Name
30	O/L	-
90	B/W	1

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Signal Name	CAN-L	CAN-H	FOB_SLOT_ ILLUMINATION	IGN_ON_LED	AT_DEVICE_OUT	d_THIHS
Color of Wire	۵	٦	R/L	LG	Y/R	G/B
Terminal No.	78	62	80	81	84	28

			1	61 60 81 80				
6	BCM (BODY CONTROL MODULE)	BLACK		70 69 68 67 66 65 64 63 62 90 89 88 87 86 85 84 83 82		Signal Name	FOB_READER_CLOCK	FOB_READER_DATA
. M19				74 73 72 94 93 92		Color of Wire	0/9	0
Connector No.	Connector Name	Connector Color	同 H.S.	79 78 77 76 75 74 73 72 71 99 98 97 96 95 94 93 92 91		Terminal No.	89	69
	•				'			

Connector No.	o. M18	8
Connector Name		BCM (BODY CONTROL MODULE)
Connector Color		GREEN
「所 H.S.		
38 37 36	34 33 32	30 29 28 27 26 25 24 23 22
59 58 57 56 55	54 53 52	51 50 49 48 47 46 45 44 43 42 41
Terminal No.	Color of Wire	Signal Name
22	R/Υ	CLUTCH_SW
24	R/W	STOP_LAMP_LOW_SW
26	O/L	STOP_LAMP_HIGH_SW
29	>	FOB_IN_SW_1
42	В	S/L_LOCK_LED
48	9/H	SHIFT_N/P
49	0/1	IMMO_LED

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ctor No. M23 ctor Name CVT Si	ctor No. M23 ctor Name CVT SHIFT SELECTOR ctor Color WHITE

Connector Name BCM (BODY CONTROL MODULE)

M21

Connector No.

Connector Color GRAY



Signal Name	DETENT_KEY_SW	DETENT_KEY_SW
Color of Wire	Y/R	G/B
Terminal No.	8	6

| 151 | 150 | 129 | 129 | 128 | 128 | 124 | 129 | 122 | 121 | 120 | 119 | 118 | 117 | 116 | 115 | 114 | 113 | 112 | 115 | 116 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119

of Signal Na	DETENT_K	DETENT_K	
Color of Wire	Y/R	G/B	
Terminal No.	8	6	

IGN_USM_CONT1 ST_CONT_USM

BR/W

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Signal Name

Terminal No. Wire

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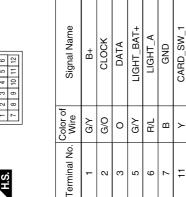
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SEC-173 Revision: September 2009 2010 Altima







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Connector No.

Connector Name COMBINATION METER

M24

Connector No.

Connector Color WHITE

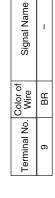


	19 20 39 40									
	10 11 12 13 14 15 16 17 18 30 31 32 33 34 35 36 37 38	Signal Name	ВАТ	GND (POWER)	GND (ILL)	ACC	CAN-H	CAN-L	GND (CIRCUIT)	SECURITY
	6 7 8 9 26 27 28 29	Color of Wire	M/L	В	В	٨/٨	_	Ь	В	0/7
H.S.	1 2 3 4 5 21 22 23 24 25	Terminal No.	-	က	4	14	21	22	23	28











Connector No. M131





Sign		
Color of Wire	BR	BR
Terminal No.	2	3

al Name

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Connector Name WIRE TO WIRE Connector Color WHITE

M89

Connector No.



Signal Name	ı	_
Color of Wire	BR	BR
Terminal No.	2	3

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E21 JOINT CONNECTOR-E03 WHITE	Signal Name	1 1
	Color of Wire	
Connector No. Connector Name Connector Color H.S.	al No.	2

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



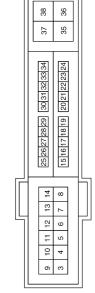
46 45 44 43	Signal Name	CAN-L	CAN-H	GND (SIGNAL)	DETENT_SW	START_CONT
46	Color of Wire	Ь	Γ	В	G/B	BR
	Terminal No.	39	40	41	43	46

Connector No.	E6
Connector Name	Connector Name FUSE BLOCK (J/B)
Connector Color WHITE	WHITE
(京) (16) (16) (16) (16) (16) (16) (16) (16	7P 6P 5P 4P 3P 12P 1P 16P 13P 12P 11P 10P 9P 8P

Signal Name	Î	ı	
Color of Wire	Ь	œ	
Terminal No.	2P	8P	

Signal Name	GND (POWER)	IGN_SIGNAL	PUSH_START_SW	CLUTCH_I/L_SW (WITH M/T)	ECM (WITH CVT)
Color of Wire	В	Μ	SB	ш	BR
Terminal No.	12	22	28	30	30

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



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			Connector No. E36 Connector Name CLUTCH INTERLOCK SWITCH Connector Color BROWN Terminal No. Wire Signal Name 1 W - 2 R -
E28 JOINT CONNECTOR-E05 WHITE	3 2 1 0	Signal Name	Signal Name
$\overline{}$	1 4	Color of Wire R R R	Color of Wire BR BR BR BR CAB SB BR
Connector No. Connector Name Connector Color	品.	Terminal No.	Terminal No. 8G 8G 26G 26G 29G 29G 33G 82G 82G
ONNECTOR-E04	2 1	Signal Name - -	WHRE TO WIRE WHITE 36 46 56 66 76 86 96 26 106 116 126 136 146 156 166 176 200 216 226 236 246 256 286 3190 270 286 286 306 316 286 336 346 356 386 376 386 376 386 386 408 410 426 436 446 456 466 476 486 486 576 586 16 526 536 546 556 606 161 626 636 16 686 676 686 680 706 716 728 16 686 676 686 680 706 716 728 178 736 746 736 776 776 786 796 806
onnector No. E22 DINT CONNECTOR MHITE	H.S.	Color of Similar No. Wire Similar No. Wire Similar Sim	## 150

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

Connector Name JUNCTION BLOCK

Connector No. E46

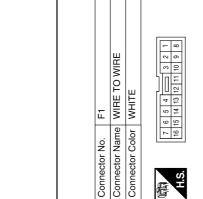
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Signal Name	ı	
Color of Wire	BR	
Terminal No.	55	

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l H	40 39 38 37 36 35 34 38 32	Signal Name
lor WHIT	31 30 29 40 39 38	Color of Wire
Connector Color WHITE	(A)	Terminal No. Wire

OP LAMP SWITCH TH CVT)	IITE	3 4 1	Signal Name	-	-
	lor WF		Color of Wire	Œ	ГG
Connector Na	Connector Co	原列 H.S.	Terminal No.	-	2
	Connector Name STOP LAMP SWITCH (WITH CVT)				



	WIRE TO WIRE	ITE	13 15 17 17 18 18 19 19 19 19 19 19	Signal Name	ı
Ē	ne WIF	or WHITE	7 6 5 4 16 15 14 13	Color of Wire	///
Connector No.	Connector Name	Connector Color	· S.H	Terminal No.	o
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oly rotocaco	r	
Corrector No.		
Connector Na	me STC (WI	Connector Name STOP LAMP SWITCH (WITH M/T)
Connector Color	lor BLACK	CK
咸南 H.S.		2 1
Terminal No.	Color of Wire	Signal Name
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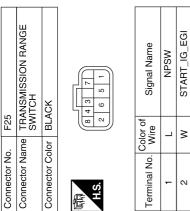
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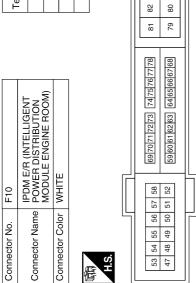
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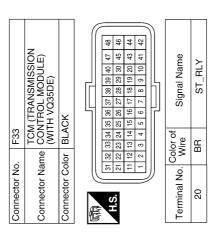
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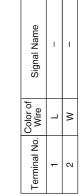


0	Color of	O	olor of		Connector No. F25	F25
	Termina	2	14/5	Signal Name		
M E/B /INTELLIGENT			wire		Connector Na	ne TR
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DDULE ENGINE ROOM)	72		BB	NPSW (WITH VO35DF)	Connector Color BLA	or BL/
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Connector No.	F32
Connector Name	Connector Name PARK/NEUTRAL POSITION (PNP) SWITCH
Connector Color BLACK	BLACK



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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION SYMPTOMS

< SYMPTOM DIAGNOSIS >

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SYMPTOM DIAGNOSIS

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION SYMPTOMS

Symptom Table

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 pr	Reference page		
1. Check power cumply and ground circuit	ВСМ	BCS-42	
Check power supply and ground circuit	IPDM E/R	PCS-23	
2. Check push button ignition switch	PCS-81		
3. Check Intermittent Incident		<u>GI-41</u>	

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VEHICLE SECURITY SYSTEM SYMPTOMS

Symptom Table

Procedure Symptom		dure	Diagnostic procedure	Refer to page
		tom	 Diagnostic procedure 	
1	Vehicle security system cannot be set by	Door switch	Check door switch	<u>DLK-67</u>
		Trunk	Check trunk room lamp switch	DLK-92
		Door outside key	Check key cylinder switch	<u>SEC-98</u> , or <u>SEC-99</u>
		Intelligent Key	Check Intelligent Key battery and function	DLK-115
		_	Check Intermittent Incident	<u>GI-41</u>
	Security indicator does not turn ON.		Check vehicle security indicator	SEC-106
			Check Intermittent Incident	<u>GI-41</u>
2	* Vehicle security	Check door switch	DLK-67	
	system does not sound alarm when ····	Any door is opened.	Check Intermittent Incident	<u>GI-41</u>
3	Vehicle security alarm does not activate.	Horn alarm	Check horn	SEC-102
			Check Intermittent Incident	<u>GI-41</u>
			Check head lamp alarm	SEC-104
			Check Intermittent Incident	<u>GI-41</u>
4	tem cannot be can- celed by ····	Door outside key	Check key cylinder switch	SEC-98, or SEC- 99
			Check Intermittent Incident	<u>GI-41</u>
		Intelligent Key	Check Intelligent Key battery and function	DLK-115
			Check Intermittent Incident	<u>GI-41</u>

^{*:} Check the system is in the armed phase.

NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS SYMPTOMS

< SYMPTOM DIAGNOSIS >

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NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS SYMPTOMS

Symptom Table

Security indicator does not turn ON or flash.

CAUTION:

- Follow Trouble Diagnosis Flowchart referring to "<u>SEC-10, "Work Flow"</u>". 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
Check vehicle security indicator	<u>SEC-106</u>
2. Check Intermittent Incident	<u>GI-41</u>

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PRECAUTIONS

< PRECAUTION > [COUPE]

PRECAUTION

PRECAUTIONS

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

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

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

WARNING:

- When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

PREPARATION

[COUPE] < PREPARATION >

PREPARATION

PREPARATION

Special Service Tool

INFOID:0000000005806087

The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

Tool number (Kent-Moore No.) Tool name		Description	С
— (J-46534) Trim Tool Set		Removing trim components	D
	KITC KITC		Е
	AWII 303ZZ		F

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ON-VEHICLE REPAIR

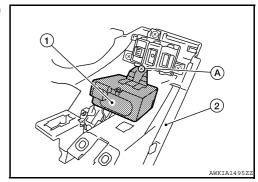
KEY SLOT

Removal and Installation

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REMOVAL

- 1. Remove the instrument lower panel LH. Refer to IP-11, "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 > [COUPE]

PUSH BUTTON IGNITION SWITCH

Removal and Installation

REMOVAL

1. Remove push-button ignition switch from cluster lid using Tool.

Tool number : — (J-46534)

2. Disconnect electrical harness connector from push-button ignition switch.

INSTALLATION

Installation is in the reverse order of removal.

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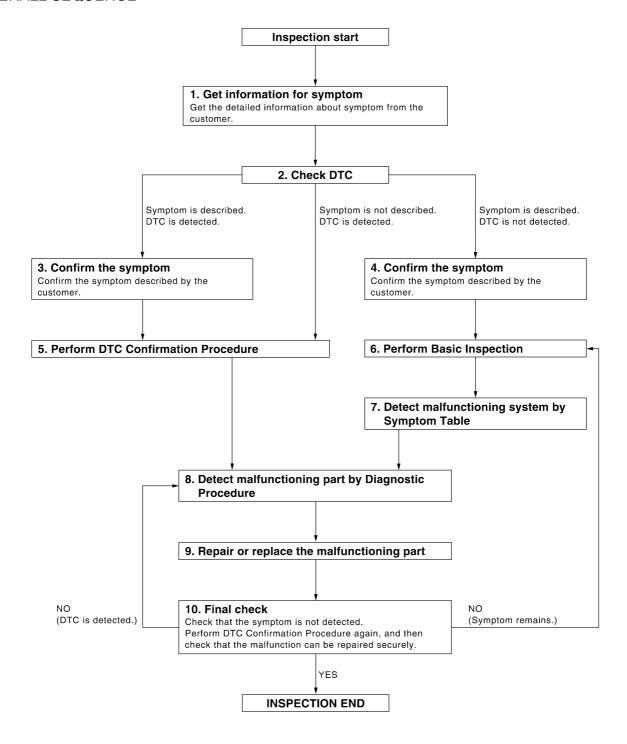
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BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

OVERALL SEQUENCE



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DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[SEDAN WITH INTELLIGENT KEY]

${f 1}$.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

- Check "Self Diagnostic Result" with CONSULT-III.
- 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.
- 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 relationship between the symptom and the condition when the symptom is detected.

>> GO TO 5

4. CONFIRM THE SYMPTOM

Confirm the symptom described by the customer.

Connect CONSULT-III to the vehicle in "Data Monitor" mode and check real time diagnosis results.

Verify relationship between the symptom and the condition when the symptom is detected.

>> GO TO 6

${f 5.}$ 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 BCS-69, "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-41, "Intermittent Incident".

6. PERFORM BASIC INSPECTION

Perform SEC-189, "Basic Inspection".

Inspection End >>GO TO 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: <u>SEC-357</u>, "Symptom Table".
- Vehicle security system: <u>SEC-358</u>, "Symptom Table".

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DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[SEDAN WITH INTELLIGENT KEY]

• Nissan vehicle immobilizer system-NATS: SEC-359, "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.
- 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

The engine start function, door lock function, power distribution system and NATS-IVIS/NVIS in the Intelligent Key system are closely related to each other regarding control. 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

 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 <u>DLK-413</u>, "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 <u>SEC-357</u>, "Symptom Table".

3.CHECK POWER SUPPLY INDICATOR SWITCHING

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

Is each position indicator illuminating?

YES >> GO TO 4

NO >> Refer to <u>SEC-265</u>, "<u>Description</u>".

4. CHECK VEHICLE SECURITY SYSTEM

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-189, "Vehicle Security Operation Check".

Vehicle Security Operation Check

1.INSPECTION START

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

NOTE:

Before starting operation check, open front windows.

>> GO TO 2

2.CHECK SECURITY INDICATOR LAMP

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

Does security indicator lamp illuminate?

YES >> GO TO 3

NO >> Perform diagnosis and repair. Refer to SEC-281, "Component Function Check".

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PRE-INSPECTION FOR DIAGNOSTIC

< BASIC INSPECTION >

[SEDAN WITH INTELLIGENT KEY]

3. CHECK ALARM FUNCTION

- 1. After 30 seconds, security indicator lamp will start to blink.
- 2. Open any door or hood before unlocking with Intelligent Key or mechanical key, or open trunk lid without Intelligent Key or mechanical key.

Does alarm function properly?

YES >> GO TO 4

NO >> Ch

- >> Check the following.
 - The vehicle security system does not phase in alarm mode. Refer to <u>SEC-358, "Symptom Table"</u>.
 - Alarm (horn, headlamp and hazard lamp) do not operate. Refer to SEC-358, "Symptom Table".

4. CHECK ALARM CANCEL OPERATION

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

Does alarm (horn, headlamp and hazard lamp) stop?

YES >> Inspection End.

NO >> Check door lock function. Refer to DLK-244, "INTELLIGENT KEY: System Description".

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[SEDAN WITH INTELLIGENT KEY]

INSPECTION AND ADJUSTMENT ECM RE-COMMUNICATING FUNCTION

ECM RE-COMMUNICATING FUNCTION: Description

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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

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1.PERFORM ECM RE-COMMUNICATING FUNCTION

- Install ECM.
- 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".
- Start engine.

Can engine be started?

YES >> Procedure is completed.

NO >> Initialize control unit. Refer to CONSULT-III Operation Manual.

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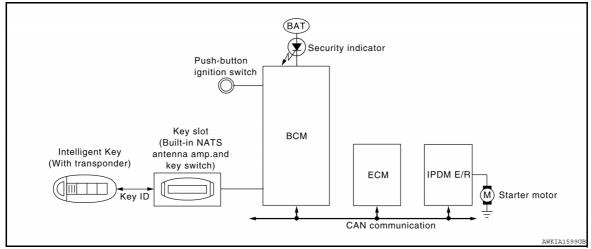
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FUNCTION DIAGNOSIS

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

System Diagram

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System Description

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INPUT/OUTPUT SIGNAL CHART

Switch	Input signal to BCM	BCM function	Actuator		
Push-button ignition switch	Push switch				
CVT shift selector (CVT models)	P range				
Transmission range switch (CVT models)	N, P range	Engine start function			
Clutch interlock switch (M/T models)	Clutch ON/OFF		 Starter relay (IPDM E/R) Starter control relay (IPDM E/R) Starter motor KEY warning lamp 		
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, 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

< 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-244, "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.
- The Intelligent Key sends the request signal and transmits the Intelligent Key ID signal to the BCM via the remote keyless entry receiver.
- The BCM receives the Intelligent Key ID signal and verifies it with the registered ID.
- BCM 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). 6.
- BCM transmits the starter request signal via CAN communication to IPDM E/R and turns the starter relav 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.

10. 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.)

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 <u>SEC-192</u>, "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 Intelligent Key failures (Intelligent Key warning indicator is not ON)

Reset Condition of Battery Saver System

CVT models

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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< FUNCTION DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

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.

- 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.

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
- 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.

	Engine start/stop condition		Push-button ignition switch op-	
Power supply position	Brake pedal (CVT) /clutch pedal (M/T)	CVT selector lever position	eration frequency	
$LOCK \to ACC$	Not depressed	Any position	1	
$LOCK \to ACC \to ON$	Not depressed	Any position	2	
$\begin{array}{c} LOCK \to ACC \to ON \to \\ OFF \end{array}$	Not depressed	Any position	3	
LOCK → START ACC → START ON → START (Engine start)	Depressed	P or N position (*1)	I [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.

- 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)

[•] At vehicle speed of 4 km/h (2 MPH) or less, the engine can start only when the brake pedal is depressed.

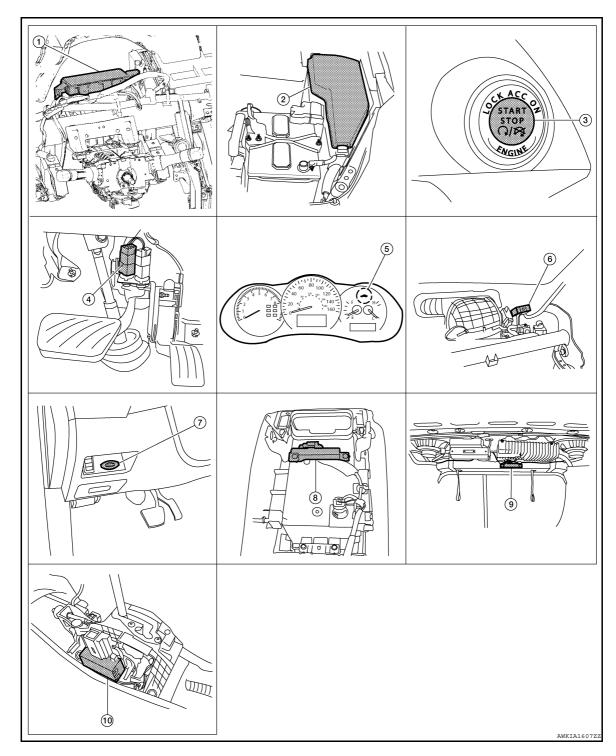
[•] At vehicle speed of 4 km/h (2 MPH) or more, the engine can start even if the brake pedal is not depressed. (It is the same as "Engine stall return operation while driving".)

^{*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.

[SEDAN WITH INTELLIGENT KEY]

Component Parts Location

INFOID:0000000005429667



- Body control module (view with instrument panel removed)
- Stop lamp switch (view with lower driver instrument panel removed)
- 7. Key slot
- 10. CVT shift selector (park position switch)
- IPDM E/R
- Combination meter
- Front console antenna (bottom view of 9. console)
- Push button ignition switch
- Remote keyless entry receiver (view with instrument panel removed)
 - Rear parcel shelf antenna

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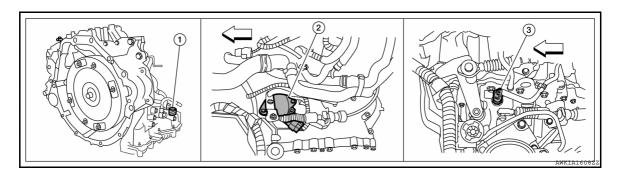
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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

[SEDAN WITH INTELLIGENT KEY]



 \Leftarrow : Front

- Transmission control module F33 connector (transmission range switch inside trans) (CVT/VQ)
- Transmission range switch (CVT/ QR)
- 3. Park neutral position switch (M/T)

Component Description

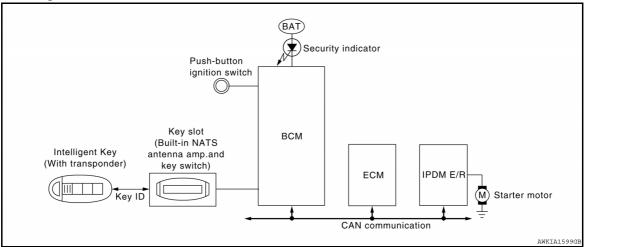
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Component	Reference
Push-button ignition switch	SEC-239
Door switch	DLK-290
CVT shift selector (park position switch)	<u>SEC-243</u>
Inside key antenna	DLK-60
Remote keyless entry receiver	DLK-335
Stop lamp switch	<u>SEC-236</u>
Transmission range switch	<u>SEC-252</u>
Clutch switch	<u>SEC-219</u>
Starter relay	<u>SEC-215</u>
Starter control relay	<u>SEC-213</u>
Security indicator	<u>SEC-281</u>
Key warning lamp	<u>SEC-280</u>

[SEDAN WITH INTELLIGENT KEY]

NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS)

System Diagram



System Description

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INPUT/OUTPUT SIGNAL CHART

Switch	Input signal to BCM	BCM function	Actuator	
Push-button ignition switch	Push switch			
CVT shift selector (CVT models)	P range			
Transmission range switch (CVT models)	N, P range		Starter relay (IPDM E/R) Starter control relay (IPDM E/R)	
Clutch interlock switch (M/T models)	Olistala ONI/OFF		Starter control relay (IPDM E/R)Starter motor	
Stop lamp switch	Brake ON/OFF		KEY warning lamp	
Key slot	Key ID	_	Security indicator lamp	
Each door switch	Door open/close			S
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.

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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-186, "Work Flow".
- If ECM other than Genuine NISSAN is installed, the engine cannot be started. For ECM replacement procedure, refer to SEC-191, "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.

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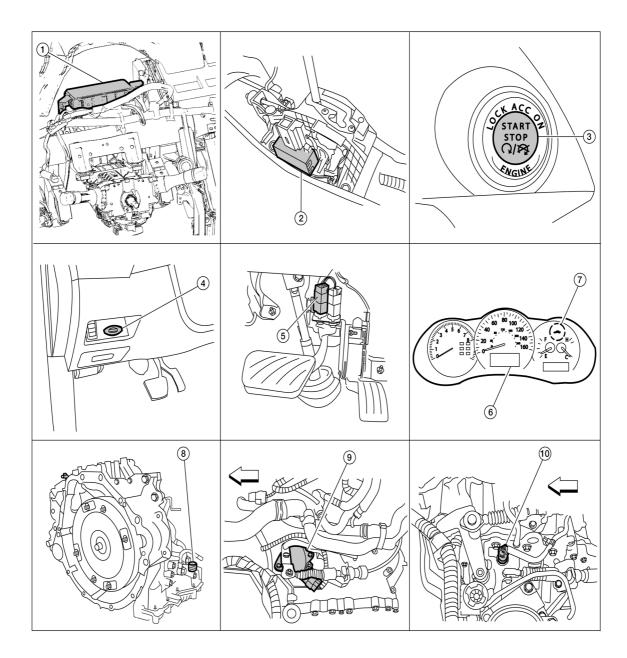
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Component Parts Location



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Body control module M16, M17, M18, M19, M21 2. CVT shift selector (park position 3. (view with instrument panel removed)

Key slot M40

switch) M23 (with CVT)

Stop lamp switch E38 (with CVT) 6. Information display E52 (with M/T) (view with lower LH instrument

Push button ignition switch M38

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panel removed)

NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS) | SEDAN WITH INTELLIGENT KEY]

< FUNCTION DIAGNOSIS >

7. Security indicator lamp

- Transmission control module (Park neutral position switch) F16 (with CVT/VQ)
- Transmission range switch F25 (with CVT/QR)

Park neutral position switch F32 (with M/T)

Component Description

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Component	Reference
Push-button ignition switch	<u>SEC-265</u>
Door switch	DLK-290
CVT shift selector (park position switch)	<u>SEC-243</u>
Inside key antenna	<u>DLK-60</u>
Remote keyless entry receiver	DLK-335
Stop lamp switch	<u>SEC-236</u>
Transmission range position switch	<u>SEC-252</u>
Clutch switch	<u>SEC-219</u>
Starter relay	<u>SEC-256</u>
Starter control relay	<u>SEC-242</u>
Security indicator	<u>SEC-281</u>
Key warning lamp	SEC-280

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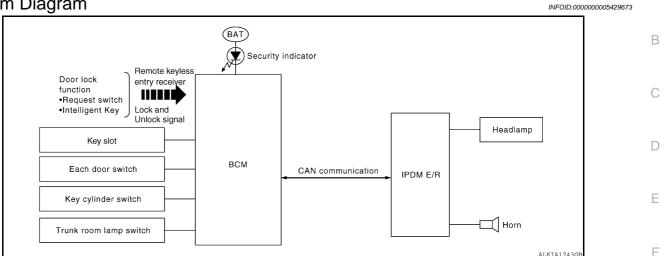
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VEHICLE SECURITY SYSTEM

System Diagram

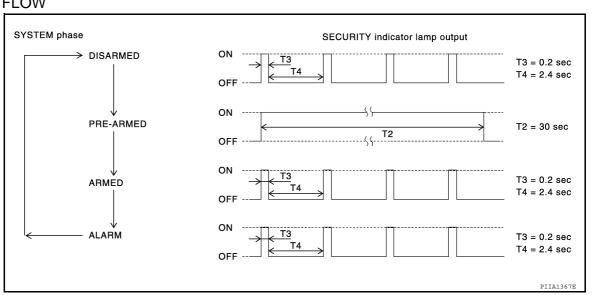


System Description

INPUT/OUTPUT SIGNAL CHART

Switch	Input signal to BCM	BCM system	Actuator		
All door switch	Open or class				
Trunk room lamp switch	Open or close				
Door key cylinder switch			• IPDM E/R		
Door lock and unlock switch	Lock or unlock	Valida a societa socie	Head lamp		
Door request switch		Vehicle security system	• Horn		
Intelligent Voy	Lock or unlock		k or unlock Security indicator lamp		
Intelligent Key	Panic alarm				
Key slot	Intelligent Key sensing			ľ	

OPERATION FLOW



SETTING THE VEHICLE SECURITY SYSTEM

Initial Condition

Ignition switch is in OFF position.

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VEHICLE SECURITY SYSTEM

< FUNCTION DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

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.
- 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.

Component Parts Location

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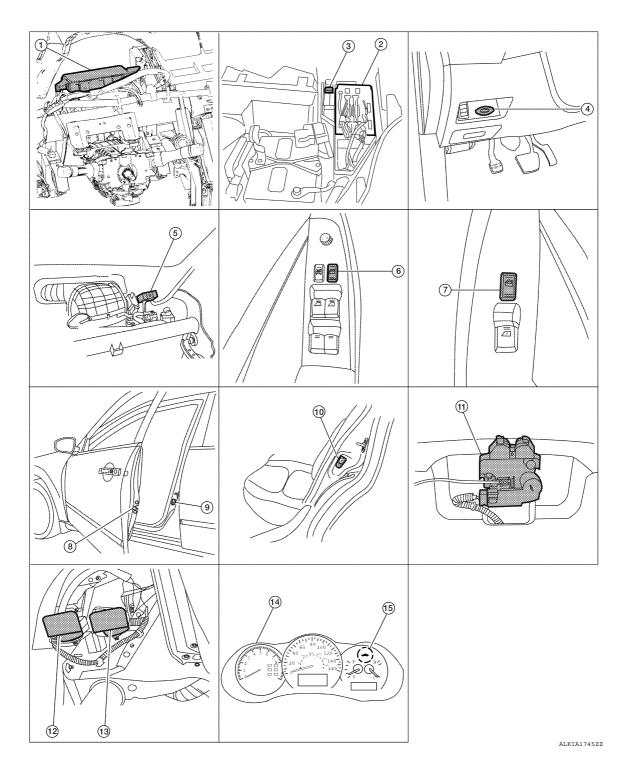
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- Body control module M16, M17, M18, M19, M21 (view with instrument panel removed)
- 4. Key slot M40

- 2. IPDM E/R E17, E18
- 5. Remote keyless entry receiver M27 (view with instrument panel removed)
- 3. Horn relay H-1
- Main power window and door lock/ unlock switch D7, D8 (with LH and RH front power window anti-pinch system

D12, D8 (with LH front only power window anti-pinch system

VEHICLE SECURITY SYSTEM

< FUNCTION DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

- 7. Power window and door lock/unlock switch RH D110
- Front door lock assembly LH (key cylinder switch) D10 (with left and right front power window anti-pinch system)
 D14 (with left front only power window anti-pinch system)
- Front door switch LH B8 RH B108

- 10. Rear door switch LH B18 RH B116
- 11. Trunk lamp switch and trunk release solenoid B28
- 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:0000000005429676

Component	Reference
BCM	<u>SEC-201</u>
Horn relay	<u>SEC-277</u>
Security indicator	<u>SEC-281</u>
Door switch	DLK-290
Door lock actuator	DLK-323
Trunk lid lock assembly	DLK-328
Door key cylinder switch	DLK-302
Door lock and unlock switch	DLK-293
Key slot	<u>DLK-300</u>
Remote keyless entry receiver	<u>DLK-335</u>

[SEDAN WITH INTELLIGENT KEY]

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM: Diagnosis Description

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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 DIAGNOSTIC RESULT	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	Read and save the vehicle specification.Write the vehicle specification when replacing BCM.

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.

Cuatara	Sub system selection item	Diagnosis mode		
System		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 system1	MULTI REMOTE ENT	×	×	×
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER	×	×	×
Air conditioner	AIR CONDITONER		×	
Intelligent Key system2	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	×	×	×

^{1:} With remote keyless entry system

COMMON ITEM: CONSULT-III Function

INFOID:0000000005783013

ECU IDENTIFICATION

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^{2:} With intelligent Key system

DIAGNOSIS SYSTEM (BCM)

[SEDAN WITH INTELLIGENT KEY]

< FUNCTION DIAGNOSIS >

Displays the BCM part No.

SELF-DIAG RESULT

Refer to SEC-305, "DTC Index".

INTELLIGENT KEY

INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY) INFOID:000000005783016

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. • MODE1: 1 minute • MODE2: 5 minutes • MODE3: 30 seconds • MODE4: 2 minutes	
LOCK/UNLOCK BY I-KEY	Door lock/unlock function by door request switch mode can be changed to operate (ON) or not operate (OFF) in this mode.	
ENGINE START BY I-KEY	Engine start function mode can be changed to operate (ON) or not operate (OFF) with this mode.	
TRUNK/GLASS HATCH OPEN	Buzzer reminder function mode by back door 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. • MODE1: 0.5 sec. • MODE2: Non-operation • MODE3: 1.5 sec.	
PW DOWN SET	Unlock button pressing time on Intelligent Key button can be selected from the following with this mode. • MODE1: 3 sec. • MODE2: Non-operation • MODE3: 5 sec.	
TRUNK OPEN DELAY	Trunk button pressing time on Intelligent Key button can be selected from the following with this mode. • MODE1: 0.5 sec. • MODE2: 1.5 sec. • MODE3: OFF: No delay	
LO- BATT OF KEY FOB WARN	Intelligent Key low battery warning mode can be changed to operate (ON) or not operate (OFF) with this mode.	
ANTI KEY LOCK IN FUNCTI	Key reminder function mode can be changed to operate (ON) or not operate (OFF) with this mode.	
HAZARD ANSWER BACK	Hazard reminder function mode can be selected from the following with this mode. • LOCK ONLY: Door lock operation only • UNLOCK ONLY: Door unlock operation only • LOCK/UNLOCK: Lock/unlock operation • OFF: Non-operation	
ANS BACK I-KEY LOCK	Buzzer reminder function (lock operation) mode by door request switch (driver side and passenger side) can be selected from the following with this mode. • Horn chirp: Sound horn • Buzzer: Sound Intelligent Key warning buzzer • OFF: Non-operation	
ANS BACK I-KEY UNLOCK	Buzzer reminder function (unlock operation) mode by door request switch can be changed to operate (ON) or not operate (OFF) with this mode.	
SHORT CRANKING OUTPUT	Starter motor can be forcibly activated.	
INSIDE ANT DIAGNOSIS	This function allows inside key antenna self-diagnosis.	
HORN WITH KEYLESS LOCK	Horn reminder function mode by Intelligent Key button can be changed to operate (ON) or not operate (OFF) with this mode.	

< FUNCTION DIAGNOSIS >

SELF-DIAG RESULT

Refer to DLK-149, "DTC Index".

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

 $^{^{\}star 1}$: It is displayed but does not operate on M/T models.

ACTIVE TEST

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 $^{^{\}star2}$: OFF is displayed when brake pedal is depressed while brake switch power supply is OFF.

Test item	Description	
BATTERY SAVER	This test is able to check interior room lamp operation. The interior room lamp is activated after "ON" on CONSULT-III screen is touched.	
PW REMOTO DOWN SET	This test is able to check power window down operation. The power window down is activated after "ON" on CONSULT-III screen is touched.	
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation. The Intelligent Key warning buzzer is activated after "ON" on CONSULT-III screen is touched.	
INSIDE BUZZER	This test is able to check warning chime in combination meter operation. • Take away warning chime sounds when "TAKE OUT" on CONSULT-III screen is touched. • Key warning chime sounds when "KEY" on CONSULT-III screen is touched. • OFF position warning chime sounds when "KNOB" on CONSULT-III screen is touched.	
INDICATOR	This test is able to check warning lamp operation. • "KEY" Warning lamp illuminates when "KEY ON" on CONSULT-III screen is touched. • "KEY" Warning lamp blinks when "KEY IND" on CONSULT-III screen is touched.	
INT LAMP	This test is able to check interior room lamp operation. The interior room lamp is activated after "ON" on CONSULT-III screen is touched.	
LCD	This test is able to check meter display information • Engine start information displays when "BP N" on CONSULT-III screen is touched. • Engine start information displays when "BP I" on CONSULT-III screen is touched. • Key ID warning displays when "ID NG" on CONSULT-III screen is touched. • P position warning displays when "SFT P" on CONSULT-III screen is touched. • Intelligent Key insert information displays when "INSRT" on CONSULT-III screen is touched. • Intelligent Key low battery warning displays when "BATT" on CONSULT-III screen is touched. • Take away through window warning displays when "NO KY" on CONSULT-III screen is touched. • Take away warning display when "OUTKEY" on CONSULT-III screen is touched. • OFF position warning display when "LK WN" on CONSULT-III screen is touched.	
FLASHER	This test is able to check hazard warning lamp operation. The hazard warning lamps are activated after "LH/RH/OFF" on CONSULT-III screen is touched.	
HORN	This test is able to check horn operation. The horn is activated after "ON" on CONSULT-III screen is touched.	
P RANGE	This test is able to check CVT shift selector power supply CVT shift selector power is supplied when "ON" on CONSULT-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. ACC indicator in push-ignition switch illuminates when "ON" on CONSULT-III screen is touched.	
IGNITION ON IND	This test is able to check ON indicator in push-ignition switch operation. ON indicator in push-ignition switch illuminates when "ON" on CONSULT-III screen is touched.	
KEY SLOT ILLUMI	This test is able to check key slot illumination operation. Key slot illumination blinks when "ON" on CONSULT-III screen is touched.	
TRUNK/BACK DOOR	This test is able to check back door opener actuator open operation. This actuator opens when "OPEN" on CONSULT-III screen is touched.	

THEFT ALM

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

INFOID:0000000005783017

WORK SUPPORT

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

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" or 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.
CDL LOCK SW	Indicates [ON/OFF] condition of lock signal from door lock/unlock switch LH and RH.
CDL UNLOCK SW	Indicates [ON/OFF] condition of unlock signal from door lock/unlock switch LH and RH.
KEY CYL LK-SW	Indicates [ON/OFF] condition of lock signal from front door key cylinder switch.
KEY CYL UN-SW	Indicates [ON/OFF] condition of unlock signal from front door key cylinder switch.
TR/BD OPEN SW	Indicates [ON/OFF] condition of trunk opener switch.
TRNK/HAT MNTR	Indicates [ON/OFF] condition of trunk lid.
RKE-LOCK	Indicates [ON/OFF] condition of LOCK signal from Intelligent Key.
RKE-UNLOCK	Indicates [ON/OFF] condition of UNLOCK signal from Intelligent Key.
RKE-TR/BD	Indicates [ON/OFF] condition of TRUNK OPEN signal from Intelligent Key.

^{* :} Sedan

ACTIVE TEST

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

IMMU

IMMU: CONSULT-III Function (BCM - IMMU)

INFOID:0000000005783018

DATA MONITOR

Revision: September 2009 SEC-209 2010 Altima

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DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

Monitor item	Content	
CONFRM ID ALL		
CONFIRM ID4		
CONFIRM ID3	Indicates [YET] at all time. Switch to [DONE] when a registered Intelligent Key is inserted into the key slot.	
CONFIRM ID2		
CONFIRM ID1		
TP 4		
TP 3	Indicates the number of ID which has been registered.	
TP 2	mulcates the number of ib which has been registered.	
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:000000005429682

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-26, "CAN Communication Signal Chart".

DTC Logic

DTC DETECTION LOGIC

CONSULT-III dis- play description	DTC Detection Condition	Possible cause
CAN COMM CIR- CUIT [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. Transmission Receiving (ECM) Receiving (VDC/TCS/ABS) Receiving (METER/M&A) Receiving (TCM) Receiving (MULTI AV) Receiving (IPDM E/R)

Diagnosis Procedure

INFOID:0000000005429684

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-41, "Intermittent Incident".

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U1010 CONTROL UNIT (CAN)

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

U1010 CONTROL UNIT (CAN)

DTC Logic

DTC DETECTION LOGIC

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

Diagnosis Procedure

INFOID:0000000005429686

1. REPLACE BCM

When DTC U1010 is detected, replace BCM.

>> Replace BCM. Refer to BCS-96, "Removal and Installation".

B210B STARTER CONTROL RELAY

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B210B STARTER CONTROL RELAY

Description INFOID:0000000005429702

Starter control relay, integrated in IPDM E/R, permits the starter relay operation when in N or P position.

DTC Logic INFOID:0000000005429703

DTC DETECTION LOGIC

NOTE:

• If DTC B210B is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-211, "DTC Logic".

• If DTC B210B is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-212, "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. Starter control relay ON/OFF signal from BCM Clutch interlock or shift transmission range switch input signal 	• IPDM E/R

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 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?

>> Refer to SEC-213, "Diagnosis Procedure". YES

NO >> Inspection End.

Diagnosis Procedure

1.INSPECTION START

Turn ignition switch ON.

- 2. Check "Self diagnostic result" with CONSULT-III.
- 3. Touch "ERASE".
- **Perform DTC Confirmation Procedure.**

See PCS-32, "DTC Index".

Is the DTC B210B displayed again?

YES >> Replace IPDM E/R. Refer to PCS-47, "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:000000005429705

Starter control relay, integrated in IPDM E/R, permits the starter relay operation when in N or P position.

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B210C is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-211, "DTC Logic".
- If DTC B210C is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-212, "DTC Logic"</u>.

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. Starter control relay ON/OFF signal from BCM Clutch interlock or shift transmission range switch input signal 	• 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 <u>SEC-214</u>, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000005429707

1. INSPECTION START

- Turn ignition switch ON.
- 2. Check "Self diagnostic result" with CONSULT-III.
- Touch "ERASE".
- 4. Perform DTC Confirmation Procedure.

Refer to PCS-32, "DTC Index".

Is the DTC B210C displayed again?

YES >> Replace IPDM E/R. Refer to PCS-47, "Removal and Installation".

NO >> Inspection End.

B210D STARTER RELAY

Description (INFOID:0000000005429708

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

DTC DETECTION LOGIC

NOTE:

- If DTC B210D is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-211, "DTC Logic".
- If DTC B210D is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-212, "DTC Logic".
- If DTC B210D is displayed with DTC B2617, first perform the trouble diagnosis for DTC B2617. Refer to <u>SEC-262</u>, "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. Starter control relay ON/OFF signal from BCM Clutch interlock or shift transmission range switch input 	• 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 <u>SEC-215</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to PCS-129, "SEDAN: Wiring Diagram".

1. CHECK STARTER RELAY POWER SUPPLY CIRCUIT

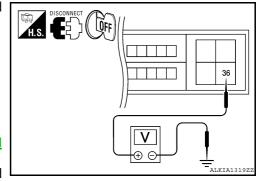
- Turn ignition switch OFF.
- 2. Disconnect IPDM E/R harness connector.
- Check voltage between IPDM E/R harness connector and ground.

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

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to <u>PCS-47, "Removal and Installation"</u>.

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



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B210E STARTER RELAY

Description INFOID:000000005429711

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

DTC DETECTION LOGIC

NOTE:

- If DTC B210E is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-211, "DTC Logic".
- If DTC B210E is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-212, "DTC Logic"</u>.

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. Starter control relay ON/OFF signal from BCM Clutch interlock or shift transmission range switch input 	

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-216, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000005429713

Regarding Wiring Diagram information, refer to SEC-347, "Wiring Diagram".

1.INSPECTION START

Check which type of transmission the vehicle is equipped with.

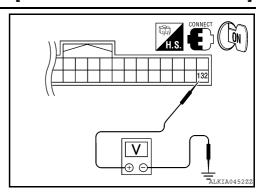
Which type of transmission

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

2. CHECK STARTER RELAY OUTPUT SIGNAL/CVT MODELS

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

3. Check voltage between BCM harness connector and ground.



BCM connector		Ground		Condition	Voltage (V)	
Connector	Terminal	Glound	Ignition switch	Brake pedal	CVT selector lever	voltage (v)
M21 132 Ground		ON	Doprossed	P or N	Battery voltage	
1012 1	M21 132 Ground ON Depressed		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.
- 2. Disconnect BCM harness connector.
- 3. Check voltage between BCM harness connector and ground.

BCM co	onnector		Condition		_
Connector	Terminal	Ground	Ignition switch	Clutch pedal	Voltage (V)
M21	132	Ground	OFF	Not depressed	0
1012 1	132	Sibulia	511	Depressed	Battery voltage

THIS CONNECT CON 132

Is the inspection result normal?

YES >> GO TO 5 NO >> GO TO 4

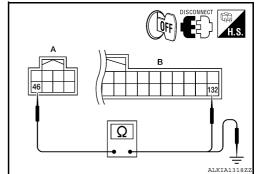
4. CHECK STARTER RELAY OUTPUT SIGNAL CIRCUIT

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

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

3. Check continuity between BCM harness connector and ground.

IPDI	M E/R	Ground	Continuity	
Connector	Terminal	Glound		
A: E17	46	Ground	No	



Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-47, "Removal and Installation".

NO >> Repair harness connector.

5.CHECK STARTER RELAY POWER SUPPLY CIRCUIT

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B210E STARTER RELAY

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[SEDAN WITH INTELLIGENT KEY]

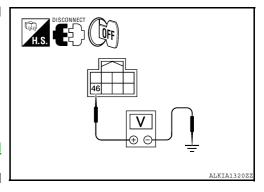
- Turn ignition switch OFF.
- 2. Disconnect IPDM E/R harness connector.
- Check voltage between IPDM E/R harness connector and

IPDN	И E/R	Ground	Voltage (V)
Connector	Terminal	Ground	voltage (v)
E17	E17 46		Battery voltage

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-47, "Removal and Installation".

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



< COMPONENT DIAGNOSIS >

B210F TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

Description INFOID:0000000005429714

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

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

DTC Logic INFOID:0000000005429715

DTC DETECTION LOGIC

NOTE:

- If DTC B210F is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-211, "DTC Logic"
- If DTC B210F is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-211, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B210F	INTER LOCK/TRANS- MISSION RANGE SW ON	IPDM E/R detects a mismatch between the signals below for 1 second or more. • Clutch interlock input signal (M/T models) • Shift transmission range switch input signal (CVT models) • Shift position signal from BCM (CAN)	Harness or connectors [Transmission range switch circuit is open or shorted (CVT models)] or (Clutch interlock switch circuit is open or shorted.) Clutch interlock switch (M/T models) Transmission range switch (CVT models)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 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
- Check "Self diagnostic result" with CONSULT-III.

Is DTC detected?

>> Refer to SEC-219, "Diagnosis Procedure". YES

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-347, "Wiring Diagram".

1.INSPECTION START

Check which type of transmission the vehicle is equipped with.

Which type of transmission

CVT >> GO TO 2

M/T >> GO TO 5

YES

2.CHECK DTC WITH BCM

Refer to BCS-70, "DTC Index".

Is the inspection result normal? >> GO TO 3

NO >> Repair or replace malfunctioning parts.

3.CHECK TRANSMISSION RANGE SWITCH INPUT SIGNAL

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< COMPONENT DIAGNOSIS >

- 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	Ground	Condition		voltage (v)
			CVT coloctor	P or N	0
E18	30	Ground	CVT selector - lever	Other than above	Battery voltage

Is the inspection result normal?

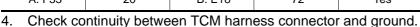
>> Replace IPDM E/R. Refer to PCS-47, "Removal and YES Installation".

NO >> (VQ35DE) GO TO 4 NO >> (QR25DE) GO TO 10

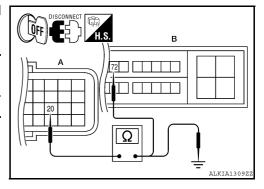
4. CHECK TRANSMISSION RANGE SWITCH CIRCUIT

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

TO	TCM IPDM E/R			Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: F33	20	B: E18	72	Yes



TO	CM	Ground	Continuity	
Connector	Terminal	Glound		
A: F33	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.

ВСМ		Ground	Co	ndition	Voltage (V)
Connector	Terminal	Ground	Condition		voltage (v)
M18	22	Ground	Clutch pedal	Not depressed	0
IVITO	22	Ground	Ciulcii pedai	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.
- 2. Disconnect IPDM E/R harness connector.
- 3. Turn ignition switch ON.

< COMPONENT DIAGNOSIS >

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

IPDM E/R		Ground	_	ondition	Voltage (V)
Connector	Terminal	Orodria	Condition		voltage (v)
E18 30		0 Ground	Clutch	Not depressed	0
LIO	30	Giodila	pedal	Depressed	Battery voltage

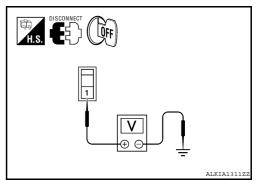
Is the inspection result normal?

YES >> Replace the IPDM E/R. Refer to PCS-47, "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 inte	rlock switch	Ground	Voltage (V)	
Connector	Terminal	Oround	voltage (v)	
E36	1	Ground	Battery voltage	

Is the inspection result normal?

>> GO TO 8 YES

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

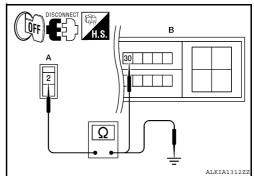
8. CHECK CLUTCH INTERLOCK SWITCH CIRCUIT

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

Clutch inte	rlock switch	IPDN	Л E/R	Continuity
Connector	Terminal	Connector	Terminal	Continuity
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	Ground	Continuity
A: E36	2	Ground	No



Is the inspection result normal?

YES >> GO TO 9

>> Repair harness or connector. NO

9. CHECK CLUTCH INTERLOCK SWITCH

Refer to SEC-223, "Component Inspection".

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< COMPONENT DIAGNOSIS >

Is the inspection result normal?

>> Replace the IPDM E/R. Refer to PCS-47, "Removal and Installation".

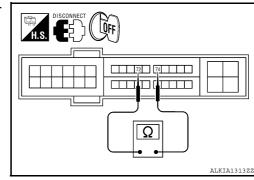
NO >> Replace clutch interlock switch.

10. CHECK TRANSMISSION RANGE 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	Tern	ninals	Condition		Continuity
			Transmis-	P or N	Yes
F10	72	74	sion range switch posi- tion	Other	No



Is the inspection result normal?

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

11. CHECK TRANSMISSION SWITCH CIRCUIT FOR SHORT

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

IPDI	M E/R	Ground	Continuity
Connector	Terminal	Glound	Continuity
F10	72	Ground	No
1 10	74	Giound	INO

72 74 72,74

Is the inspection result normal?

>> Replace the IPDM E/R. Refer to PCS-47, "Removal and YES Installation".

NO >> Repair or replace harness.

12. CHECK TRANSMISSION SWITCH INPUT SIGNAL CIRCUIT

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

Transmission	n range switch	IPDM E/R		Continuity
Connector	Terminal	Connector Terminal		Continuity
A: F25	1	B: F10	74	Yes
A. F25	2	D.110	72	163

Check continuity between transmission range switch harness connector and ground.

T.S.	DISCONNECT H.S.
1,2	72 74 1
	72,74 Ω 1,111572

Transmission range switch		Ground	Continuity	
Connector	Terminal	Ground	Continuity	
A: F25	1 A: E25		No	
A. F25	2	Ground	INO	

Is the inspection result normal?

YES >> Replace transmission range switch.

NO >> Repair harness or connector.

13. CHECK INTERMITTENT INCIDENT

< COMPONENT DIAGNOSIS >

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

Component Inspection

1. CHECK CLUTCH INTERLOCK SWITCH

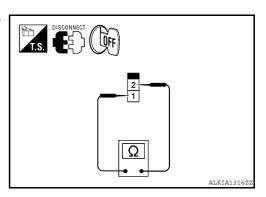
- Turn ignition switch OFF.
- 2. Disconnect clutch interlock switch harness connector.
- Check continuity between clutch interlock switch under the following conditions.

Clutch inte	Clutch interlock switch		Condition		
Ter	minal	Condition		Continuity	
1	2	Clutch pedal	Not depressed	No	
ı	2	Ciuton pedal	Depressed	Yes	

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace clutch interlock switch.



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SEC-223 Revision: September 2009 2010 Altima

< COMPONENT DIAGNOSIS >

B2110 TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

Description INFOID:0000000005429718

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

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

DTC Logic INFOID:0000000005429719

DTC DETECTION LOGIC

NOTE:

- If DTC B2110 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-211, "DTC Logic".
- If DTC B2110 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-212, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2110	INTER LOCK/ TRANSMISSION RANGE SW	IPDM E/R detects mismatch between the signals below for 1 second or more. • Clutch interlock input signal (M/T models) • Shift NP switch input signal (CVT models)	Harness or connectors [Transmission range switch circuit is open or shorted (CVT models)] or (Clutch interlock switch circuit is open or shorted.) Clutch inter lock switch (MT models) Transmission range switch (CVT models)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 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
- Check "Self diagnostic result" with CONSULT-III.

Is DTC detected?

YFS >> Refer to SEC-224, "Diagnosis Procedure".

>> Inspection End. NO

Diagnosis Procedure

INFOID:0000000005429720

Regarding Wiring Diagram information, refer to SEC-347, "Wiring Diagram".

1.INSPECTION START

Check which type of transmission the vehicle is equipped with.

Which type of transmission

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

2.CHECK DTC WITH BCM

Refer to BCS-70, "DTC Index".

Is the inspection result normal?

YES >> GO TO 3

>> Repair or replace malfunctioning parts. NO

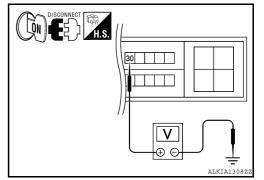
 ${f 3.}$ CHECK TRANSMISSION RANGE SWITCH INPUT SIGNAL

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< COMPONENT DIAGNOSIS >

- Turn ignition switch OFF.
- Disconnect IPDM E/R harness connector.
- 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	Ground	Condition		voltage (v)
			. CVT selector		0
E18	30	Ground	lever	Other than above	Battery voltage



Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-47, "Removal and Installation".

NO >> (VQ35DE) GO TO 4 NO >> (QR25DE) GO TO 10

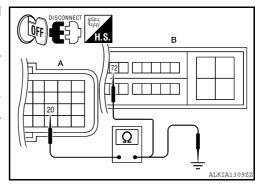
4. CHECK TRANSMISSION RANGE SWITCH CIRCUIT

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

ТС	TCM		IPDM E/R	
Connector	Terminal	Connector	Terminal	Continuity
A: F33	20	B: E18	72	Yes

Check continuity between TCM harness connector and ground.

TCM		Ground	Continuity	
Connector	Terminal	Ground	Continuity	
A: F33	20	Ground	No	



Is the inspection result normal?

YES >> GO TO 13

NO >> Repair harness or connector.

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	Co	ndition	Voltage (V)
Connector	Terminal	Ground	Condition		voltage (v)
M18	22	Ground	Clutch pedal	Not depressed	0
IVITO	22	Giodila	Ciutcii pedai	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.
- 2. Disconnect IPDM E/R harness connector.
- Turn ignition switch ON.

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< COMPONENT DIAGNOSIS >

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

IPDM E/R		Ground Co		ondition	Voltage (V)
Connector	Terminal	Ground	Condition		voitage (v)
E18	30	Ground	Clutch	Not depressed	0
E10	30	Giodila	pedal	Depressed	Battery voltage

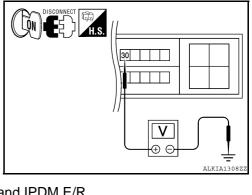
Is the inspection result normal?

YES >> Replace the IPDM E/R. Refer to PCS-47, "Removal and Installation".



7.CHECK CLUTCH INTERLOCK SWITCH POWER SUPPLY

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



H.S. DISCONNECT (DFF)	
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Clutch inte	rlock switch	Ground	Voltage (V)	
Connector	Terminal	Oround	voltage (v)	
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.

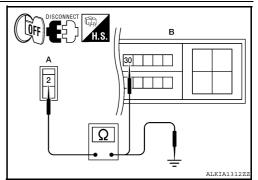
8. CHECK CLUTCH INTERLOCK SWITCH CIRCUIT

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

Clutch interlock switch		IPDN	Continuity	
Connector	Terminal	Connector Terminal		Continuity
A: E36	2	B: E18	30	Yes

Check continuity between clutch interlock switch harness connector and ground.

Clutch inte	rlock switch	Ground	Continuity
Connector Terminal		Ground	Continuity
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-228, "Component Inspection".

B2110 TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH MPONENT DIAGNOSIS > [SEDAN WITH INTELLIGENT KEY]

< COMPONENT DIAGNOSIS > Is the inspection result normal?

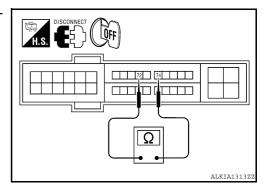
YES >> Replace the IPDM E/R. Refer to PCS-47, "Removal and Installation".

NO >> Replace clutch interlock switch.

10. CHECK TRANSMISSION RANGE SWITCH CIRCUIT FOR CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Check continuity between IPDM E/R harness connector terminals 72 and 74.

IPDM E/R			Condition		Continuity
Connector	Terminals		Condition		Continuity
	Transmis-	P or N	Yes		
F10	72	74	sion range switch posi- tion	Other	No



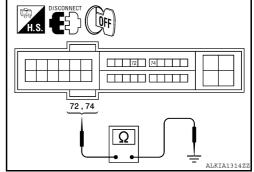
Is the inspection result normal?

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

11. CHECK TRANSMISSION RANGE SWITCH CIRCUIT FOR SHORT

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

IPDM E/R		Ground	Continuity	
Connector	Terminal	Glound	Continuity	
F10	72	Ground	No	
FIU	74	Giodila	INO	



Is the inspection result normal?

YES >> Replace the IPDM E/R. Refer to PCS-47, "Removal and Installation".

NO >> Repair or replace harness.

12. CHECK TRANSMISSION RANGE SWITCH INPUT SIGNAL CIRCUIT

- 1. Disconnect transmission range switch harness connector.
- 2. Check continuity between transmission range switch and IPDM E/R harness connectors.

Transmission range switch		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: F25	1	B: F10	74	Yes
A. 1 25	2	D.110	72	163

 Check continuity between transmission range switch harness connector and ground.

T.S.	DISCONNECT H.S.
A 1 2	B
	72,74 \(\overline{\Omega}\)

Transmission	range switch	Ground	Continuity	
Connector Terminal		Giodila	Continuity	
A: F25	1	Ground	No	
A.125	2	Ground	140	

Is the inspection result normal?

YES >> Replace transmission range switch.

NO >> Repair harness or connector.

13. CHECK INTERMITTENT INCIDENT

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< COMPONENT DIAGNOSIS >

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

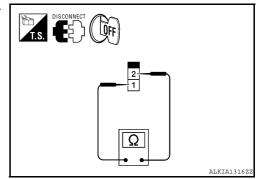
Component Inspection

INFOID:0000000005429721

1. CHECK CLUTCH INTERLOCK SWITCH

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

Clutch interlock switch		Condition		Continuity
Terminal				Continuity
1	2	Clutch pedal	Not depressed	No
'		Ciuton pedai	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:000000005429722

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

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2190			Harness or connectors
P1610	NATS ANTENNA AMP	Inactive communication between key slot and BCM.	(The key slot circuit is open or shorted) • Key slot • BCM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Insert Intelligent Key into the key slot.
- Check "Self Diagnostic Result" with CONSULT-III.

Is DTC detected?

YES >> Refer to <u>SEC-229</u>, "<u>Diagnosis Procedure</u>".

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 <u>SEC-229</u>, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to <u>SEC-347</u>, "Wiring Diagram".

1. INSPECTION START

Check the case in which DTC is detected.

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

In which case is DTC detected?

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

2. CHECK KEY SLOT INPUT SIGNAL

- Turn ignition switch OFF.
- Disconnect key slot harness connector.

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Revision: September 2009

B2190, P1610 NATS ANTENNA AMP

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

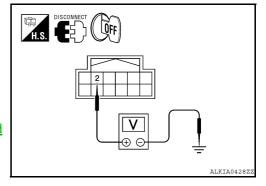
3. Check voltage between key slot harness connector and ground.

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

Is the inspection result normal?

YES >> Replace key slot. Refer to <u>SEC-362</u>, "Removal and <u>Installation"</u>.

NO >> GO TO 3



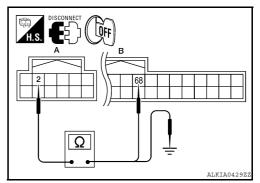
3. CHECK KEY SLOT CIRCUIT

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

Key slot		ВСМ		Continuity
Connector	Terminal	Connector	Terminal	Continuity
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	Ground	Continuity	
	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	Key slot		Continuity	
Connector	Terminal	Ground	Continuity	
M40	3	Ground	Yes	

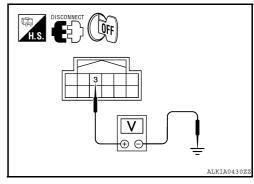
Is the inspection result normal?

YES >> Replace key slot. Refer to <u>SEC-362</u>, "Removal and <u>Installation"</u>.

NO >> GO TO 6

6. CHECK KEY SLOT COMMUNICATION SIGNAL CIRCUIT

Disconnect BCM harness connector.



B2190, P1610 NATS ANTENNA AMP

< COMPONENT DIAGNOSIS >

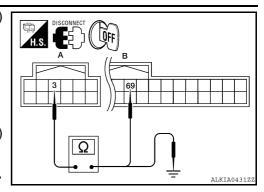
[SEDAN WITH INTELLIGENT KEY]

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	Continuity
A: M40	3	B: M19	69	Yes

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

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



Is the inspection result normal?

YES >> GO TO 8

NO >> Repair harness or connector.

7.CHECK KEY SLOT GROUND CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect key slot harness connector.
- Check continuity between key slot harness connector and ground.

Key	/ slot	Ground	Continuity
Connector	Terminal	Ground	
M40	7	Ground	Yes



Is the inspection result normal?

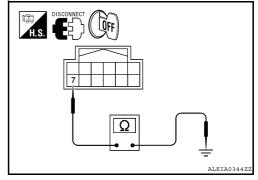
YES >> GO TO 8

NO >> Repair harness or connector.

8. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "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:000000005429725

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

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2191	DIFFERENCE OF	The ID verification results between BCM and Intel-	Intelligent Key
P1615	KEY	ligent Key are NG. The registration is necessary.	The ingent 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 <u>SEC-232</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000005429727

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, IMMU-ECM

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B2192, P1611 ID DISCORD, IMMU-ECM

Description INFOID:0000000005429728

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:0000000005429729

DTC DETECTION LOGIC

NOTE:

- If DTC B2192 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-211, "DTC Logic".
- If DTC B2192 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-212, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2192	ID DISCORD, IMMU-	The ID verification results between BCM and ECM	• BCM
P1611	ECM	are NG. The registration is necessary.	• ECM

DTC CONFIRMATION PROCEDURE

${f 1}$.PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON under the following conditions:
- CVT selector lever is in the P or N position.
- Do not depress the brake pedal.
- Check "Self Diagnostic Result" with CONSULT-III.

Is DTC detected?

YES >> Refer to <u>SEC-233</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000005429730

${f 1}$. 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:000000005429731

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:000000005429732

DTC DETECTION LOGIC

NOTE:

- If DTC B2193 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-211, "DTC Logic".
- If DTC B2193 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-212, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2193			Harness or connectors (The CAN)
P1612	CHAIN OF ECM- IMMU	Inactive communication between ECM and BCM.	(The CAN communication line is open or shorted)BCMECM

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.
- Check "Self Diagnostic Result" with CONSULT-III.

Is DTC detected?

YES >> Refer to <u>SEC-234, "Diagnosis Procedure"</u>.

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000005429733

1.REPLACE BCM

- Replace BCM. Refer to <u>BCS-96</u>, "Removal and Installation".
- 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.

B2195 ANTI-SCANNING

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B2195 ANTI-SCANNING

Description INFOID:000000005804671

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

DTC Logic

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions.

CVT models

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

M/T models

- Do not depress clutch pedal
- 2. Check "Self-diagnostic result" using CONSULT-III.

Is DTC detected?

YES >> Refer to <u>SEC-235</u>, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

1. CHECK SELF-DIAGNOSTIC RESULT-1

- Perform "Self-diagnostic result" of BCM using CONSULT-III.
- Erase DTC.
- 3. Perform DTC Confirmation Procedure. Refer to SEC-235, "DTC Logic".

Is DTC B2195 detected?

YES >> GO TO 2.

NO >> Inspection End

2. CHECK EQUIPMENT OF THE VEHICLE

Check that unspecified accessory part related to engine start is not installed.

Is unspecified accessory part related to engine start installed?

YES >> GO TO 3.

NO >> Replace BCM. Refer to BCS-96, "Removal and Installation".

3.CHECK SELF-DIAGNOSTIC RESULT-2

- Obtain the customers approval to remove unspecified accessory part related to engine start, and then remove it.
- Perform "Self-diagnostic result" of BCM using CONSULT-III.
- Erase DTC.
- 4. Perform DTC Confirmation Procedure. Refer to SEC-235, "DTC Logic".

Is DTC B2195 detected?

YES >> Replace BCM. Refer to BCS-96, "Removal and Installation".

NO >> Inspection End

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Revision: September 2009 SEC-235 2010 Altima

[SEDAN WITH INTELLIGENT KEY]

B2555 STOP LAMP

Description INFOID:000000005429734

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

DTC DETECTION LOGIC

DTC No.	Trouble diagno- sis 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.	Harness or connectors (stop lamp switch circuit is open or shorted) Stop lamp switch Fuse

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Depress the brake pedal and wait for at least 1 second.
- 2. Check "Self Diagnostic Result" with CONSULT-III.

Is DTC detected?

YES >> Refer to <u>SEC-236</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

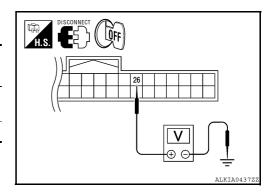
INFOID:0000000005429736

Regarding Wiring Diagram information, refer to <a>SEC-347, "Wiring Diagram".

1. CHECK STOP LAMP SWITCH INPUT SIGNAL

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

В	CM	Ground	Stop lamp	Voltage [V]	
Connector	Terminal	Orouna	switch position	voitage [v]	
M18 26 Gr		Ground	Depressed	Battery volt- age	
			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

1. Disconnect stop lamp switch harness connector.

B2555 STOP LAMP

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

Check voltage between stop lamp harness connector and ground.

Stop lan	np switch	Ground	Voltage [V]
Connector	Terminal	Giodila	
E38 (with CVT) E52 (with M/T)	1	Ground	Battery voltage

DISCONNECT OFF

Is the inspection result normal?

YES >> GO TO 3

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

3. CHECK STOP LAMP SWITCH CIRCUIT

Check continuity between stop lamp switch harness connector E38 (with CVT) E52 (with M/T) (A) terminal 2 and BCM harness connector M18 (B) terminal 26.

Stop lamp switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: E38 (with CVT) E52 (with M/T)	2	B: M18	26	Yes

Check continuity between stop lamp switch harness connector E38 (with CVT) E52 (with M/T) A) terminal 2 and ground.

H.S. DISCONNECT OFF	
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Stop lan	np switch	Ground	Continuity	
Connector	Terminal	Giodila	Continuity	
A: E38 (with CVT) E52 (with M/T)	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-237, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5

NO >> Replace stop lamp switch.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

Component Inspection

1. CHECK STOP LAMP SWITCH

Turn ignition switch OFF.

2. Disconnect stop lamp switch harness connector.

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INFOID:0000000005429737

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B2555 STOP LAMP

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

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Check continuity between stop lamp switch terminals under the following conditions.

Stop lamp switch		Condition		Continuity
Terr	minal	Condition		Continuity
1 2	Brako podal	Not depressed	No	
'	2	Brake pedal	Depressed	Yes

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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:0000000005429738

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:0000000005429739

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.	 Harness or connectors (Push-button ignition switch circuit is shorted.) Push-button ignition switch

DTC CONFIRMATION PROCEDURE

${f 1}$.PERFORM DTC CONFIRMATION PROCEDURE

- Start the engine and wait for at least 100 seconds.
- Check "Self Diagnostic Result" with CONSULT-III.

Is DTC detected?

YES >> Refer to SEC-239, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-347, "Wiring Diagram".

${f 1}$.CHECK PUSH-BUTTON IGNITION SWITCH INPUT SIGNAL

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

Push-button i	gnition switch	Ground	Voltage [V]
Connector	Terminal	Giodila	
M38	4	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 2

>> GO TO 4 NO 2.CHECK PUSH-BUTTON IGNITION SWITCH

Refer to SEC-240, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 3

NO >> Replace push-button ignition switch. Refer to SEC-363, "Removal and Installation".

3. CHECK INTERMITTENT INCIDENT

Refer to GI-41. "Intermittent Incident".

>> Inspection End.



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B2556 PUSH-BUTTON IGNITION SWITCH

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

4. CHECK PUSH-BUTTON IGNITION SWITCH CIRCUIT FOR SHORT

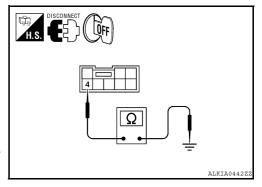
- 1. Disconnect BCM harness connector and IPDM E/R harness connector.
- 2. Check continuity between push-button ignition switch harness connector and ground.

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

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-96, "Removal and Installation"</u>.

NO >> Repair harness or connector.



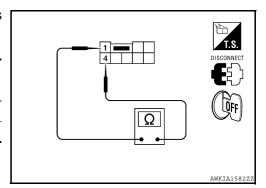
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Component Inspection

1. CHECK PUSH-BUTTON IGNITION SWITCH

- 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		Condition	Continuity	
1	4	Pressed	Yes	
ı		Not pressed	No	



Is the inspection result normal?

YES >> Inspection End.

NO

>> Replace push-button ignition switch. Refer to <u>SEC-363</u>. "Removal and Installation".

B2557 VEHICLE SPEED

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B2557 VEHICLE SPEED

Description INFOID:0000000005429742

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

DTC DETECTION LOGIC

NOTE:

• If DTC B2557 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-211, "DTC Logic".

 If DTC B2557 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-212, "DTC Logic"</u>.

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 One is 10 km/h or more and the other is 4 km/h or less.	Wheel sensorUnified meterABS 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 <u>SEC-241</u>, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000005429744

${f 1}.$ CHECK DTC WITH "ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)"

Check "Self Diagnostic Result" with CONSULT-III. Refer to BRC-39, "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

[SEDAN WITH INTELLIGENT KEY]

B2560 STARTER CONTROL RELAY

Description INFOID:000000005429745

Starter control relay, integrated in IPDM E/R, permits the starter relay operation when in N or P position.

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2560 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-211, "DTC Logic".
- If DTC B2560 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-212, "DTC Logic"</u>.

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 <u>SEC-242</u>, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000005429747

1. CHECK DTC WITH IPDM E/R

Check "Self Diagnostic Result" with CONSULT-III. Refer to PCS-32, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace malfunctioning parts.

2. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

B2601 SHIFT POSITION

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B2601 SHIFT POSITION

Description INFOID:0000000005429748

BCM confirms the shift position with the following 2 signals.

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

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2601 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-211, "DTC Logic".
- If DTC B2601 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-212, "DTC Logic".
- If DTC B2601 is displayed with DTC B2605, first perform the trouble diagnosis for DTC B2605. Refer to <u>SEC-254, "DTC Logic"</u>.

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	Harness or connectors (CVT shift selector circuit is open or shorted.) CVT shift selector

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.
- 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 <u>SEC-243</u>, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to <a>SEC-347, "Wiring Diagram".

1. CHECK CVT SHIFT SELECTOR POWER SUPPLY

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

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Revision: September 2009

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B2601 SHIFT POSITION

< COMPONENT DIAGNOSIS >

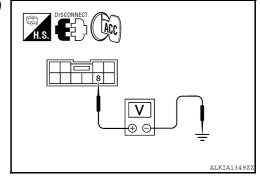
[SEDAN WITH INTELLIGENT KEY]

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

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

Is the inspection result normal?

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



2.CHECK CVT SHIFT SELECTOR POWER SUPPLY CIRCUIT

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

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

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

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84	
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В	СМ	Ground	Continuity
Connector	Connector Terminal		Continuity
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 SHIFT SELECTOR CIRCUIT (BCM)

- Disconnect BCM harness connector and IPDM E/R harness connector.
- 2. Check continuity between BCM harness connector M19 (A) ter- | minal 87 and CVT shift selector (park position switch) harness connector M23 (B) terminal 9.

В	BCM CVT shift selecto 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.

H.S. DISCONNECT OFF
A 9 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
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В	CM	Ground	Continuity
Connector	Connector Terminal		Continuity
A: M19	87	Ground	No

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair harness or connector.

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

Disconnect BCM harness connector.

B2601 SHIFT POSITION

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

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

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

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

DISCONNECT OFF
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	ft selector tion switch)	Ground	Continuity
Connector	Terminal		
A: M23	9	Ground	No

Is the inspection result normal?

YES >> GO TO 5

NO >> Repair harness or connector.

CHECK CVT SHIFT SELECTOR

Refer to SEC-245, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 6

NO >> Replace CVT shift selector. Refer to TM-252, "Removal and Installation" (RE0F09B) or TM-424, "Removal and Installation" (RE0F10A).

6. CHECK INTERMITTENT INCIDENT

Refer to GI-41. "Intermittent Incident".

>> Inspection End.

Component Inspection

INFOID:0000000005429751

1. CHECK CVT SHIFT SELECTOR (PARK POSITION SWITCH)

Turn ignition switch OFF.

Disconnect CVT shift selector (park position switch) harness connector.

Check continuity between CVT shift selector (park position switch) terminals as follows.

(park posit	t selector	Condition		Continuity
ierr	ninal			
8	9	CVT selector lever	P position	No
	9	9 CV i Selector lever	Other than above	Yes

Is the inspection result normal?

YES >> Inspection End. NO

>> Replace CVT shift selector. Refer to TM-252, "Removal and Installation" (RE0F09B) or TM-424, "Removal and Installation" (RE0F10A).

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[SEDAN WITH INTELLIGENT KEY]

INFOID:0000000005429754

B2602 SHIFT POSITION

Description INFOID:000000005429752

BCM confirms the shift position with the following 2 signals.

- CVT selector lever
- Speed signal from meter

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2602 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-211, "DTC Logic".
- If DTC B2602 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-212, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2602	SHIFT POSITION	BCM detects the following status for 10 seconds. • Shift position is in P position • Vehicle speed is 4km/h (2 MPH) or more • Ignition switch is in the ON position	Harness or connectors (CVT drive circuit is open or shorted) CVT shift selector (park position switch) Combination meter

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

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

Is DTC detected?

YES >> Refer to <u>SEC-246, "Diagnosis Procedure".</u>

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to <a>SEC-347, "Wiring Diagram".

1. CHECK DTC WITH "COMBINATION METER"

Check "Self diagnostic result" with CONSULT-III. Refer to MWI-62, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace malfunctioning parts.

2.CHECK CVT SHIFT SELECTOR POWER SUPPLY

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

B2602 SHIFT POSITION

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

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

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

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Is the inspection result normal?

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

3.CHECK CVT SHIFT SELECTOR POWER SUPPLY CIRCUIT

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

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

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

H.S. DISCONNECT OFF	B 8
84	
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В	CM	Ground	Continuity	
Connector	Terminal	Ground		
A: M19	84	Ground	No	

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-96</u>, "Removal and Installation".

NO >> Repair harness or connector.

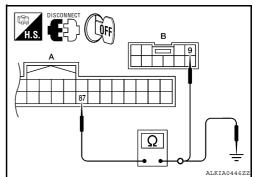
4. CHECK CVT SHIFT SELECTOR CIRCUIT

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

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

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

В	СМ	Ground	Continuity
Connector	Terminal	Ground	
A: M19	87	Ground	No



Is the inspection result normal?

YES >> GO TO 5

NO >> Repair harness or connector.

5. CHECK CVT SHIFT SELECTOR

Refer to SEC-245, "Component Inspection".

Is the inspection result normal?

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B2602 SHIFT POSITION

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

YES >> GO TO 6

NO >> Replace CVT shift selector. Refer to <u>TM-252</u>, "Removal and Installation" (RE0F09B) or <u>TM-424</u>, "Removal and Installation" (RE0F10A).

6. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

B2603 SHIFT POSITION STATUS

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B2603 SHIFT POSITION STATUS

Description INFOID:0000000005429755

BCM confirms the shift position with the following 2 signals.

- CVT selector lever
- P/N position switch

DTC Logic INFOID:0000000005429756

DTC DETECTION LOGIC

NOTE:

 If DTC B2603 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-211, "DTC Logic".

 If DTC B2603 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-212, "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. • Transmission range switch: approx. 0V • CVT shift selector (park position switch): approx 0V	Harness or connector (CVT shift selector circuit is open or shorted.) Harness or connectors [Transmission range switch circuit is open or shorted.] CVT shift selector (park position switch) Transmission range switch

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 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.
- Shift to N and wait for at least 1 second.
- Shift to any gear other than P or N and wait for at least 1 second.
- Check "Self diagnostic result" with CONSULT-III.

Is DTC detected?

YES >> Refer to SEC-249, "Diagnosis Procedure".

>> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-320, "Wiring Diagram".

1. CHECK DTC WITH IPDM E/R

Check "Self diagnostic result" with CONSULT-III. Refer to PCS-32, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace malfunctioning parts.

2.CHECK TRANSMISSION RANGE SWITCH CIRCUIT

- Turn ignition switch OFF.
- Disconnect TCM harness connector and BCM harness connector.

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B2603 SHIFT POSITION STATUS

< COMPONENT DIAGNOSIS >

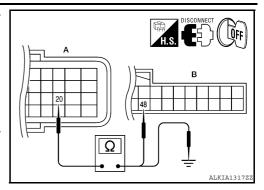
[SEDAN WITH INTELLIGENT KEY]

Check continuity between TCM harness connector F33 (A) terminal 20 and BCM harness connector M18 (B) terminal 48.

TO	CM	В	CM	Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: F33	20	B: M18	48	Yes

Check continuity between TCM harness connector F33 (A) terminal 20 and ground.

TO	СМ	Ground	Continuity	
Connector	Terminal	Giodila	Continuity	
A: F33	20	Ground	No	



Is the inspection result normal?

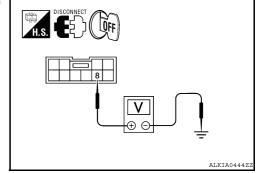
YES >> GO TO 3

NO >> Repair harness or connector.

3.CHECK CVT SHIFT SELECTOR POWER SUPPLY

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

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



Is the inspection result normal?

YES >> GO TO 5 NO >> GO TO 4

4. CHECK CVT SHIFT SELECTOR POWER SUPPLY CIRCUIT

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

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

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

H.S. CONNECT OFF
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В	CM	Ground	Continuity
Connector	Terminal	Giodila	
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 SHIFT SELECTOR CIRCUIT

1. Disconnect BCM harness connector.

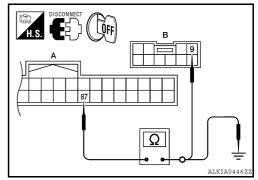
B2603 SHIFT POSITION STATUS

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

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

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



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

В	CM	Ground	Continuity
Connector	Terminal	Ground	
A: M19	87	Ground	No

Is the inspection result normal?

YES >> GO TO 6

NO >> Repair harness or connector.

6.CHECK CVT SHIFT SELECTOR

Refer to SEC-245, "Component Inspection".

Is the inspection result normal?

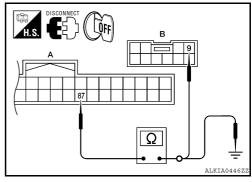
YES >> GO TO 7

>> Replace CVT shift selector. Refer to TM-252, "Removal and Installation" (RE0F09B) or TM-424, NO "Removal and Installation" (RE0F10A).

7. CHECK INTERMITTENT INCIDENT

Refer to GI-41. "Intermittent Incident".

>> Inspection End.



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B2604 TRANSMISSION RANGE SWITCH

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B2604 TRANSMISSION RANGE SWITCH

Description INFOID:000000005429758

BCM confirms the shift position with the following 4 signals.

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

DTC Logic INFOID:000000005429759

DTC DETECTION LOGIC

NOTE:

- If DTC B2604 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-211, "DTC Logic".
- If DTC B2604 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-212, "DTC Logic"</u>.

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2604	TRANSMISSION RANGE SWITCH	 BCM detects the following status for 500 ms or more when the ignition switch is in the ON position. Transmission range switch indicates vehicle is in P or N shift position. Signal from TCM indicates vehicle is in forward or reverse gear. Transmission range switch indicates vehicle is in forward or reverse gear. Signal from TCM indicates vehicle is in P or N. 	Harness or connectors [The transmission range switch circuit is open or shorted.] Transmission range switch TCM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine under the following conditions and wait for at least 1 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 <u>SEC-252</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000005429760

Regarding Wiring Diagram information, refer to SEC-320, "Wiring Diagram".

1. CHECK DTC WITH TCM

Check "Self diagnostic result" with CONSULT-III. Refer to <u>TM-196, "DTC Index"</u> (RE0F09B) or <u>TM-369, "DTC Index"</u> (RE0F10A).

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace malfunctioning parts.

2. CHECK TRANSMISSION RANGE SWITCH CIRCUIT

- Turn ignition switch OFF.
- Disconnect TCM harness connector and BCM harness connector.

B2604 TRANSMISSION RANGE SWITCH

< COMPONENT DIAGNOSIS >

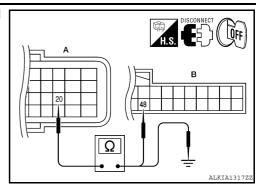
[SEDAN WITH INTELLIGENT KEY]

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

ТС	TCM		CM	Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: F33	20	B: M18	48	Yes

4. Check continuity between TCM harness connector and ground.

TO	CM	Ground	Continuity
Connector	Terminal	Giodila	Continuity
A: F33	20	Ground	No



Is the inspection result normal?

YES >> GO TO 3

NO >> Repair harness or connector.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

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B2605 TRANSMISSION RANGE SWITCH

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B2605 TRANSMISSION RANGE SWITCH

Description INFOID:000000005429761

BCM confirms the shift position with the following 4 signals.

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

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2605 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-211, "DTC Logic".
- If DTC B2605 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-212, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2605	TRANSMISSION RANGE SWITCH	 BCM detects the following status for 500 ms or more when the ignition switch is in ON position 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. 	Transmission range 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 <u>SEC-254</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000005429763

Regarding Wiring Diagram information, refer to SEC-320, "Wiring Diagram".

1. CHECK DTC WITH IPDM E/R

Check "Self diagnostic result" with CONSULT-III. Refer to PCS-32, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace malfunctioning parts.

2.CHECK TRANSMISSION RANGE SWITCH CIRCUIT

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

B2605 TRANSMISSION RANGE SWITCH

< COMPONENT DIAGNOSIS >

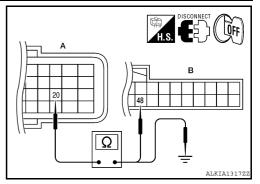
[SEDAN WITH INTELLIGENT KEY]

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

Т	СМ	BCM		Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: F33	20	B: M18	48	Yes

4. Check continuity between TCM harness connector and ground.

TO	CM	Ground	Continuity
Connector	Terminal	Ground	Continuity
A: F33	20	Ground	No



Is the inspection result normal?

YES >> GO TO 3

NO >> Repair harness or connector.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

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B2608 STARTER RELAY

Description INFOID:000000005429770

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

DTC DETECTION LOGIC

NOTE:

- If DTC B2608 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-211, "DTC Logic".
- If DTC B2608 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-212, "DTC Logic"</u>.

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	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 <u>SEC-256</u>, "Diagnosis Procedure".

NO >> Inspection End.

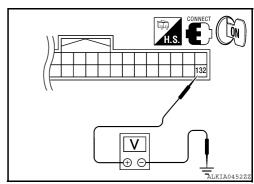
Diagnosis Procedure

INFOID:0000000005429772

Regarding Wiring Diagram information, refer to SEC-320, "Wiring Diagram".

1. CHECK STARTER RELAY

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



[SEDAN WITH INTELLIGENT KEY]

BCM		Ground		Condition	Voltage (V)
Connector	Terminal	Giodila		Jonation	voltage (v)
		CVT selector lever	O)/T l t l	N or P position	Battery voltage
MO4	M21 132 Ground		Other than above	0	
IVIZ I		Obstala a salah	Not depressed	0	
			Clutch pedal	Depressed	Battery voltage

Is the measurement value within the specification?

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

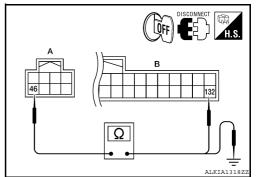
2. CHECK STARTER RELAY CIRCUIT

- Turn ignition switch OFF.
- 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.

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

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

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



Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-47, "Removal and Installation".

NO >> Repair harness or connector.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

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B260F ENGINE STATUS

Description INFOID:000000005429785

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

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B260F is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-211, "DTC Logic".
- If DTC B260F is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-212, "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 <u>SEC-258</u>, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000005429787

1. INSPECTION START

- 1. Turn ignition switch ON.
- 2. Check "Self diagnostic result" with CONSULT-III.
- Touch "ERASE".
- 4. Perform DTC Confirmation Procedure.

See SEC-258, "DTC Logic".

Is the DTC B260F displayed again?

YES >> GO TO 2

NO >> Inspection End.

2.REPLACE ECM

- 1. Replace ECM.
- Refer to <u>EC-1064, "BASIC INSPECTION: Special Repair Requirement"</u> (VQ35DE), <u>EC-569, "BASIC INSPECTION: Special Repair Requirement"</u> (QR25DE except California), <u>EC-26, "BASIC INSPECTION: Special Repair Requirement"</u> (QR25DE California).

>> Inspection End.

B26E8 CLUTCH INTERLOCK SWITCH

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B26E8 CLUTCH INTERLOCK SWITCH

Description INFOID:0000000005804680

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

DTC Logic INFOID:0000000005804681

NOTE:

If DTC B26E8 is displayed with DTC B210F, first perform the trouble diagnosis for DTC B210F. Refer to SEC-259, "DTC Logic".

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detection condition	Possible cause
B26E8	CLUTCH INTERLOCK SWITCH	Detects that ASCD cancel switch is in the ON position for 2 seconds or more while ignition switch and clutch interlock switch are ON.	Clutch interlock switch Harness or connector (Clutch interlock switch circuit open or shorted)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON under the following condition.
- Shift lever is in the neutral position.
- Depress clutch pedal.
- Check "Self-diagnostic result" using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-259, "Diagnosis Procedure".

NO >> Inspection End

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-145, "Wiring Diagram".

${f 1}$.CHECK CLUTCH INTERLOCK SWITCH POWER SUPPLY

- Turn ignition switch OFF.
- 2. Disconnect clutch interlock switch connector.
- 3. Check voltage between clutch interlock switch harness connector and ground.

(+)			V. 16 (V.)	
Clutch interlock switch		(–)	Voltage (V) (Approx.)	
Connector	Terminal		(11 - 7	
E36	1	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 2.

>> Check 10 A fuse [No. 31, located in the fuse and fusible link box]

NO-2 >> Check harness for open or short between clutch interlock switch and fuse.

2.CHECK CLUTCH INTERLOCK SWITCH SIGNAL

- Connect clutch interlock switch connector.
- 2. Disconnect BCM connector.
- 3. Check voltage between BCM harness connector and ground.

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B26E8 CLUTCH INTERLOCK SWITCH

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

	+) CM	(-)	Condition		Voltage (V) (Approx.)
Connector	Terminal				
M18	22 Ground	Clutch pedal	Depressed	Battery voltage	
IVITO	22	Giouna	Ciulon pedal	Released	0

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-96, "Removal and Installation".

NO >> GO TO 3.

3.check clutch interlock switch signal circuit

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

Clutch inte	rlock switch	BCM		Continuity
Connector	Terminal	Connector	Terminal	Continuity
E36	2	M18	22	Yes

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

Clutch inte	rlock switch		Continuity
Connector	Connector Terminal		Continuity
E36	2		No

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK CLUTCH INTERLOCK SWITCH

Refer to SEC-260. "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace clutch interlock switch. Refer to CL-9, "Exploded View".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End

Component Inspection

INFOID:0000000005804683

1. CHECK CLUTCH INTERLOCK SWITCH

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

Clutch interlock switch		Condition		Continuity
Terr	Terminal		Condition	
1	2	Clutch pedal	Depressed	Yes
ı	2	Ciuicii peual	Released	No

Is the inspection result normal?

YES >> Inspection End

NO >> Replace clutch interlock switch. Refer to CL-9, "Exploded View".

B26EA KEY REGISTRATION

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

B26EA KEY REGISTRATION

Description INFOID:0000000005804677

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

DTC Logic INFOID:0000000005804678

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B26EA	KEY REGISTRA- TION	Intelligent Key is not registered successfully.	Improper registration operationIntelligent KeyBCM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Perform initialization using CONSULT-III. Reregister all Intelligent Keys. For initialization and registration of Intelligent Key, refer to "CONSULT-III Operation Manual NATS-IVIS/ NVIS".
- Check "Self-diagnostic result" using CONSULT-III.

Is DTC detected?

>> Go to SEC-261, "Diagnosis Procedure". YES

NO >> Inspection End

Diagnosis Procedure

1. PERFORM INITIALIZATION

- Perform initialization using CONSULT-III. Reregister all Intelligent Keys. For initialization and registration of Intelligent Key, refer to "CONSULT-III Operation Manual NATS-IVIS/ NVIS".
- 2. Check "Self-diagnostic result" using CONSULT-III.

Is DTC detected?

YES >> GO TO 2.

>> Inspection End NO

2.REPLACE INTELLIGENT KEY

- Replace Intelligent Key. Reregister all Intelligent Keys.
- Perform initialization using CONSULT-III. For initialization, refer to "CONSULT-III Operation Manual NATS-IVIS/NVIS".
- Check "Self-diagnostic result" using CONSULT-III.

Is DTC detected?

YES >> Replace BCM. Refer to BCS-96, "Removal and Installation".

NO >> Inspection End SEC

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B2617 STARTER RELAY CIRCUIT

Description INFOID:000000005429791

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

DTC DETECTION LOGIC

NOTE:

- If DTC B2617 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-211, "DTC Logic".
- If DTC B2617 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-212, "DTC Logic".
- If DTC B2617 is displayed with DTC B210E, first perform the trouble diagnosis for DTC B210E. Refer to <u>SEC-262, "DTC Logic"</u>.

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2617	STARTER RELAY CIRCUIT	 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 	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 <u>SEC-262</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

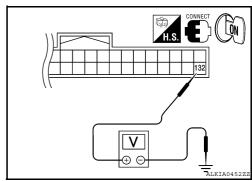
Diagnosis Procedure

INFOID:0000000005429793

Regarding Wiring Diagram information, refer to <a>SEC-320, "Wiring Diagram".

1. CHECK STARTER RELAY

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



B2617 STARTER RELAY CIRCUIT

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

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

Is the measurement value within the specification.

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

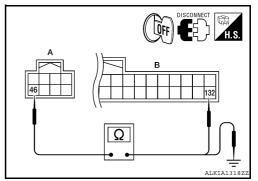
2. CHECK STARTER RELAY CIRCUIT

- 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.

IPDN	M E/R	ВСМ		Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: E17	46	B: M21	132	Yes

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

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



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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-41, "Intermittent Incident".

>> Inspection End.

B261E VEHICLE TYPE

[SEDAN WITH INTELLIGENT KEY]

B261E VEHICLE TYPE

Description INFOID:000000005804674

There are two types of vehicles.

- HEV
- Conventional

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B261E is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-211, "DTC Logic".
- If DTC B261E is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-212, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B261E	VEHICLE TYPE	Difference of BCM configuration.	BCM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON under the following conditions.

CVT models

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

M/T models

- Do not depress clutch pedal
- 2. Check "Self-diagnostic result" using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-264, "Diagnosis Procedure".

NO >> Inspection End

Diagnosis Procedure

INFOID:0000000005804676

1. INSPECTION START

- 1. Turn ignition switch ON.
- 2. Check "Self-diagnostic result" using CONSULT-III.
- 3. Touch "ERASE".
- 4. Perform DTC Confirmation Procedure.

See SEC-264, "DTC Logic".

Is the 1st trip DTC B261E displayed again?

YES >> Replace BCM. Refer to BCS-96, "Removal and Installation".

NO >> Inspection End

B261A PUSH-BUTTON IGNITION SWITCH

Description INFOID:000000005429797

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

DTC DETECTION LOGIC

NOTE:

- If DTC B261A is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-211, "DTC Logic".
- If DTC B261A is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-212, "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 • Push-button ignition switch status • Push-button ignition switch status from IPDM E/R (CAN)	 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-265, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-347, "Wiring Diagram".

1. CHECK PUSH-BUTTON IGNITION SWITCH OUTPUT SIGNAL 1

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

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

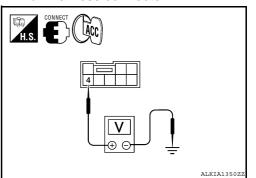
Is the inspection result normal?

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

2.check push-button ignition switch circuit

. Disconnect BCM harness connector.

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B261A PUSH-BUTTON IGNITION SWITCH

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

2. Check continuity between push-button ignition switch harness connector M38 (A) terminal 4 and BCM harness connector M21 (B) terminal 140.

Push-button	ignition switch	BCM		Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: M38	4	B: M21	140	Yes

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

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

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair harness or connector.

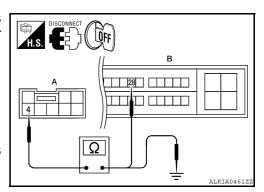
3.CHECK PUSH-BUTTON IGNITION SWITCH

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

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

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

Push-button ignition switch		Ground	Continuity
Connector	Terminal	Ground	Continuity
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-41, "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:0000000005429800

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

DTC Logic INFOID:0000000005429801

DTC DETECTION LOGIC

NOTE:

- If DTC B26E1 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-211, "DTC Logic".
- If DTC B26E1 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-212, "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

${f 1}$.PERFORM DTC CONFIRMATION PROCEDURE

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

Is DTC detected?

YES >> Refer to SEC-267, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000005429802

1.INSPECTION START

- Turn ignition switch ON.
- Check "Self diagnostic result" with CONSULT-III. 2.
- Touch "ERASE".
- **Perform DTC Confirmation Procedure.**

See SEC-267, "DTC Logic".

Is the DTC B26E1 displayed again?

YES >> GO TO 2

NO >> Inspection End.

2.REPLACE ECM

- Replace ECM.
- Refer to EC-1064, "BASIC INSPECTION: Special Repair Requirement" (VQ35DE), EC-569, "BASIC INSPECTION: Special Repair Requirement" (QR25DE except California), EC-26, "BASIC INSPECTION: Special Repair Requirement" (QR25DE California).

SEC-267

>> Inspection End.

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< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

POWER SUPPLY AND GROUND CIRCUIT BCM

BCM: Diagnosis Procedure

INFOID:0000000005783022

Regarding Wiring Diagram information, refer to <u>BCS-75</u>, "COUPE: Wiring Diagram" or <u>BCS-84</u>, "SEDAN: Wiring Diagram".

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	Н
11	battery power suppry	10

Is the fuse or fusible link blown?

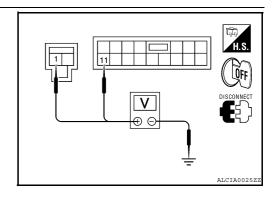
YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

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			
В	СМ		(Approx.)	
Connector	Terminal	Ground		
M16	1	Ground	Pottony voltage	
M17	11		Battery voltage	



Is the measurement normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK GROUND CIRCUIT

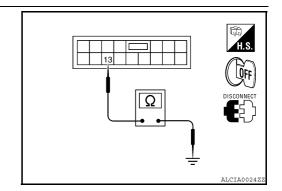
Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector Terminal		Ground	Continuity
M17	13		Yes

Does continuity exist?

YES >> Inspection End.

NO >> Repair or replace harness.



BCM : Special Repair Requirement

1. REQUIRED WORK WHEN REPLACING BCM

Initialize control unit. Refer to BCS-6, "CONFIGURATION (BCM): Special Repair Requirement".

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INFOID:0000000005783023

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

>> Work End.

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

Regarding Wiring Diagram information, refer to <u>PCS-34, "COUPE : Wiring Diagram"</u> (coupe) or <u>PCS-40, "SEDAN : Wiring Diagram"</u> (sedan).

1. CHECK FUSES AND FUSIBLE LINK

Check that the following IPDM E/R fuses or fusible link are not blown.

Terminal No.	Signal name	Fuses and fusible link No.
1, 2		B, D
	Battery power supply	42
_		43

Is the fuse blown?

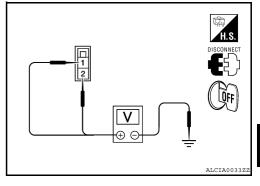
YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

NO >> GO TO 2

2. CHECK POWER SUPPLY CIRCUIT

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

(+)	(-)	Voltage (V)
IPDM E/R		(-)	(Approx.)
Connector	Terminal		
E16	1	Ground	Battery voltage
L10	2		battery voltage



Is the measurement value normal?

YES >> GO TO 3

NO >> Repair harness or connector.

3. CHECK GROUND CIRCUIT

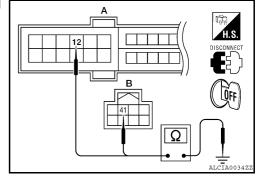
Check continuity between IPDM E/R harness connectors and ground.

IPDM E/R			Continuity
Connector	Terminal	Ground	Continuity
A: E18	12	Giouna	Yes
B: E17	41		ies

Does continuity exist?

YES >> Inspection End.

NO >> Repair harness or connector.



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KEY SLOT

Diagnosis Procedure

INFOID:0000000005429806

Regarding Wiring Diagram information, refer to SEC-169, "Wiring Diagram".

1. CHECK KEY SLOT POWER SUPPLY CIRCUIT

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

Key slot		Ground	Voltage (V)	
Connector	Terminal	Ground	(Approx.)	
M40	1	Ground	Battery voltage	
10140	5	Giodila	battery voltage	

H.S. DISCONNECT TH.S. DISCONNECT TH.S. DISCONNECT ALKIA04192Z

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	Key slot		Continuity
Connector	Terminal	Ground	Continuity
M40	7	Ground	Yes

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace key slot ground circuit.

DISCONNECT OFF

3. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

KEY SLOT ILLUMINATION

Description INFOID:000000005429807

Blinks when Intelligent Key insertion is required.

Component Function Check

INFOID:0000000005429808

1. CHECK FUNCTION

(I) With CONSULT-III

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

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Is the inspection result normal?

YES >> Key slot function is OK.

NO >> Refer to <u>SEC-271, "Diagnosis Procedure"</u>.

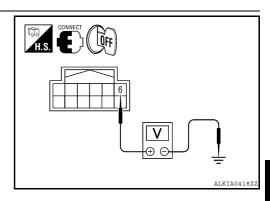
Diagnosis Procedure

Regarding Wiring Diagram information, refer to <u>SEC-169</u>, "Wiring Diagram".

IFOID:0000000005429809

1. CHECK KEY SLOT ILLUMINATION OUTPUT SIGNAL

Check voltage between key slot connector and ground.



S	E	С	

Terminals (+)				1	
			Condition	Key slot	Voltage (V)
Key slot connector	Terminal	(–)		illumination	(Approx.)
M40	6	Ground	Intelligent Key inserted	OFF	Battery voltage
10140	10140	Ground	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

Turn ignition switch OFF.

Disconnect key slot connector.

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KEY SLOT ILLUMINATION

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

Check voltage between slot connector and ground.

	V 1 00			
(+)		(–)	Voltage (V) (Approx.)	
Key slot connector	Terminal	(-)	, , ,	
M40	1	Ground	Battery voltage	
10140	5	Giodila	battery voltage	

DISCONNECT THIS DISCON

Is the inspection result normal?

YES >> GO TO 3

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

3. CHECK KEY SLOT GROUND CIRCUIT

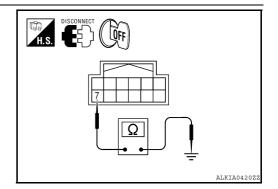
Check continuity between key slot connector and ground.

Key slot connector	Terminal	Ground	Continuity
M40	7		Yes

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace key slot ground circuit.



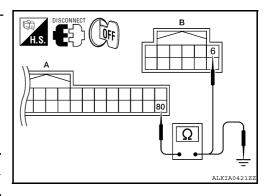
4. CHECK KEY SLOT CIRCUIT

- Turn ignition switch OFF.
- 2. 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.

A: M19 80 No	BCM connector	Terminal	Ground	Continuity
	A: M19	80	Ground	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-271, "Description".

Is the inspection result normal?

YES >> GO TO 6

NO >> Replace key slot. Refer to <u>SEC-362</u>, "Removal and Installation".

6.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

KEY CYLINDER SWITCH

Description INFOID:0000000005429810

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:0000000005429811

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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 <u>DLK-229</u>, "Work Flow".

Monitor item	Condition		
KEY CYL LK-SW	Lock	: ON	
RET CTL ER-SW	Neutral / Unlock	: OFF	
KEY CYL UN-SW	Unlock	: ON	
KET CTL CIN-SVV	Neutral / Lock	: OFF	

Is the inspection result normal?

YES >> Key cylinder switch is OK.

NO >> With LH and RH anti-pinch, refer to <u>DLK-302</u>, "<u>Diagnosis Procedure (With LH and RH Anti-Pinch)</u>".

NO >> With LH anti-pinch only, refer to <u>DLK-303</u>, "<u>Diagnosis Procedure (With LH Anti-Pinch Only)</u>".

Diagnosis Procedure (With LH and RH Anti-Pinch)

INFOID:0000000005429812

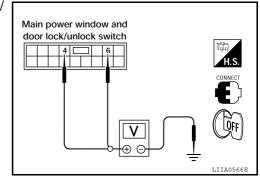
Regarding Wiring Diagram information, refer to SEC-334, "Wiring Diagram".

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			
(+)	(+)			
Main power window and door lock/unlock switch connector	Terminal	(–)	Key position	Voltage (V) (Approx.)
	4		Lock	0
D7	7	Ground	Neutral / Unlock	5
Di	6		Unlock	0
	0		Neutral / Lock	5



Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to PWC-252, "Removal and Installation".

NO >> GO TO 2

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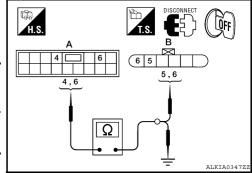
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2.CHECK DOOR KEY CYLINDER SIGNAL CIRCUIT

- Turn ignition switch OFF.
- Disconnect main power window and door lock/unlock switch connector and front door lock assembly LH (key cylinder switch) connector.
- Check continuity between main power window and door lock/ unlock switch connector and front door lock assembly LH (key cylinder switch) connector.

Main power window and door lock/unlock switch connector	Terminal	Front door lock assembly LH (key cylinder switch) connector	Terminal	Continuity
A: D7	4	B: D10	6	Yes
Α. ΟΙ	6	В. БТО	5	165

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



Power window main switch connector	Terminal		Continuity
A: D7	4	Ground	No
A. DI	6		110

Is the inspection result normal?

>> GO TO 3 YES

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		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-276, "Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".

>> Replace front door lock assembly LH (key cylinder switch). Refer to DLK-449, "FRONT DOOR NO LOCK: Removal and Installation".

Diagnosis Procedure (With LH Anti-Pinch Only)

INFOID:0000000005429813

Regarding Wiring Diagram information, refer to SEC-334, "Wiring Diagram".

1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

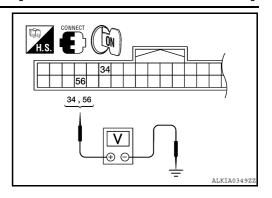
Turn ignition switch ON.

KEY CYLINDER SWITCH

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

Check voltage between BCM connector and ground.



Terminals (+)			Voltage (V) (Approx.)	
		Key position		
BCM connector	Terminal	(-)		,
	56		Lock	0
M18	30	Ground	Neutral / Unlock	5
IVI I O	34	Giouna	Unlock	0
	34		Neutral / Lock	5

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to PWC-163, "Removal and Installation".

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
D14	4	Ground	Yes

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3.CHECK DOOR KEY CYLINDER SIGNAL CIRCUIT

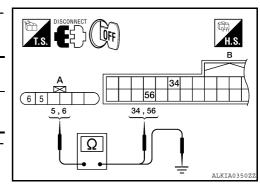
Disconnect BCM connector M18.

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: D14	5	B: M18	34	Yes
Λ. ΟΙ τ	6	D. W10	56	163

Check continuity between front door lock assembly LH (key cylinder switch) connector and ground.

Front door lock assembly LH connector	Terminal	Ground	Continuity
A: D14	5		No
A. D14	6		NO



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KEY CYLINDER SWITCH

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

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-276, "Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".

NO >> Replace front door lock assembly LH (key cylinder switch). Refer to <u>DLK-449</u>, "<u>FRONT DOOR LOCK</u>: <u>Removal and Installation</u>".

Component Inspection

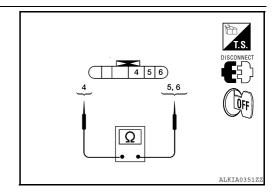
INFOID:0000000005429814

COMPONENT INSPECTION

1. CHECK DOOR KEY CYLINDER SWITCH

Check front door lock assembly LH (key cylinder switch).

Terminal			
Front door lock (key cylinder sw		Key position	Continuity
5		Unlock	Yes
3	4	Neutral / Lock	No
6	4	Lock	Yes
6		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 <u>DLK-449</u>, "<u>FRONT DOOR LOCK</u>; Removal and Installation".

[SEDAN WITH INTELLIGENT KEY]

HORN

Description INFOID:000000005429815

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

Component Function Check

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 <u>SEC-277</u>, "<u>Diagnosis Procedure</u>".

Diagnosis Procedure

1. CHECK HORN FUNCTION

Check horn function with horn switch

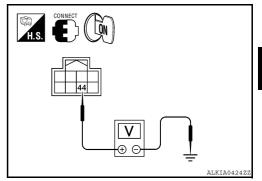
Do the horns sound?

YES >> GO TO 2

NO >> Refer to <u>HRN-7</u>, "SEDAN : Wiring <u>Diagram"</u>.

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.



IPD	M E/R	Ground	Test item		Cround Test item Voltage (V)		Voltage (V)
Connector	Terminal	Ground			(Approx.)		
E17	44	Ground	HORN		Battery voltage \rightarrow 0 \rightarrow Battery voltage		
E17	44	Ground	HOKIN	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.

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< COMPONENT DIAGNOSIS >

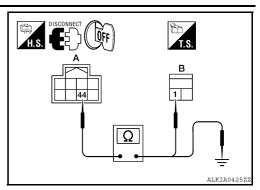
[SEDAN WITH INTELLIGENT KEY]

Check continuity between IPDM E/R harness connector and horn relay harness connector.

IPDM E/R		Horn relay		Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: E17	44	B: H-1	1	Yes

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

IPD	M E/R	Ground	Continuity
Connector	Terminal	Giodila	Continuity
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-41, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace IPDM E/R.Refer to PCS-47, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

HEADLAMP

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

HEADLAMP	٨
Description INFOID:000000005429818	Α
Headlamp lighting when theft warning system is in alarm phase.	В
Component Function Check	
1. CHECK HEADLAMP OPERATION	С
Check if headlamps operate by lighting switch.	
Does headlamp come on when turning switch "ON"? YES >> Headlamp circuit is OK.	D
NO >> Check headlamp system. Refer to <u>SEC-279</u> , " <u>Diagnosis Procedure</u> ".	
Diagnosis Procedure	Е
1. CHECK HEADLAMP OPERATION	
Refer to <u>EXL-109</u> , " <u>SEDAN</u> : <u>Wiring Diagram</u> " (xenon type) or <u>EXL-99</u> , " <u>SEDAN</u> : <u>Wiring Diagram</u> " (halogen type).	F
Is the inspection result normal?	
YES >> GO TO 2 NO >> Repair or replace malfunctioning parts.	G
2.CHECK INTERMITTENT INCIDENT	
Refer to GI-41. "Intermittent Incident".	Н
>> Inspection End.	I

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WARNING LAMP

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

WARNING LAMP

Description INFOID:000000005429821

- 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:0000000005429822

1. CHECK FUNCTION

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

Test item		Description	
INDICATOR	ON	Warning Jamp	ON
	OFF	Warning lamp	OFF

Is the inspection result normal?

YES >> Inspection End.

NO >> Refer to <u>SEC-280, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000005429823

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-41, "Intermittent Incident".

>> Inspection End.

VEHICLE SECURITY INDICATOR

< COMPONENT DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

VEHICLE SECURITY INDICATOR

Description INFOID:000000005429824

- 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

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	Vahiala cagurity indicator	ON
	OFF	Vehicle security indicator	OFF

Is the inspection result normal?

YES >> Inspection End.

NO >> Refer to <u>SEC-281, "Diagnosis Procedure"</u>.

Diagnosis Procedure

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-41, "Intermittent Incident".

>> Inspection End.

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ECU DIAGNOSIS

BCM (BODY CONTROL MODULE)

Reference Value

VALUES ON THE DIAGNOSIS TOOL

FR WIPER HI	Other than front wiper switch HI	OFF
		OI F
	Front wiper switch HI	ON
	Other than front wiper switch LO	OFF
FR WIPER LOW	Front wiper switch LO	ON
	Front washer switch OFF	OFF
FR WASHER SW	Front washer switch ON	ON
ED WIDED INT	Other than front wiper switch INT	OFF
FR WIPER INT	Front wiper switch INT	ON
ED WIDED OTOD	Front wiper is not in STOP position	OFF
FR WIPER STOP	Front wiper is in STOP position	ON
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	Wiper intermittent dial position
TUDN OLONAL D	Other than turn signal switch RH	OFF
TURN SIGNAL R	Turn signal switch RH	ON
TUDNI OLONIAL I	Other than turn signal switch LH	OFF
TURN SIGNAL L	Turn signal switch LH	ON
TAIL LAMB OW	Other than lighting switch 1ST and 2ND	OFF
TAIL LAMP SW	Lighting switch 1ST or 2ND	ON
LU DE AM OW	Other than lighting switch HI	OFF
HI BEAM SW	Lighting switch HI	ON
LIEAD LAMB CW/4	Other than lighting switch 2ND	OFF
HEAD LAMP SW 1	Lighting switch 2ND	ON
LIEAD LAMB OW O	Other than lighting switch 2ND	OFF
HEAD LAMP SW 2	Lighting switch 2ND	ON
PASSING SW	Other than lighting switch PASS	OFF
PASSING SW	Lighting switch PASS	ON
ALITO LIGHT CW	Other than lighting switch AUTO	OFF
AUTO LIGHT SW	Lighting switch AUTO	ON
	Front fog lamp switch OFF	OFF
FR FOG SW	Front fog lamp switch ON	ON
	Driver door closed	OFF
DOOR SW-DR	Driver door opened	ON
DOOR SW AS	Passenger door closed	OFF
DOOR SW-AS	Passenger door opened	ON
DOOR SW DD	Rear door RH closed	OFF
DOOR SW-RR	Rear door RH opened	ON
	Rear door LH closed	OFF
DOOR SW-RL	Rear door LH opened	ON

< ECU DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

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Monitor Item	Condition	Value/Status		
CDL LOCK CW	Other than power door lock switch LOCK	OFF		
CDL LOCK SW	Power door lock switch LOCK	ON		
CDL UNLOCK SW	Other than power door lock switch UNLOCK	OFF		
CDL UNLOCK SW	Power door lock switch UNLOCK	ON		
	Other than driver door key cylinder LOCK position	OFF		
KEY CYL LK-SW	Driver door key cylinder LOCK position	ON		
	Other than driver door key cylinder UNLOCK position	OFF		
KEY CYL UN-SW	Driver door key cylinder UNLOCK position	ON		
	When hazard switch is not pressed	OFF		
HAZARD SW	When hazard switch is pressed	ON		
REAR DEF SW	When rear window defogger switch is pressed	ON		
	Trunk lid opener cancel switch OFF	OFF		
TR CANCEL SW	Trunk lid opener cancel switch ON	ON		
	Trunk lid opener switch OFF	OFF		
TR/BD OPEN SW	While the trunk lid opener switch is turned ON	ON		
	Trunk lid closed	OFF		
TRNK/HAT MNTR	Trunk lid opened	ON		
	When LOCK button of Intelligent Key is not pressed	OFF		
RKE-LOCK	When LOCK button of Intelligent Key is pressed	ON		
	When UNLOCK button of Intelligent Key is not pressed	OFF		
RKE-UNLOCK	When UNLOCK button of Intelligent Key is pressed	ON		
	When TRUNK OPEN button of Intelligent Key is not pressed	OFF		
RKE-TR/BD	When TRUNK OPEN button of Intelligent Key is pressed	ON		
	When PANIC button of Intelligent Key is not pressed	OFF		
RKE-PANIC	When PANIC button of Intelligent Key is pressed	ON		
	When UNLOCK button of Intelligent Key is not pressed and held	OFF		
RKE-P/W OPEN	When UNLOCK button of Intelligent Key is pressed and held	ON		
	When LOCK/UNLOCK button of Intelligent Key is not pressed and			
RKE-MODE CHG	held simultaneously	OFF		
RRE-MODE CHG	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		
OF HOAL SENSOR	When outside of the vehicle is dark	Close to 0 V		
REQ SW-DR	When driver door request switch is not pressed	OFF		
REQ SW-DR	When driver door request switch is pressed	ON		
REQ SW-AS	When passenger door request switch is not pressed	OFF		
REQ SW-AS	When passenger door request switch is pressed	ON		
DEO CW DD/TD	When trunk request switch is not pressed	OFF		
REQ SW-BD/TR	When trunk request switch is pressed	ON		
DUCH CM	When engine switch (push switch) is not pressed	OFF		
PUSH SW	When engine switch (push switch) is pressed	ON		
ION DIVO E/D	Ignition switch OFF or ACC	OFF		
IGN RLY2-F/B	Ignition switch ON	ON		
400 PLV 5/P	Ignition switch OFF	OFF		
ACC RLY-F/B	Ignition switch ACC or ON	ON		

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[SEDAN WITH INTELLIGENT KEY]

Monitor Item	Condition	Value/Status
CLUTCH SW	When the clutch pedal is not depressed	OFF
CLUTCH SW	When the clutch pedal is depressed	ON
BRAKE SW 1	When the brake pedal is not depressed	ON
BRARE SW I	When the brake pedal is depressed	OFF
DETE/CANCL SW	When selector lever is in P position	OFF
DETE/CAINCE SW	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
SI I FIN/IN SW	When selector lever is in P or N position	ON
UNLK SEN-DR	Driver door UNLOCK status	OFF
UNLK SEN-DK	Driver door LOCK status	ON
DITCH CW IDDM	When engine switch (push switch) is not pressed	OFF
PUSH SW-IPDM	When engine switch (push switch) is pressed	ON
ICN DI V4 E/D	Ignition switch OFF or ACC	OFF
IGN RLY1 F/B	Ignition switch ON	ON
DETE OW IDDM	When selector lever is in P position	OFF
DETE SW -IPDM	When selector lever is in any position other than P	ON
CET DN IDDM	When selector lever is in any position other than P or N	OFF
SFT PN -IPDM	When selector lever is in P or N position	ON
CET D MET	When selector lever is in any position other than P	OFF
SFT P-MET	When selector lever is in P position	ON
CET NI MET	When selector lever is in any position other than N	OFF
SFT N-MET	When selector lever is in N position	ON
	Engine stopped	STOP
ENGINE STATE	While the engine stalls	STALL
ENGINE STATE	At engine cranking	CRANK
	Engine running	RUN
VEH SPEED 1	While driving	Equivalent to speedometer reading
VEH SPEED 2	While driving	Equivalent to speedometer reading
	Driver door LOCK status	LOCK
DOOR STAT-DR	Wait with selective UNLOCK operation (5 seconds)	READY
	Driver door UNLOCK status	UNLK
	Passenger door LOCK status	LOCK
DOOR STAT-AS	Wait with selective UNLOCK operation (5 seconds)	READY
	Passenger door UNLOCK status	UNLK
ID OK EL AO	Ignition switch ACC or ON	RESET
ID OK FLAG	Ignition switch OFF	SET
DDMT ENG OTAT	When the engine start is prohibited	RESET
PRMT ENG STAT	When the engine start is permitted	SET
KEV OW OLOT	When Intelligent Key is not inserted into key slot	OFF
KEY SW -SLOT	When Intelligent Key is inserted into key slot	ON
RKE OPE COUN1	During the operation of Intelligent Key	Operation frequency of Intelligent Key
CONEDMID ALL	The key ID that the key slot receives does not accord with any key ID registered to BCM.	YET
CONFRM ID ALL	The key ID that the key slot receives accords with any key ID registered to BCM.	DONE

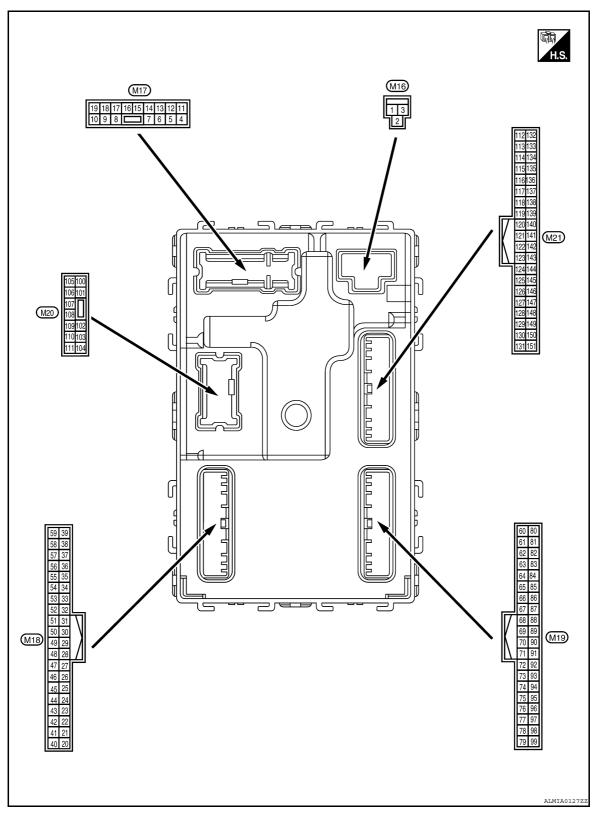
< ECU DIAGNOSIS >

[SEDÁN WITH INTELLIGENT KEY]

Monitor Item	Condition	Value/Status		
CONFIRM ID4	The key ID that the key slot receives does not accord with the fourth key ID registered to BCM.	YET		
CONFIRM ID4	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		
CONFIRMIDZ	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		
CONFIRMIDI	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		
IF 4	The ID of fourth key is registered to BCM	DONE		
FD 2	The ID of third key is not registered to BCM	YET		
ГР 3	The ID of third key is registered to BCM	DONE		
FD 0	The ID of second key is not registered to BCM	YET		
ΓP 2	The ID of second key is registered to BCM	DONE		
TD 4	The ID of first key is not registered to BCM	YET		
TP 1	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 transceived)		Air pressure of front RH tire		
AIR PRESS RR	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of rear RH tire		
AIR PRESS RL	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of rear LH tire		
D REGST FL1	When ID of front LH tire transmitter is registered	DONE		
D NEGOI FEI	When ID of front LH tire transmitter is not registered	YET		
D REGST FR1	When ID of front RH tire transmitter is registered	DONE		
D NEGOI FRI	When ID of front RH tire transmitter is not registered	YET		
D REGST RR1	When ID of rear RH tire transmitter is registered	DONE		
ט הבטטו גוגו	When ID of rear RH tire transmitter is not registered	YET		
D DECCT DI 4	When ID of rear LH tire transmitter is registered	DONE		
D REGST RL1	When ID of rear LH tire transmitter is not registered	YET		
A/A DAUNIO I ARAD	Tire pressure indicator OFF	OFF		
WARNING LAMP	Tire pressure indicator ON	ON		
	Tire pressure warning alarm is not sounding	OFF		
BUZZER	Tire pressure warning alarm is sounding	ON		

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Terminal Layout



Physical Values

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[SEDAN WITH INTELLIGENT KEY]

Terminal No.		Description				Value
(+)	e color) (-)	Signal name	Input/ Output	Condition		(Approx.)
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 0	Ground	Interior room lamp	Output	After passing the interior room lamp battery saver operation time		0V
(P/W) Ground		power supply	Output	Any other time after passing the interior room lamp battery saver operation time		Battery voltage
5	Ground	d Front door RH UN- LOCK	Output	Front door RH	UNLOCK (actuator is activated)	Battery voltage
(G/Y)	Giodila		Output	FIGHT GOOLKH	Other than UNLOCK (actuator is not activated)	0V
7	Craund	Step lamp	Output	Step lamp	ON	OV
(R/W)	Ground				OFF	Battery voltage
8 (V) Ground	Cround	All doors LOCK	Output	Output All doors	LOCK (actuator is activated)	Battery voltage
	Ground		Output		Other than LOCK (actuator is not activated)	0V
9 (G) Ground	Front door LH UN-	Output	t Front door LH	UNLOCK (actuator is activated)	Battery voltage	
	Giodila	LOCK	-OCK	Output	FIGHT GOOF EN	Other than UNLOCK (actuator is not activated)
10 ¹ Groupe	Ground	Rear door RH and rear door LH UN- LOCK	Output	Output Rear door RH and rear door LH	UNLOCK (actuator is activated)	Battery voltage
(G/Y)	Ground		Output		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
			Input	Tail lamp	OFF	OV
14 ⁶ (R/Y)	Ground	Engine switch (push switch) illumination ground			ON	NOTE: When the illumination brightening/dimming level is in the neutral position (V) 10 0 2 ms

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[SEDAN WITH INTELLIGENT KEY]

Terminal No. (Wire color)		Description		Condition		Value	
(+)	(-)	Signal name	Input/ Output	Condition		(Approx.)	
14 ¹ (O/W)	Ground	Engine switch (push switch) illumination ground	Input	Tail lamp	OFF	NOTE: When the illumination brightening/dimming level is in the neutral position (V) 10 0 JSNIA0010GB	
15	Ground	A00 is 15 and a large	0 1 1	Ignition switch	OFF	Battery voltage	
(Y/L)	Ground	ACC indicator lamp	Output	ignition switch	ACC or ON	0V	
17 (G/B)	Ground	Turn signal (RH)	Output	Ignition switch ON	Turn signal switch OFF Turn signal switch RH	0V (V) 15 10 1	
					Turn signal switch OFF	OV	
18 (G/Y)	Ground	Turn signal (LH)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 s	
-					OFF	6.5 V	
19 (Y)	Ground	Room lamp timer control	Output	Interior room lamp	OFF	Battery voltage 0V	
21 (P/B)	Ground		Input	Ignition switch	When outside of the vehi- cle is bright	Close to 5V	
(1,72)					When outside of the vehi- cle is dark	Close to 0V	
22	Ground	Clutch interlock switch	Input	Clutch interlock switch	OFF (clutch pedal is not depressed)	0V	
(R/Y)					ON (clutch pedal is de- pressed)	Battery voltage	
24 (R/W)	Ground	Stop lamp switch 1	Input		_	Battery voltage	
26	Ground	d Stop lamp switch 2	Input	Stop lamp switch	OFF (brake pedal is not depressed)	0V	
(O/L)					ON (brake pedal is de- pressed)	Battery voltage	

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Terminal No. (Wire color)		Description	-		Constituio a	Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
27 (G/W)	Ground	Front door lock as- sembly LH (unlock sensor)	Input	Front door LH	LOCK status	(V) 15 10 5 0 10 ms
					11.8V	
					UNLOCK status	0V
29	Ground	Key slot switch	Input	_	ey is inserted into key slot	Battery voltage
(Y)			•	When Intelligent K	ey is not inserted into key slot	OV
30	Ground	ACC feedback signal	Input	Ignition switch	OFF	0
(V/Y)			F 4	J 1 2 2 3 3 3 3 3 3 3 3 3 3	ACC or ON	Battery voltage
31	Ground	Rear window defog-	Input	Rear window de-	OFF	0V
(G)	C.odiid	ger feedback signal	put	fogger switch	ON	Battery voltage
32 (R/B)	Ground	Front door RH switch	Input	Front door RH switch	OFF (when front door RH closes)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V
					ON (when front door RH opens)	0V
33 (SB)	Ground	Compressor ON signal	Input	A/C switch	OFF ON	9.0 - 12.0V 0V
2		Front door lock as-		Front door lock	OFF (neutral)	5V
34 ² (L/R)	Ground	sembly LH (key cylinder switch) (unlock)	Input	assembly LH (key cylinder switch)	ON (unlock)	ov
36 ²	Granad	Look awitch signal	Innut	Door lock/unlock	Lock	Battery voltage
(GR)	Ground	Lock switch signal	Input	switch	Unlock	0V
37 (O)	Ground	Trunk lid opener cancel switch	Input	Trunk lid opener cancel switch	CANCEL	(V) 15 10 5 0 10 ms JPMIA0012GB
					ON	0V
38					OFF	5V
(GR/ W)	Ground	Rear window defog- ger ON signal	Input	Rear window de- fogger switch	ON	0V
39 ² (GR/	Ground	Unlock switch signal	Input	Door lock/unlock	Unlock	Battery voltage
R)			1	switch	Lock	OV

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	inal No. e color)	Description			Condition	Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
40 ³ (Y/G)	Ground	Power window serial link	Input/ Output	Ignition switch ON		(V) 15 10 5 10 ms JPMIA0013GB 10.2V
				Ignition switch OFI	F or ACC	0V
41 (W)	Ground	Engine switch (push switch) illumination	Output	Engine switch (push switch) illumination	OFF	5.5V 0V
42				LOCK indicator	ON	0V
(R)	Ground	LOCK indicator lamp	Output	lamp	OFF	Battery voltage
45 (P)	Ground	Receiver & sensor ground	Input	Ignition switch ON		ov
46	Cround	Receiver & sensor	Output	Ignition switch	OFF	OV
(V/W)	Ground	power supply output	Output	ignition switch	ACC or ON	5.0V
47	Ground	Tire pressure receiv-	Input/		Standby state	(V) 6 4 2 0 •••0.2s
(G/O)		er signal	Output	ON	When receiving the signal from the transmitter	(V) 6 4 2 0
48	Ground	Selector lever P/N	Input	Selector lever	P or N position	12.0V
(R/G)	Ground	position signal	Input	Selector level	Except P and N positions	OV
					ON	OV
49 (L/O)	Ground	Security indicator signal	Output	Security indicator	Blinking	(V) 15 10 5 0 JPMIA0014GB
					OFF	11.3V
					UFF	Battery voltage

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	nal No. color)	Description	-		Condition	Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
50 (LG/ B)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF Lighting switch 1ST Lighting switch high-beam Lighting switch 2ND Turn signal switch RH	0V (V) 15 10 5 0 2 ms JPMIA0031GB
51 (L/W)	Ground	Combination switch OUTPUT 1	Output	Combination switch	All switch OFF (Wiper intermittent dial 4) Front wiper switch HI (Wiper intermittent dial 4) Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 • Wiper intermittent dial 6 • Wiper intermittent dial 7	10.7V 0V (V) 15 10 2 ms JPMIA0032GB
52 (G/B)	Ground	Combination switch OUTPUT 2	Output	Combination switch	All switch OFF (Wiper intermittent dial 4) Front washer switch ON (Wiper intermittent dial 4) Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	0V (V) 15 10 5 0 2 ms JPMIA0033GB 10.7V
53 (LG/ R)	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF Front wiper switch INT Front wiper switch LO Lighting switch AUTO	0V (V) 15 10 5 0 2 ms JPMIA0034GB 10.7V
54 (G/Y)	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF Front fog lamp switch ON Lighting switch 2ND Lighting switch flash-to- pass Turn signal switch LH	0V (V) 15 10 5 0 2 ms JPMIA0035GB
55 (BR/	Ground	Front blower monitor	Input	Front blower mo-	ON OFF	Battery voltage

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	inal No. e color)	Description	_		Condition	Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
56 ²		Front door lock as-		Front door lock	OFF (neutral)	5V
(L/B)	Ground	sembly LH (key cylinder switch) (lock)	Input	assembly LH (key cylinder switch)	ON (lock)	0V
57 (W)	Ground	Tire pressure warning check switch	Input		_	5V
58 (SB)	Ground	Front door LH switch	Input	Front door LH switch	OFF (front door LH CLOSE)	(V) 15 10 5 0 10 ms JPMIA001IGB
					011(() 1 1110051)	11.8V
					ON (front door LH OPEN)	0V
59 (G/R)	Ground	Rear window defog- ger relay	Output	Rear window de- fogger	Active	Battery voltage
(0/11)		gerrelay		loggei	Not activated	0V
60	Ground	Front console antenna 2 (-)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	(V) 15 10 1
(B/R)					When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB
61	Ground	Center console antenna 2 (+)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB
61 (W/R)	Ground				When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB

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	inal No.	Description				Value
(+)	e color)	Signal name	Input/ Output		Condition	(Approx.)
004		Cront outside handle		When the front	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s
62 ⁴ (B/Y)	Ground	Front outside handle RH antenna (-)	Output	door RH request switch is operat- ed with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB
63 ⁴ (LG)	Front outside handle		When the front door RH request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	
	Glound	RH antenna (+)	Output	switch is operat- ed with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB
64 ⁴ (V) Ground	Ground	Ind 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	(V) 15 10 5 0 JMKIA0062GB
	Ground				When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s

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	inal No. e color)	Description		•	0	Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
65 ⁴	Ground	Front outside handle		When the front door LH request switch is operat- ed with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 11 1 s JMKIA0062GB
(P)	Clound	LH antenna (+)	Output		When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB
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 Battery voltage
71	Ground	Remote keyless entry receiver signal	Input/ Output	During waiting		(V) 15 10 1 ms JMKIA0064GB
(L/O)	Ground			When operating e	ither button on Intelligent Key	(V) 15 10 5 0 1, ms JMKIA0065GB

< ECU DIAGNOSIS >

[SEDÁN WITH INTELLIGENT KEY]

inal No.	Description				Value	/-
e color)	Signal name	Input/ Output		Condition	(Approx.)	/
				All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB	(
Ground	Combination switch INPUT 5	Input	Combination switch	Front fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 10 2 ms JPNIA0037GB	E
					1.3V	
				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	(V) 15 10 2 ms JPMIA0040GB	ŀ
	e color)	(-) Signal name Cround Combination switch	(-) Signal name Input/Output Cround Combination switch Input/	Cround Combination switch Input/ Combination	Ground Combination switch INPUT 5 Input Combination switch INPUT 5 Input Combination switch Switch Switch Switch Input Input Combination switch Switch Switch Switch Input Inp	Ground Combination switch Input Combination switch INPUT 5 Combination switch Input Combination switch INPUT 5 Combination switch Input Combinat

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	inal No.	Description				Value
(+)	e color)	Signal name	Input/ Output		Condition	(Approx.)
	Ground	Combination switch INPUT 3	Input		All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4V
76 (R/G)				Combination switch	Lighting switch high-beam (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB
(Lighting switch 2ND (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB
					Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3	(V) 15 10 5 0 2 ms JPMIA0040GB
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 (V) 15 10 5 1
81 (LG)	Ground	ON indicator lamp	Output	Ignition switch	ON OFF or ACC ON	Battery voltage 0V Battery voltage

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[SEDAN WITH INTELLIGENT KEY]

	ninal No.	Description	II.			Value
(+)	e color)	Signal name	Input/ Output		Condition	(Approx.)
83	Ground	ACC relay control	Output	Ignition switch	OFF	0V
(L)	Giodila	ACC relay control	Output	ignition switch	ACC or ON	Battery voltage
84 (Y/R)	Ground	CVT shift selector	Output		_	Battery voltage
87	Ground	Selector lever P posi-	Input	Selector lever	P position	OV
(G/B)	Olouliu	tion switch	input	Selector level	Any position other than P	Battery voltage
				ON (pressed)	OV	
88 ⁴ (P/L)	Ground	Front door RH request switch	Input	Front door RH request switch	OFF (not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB
					ON (pressed)	OV
89 ⁴ (B/W)	Ground	Front door LH request switch	Input	Front door LH request switch	OFF (not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB
90	Ground	Blower fan motor re-	Output	Ignition switch	OFF or ACC	OV
(Y)	Ciouna	lay control	Output	ignition switch	ON	Battery voltage
91 (L/R)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OFI	=	Battery voltage

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	inal No.	Description				Value	
(+)	e color)	Signal name	Input/ Output	Condition		(Approx.)	
		Combination switch INPUT 1		Combination switch (Wiper intermittent dial 4)	All switch OFF	(V) 15 10 5 0 JPMIA0041GB 1.4V	
	Ground				Turn signal switch LH	(V) 15 10 5 0 2 ms JPMIA0037GB	
95 (R/W)			Input		Turn signal switch RH	(V) 15 10 5 0 2 ms JPMIA0036GB	
					Front wiper switch LO	(V) 15 10 5 0 2 ms JPMIA0038GB	
					Front washer switch ON	(V) 15 10 5 2 ms JPMIA0039GB	

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[SEDAN WITH INTELLIGENT KEY]

	Terminal No. Description (Wire color)		In a C	Condition		Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
			Inniit	Combination switch	All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB
96	Ground	Combination switch INPUT 4			Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0038GB
(P/B)					Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB
					Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	(V) 15 10 5 0 2 ms JPMIA0039GB

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< ECU DIAGNOSIS >

	inal No. e color)	Description				Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
			Input	Combination switch (Wiper intermittent dial 4)	All switch OFF	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4V
					Lighting switch flash-to- pass	(V) 15 10 5 2 ms 1.3V
97 (R/B)	Ground	Combination switch INPUT 2			Lighting switch 2ND	(V) 15 10 5 2 ms JPMIA0036GB
					Front wiper switch INT	(V) 15 10 5 0 2 ms JPMIA0038GB 1.3V
					Front wiper switch HI	(V) 15 10 5 0 2 ms JPMIA0040GB
					Pressed	0 V
98 (G/O)	Ground	Hazard switch	Input	Hazard switch	Not pressed	(V) 15 10 5 0 10 ms JPMIA0012GB

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[SEDAN WITH INTELLIGENT KEY]

Terminal No. (Wire color) (+) (-)		Description				Value	
		Signal name	Input/ Output		Condition	(Approx.)	
103	Cround	Turnit lid ananing	Outrout	Towns lind	Open (trunk lid opener actuator is activated)	Battery voltage	
(V)	Ground	Trunk lid opening	Output	Trunk lid	Close (trunk lid opener actuator is not activated)	OV	
110 (V/W)	Ground	Trunk room lamp	Output	Trunk room lamp	ON OFF	0V Battery voltage	
114		Rear parcel shelf an-		Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 11 1 s JMKIA0062GB	
114 (B)	Ground	tenna 1 (-)	Output	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB	
115 (W) Gr	Ground	Rear parcel shelf an-	helf an-	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 JMKIA0062GB	
	Giouna	tenna 1 (+)	Output	ÖFF	When Intelligent Key is not in the passenger compartment (V) 15 10 5 10 1 Is		

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	inal No.	Description				Value	
(+)	e color)	Signal name	Input/ Output		Condition	(Approx.)	
1184	Ground	Rear bumper anten-	Output	When the trunk	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB	
(L/O)	Glound	na (-)	Output	is operated with ignition switch OFF When Intelligent Key in the antenna detect area		(V) 15 10 5 0 JMKIA0063GB	
119 ⁴	When the trunk	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB				
(BR/ W)	Ground	na (+)	Output	is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB	
127 (BR/	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC	Battery voltage	
W)		L/K) COILIO			ON	OV	
130 (Y/G)	Ground	Ground Trunk room lamp switch Input	Trunk room lamp switch	OFF (trunk is closed)	(V) 15 10 5 0 JPMIA0011GB 11.8V		
					ON (trunk is open)	0V	

< ECU DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

	inal No.	Description	Description			Value (Approx.)	
(Wire	e color)	Signal name Input/ Output			Condition		
				Ignition switch OFF (M/T vehi-	When the clutch pedal is depressed	Battery voltage	
	122			cle)	When the clutch pedal is not depressed	ov	
132 (R) Grour	Ground	Starter motor relay control	Output	Ignition switch ON (other than M/	When selector lever is in P or N position and the brake is depressed	Battery voltage	
				T vehicle)	When selector lever is in P or N position and the brake is not depressed	0V	
140 (BR)	Ground	Engine switch (push switch)	Input	Engine switch (push switch)	Pressed Not pressed	0V Battery voltage	
					ON (pressed)	0V	
141 (G/R)	Ground	Trunk request switch	Input	Trunk request switch	OFF (not pressed)	(V) 15 10 5 10 ms JPMIA0016GB 1.0V	
144 ⁴ (GR)	Ground	Intelligent Key warn- ing buzzer	Output	Request switch buzzer	Sounding	0V	
					Not sounding	Battery voltage 0V	
144 ⁵ (GR)	Ground	Outside warning buzzer	Output	Outside warning buzzer	Sounding Not sounding	Battery voltage	
147	Ground	Trunk lid opener	Input	Trunk lid opener switch	Pressed	0V	
(L/R)		switch		SWITCH	Not pressed	Battery voltage	
148 ¹ (R/W)	Ground	Rear door RH switch	Input	Rear door RH switch	OFF (when rear door RH closes)	(V) 15 10 5 0 10 ms JPMIA0011GB	
					ON (when rear door RH opens)	11.8V 0V	
149 ¹ (R/B)	Ground	Rear door LH switch	Input	Rear door LH switch	OFF (when rear door LH closes)	(V) 15 10 5 0 10 ms JPMIA0011GB	
						11.8V	
					ON (when rear door LH opens)	0V	

^{1:} Sedan

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^{2:} With LH front window anti-pinch

[SEDAN WITH INTELLIGENT KEY]

< ECU DIAGNOSIS >

- 3: With LH and RH front window anti-pinch
- 4: With Intelligent Key
- 5: Without Intelligent Key
- 6: Coupe

Fail Safe

Display contents of CONSULT	Fail-safe	Cancellation
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI-SCANNING	Inhibit engine cranking	Ignition switch ON → OFF
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has become consistent • Starter control relay signal • Starter relay status signal
B2562: LO VOLTAGE	Inhibit engine cranking	100 ms after the power supply voltage increases to more than 8.8 V
B2608: STARTER RELAY	Inhibit engine cranking	 500 ms after the following signal communication status becomes consistent Starter motor relay control signal Starter relay status signal (CAN)
B260A: IGNITION RELAY	Inhibit engine cranking	 500 ms after the following conditions are fulfilled 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 Power position changes to ACC Receives engine status signal (CAN)
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
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization
B26E1: ENG STATE NO RECIV	Inhibit engine cranking	When any of the following conditions is fulfilled Power position changes to ACC Receives engine status signal (CAN)
B26E8: CLUTCH SW	Inhibit engine cranking	When any of the following BCM recognition conditions are fulfilled Status 1 Clutch switch signal (CAN from ECM): ON Clutch interlock switch signal: OFF (0 V) Status 2 Clutch switch signal (CAN from ECM): OFF Clutch interlock switch signal: OFF (Battery voltage)

DTC Inspection Priority Chart

INFOID:0000000005783030

If some DTCs are displayed at the same time, perform inspections one by one based on the following priority chart.

Priority	DTC
1	B2562: LOW VOLTAGE
2	U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN)

< ECU DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

Priority	DTC	
3	 B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2195: ANTI SCANNING 	
	 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 B2608: STARTER RELAY B260A: IGNITION RELAY 	
4	 B260F: ENG STATE SIG LOST B2614: ACC RELAY CIRC B2615: BLOWER RELAY CIRC B2616: IGN RELAY CIRC 	
	 B2617: STARTER RELAY CIRC B2618: BCM B261A: PUSH-BTN IGN SW B261E: VEHICLE TYPE 	
	 B26E1: ENG STATE NO RECIV B26E8: CLUTCH SW B26EA: KEY REGISTRATION C1729: VHCL SPEED SIG ERR U0415: VEHICLE SPEED SIG 	
	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 	
5	 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	B2622: INSIDE ANTENNA B2623: INSIDE ANTENNA	

DTC Index

NOTE:

Details of time display

< ECU DIAGNOSIS >

- 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, "Description"
U1010: CONTROL UNIT (CAN)	_	_	_	BCS-39, "DTC Logic"
U0415: VEHICLE SPEED SIG	_	_	_	BCS-40, "Description"
B2190: NATS ANTENNA AMP	×	_	_	SEC-53, "Description" (Coupe) SEC-229, "Description" (Sedan with I-Key) SEC-399, "Description" (Sedan without I-Key)
B2191: DIFFERENCE OF KEY	×	_	_	SEC-56, "Description" (Coupe) SEC-232, "Description" (Sedan with I-Key) SEC-402, "Description" (Sedan without I-Key)
B2192: ID DISCORD BCM-ECM	×	_	_	SEC-57, "Description" (Coupe) SEC-233, "Description" (Sedan with I-Key) SEC-403, "Description" (Sedan without I-Key)
B2193: CHAIN OF BCM-ECM	×	_	_	SEC-58. "Description" (Coupe) SEC-234. "Description" (Sedan with I-Key) SEC-404. "Description" (Sedan without I-Key)
B2195: ANTI SCANNING	×	_	_	SEC-59, "Description" (Coupe) SEC-235, "Description" (Sedan with I-Key) SEC-405, "Description" (Sedan without I-Key)
B2553: IGNITION RELAY	_	_	_	PCS-61, "Description"
B2555: STOP LAMP	_	_	_	SEC-60, "Description" (Coupe) SEC-236, "Description" (Sedan with I-Key) SEC-406, "Description" (Sedan without I-Key)
B2556: PUSH-BTN IGN SW	_	×	_	SEC-63, "Description" (Coupe) SEC-239, "Description" (Sedan with I-Key) SEC-409, "Description" (Sedan without I-Key)
B2557: VEHICLE SPEED	_	×	_	SEC-65, "Description" (Coupe) SEC-241, "Description" (Sedan with I-Key) SEC-411, "Description" (Sedan without I-Key)

< ECU DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page	А
B2560: STARTER CONT RELAY	×	×	_	SEC-66. "Description" (Coupe) SEC-242. "Description" (Sedan with I- Key) SEC-412. "Description" (Sedan without I-Key)	В
B2562: LOW VOLTAGE	×	_	_	BCS-41, "DTC Logic"	С
B2601: SHIFT POSITION	_	×	_	SEC-67, "Description" (Coupe) SEC-243, "Description" (Sedan with I-Key) SEC-413, "Description" (Sedan without I-Key)	D
B2602: SHIFT POSITION	_	×	_	SEC-71, "Description" (Coupe) SEC-246, "Description" (Sedan with I-Key) SEC-416, "Description" (Sedan without I-Key)	E F
B2603: SHIFT POSI STATUS	_	×	_	SEC-74, "Description" (Coupe) SEC-249, "Description" (Sedan with I-Key) SEC-419, "Description" (Sedan without I-Key)	G
B2604: PNP SW	_	×	_	SEC-77, "Description" (Coupe) SEC-252, "Description" (Sedan with I-Key) SEC-422, "Description" (Sedan without I-Key)	Н
B2605: PNP SW	_	×	_	SEC-79, "Description" (Coupe) SEC-254, "Description" (Sedan with I-Key) SEC-424, "Description" (Sedan without I-Key)	J
B2608: STARTER RELAY	×	×	_	SEC-81, "Description" (Coupe) SEC-256, "Description" (Sedan with I-Key) SEC-426, "Description" (Sedan without I-Key)	SE
B260A: IGNITION RELAY	×	×	_	PCS-63, "Description"	L
B260F: ENG STATE SIG LOST	×	×	_	SEC-83, "Description" (Coupe) SEC-258, "Description" (Sedan with I-Key) SEC-428, "Description" (Sedan without I-Key)	M
B2614: ACC RELAY CIRC	_	×	_	PCS-66, "Description"	Ν
B2615: BLOWER RELAY CIRC	_	×	_	PCS-69, "Description"	
B2616: IGN RELAY CIRC	_	×	_	PCS-72, "Description"	0
B2617: STARTER RELAY CIRC	×	×	_	SEC-87, "Description" (Coupe) SEC-262, "Description" (Sedan with I-Key) SEC-432, "Description" (Sedan without I-Key)	Р
B2618: BCM	×	×	_	PCS-75, "Description"	
B261A: PUSH-BTN IGN SW	_	×	_	SEC-90, "Description" (Coupe) SEC-265, "Description" (Sedan with I-Key) SEC-435, "Description" (Sedan without I-Key)	

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CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
B261E: VEHICLE TYPE	×	× (Turn ON for 15 seconds)	_	SEC-89, "Description" (Coupe) SEC-264, "Description" (Sedan with I-Key) SEC-434, "Description" (Sedan without I-Key)
B2622: INSIDE ANTENNA	_	_	_	DLK-60, "Description" (Coupe) DLK-283, "Description" (Sedan with I-Key) DLK-484, "Description" (Sedan without I-Key)
B2623: INSIDE ANTENNA	_	_	_	DLK-63, "Description" (Coupe) DLK-286, "Description" (Sedan with I-Key) DLK-487, "Description" (Sedan without I-Key)
B26E1: ENG STATE NO RES	×	×	_	SEC-92, "Description" (Coupe) SEC-267, "Description" (Sedan with I-Key) SEC-437, "Description" (Sedan without I-Key)
B26E8: CLUTCH SW	×	×	_	SEC-84, "Description" (Coupe) SEC-259, "Description" (Sedan with I-Key) SEC-429, "Description" (Sedan without I-Key)
B26EA: KEY REGISTRATION	×	× (Turn ON for 15 seconds)	_	SEC-86, "Description" (Coupe) SEC-261, "Description" (Sedan with I-Key) SEC-431, "Description" (Sedan without I-Key)
C1704: LOW PRESSURE FL	_	_	×	
C1705: LOW PRESSURE FR	_	_	×	WT-44, "Self-Diagnosis (With CON-
C1706: LOW PRESSURE RR	_	_	×	SULT-III)"
C1707: LOW PRESSURE RL	_	_	×	
C1708: [NO DATA] FL	_	_	×	
C1709: [NO DATA] FR	_	_	×	MT 44 IID rinting II
C1710: [NO DATA] RR	_	_	×	WT-14, "Description"
C1711: [NO DATA] RL	_	_	×	
C1712: [CHECKSUM ERR] FL	_	_	×	
C1713: [CHECKSUM ERR] FR	_	_	×	WT.16 "Description"
C1714: [CHECKSUM ERR] RR	_	_	×	WT-16, "Description"
C1715: [CHECKSUM ERR] RL	_	_	×	
C1716: [PRESSDATA ERR] FL	_	_	×	
C1717: [PRESSDATA ERR] FR	_	_	×	WT-18, "Description"
C1718: [PRESSDATA ERR] RR	_	_	×	WI-10, Description
C1719: [PRESSDATA ERR] RL	_	_	×	

< ECU DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page	Α
C1720: [CODE ERR] FL	_	_	×		
C1721: [CODE ERR] FR	_	_	×		В
C1722: [CODE ERR] RR	_	_	×		
C1723: [CODE ERR] RL	_	_	×	WT-16, "Description"	C
C1724: [BATT VOLT LOW] FL	_	_	×	W1-10, Description	
C1725: [BATT VOLT LOW] FR	_	_	×		
C1726: [BATT VOLT LOW] RR	_	_	×		D
C1727: [BATT VOLT LOW] RL	_	_	×		
C1729: VHCL SPEED SIG ERR	_	_	×	WT-19, "Description"	Е
C1734: CONTROL UNIT	_	_	×	WT-20, "Description"	

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

Reference Value

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	(Value/Status			
MOTOR FAN REQ	Engine idle speed	Changes depending on engine coolant temperature, air conditioner operation status, vehicle speed, etc.	0 - 100 %		
		A/C switch OFF	Off		
AC COMP REQ	Engine running	A/C switch ON (Compressor is operating)	On		
TAIL OOLD DEO	Lighting switch OFF		Off		
TAIL&CLR REQ	Lighting switch 1ST, 2ND, HI or	ng switch 1ST, 2ND, HI or AUTO (Light is illuminated)			
III 10 DE0	Lighting switch OFF		Off		
HL LO REQ	Lighting switch 2ND HI or AUTO (Light is illuminated)				
	Lighting switch OFF HI REQ				
HL HI REQ	Lighting switch HI		On		
		Front fog lamp switch OFF	Off		
FR FOG REQ	Lighting switch 2ND or AUTO (Light is illuminated)	 Front fog lamp switch ON Daytime running light activated (Only for Canada models) 	On		
		Front wiper switch OFF	STOP		
ED WID DEO	1	Front wiper switch INT	1LOW		
FR WIP REQ	Ignition switch ON	Front wiper switch LO	Low		
		Front wiper switch HI	Hi		
	Front wiper stop position		STOP P		
WIP AUTO STOP	Ignition switch ON	Any position other than front wiper stop position	ACT P		
		Front wiper operates normally	Off		
WIP PROT	Ignition switch ON	Front wiper stops at fail-safe operation	BLOCK		
IGN RLY1 -REQ	Ignition switch OFF or ACC		Off		
IGN KLT I -KEQ	Ignition switch ON		On		
ICN DLV	Ignition switch OFF or ACC		Off		
IGN RLY	Ignition switch ON				
DITCH CM	Release the push-button ignition	n switch	Off		
PUSH SW	Press the push-button ignition s	witch	On		
	Ignition switch ON	CVT selector lever in any position other than P or N (CVT models)	Off		
INITED/NID CVA		Release clutch pedal (M/T models)			
INTER/NP SW	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		
OT INET OOM	At engine cranking		On		

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Monitor Item	Con	Value/Status		
IHBT RLY -REQ	Ignition switch ON	Off		
INDI KLI -KEQ	At engine cranking	On		
	Ignition switch ON		Off	
	At engine cranking		ST →INHI	
ST/INHI RLY		control relay cannot be recognized by when the starter relay is ON and the	UNKWN	
DETENT SW	Ignition switch ON	Off		
	Release the CVT selector button win NOTE: The lever is fixed ON for M/T	On		
DTRL REQ	DTRL OFF		Off	
DIRL REQ	DTRL ON		On	
OIL D OW	Ignition switch OFF, ACC or engine	running	Open	
OIL P SW	Ignition switch ON		Close	
	Not operated	Off		
THFT HRN REQ	Panic alarm is activated Horn is activated with VEHICLE S TEM	On		
LIODNI OLIIDD	Off			
HUKN CHIKP	HORN CHIRP Not operated Door locking with Intelligent Key (horn chirp mode)			
CRNRNG LMP REQ	NOTE: This item is displayed, but cannot b	e monitored.	Off	

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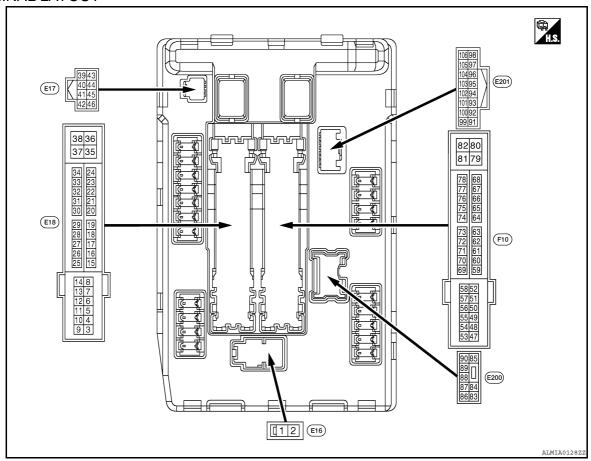
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< ECU DIAGNOSIS >

TERMINAL LAYOUT



PHYSICAL VALUES

	nal No.	Description				Value	
+ (Wire	color)	Signal name	Input/ Output	Condition		(Approx.)	
1 (R)	Ground	Battery power supply	Input	Ignition swi	itch OFF	Battery voltage	
2 (L)	Ground	Battery power supply	Input	Ignition swi	itch OFF	Battery voltage	
4	Cround	Frant win er I O	Outrout	Ignition	Front wiper switch OFF	0V	
(LG)	Ground	Front wiper LO	Output	switch ON	Front wiper switch LO	Battery voltage	
5	O	Frantisia an I II	0	Ignition	Front wiper switch OFF	0V	
(Y)	Ground	Front wiper HI	Output switch ON	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	Cround	Tail, license plate lamps &	Outrout	Ignition	Lighting switch OFF	0V	
(GR)	Ground	interior lamps	Output	switch ON	Lighting switch 1ST	Battery voltage	
10				Ignition swi (For a few s switch OFF	seconds after turning ignition	OV	
10 (BR)	Ground	ECM relay power supply	Output	Ignition switch ON Ignition switch OFF (More than a few seconds after turning ignition switch OFF)		Battery voltage	

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description				Value				
+ (VVire	–	Signal name	Input/ Output		Condition	(Approx.)				
12 (B)	Ground	Ground	_	Ignition swi	tch ON	OV				
13				Approximately 1 second or more after turning the ignition switch ON		0V				
(SB)	Ground	Fuel pump power supply	Output		nately 1 second after turning on switch ON unning	Battery voltage				
15		Ignition relay-1 power sup-		Ignition swi	tch OFF	0V				
(W)	Ground	ply	Output	Ignition swi	tch ON	Battery voltage				
16				Ignition	Front wiper stop position	0V				
16 (L/Y)	Ground	Front wiper auto stop	Input	Ignition switch ON	Any position other than front wiper stop position	Battery voltage				
19	Ground	Ignition relay-1 power sup-	Output	Ignition swi	tch OFF	0V				
(Y)	Ground	ply	Output	Ignition swi	tch ON	Battery voltage				
20 (B/Y)	Ground	Ambient sensor ground	_	Ignition swi	tch 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	_	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	Craund	Ignition relay-1 power sup-	Outout	Ignition switch OFF		0V				
(GR)	Ground	ply	Output	Ignition switch ON		Battery voltage				
27	Cround	Ignition roley monitor	Innut	Ignition switch OFF or ACC		Battery voltage				
(W)	Ground	Ignition relay monitor	Input	Ignition swi	tch ON	0V				
28	Ground	Push-button ignition	Input	Press the p	bush-button ignition switch	0V				
(SB)	Ground	switch	Input	Release the	e push-button ignition switch	Battery voltage				
30 (BR)	Ground	Starter relay control	Input	CVT mod-	CVT selector lever in any position other than P or N (ignition switch ON)	0V				
(DIV)				-				613	CVT selector lever P or N (ignition switch ON)	Battery voltage
30	Ground	Starter relay control	Input	M/T mod-	Release the clutch pedal	0V				
(R)	Cround	Startor rollay control	трис	els	Depress the clutch pedal	Battery voltage				
34	Ground	Cooling fan relay-3 control	Input	Ignition swi	tch OFF or ACC	0V				
(O/L)	2.00110			Ignition switch ON		0.7V				
35	Ground	Cooling fan motor control	Output	Ignition switch OFF or ACC		0V				
(P)	2.00110			Ignition swi	tch ON	0.7V				
36 (G)	Ground	Battery power supply	Input	Ignition swi	tch OFF	Battery voltage				
38	Ground	Cooling fan motor control	Output	Ignition swi	tch OFF or ACC	0V				
(R/W)	Cround	230mig lan motor control	Jaipai	Ignition swi	tch ON	0.7V				

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< ECU DIAGNOSIS >

	nal No.	Description				Value										
+ (Wire	color)	Signal name	Input/ Output		Condition	(Approx.)										
39 (P)	_	CAN - L	Input/ Output	_		_										
40 (L)	_	CAN - H	Input/ Output		_	_										
41 (B)	Ground	Ground	_	Ignition sw	itch ON	0V										
42	Cround	Cooling for relay 2 control	laavit	Ignition switch OFF or ACC		0V										
(SB)	Ground	Cooling fan relay-2 control	Input	Ignition sw	itch ON	0.7V										
					Press the CVT selector button (CVT selector lever P)	Battery voltage										
43 (G/B)	Ground	CVT shift selector (Detention switch)	Input	Ignition switch ON	CVT selector lever in any position other than P Release the CVT selector button (CVT selector lever P)	OV										
44				The horn is deactivated		Battery voltage										
(G/W)	Ground	Horn relay control	Input	The horn is activated		0V										
45	Cround	Anti the oft heave valous control	la a ut	The horn is deactivated		Battery voltage										
(L/O)	Ground	Anti theft horn relay control	Input	The horn is	activated	0V										
	(Fround Startor rolay control													CVT mod-	CVT selector lever in any position other than P or N (ignition switch ON)	OV
46 (BR)		Input			CVT selector lever P or N (ignition switch ON)	Battery voltage										
						M/T mod-	Release the clutch pedal	0V								
				els	Depress the clutch pedal	Battery voltage										
					A/C switch OFF	0V										
48 (W)	Ground	A/C relay power supply	Output	Engine running	A/C switch ON (A/C compressor is operating)	Battery voltage										
49		ECM relay power supply		Ignition sw (For a few s switch OFF	seconds after turning ignition	0V										
(V)	Ground	(with VQ35DE)	Output	Ignition switch ON Ignition switch OFF (More than a few seconds after turning ignition switch OFF)		Battery voltage										
51	Ground	Ignition relay power supply	Output	Ignition sw	itch OFF	0V										
(SB)	Giodila	ignition relay power suppry	- Output	Ignition sw	itch ON	Battery voltage										
52	Ground	Ignition relay power supply	Output	Ignition sw		0V										
(Y)	2.00110	J		Ignition sw		Battery voltage										
53		ECM relay power supply		switch OFF	seconds after turning ignition -)	OV										
(G)	Ground	(with VQ35DE)	Output			Battery voltage										

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< ECU DIAGNOSIS >

	Terminal No. Description (Wire color)				Condition	Value					
+	_	Signal name	Input/ Output		Condition	(Approx.)					
53	53 Cround ECM relay power supply	FCM relay power supply	FCM relay power supply	•	switch OFF	seconds after turning ignition	OV				
(V)	Ground	(without VQ35DE)	Output	Ignition s (More that	witch ON witch OFF an a few seconds after turn- on switch OFF)	Battery voltage					
E 4		Thurstile control motor to		Ignition swi (For a few s switch OFF	seconds after turning ignition	0V					
54 (GR)	Ground	Throttle control motor re- lay power supply	Output			Battery voltage					
55 (LG)	Ground	ECM power supply	Output	Ignition swi	tch OFF	Battery voltage					
56	Ground	lanition rolay nower supply	Output	Ignition swi	tch OFF	0V					
(R)	Ground	Ignition relay power supply	Output	Ignition swi	tch ON	Battery voltage					
57	Ground	Ignition relay power supply	Output Ignition sw		tch OFF	0V					
(O)	Giodila	igililion relay power supply	Output	Ignition switch ON		Battery voltage					
58	Cround	lanitian ralay nawar ayanlı	Output	Ignition swi	tch OFF	0V					
(BR)	Ground	Ignition relay power supply	Output	Ignition switch ON		Battery voltage					
69				Ignition switch OFF (For a few seconds after turning ignition switch OFF) * Ignition switch ON • Ignition switch OFF (More than a few seconds after turning ignition switch OFF)		Battery voltage					
(SB)	Ground	ECM relay control	Output			0 - 1.5V					
						0 -1.0V					
70		Throttle central mater re		lanition swi	tch ON → OFF	↓ Battery voltage					
70 (G)	Ground		Throttle control motor re- lav control		Throttle control motor re- lay control		()) 177	Output	put Igrillion switch Sit / Sit		\downarrow
` '		·				0V					
				Ignition swi		0 - 1.0V					
72		Transmission range switch		Ignition	CVT selector lever in P or N position	Battery voltage					
(BR)	Ground	signal (with VQ35DE)	Input	switch ON	CVT selector lever in any position other than P or N position	0V					
70		Transmission range switch		lanition	CVT selector lever in P or N position	Battery voltage					
72 (W)	Ground	Transmission range switch signal (with QR25DE)	Input	nput Ignition switch ON	CVT selector lever in any position other than P or N position	0V					
74	Ground	Ignition relay power supply	Output	Ignition swi	tch OFF	0V					
(L)	Giouria	ignition relay power suppry	Output	Ignition swi	tch ON	Battery voltage					
75	Ground	Oil proceure quitab	Innut	Ignition	Engine stopped	0V					
(LG)	Ground	Oil pressure switch	Input	switch ON	Engine running	Battery voltage					

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< ECU DIAGNOSIS >

	nal No.	Description				Value
+	color)	Signal name	Input/ Output		Condition	(Approx.)
				Ignition switch ON		(V) 6 4 2 0 2ms JPMIA0001GB
76 (GR)	Ground	Power generation command signal	Output		on "Active test", "ALTERNA- /" of "ENGINE"	(V) 6 4 2 0 2ms JPMIA0002GB
				80% is set on "Active test", "ALTERNATOR DUTY" of "ENGINE"		(V) 6 4 2 0 2 2ms JPMIA0003GB
77 (GR)	Ground	Fuel pump relay control	Output	 Approximately 1 second after turning the ignition switch ON Engine running 		0 - 1.0V
					tely 1 second or more after ignition switch ON	Battery voltage
80 (R)	Ground	Starter motor	Output	At engine of	cranking	Battery voltage
83	Ground	Headlamp LO (RH)	Output	Ignition	Lighting switch OFF	0V
(R/Y)		. , ,		switch ON	Lighting switch 2ND	Battery voltage
84 (L)	Ground	Headlamp LO (LH)	Output	Ignition switch ON	Lighting switch OFF Lighting switch 2ND	0V Battery voltage
86 (W/R)	Ground	Front fog lamp (RH)	Output	Lighting switch 2ND	Front fog lamp switch ON Daytime running light activated (Only for Canada models) Front fog lamp switch OFF	Battery voltage Battery voltage
87 (L/Y)	Ground	Front fog lamp (LH)	Output	Lighting switch 2ND	Front fog lamp switch ON Daytime running light activated (Only for Canada models) Front fog lamp switch OFF	Battery voltage
88 (R/W)	Ground	Washer pump power supply	Output	Ignition sw		Battery voltage

	nal No.	Description				Value	
(Wire +	color)	Signal name	Input/ Output	Condition		(Approx.)	
89	Ground	Headlamp HI (RH)	Output	Ignition	Lighting switch HI lighting switch PASS	Battery voltage	
(L/W)				switch ON	Lighting switch OFF	0V	
90 (G)	Ground	Headlamp HI (LH)	Output	Ignition switch ON	Lighting switch HI Lighting switch PASS	Battery voltage	
(G)				SWILCH ON	Lighting switch OFF	0V	
91	Craund	Dorling lower (DLI)	Outout	Ignition	Lighting switch 1ST	Battery voltage	
(LG/R)	Ground	Parking lamp (RH)	Output	switch ON	Lighting switch OFF	0V	
92	Craund	Davising James (LLI)	Outout	Ignition	Lighting switch 1ST	Battery voltage	
(LG/B)	Ground	Parking lamp (LH)	Output	switch ON	Lighting switch OFF	0V	
99 (BR/W)	Ground	Ambient sensor ground	_	Ignition switch ON		OV	
100 (SB)	Ground	Ambient sensor	_	Ignition switch ON		5V	
101 (O/L)	Ground	Refrigerant pressure sensor ground	_	Ignition sw	itch ON	0V	
102 (R/B)	Ground	Refrigerant pressure sensor	_	Ignition switch ON (READY) Both A/C switch and blower motor switch ON (electric compressor operates)		1.0 - 4.0V	
103 (P)	Ground	Refrigerant pressure sensor power supply	_	Ignition switch ON		5V	
105	Ground	Davtime light relay control	Output	Ignition switch ON	Daytime light system active	Battery voltage	

Fail Safe

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Daytime light system inac-

Ignition

switch ON

Output

CAN COMMUNICATION CONTROL

Ground

(V)

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

Daytime light relay control

Control part	Fail-safe in operation
Cooling fan	 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	 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
Parking lampsLicense plate lampsIlluminationTail lamps	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

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< ECU DIAGNOSIS >

Control part	Fail-safe in operation
Front wiper	 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

IGNITION RELAY MALFUNCTION DETECTION FUNCTION

- IPDM E/R monitors the voltage at the contact circuit and excitation coil circuit of the ignition relay inside it.
- IPDM E/R judges the ignition relay error if the voltage differs between the contact circuit and the excitation coil circuit.
- If the ignition relay cannot turn OFF due to contact seizure, it activates the tail lamp relay for 10 minutes to alert the user to the ignition relay malfunction when the ignition switch is turned OFF.

DTC	Ignition switch	Ignition relay	Tail lamp relay
_	ON	ON	_
_	OFF	OFF	_
B2098: IGN RELAY ON	OFF	ON	ON (10 minutes)
B2099: IGN RELAY OFF	ON	OFF	_

NOTE:

The tail lamp turns OFF when the ignition switch is turned ON.

FRONT WIPER CONTROL

IPDM E/R detects front wiper stop position by a front wiper auto stop signal.

When a front wiper auto stop signal is in the conditions listed below, IPDM E/R stops power supply to wiper after repeating a front wiper 10 second activation and 20 second stop five times.

Ignition switch	Front wiper switch	Auto stop signal
ON	OFF	Front wiper stop position signal cannot be input 10 seconds.
	ON	The signal does not change for 10 seconds.

NOTE:

This operation status can be confirmed on the IPDM E/R "Data Monitor" that displays "BLOCK" for the item "WIP PROT" while the wiper is stopped.

STARTER MOTOR PROTECTION FUNCTION

IPDM E/R turns OFF the starter control relay to protect the starter motor when the starter control relay remains active for 90 seconds.

DTC Index INFOID:0000000005783034

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	
B210B: START CONT RLY ON	_	CRNT	1 – 39	<u>SEC-37</u>	
B210C: START CONT RLY OFF	_	CRNT	1 – 39	SEC-38	

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< ECU DIAGNOSIS >

CONSULT-III display	Fail-safe	TIME	NOTE	Refer to
B210D: STARTER RELAY ON	_	CRNT	1 – 39	<u>SEC-39</u>
B210E: STARTER RELAY OFF	_	CRNT	1 – 39	<u>SEC-40</u>
B210F: INTRLCK/TRANSMISSION RANGE SW ON	_	CRNT	1 – 39	<u>SEC-43</u>
B2110: INTRLCK/TRANSMISSION RANGE SW OFF	_	CRNT	1 – 39	<u>SEC-48</u>

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 $0 \rightarrow 1 \rightarrow 2 \cdots 38 \rightarrow 39$ after returning to the normal condition whenever IGN OFF \rightarrow 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.

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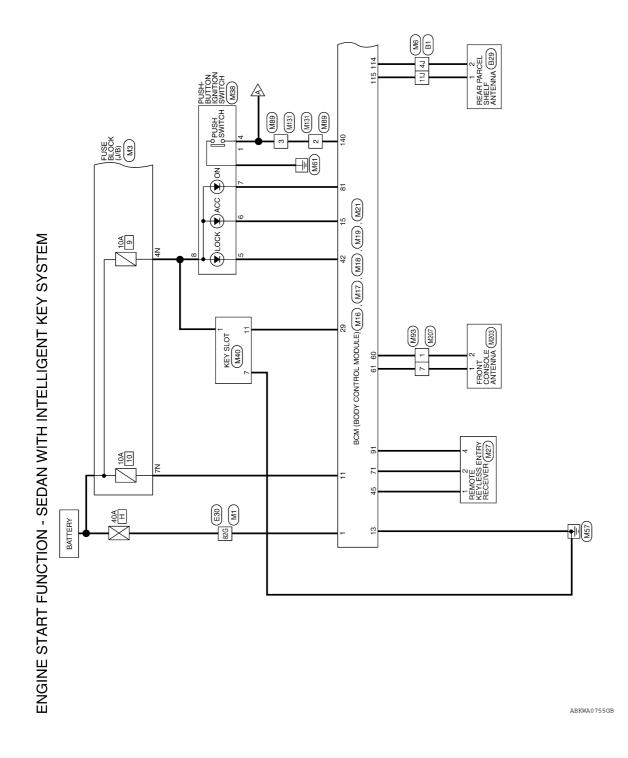
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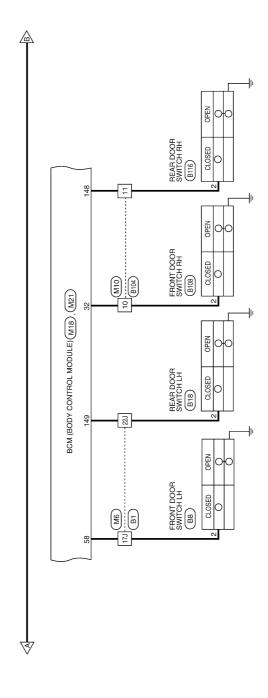
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WIRING DIAGRAM

ENGINE START FUNCTION - WITH INTELLIGENT KEY SYSTEM

Wiring Diagram





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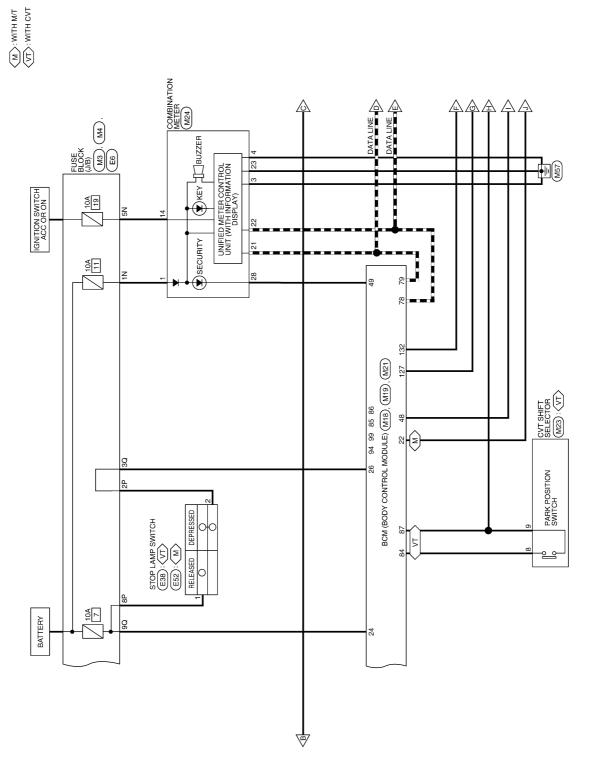
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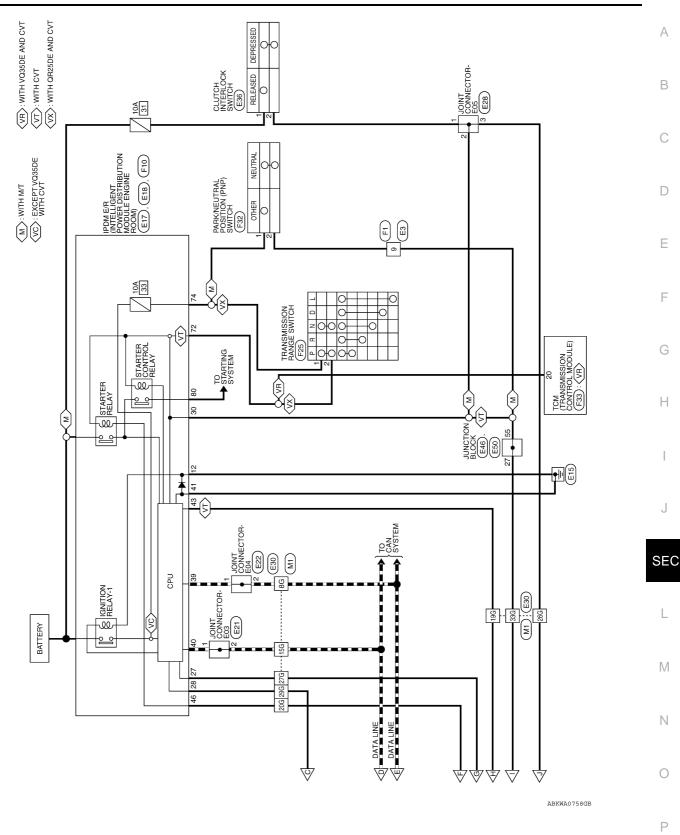
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ENGINE START FUNCTION CONNECTORS - SEDAN WITH INTELLIGENT KEY SYSTEM

Connector No.

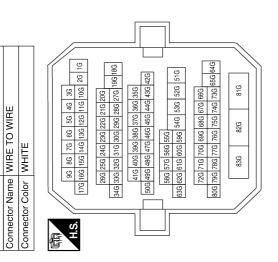
Connector No.	. M3	
Connector Name	ıme FUS	FUSE BLOCK (J/B)
Connector Color WHITE	lor WHI	TE
同的 H.S.	N	
Terminal No.	Color of Wire	Signal Name
Z	7/M	1
N4	J/S	ı

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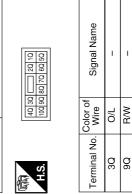
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Signal Name	1	ı	I	I	ı	I	I	ı	_
Color of Wire	Ь	_	G/B	æ	Ρ/Υ	BR/W	BR	R/G	W/B
Terminal No.	98	15G	19G	20G	26G	27G	29G	33G	82G



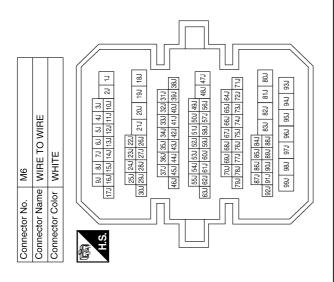
M4	Connector Name FUSE BLOCK (J/B)	WHITE	
Connector No.	Connector Name	Connector Color WHITE	



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Connector No.	o. M10	0
Connector Name		WIRE TO WIRE
Connector Color		BROWN
H.S.	5 4 12 11 10 9	8 3 7 6 1
Terminal No.	Color of Wire	Signal Name
10	B/B	1
11	B/W	1

Signal Name	_	1	_	_
Color of Wire	В	W	SB	B/B
Terminal No. Wire	47	11)	17.1	22J



			1		
	Connector Name BCM (BODY CONTROL MODULE)	ПЕ	11 12 13 14 15 16 17 18 19	Signal Name	BAT_BCM_FUSE
. M17	me BCN MOI	lor WH	4 5 6 11 12 13	Color of Wire	Y/R
Connector No.	Connector Na	Connector Color WHITE	·斯	Terminal No.	11

Connector Nam		
	BCM MOD	Connector Name BCM (BODY CONTROL MODULE)
Connector Color BLACK	r BLAC	X
原 H.S.		
Terminal No.	Color of Wire	Signal Name
٦	M/B	BAT_POWER_F/L

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ACC_LED

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Color of Signal Name	L/O RF1_TUNER_SIGNAL	P CAN-L	L CAN-H	LG IGN_ON_LED	Y/R AT_DEVICE_OUT	G/B SHIFT_P	L/R RF1 POWER SUPPLY
Terminal No.	71	28	62	81	84	87	91

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



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ROOM_ANT_2_B ROOM_ANT_2_A

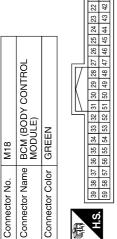
W/R B/B

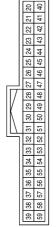
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Signal Name

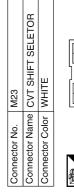
Color of Wire

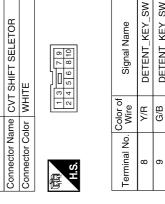
Terminal No.





Signal Name	CLUTCH_SW	STOP_LAMP_LOW_SW	STOP_LAMP_HIGH_SW	FOB_IN_SW	AS_DOOR_SW	S/L_LOCK_LED	GND_RF2_A/L
Color of Wire	R/Y	R/W	O/L	У	R/B	В	Ь
Terminal No.	22	24	56	59	32	42	45





DETENT_KEY_SW

Signal Name	TRUNK_ANT_1_B	TRUNK_ANT_1_A	IGN_USM_CONT1	ST_CONT_USM	ENG START SW W/O ESCL	RR_DOOR_SW	RL_DOOR_SW
Color of Wire	В	W	BR/W	В	BR	R/W	R/B
Terminal No.	114	115	127	132	140	148	149

							112	133	l
			1				113		1
							123 122 121 120 119 118 117 116 115 114 113	150 149 148 147 146 145 144 143 142 141 140 139 138 137 136 135 134 133	1
							115	135	
	딚						116	136	
	뜨						117	137	
	Ż						118	138	
	S S						119	139	
	≿					117	120	140	
	Q (ii					W	121	141	
	BCM (BOD MODULE)	_				IN.	122	142	
_	동음	₹				Ш	123	143	
N N	⊠ĕ	GF					127 126 125 124	144	
	Φ	L					125	145	
	E	양					128	146	
ž	ž	ŏ					127	147	
ğ	φ	tor					129 128	148	l
မ	99	Эә			ιĠ		129	149	
	Connector Name BCM (BODY CONTROL MODULE)	Connector Color GRAY		(Far	H.S.		130	120	
Connector No.	ပိ	ပိ		E	7		131	151	

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DR_DOOR_SW

SHIFT_N/P IMMO_LED

R/G 9 SB

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Connector No.	o.	M27	
Connector Name	ame	REG	REMOTE KEYLESS ENTRY RECEIVER
Connector Color	Sor	BLACK	OK
雨 H.S.			2 3 4
Terminal No.	Color of Wire	or of re	Signal Name
1	Ь		GND
2		Q	SIGNAL
4		Ę	12V

Signal Name	BAT	GND (POWER)	GND (ILL)	ACC	CAN-H	CAN-L	GND (CIRCUIT)	SECURITY
Color of Wire	M/L	В	В	٨/٨	٦	Ь	В	0/7
Terminal No.	1	3	4	14	21	22	53	28

M24 COMBINATION METER WHITE WHITE 9 10 11 12 13 14 15 16 17 18 19	4
NATI(33
NATI(88
NATI(37
NATI(38
NATION 12	88
NATION 12	용
NATION 12	30 31 32 33 34
COMBINA WHITE	33
M24 COMBII WHITE	3
M24 M24 MHI	8
	೪
	26 27 28 29
	27
	88
	22
	24
	ន
onne onne onne H.S.	21 22 23 24 25
Connector No. Connector Color Connector Color H.S.	7

Connector No.	M89
Connector Name WIRE TO WIRE	WIRE TO WIRE
Connector Color WHITE	WHITE

WIRE TO WIRE	WHITE	8 2 4 4	Signal Name	_	
	_		Color of Wire	BR	
Connector Name	Connector Color	H.S.	Terminal No.	2	,

ector No. M40	Connector Name KEY SLOT	Connector Color WHITE	1 1 1 1 2 2 3 3 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Connector No.	Connector	Connector	H.S.

1 3FO	WHITE	8 9 10 11 12	Signal Na	B+	GND	CARD_S
I L	_		Color of Wire	G/Y	В	>
Corinector Name KET SLOT	Connector Color	H.S.	Terminal No.		7	11

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



Signal N	GNE	START	207	ACC	NO	B+
Color of Wire	В	BR	œ	Y/L	LG	G/Y
Terminal No.	1	4	2	9	7	8

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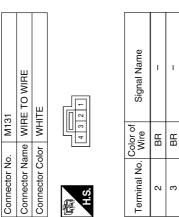
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M203	me FRONT CONSOLE ANTENNA	or GRAY		Solor of Signal Name	W/R ANT+	
Connector No.	Connector Name	Connector Color GRAY	雨 H.S.	Terminal No. Wire	٠	ď



Connector No.). M93	3
Connector Name	l	WIRE TO WIRE
Connector Color	olor WHITE	ПЕ
用.S.	7 8 2	9 10 11 12 8
Terminal No.	Color of Wire	Signal Name
-	B/R	1
7	Q/W	-

	1	_	1		_	r
	FUSE BLOCK (J/B)	WHITE	7P 6P 5P 4P 2P 1P 2P 1P 6P 1SP 1SP 1SP 1SP 1SP 1SP 1SP 1SP 1SP 1S	Signal Name	ı	I
. E6		_	7P 6P 5P 4P [Color of Wire	۵	æ
Connector No.	Connector Name	Connector Color	哥 H.S.	Terminal No.	2P	8P

	WIRE TO WIRE	IITE	9 10 11 12 13 14 15 16 7	Signal Name	1
E3		lor WHITE	8 1 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Color of Wire	BR
Connector No.	Connector Name	Connector Color	原 H.S.	Terminal No.	6

77 E TO WIBE	ITE	11	Signal Name	_	-
. M207	or WH	0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Color of Wire	B/R	W/R
Connector No. M207	Connector Color WHITE	所 A.S.	Terminal No.	-	7

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ENGINE START FUNCTION - WITH INTELLIGENT KEY SYSTEM DIAGRAM > [SEDAN WITH INTELLIGENT KEY]

< WIRING DIAGRAM >

nector No.	E17		Connector No.	E18		Terminal No Color of	Color of	Signal Name	<i>-</i> 117
acid votoce	IPDIV	IPDM E/R (INTELLIGENT		IPDM E/R (INTELLIGENT			WIFE		
ector Nar	POW POW POW POW POW POW POW POW POW POW	ER DISTRIBUTION	Connector Name	Connector Name POWER DISTRIBUTION MODILI E ENGINE BOOM)		12	В	GND (POWER)	
		OLL LINGHINE HOOMI)	-	MODOLL LINGUIST TOOM)		27	>	IGN_SIGNAL	
nector Color WHILE	OF WHILE	Ш	Connector Color WHILE	WHILE		28	SB	PUSH_START_SW	V 1. 2
	띡		E			30	æ	CLUTCH I/L SW (WITH M/T)	
Ś	42 41	40 39	H.S.			30	BR	ECM (WITH CVT)	
	f F	F							
Color o No. Wire	Color of Wire	Signal Name	9 10 11 12	13 14 25 26 27 28 29 30 31 32 33 34	3334 37 38				
)			+					
39	۵	CAN-L	3 4 5 6	7 8 15 16 17 18 19 20 21 22 23 24	23 24 35 36				
40	_	CAN-H							
41	В	GND (SIGNAL)							
43	G/B	DETENT_SW							
46	BB	START_CONT							

3	JOINT CONNECTOR-E05	WHITE	4 3 2 1	Signal Name	1	I	ı
. E28		_		Color of Wire	æ	Я	۳
Connector No.	Connector Name	Connector Color	语 SH	Terminal No. Wire	1	2	8

		JOINT CONNECTOR-E04			Signal Name	1	1
or No.			or WHITE	1 4 3 2 1	Je	۵	Ь
Connect Connect Connect Connect Termina	Connector No.	Connector Name	Connector Color	原列 H.S.	Terminal No. Wire	-	2

	Connector Name JOINT CONNECTOR-E03	TE	4 3 2 1 0	Signal Name	I	ı
- - - -	me JOII	lor WHI	4	Color of Wire	7	L
	Connector Na	Connector Color WHITE	原 H.S.	Terminal No.	-	2

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Connector No.	o. E30	E30 WIRE TO WIRE		Terminal No.	Color of Wire	Signal Name	Connector No. E36	36 HITCH INTERLOCK	
Connector Color	olor WH	WHITE		8G	۵	1		SWITCH	
	_			15G	_	I	Connector Color BF	BROWN	
				19G	G/B	1			
012	36	46 56 66 76 86 96	,	20G	BR	1		<u></u>	
11.0	1G 2G 10G	2G 10G 11G 12G 13G 14G 15G 16G 17G		26G	В	1	H.S.	-	
	0	040 020 040 050		27G	M	-]	
	18G 19G 27G	18G 19G 27G 28G 29G 30G 31G 32G 33G 34G		29G	SB	-	o roloc		
	0.00			33G	BR	-	Terminal No. Wire	Signal Name	
	35G 42G 43G	42G 43G 44G 45G 46G 47G 48G 49G 50G		82G	LG	ı	- N	1	
	516 526 55 666 666 736	51G 52G 53G 54G 55G 57G 57G					2 H		
Connector No.	lo. E38	8		Connector No.). E46		Connector No. E50	20	
Connector Name	e	STOP LAMP SWITCH		Connector Name		JUNCTION BLOCK	Connector Name JU	JUNCTION BLOCK	
Connector Color		(WITH CVT)		Connector Color	olor WHITE	<u> </u>	Connector Color W	WHITE	
H.S.		3 2 4 2 7		原动 H.S.	31 30 29 28 CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	<u>28 (***)</u> <u>27 26 25 37 38 32 32 37 38 38 38 38 38 38 38</u>	E.S.H.S.	S6 S5	
	Color of				-		-		
Terminal No.	. Wire	Signal Name		Terminal No.	Color of Wire	Signal Name	Terminal No. Wire	Signal Name	
-	œ	ı		27	BB	1	55 BR	ı	
7	PC	ı					-]	

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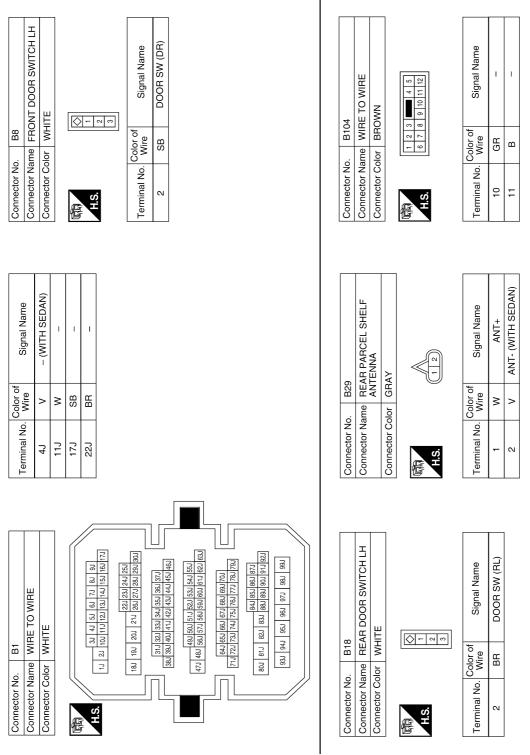
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Connector No. F10 Connector Name POWER DISTRIBUTION MODULE ENGINE ROOM) Connector Color WHITE H.S.	S3 54 55 56 57 58	Connector No. F33 Connector Name CONTROL MODULE) (WITH YQ35DE) Connector Color BLACK	Terminal No. Wire Signal Name
F1 WIRE TO WIRE WHITE 6 5 4 6 6 8 8 1 1 10 9 8 8	Color of Signal Name Wire	F32 PARKNEUTRAL POSITION (PNP) SWITCH BLACK	Color of Signal Name Wire L - W -
Connector No. Connector Color Connector Color H.S.	Terminal No. Col	Connector No. Connector Name Connector Color	Terminal No. W
STOP LAMP SWITCH (WITH M/T) BLACK	Signal Name	F25 TRANSMISSION RANGE SWITCH BLACK 8 4 3 7 7 2 6 5 1	Signal Name IGN_P_N P_N_OUTPUT
nnector No.	Terminal No. Wire 1	Connector No. F25 Connector Name TRANS SWITCH Connector Color BLACK Re 4 3 H.S. 2 6	Color of Wire 1 L L 2 W
	<u> </u>		∆BKIA2129GB

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ABKIA2130GB

Connector Name REAR DOOR SWITCH RH

Connector Name FRONT DOOR SWITCH RH

B108

Connector No.

Connector Color WHITE

B116

Connector No.

Connector Color WHITE

Q - 0 0

DOOR SW (RR)

Signal Name

Color of Wire В

Terminal No.

DOOR SW (AS) Signal Name

Color of Wire GR

Terminal No. $^{\circ}$

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Revision: September 2009

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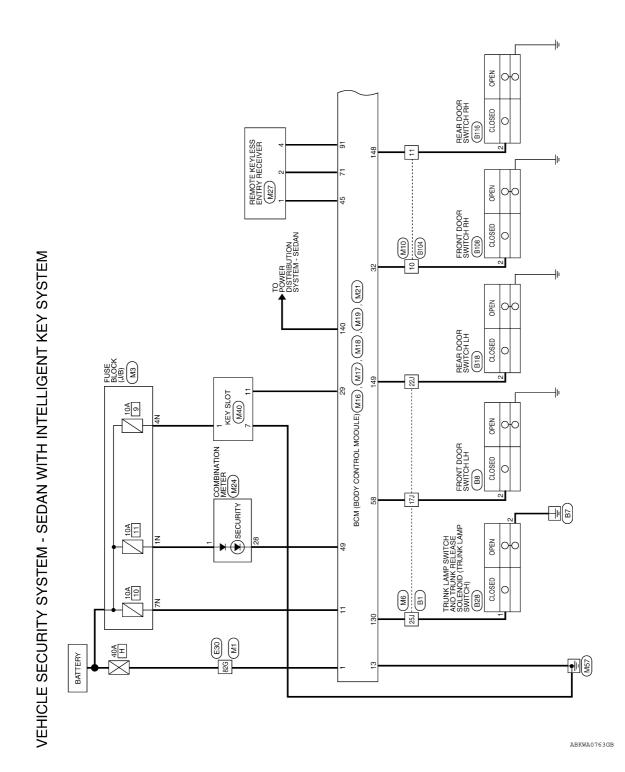
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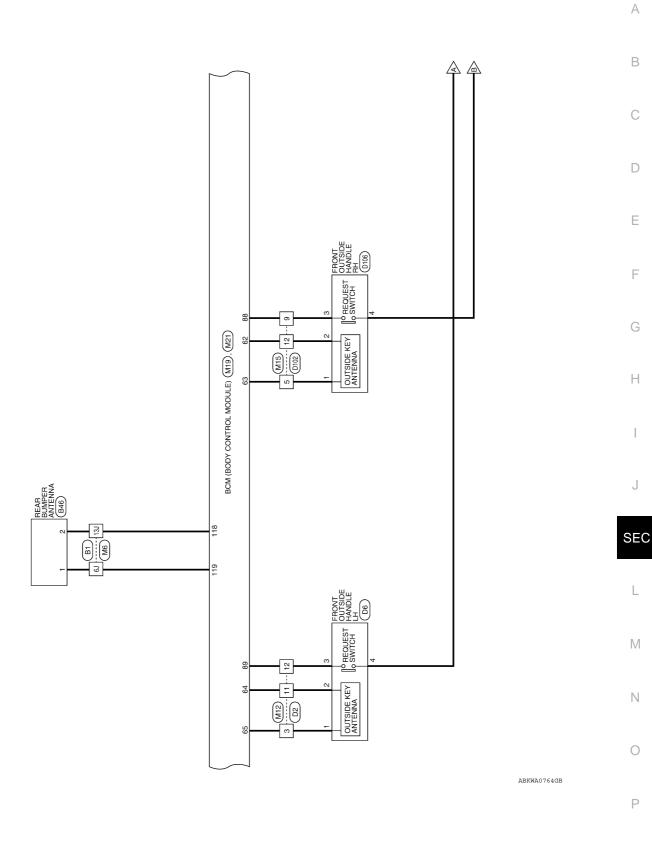
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VEHICLE SECURITY SYSTEM - WITH INTELLIGENT KEY SYSTEM

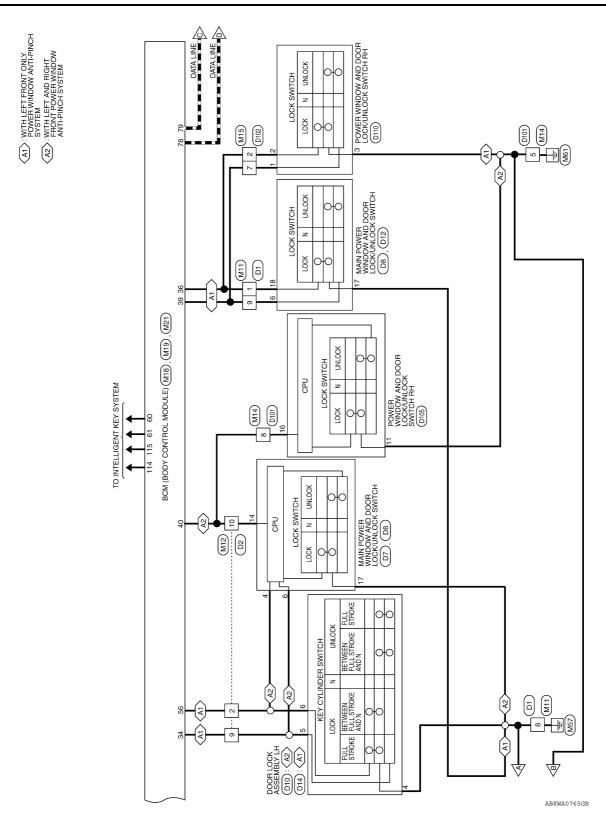
Wiring Diagram INFOID:0000000005429831

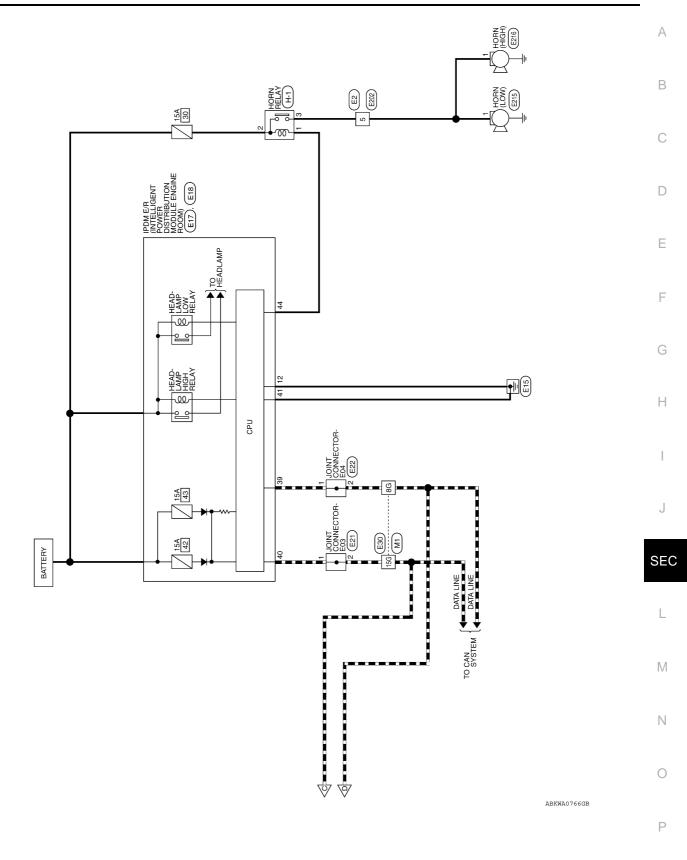


SEC-334 Revision: September 2009 2010 Altima

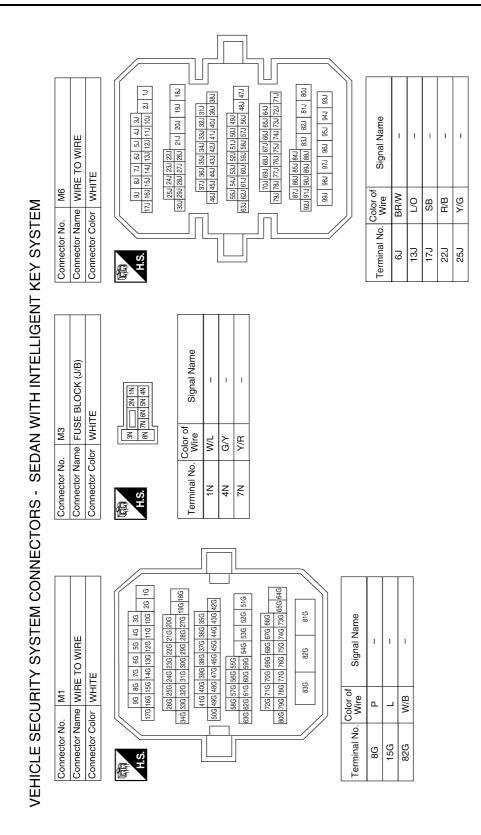


SEC-335 Revision: September 2009 2010 Altima





SEC-337 Revision: September 2009 2010 Altima



ABKIA2141GB

SEC-338 Revision: September 2009 2010 Altima

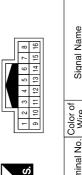
VEHICLE SECURITY SYSTEM - WITH INTELLIGENT KEY SYSTEM [SEDAN WITH INTELLIGENT KEY]

< WIRING DIAGRAM >

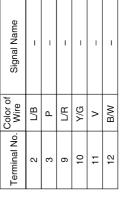


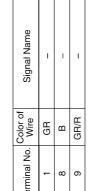
M11

Connector No.



Signal Name	ı	-	-	1	1	1
Color of Wire	L/B	Ь	L/R	Y/G	>	B/W
Terminal No. Wire	2	3	6	10	11	12



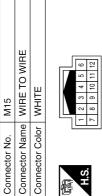


E TO WIRE	IE	3	Signal N	_	_	
me WIF	lor WHITE	8 9 10	Color of Wire	GR	В	ģ
Connector Name WIRE TO WIRE	Connector Color	H.S.	Terminal No.	1	8	ú
		. <u></u>				

7

Connector No.). M10	0
Connector Name	ıme WIF	WIRE TO WIRE
Connector Color		BROWN
所 H.S.	2 11 4	5 4 1 3 2 1 1 10 9 8 7 6 6
Terminal No.	Color of Wire	Signal Name
10	B/B	I
11	B/W	1

Connector No.	. M16	
Connector Na	me BCN MOI	Connector Name BCM (BODY CONTROL MODULE)
Connector Color	lor BLACK	S,
原本 H.S.		
Terminal No.	Color of Wire	Signal Name
-	M/B	BAT_POWER_F/L





9 10 11 12 6	Signal	·	·	·		
- 12	Color of Wire	GR	ГG	GR/R	P/L	B/Y
H.S.	Terminal No.	2	5	7	6	12

l Name

Connector No.). M14	+
Connector Name		WIRE TO WIRE
Connector Color	olor WHITE	ITE
师 H.S.	7 9	9 9 10 10
Terminal No.	Color of Wire	Signal Name
5	В	1
8	5/A	1

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SEC-339 Revision: September 2009 2010 Altima

Signal Name	FOB_IN_SW_1	AS_DOOR_SW	DOOR_KEY/C_ UNLOCK_SW	CENTRAL_LOCK_SW	CENTRAL_UNLOCK_ SW	PW_K-LINE	GND_RF2_A/L	IMMO_LED	DOOR_KEY/C_LOCK_ SW	DR_DOOR_SW
Color of Wire	>	R/B	L/R	GR	GR/R	J//G	Ь	97	L/B	SB
erminal No.	29	32	34	36	39	40	45	49	56	58

Signal	FOB_IN	AS_DOC	DOOR_I	CENTRAL	CENTRAL SI	PW_K	GND_R	IMMO	DOOR_KEY SV	DR_DO(
Color of Wire	Y	R/B	L/R	GR	GR/R	J//G	Ь	0/1	L/B	SB
Terminal No.	59	32	34	36	39	40	45	49	99	58
CONTROL	1)			Гг	27 26 25 24 23 22 21 20 8 47 46 45 44 43 42 41 40					

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

	E 88									
	150 152 152 152 152 153	Signal Name	TRUNK_ANT_1_B	TRUNK_ANT_1_A	BACK_DOOR_ANT_B	BACK_DOOR_ANT_A	TRUNK_SW	ENG START SW W/O ESCL	RR_DOOR_SW	WS BOOD IS
	126 125 124 11 146 145 144 1	Color of Wire	В	8	0/1	BR/W	Y/G	BR	M/A	B/B
用.S.	131 130 129 128 127 151 150 149 148 147	Terminal No.	114	115	118	119	130	140	148	149

112 28

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

		100	7	
	l 17	88	48	
_		8	49	
GREEN	IN	8	20	
뿠		31	51	
Ö		33 32	52	
		33	53	
ᅙ		8	54	
ŏ		35	55	
ğ		98	56	
Connector Color	. 6	37	57	
Ē	H.S.	88	28	
ပိ	╚ ▼	33	29	
_				_

Terminal No.	Color of Wire	Signal Name
60	B/R	ROOM_ANT_2_B
61	W/R	ROOM_ANT_2_A
62	В/У	AS_DOOR_ANT_B
63	ГG	AS_DOOR_ANT_A
64	۸	DR_DOOR_ANT_B
65	Р	DR_DOOR_ANT_A
71	Γ/0	RF1_TUNER_SIGNAL
78	Ь	CAN-L
79	Γ	CAN-H
88	P/L	AS REQUEST SWITCH
89	B/W	DR REQUEST SWITCH
91	L/R	RF1_POWER_SUPPLY

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

	10	18 19]	
	6			
	8	17		
	П	16		
1	Ш	13 14 15 16 17		
١	7	14		
l	9			
l	5	12		
	4	11		
-			_	

Signal Name	BAT_BCM_FUS	GND1	
Color of Wire	Y/R	В	
Terminal No.	11	13	

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

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Connector No. M40 Connector Name KEY SLOT Connector Color WHITE	PDM E/R (INTELLIGENT PDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector No. M27 Connector Name REMOTE KEYLESS ENTRY Connector Color BLACK H.S. Terminal No. Wire Signal Name 2 L/O SIGNAL 4 L/R 12V	Connector No. E17 Connector Name POWER DISTRIBUTION MODULE ENGINE ROOM) Connector Color WHITE Terminal No. Wire Signal Name 39 P CAN-L A4 G/W HORN_RLY
Connector No. M24	Connector No. E2 Connector Name WIRE TO WIRE Connector Color WHITE Terminal No. Color of Signal Name 5 G

SEC-341 Revision: September 2009 2010 Altima Н

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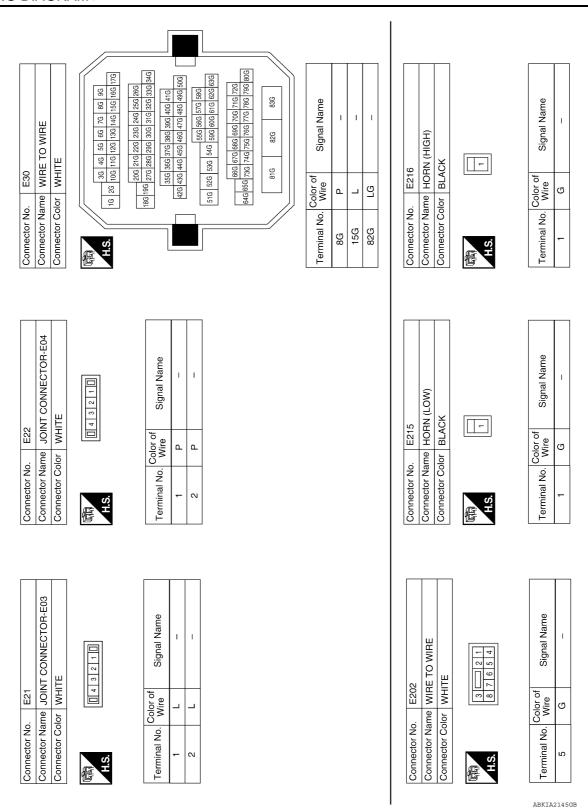
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VEHICLE SECURITY SYSTEM - WITH INTELLIGENT KEY SYSTEM G DIAGRAM > [SEDAN WITH INTELLIGENT KEY]

< WIRING DIAGRAM >



Revision: September 2009 SEC-342 2010 Altima

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		А
FRONT DOOR SWITCH LH WHITE Cof Signal Name B DOOR SW (DR)	B46 REAR BUMPER ANTENNA GRAY r of Signal Name ANT+ ANT-	В
Ni Signal		D
Connector No. Connector Color Terminal No. Color 2 S	Connector No. Connector Color Terminal No. W W 2 L	E
		F
Signal Name	TRUNK LAMP SWITCH AND TRUNK RELEASE SOLENOID WHITE r of Signal Name	G
Color of Wire LG SB SB WW		Н
6J 6J 7J 22J 25J 25J	Connector No. Connector Name Connector Color H.S. 1 Color 2	I
		J
		SEC
B1	REAR DOOR SWITCH LH WHITE Trof Signal Name R DOOR SW (RL)	L
MIRE TO WIRE	WHITE Sign of DC	M
or No.		Ν
Connector No. Connector Name Connector Color H.S.	Connector No. Connector Color Terminal No. Will	0

SEC-343 Revision: September 2009 2010 Altima

VEHICLE SECURITY SYSTEM - WITH INTELLIGENT KEY SYSTEM [SEDAN WITH INTELLIGENT KEY]

< WIRING DIAGRAM >

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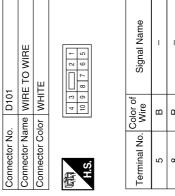
SEC-344 Revision: September 2009 2010 Altima

Connector No.	D10
Connector Name	FRONT DOOR LOCK ASSEMBLY LH (WITH LEFT AND RIGHT POWER WINDOW ANTI-PINCH SYSTEM)
Connector Color GRAY	GRAY

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ro.	
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Signal Name	GND	DOOR_KEY/C_ UNLOCK_SW	DOOR_KEY/C_ LOCK_SW	
Color of Wire	В	L/R	L/B	
Terminal No. Wire	4	2	9	

DOOR_KEY/C_ LOCK_SW	
L/B	
9	



Cok		8 8	of		
S. minal No.	OL WHILE	4 10	Color of Wire	В	۵
	Cormector Color	H.S.	Terminal No.	5	α

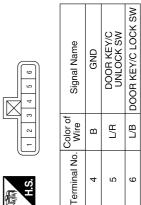
Connector No.	D8
Connector Name	Connector Name AND DOOR LOCK/UNLOCK SWITCH
Connector Color WHITE	WHITE
4	



of Signal Nam	GND	LOCK	
Color of Wire	В	GR	
Terminal No.	17	18	

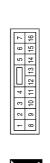
Signal Name	GND	LOCK	
Color of Wire	В	GR	
Terminal No.	17	18	

D14	FRONT DOOR LOCK ASSEMBLY LH (WITH LEFT FRONT ONLY POWER WINDOW ANTI-PINCH SYSTEM)	GRAY
Connector No.	Connector Name	Connector Color GRAY



DOOR KEY	9/1	9
DOOR	ИЛ	5
9	В	4
Signal N	Color of Wire	Terminal No.

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



Signal Name	LOCK	UNLOCK	COM
Color of Wire	L/B	L/R	GR
Terminal No.	4	9	14

MAIN POWER WINDOW AND DOOR LOCKUNLOCK AND DOOR LOCKUNLOCK AND DOOR LOCKUNLOCK AND DOOR LOCKUNLOCK SYSTEM) Connector Color WHITE	Connector No.	D12
Connector Color WHITE	Connector Name	MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH (WITH LEFT FRONT ONLY POWER WINDOW ANTI-PINCH SYSTEM)
	Connector Color	WHITE

			_
l	7	16	
Ш	9	15	
П	5	14	
Ш	П	13	
Ш	Ш	12	
Ш	4	11	
П	3	10	
Ш	2	6	
Ш	1	8	
٢			_
			_

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

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SEC-345 Revision: September 2009 2010 Altima Е

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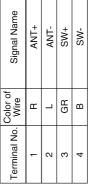
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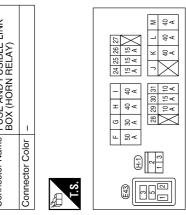
Signal Name	I	ı	1
Color of Wire	Μ	SB	0
Terminal No.	-	2	3

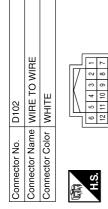


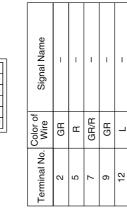




GND	COM		H	Connector Name FUSE AND FUSIBLE LINK
В	ш			me
11	16		Connector No.	Connector Na







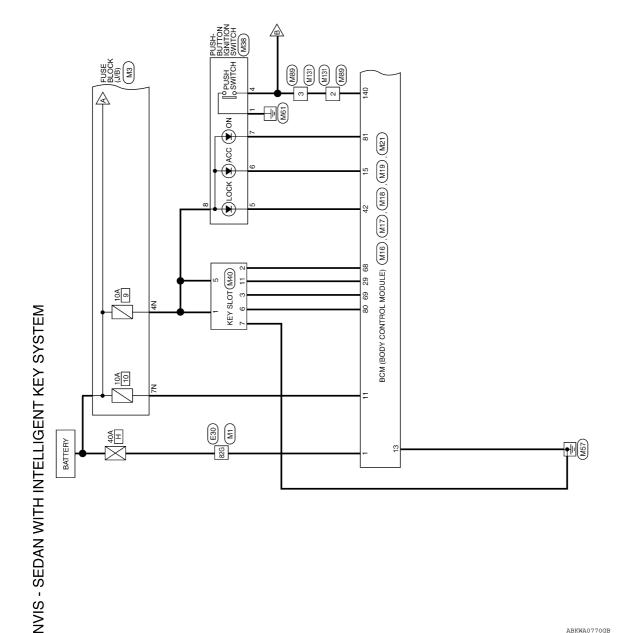
D110	POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH (WITH LEFT POWER WINDOW ANTI-PINCH SYSTEM)	VHITE	
Connector No.	Connector Name	Connector Color WHITE	

	Signal Name	LOCK	NNFOCK	GND
•	Color of Wire	GR	GR/R	В
H.S.	Terminal No.	-	2	3

ABKIA2149GB

NVIS - WITH INTELLIGENT KEY SYSTEM

Wiring Diagram INFOID:0000000005429832



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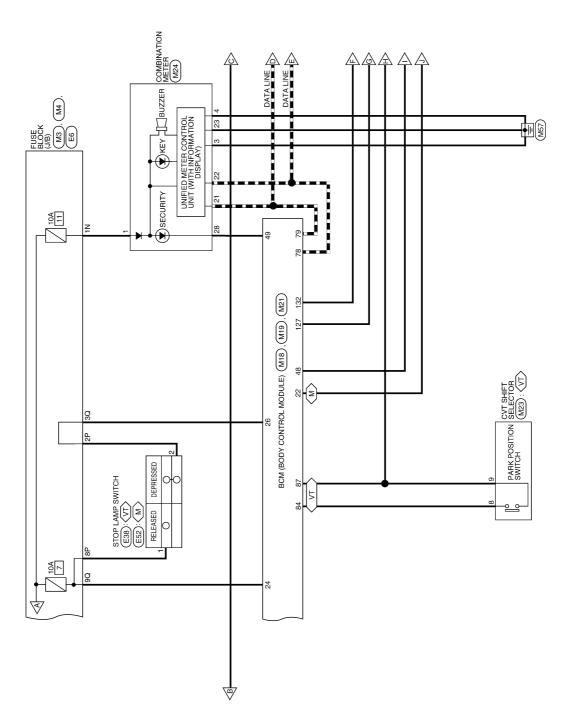
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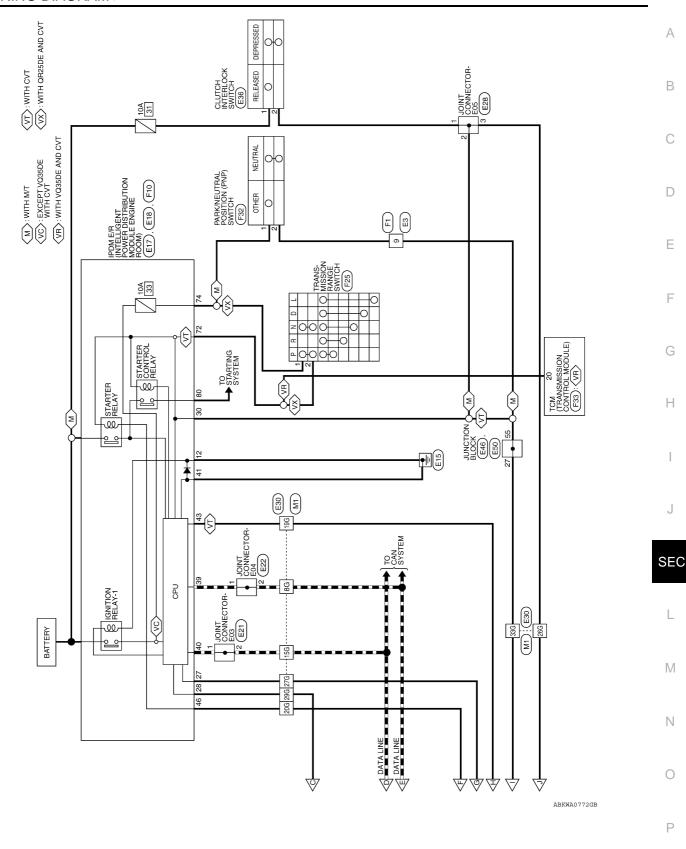
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[SEDAN WITH INTELLIGENT KEY]



BAT_BCM_FUSE Signal Name

Color of Wire Y/R

Terminal No.

ACC_LED GND1

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BAT_POWER_F/L Signal Name

Color of Wire M/B

Terminal No.

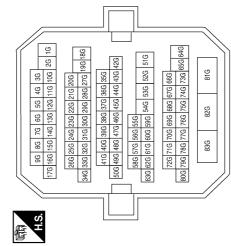
NVIS CONNECTORS - SEDAN WITH INTELLIGENT KEY SYSTEM

Connector Name WIRE TO WIRE Connector Color WHITE

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Connector No.

	FUSE BLOCK (J/B)	ITE			N 5N 1N			Signal Name	1	_	-
M3	ЭС	or WH	_			<u></u>	Color of	Wire	M/L	G/Y	Y/R
Connector No.	Connector Name	Connector Color WHITE		恒	H.S.		Color of	erminal No.	N.	N4	N.
	•		_			•					



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

	M16
те	me BCM (BODY CONTROL MODULE)
or	or BLACK

Connector Nar Connector Col

Connector Name FUSE BLOCK (J/B)

Connector No.

Connector Color WHITE





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Signal Name	1	I
r of e		>





Signal Name	ſ	I	
Color of Wire	O/L	R/W	
Terminal No.	30	90	

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Connector No. M19				
	19	Terminal No	Color of	Signal Name
onnector Name BC	CM (BODY CONTROL		Wire	Olginal Ivaline
Σ	MODÙLE)	78	Ф	CAN-L
Connector Color BLACK	LACK	62	_	CAN-H
		80	R/L	FOB_SLOT_ ILLUMINATION
H.S.		81	5	IGN_ON_LED
		84	Y/R	AT_DEVICE_OUT
79 78 77 76 75 74 73 72	75 74 73 72 71 70 69 68 67 66 65 64 63 62 61 60	87	G/B	SHIFT_P
9 98 97 96 95 94 93 92	99 98 97 96 95 94 93 92 91 90 89 88 87 86 85 84 83 82 81 80			

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

Connector No.



						28 27 26 25 24 23 22 21 20	58 57 56 55 54 53 52 51 50 49 48 47 46 45 44 43 42 41 40		
					Н	2	4		
					Ш	ম	42		
	١				Ш	33	43		
	ΙŌ				Ш	24	44		<u>م</u>
	性				Ш	25	45		
						26	46		Z
	ဗ				ᆀ	27	47		2
	BCM (BODY CONTROL MODULE)			- 117		88	48		Signal Name
	IQŒ.			- 17		53	49		0.
	@ ∃			- 11		8	20		
	BCM (BOD MODULE)	GREEN		- 11 \	ιl	38 37 36 35 34 33 32 31 30 29	51		
	⊠ ≥	<u>5</u>			٦	32	52		Color of
	(I)					33	53		Color
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	5	ō			li	36	99		ž
	60	당			Ш	37	57		<u> </u>
	lĒ	É		H.S.	Ш	88	28] =
	Connector Name	Connector Color	偃	4	Ш	33	59		Terminal No
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	20	40										
	21	4										
	22	42				≥	≥					
	23	43				S	S					
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	25	45 44		ᇤ	S	임	l≝	ايز	3	₹	H.	
	26	46		Ž	[프	싵	_	3	S		7	
	27	47		na_	ΙĔ	ļŞ	≥	=	0	SHIFT_N/P	IMMO_LED	
Τ	28	48		Signal Name	CLUTCH_SW	STOP_LAMP_LOW_SW	STOP_LAMP_HIGH_SW	FOB_IN_SW_1	S/L_LOCK_LED	S	Σ	
	29	49		0,	١٥	[윤]	교,	<u> </u>	S/			
	30	50 49				lΣ	12					
\	31	51			_	(C)	S					
٦	32	25		Color of Wire	l.	L						
	33	53		Solor o	₩	B/W	0/L	>-	В	R/G	0/7	
	34	54		0	۱۳	Ι <u>α</u>				ш	_	
	35	22		o.								
	36	99		Ž								
	37	22		Ferminal No.	52	24	26	53	45	48	49	
	88	28		<u>=</u>	``	`"	``	``		1		
	33	29		_ <u>i</u>	ĺ	ĺ		l				

FOB_READER_CLOCK FOB READER DATA

Signal Name

Color of Wire 0/9 0

Terminal No.

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3	Connector Name CVT SHIFT SELECTOR	ITE	4 5 6 8 10	Signal Name	DETENT_KEY_SW	DETENT KEY SW
). M23	ıme CV	olor WH	- 2	Color of Wire	Y/R	G/R
Connector No.	Connector Na	Connector Color WHITE	明.S.	Terminal No.	ø.	σ

CVT SHIFT	WHITE	3 2 6 8	Si	
	_	- 2	Color of Wire	
ame	Sor			``
Connector Name	Connector Color	昏 H.S.	Terminal No.	•

Connector No.	M21
Connector Name	Connector Name BCM (BODY CONTROL MODULE)
Connector Color GRAY	GRAY
a de la companya de l	

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		113	133					
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		117	137		au	8		₩ 2
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	ᆜ	119	139		Signal Name	IGN_USM_CONT1	ST_CONT_USM	ENG START SW W/O ESCL
	117	125 124 123 122 121 120	140		Sig]		യ≥
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	IN.	122	142			_		
	Ш	123	143		_			
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		125	145		응흥	BR/W	<u>~</u>	BR
		127 126	46		o _	Ш		
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76	1	129	150 149 148 147 146 145 144 143 142 141 140		ie	127	132	140
S	1	130	85		Terminal No. Wire	ľ	ļ `	'
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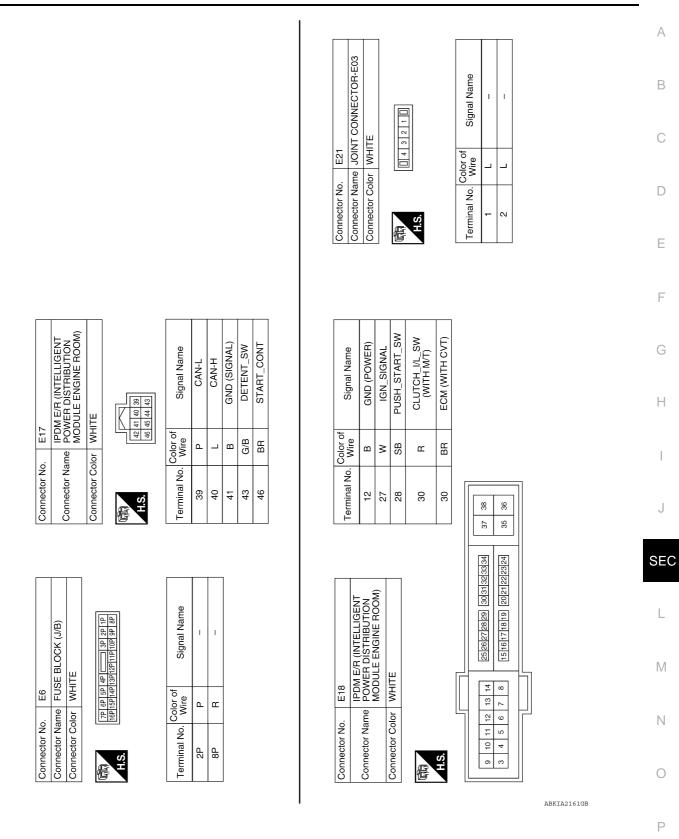
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Connector No. M40 Connector Name KEY SLOT Connector Color WHITE	7 8 9 10 11 12 Color of Signal Name	1 G/Y B+ 2 G/O CLOCK	3 O DATA 5 G/Y LIGHT BAT+	B/L	7 B GND	11 Y CARD_SW_1			Connector No. E3	e	Connector Color WHITE	1 2 3	Terminal No. Wire Signal Name	9 BR	
nector No. Mector Name Por Sonector Color B	H.S. 4 5 6 7 8 Terminal No. Wire Signal Name	1 B GND 4 BR START_SW	5 R LOCK 6 Y/L ACC	re	8 G/Y B+				Connector No. M131	e	Connector Color WHITE	H.S.	Terminal No. Wire Signal Name	2 BR -	3 BR -
Connector No. M24 Connector Name COMBINATION METER Con Connector Color WHITE Connector Color WHITE	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 23 34 35 36 37 38 39 40	Terminal No. Wire Signal Name	1 W/L BAT 3 B GND (POWER)	4 B GND (ILL)	14 V/Y ACC	(22 P CAN-L	0/1	Connector No. M89	ne WIRE TO WIRE	Connector Color WHITE Co	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	Terminal No. Wire Signal Name Te		3 BR –

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[SEDAN WITH INTELLIGENT KEY]



Revision: September 2009 SEC-353 2010 Altima

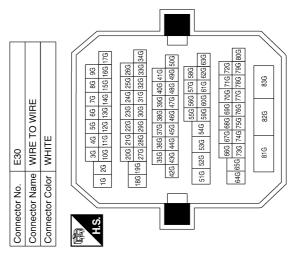
< WIRING DIAGRAM >

E36 CLUTCH INTERLOCK SWITCH BROWN	Signal Name	ı	ı
JO JO	Color of Wire	×	۳
Connector No. Connector Name Connector Color	Terminal No.	1	2

8	JOINT CONNECTOR-E05	BLACK	4 3 2 1	Signal Name	_	_	l
. E28				Color of Wire	Ж	В	Œ
Connector No.	Connector Name	Connector Color	崎 H.S.	Terminal No.	1	2	3

	_				_				
Signal Name	1	1	1	-	ı	_	-	_	1
Color of Wire	Ь	٦	G/B	BR	œ	M	SB	BR	ΓG
Terminal No. Wire	86	15G	19G	500	26G	27G	567	936	82G

Connector No.). E22		
Connector Name		JOINT CONNECTOR-E04	
Connector Color	olor WHITE	<u>II</u>	
画 H.S.		2 2 1	
Terminal No. Wire	Color of Wire	Signal Name	
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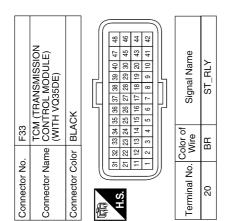
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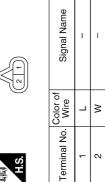
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Connector No. E50 Connector Name JUNCTION BLOCK Connector Color WHITE	Terminal No. Color of Signal Name 55 BR –	Connector No. F10 Connector Name POWER DISTRIBUTION MODULE ENGINE ROOM) Connector Color WHITE	Si	W NPSW BR NPSW BR ST7
Connector No. E46 Connector Name JUNCTION BLOCK Connector Color WHITE 31 30 29 28 17 36 24 38 32 48 32 32 48 38 37 38 38 39 38 38 38 38 38 38 38 38 38 38 38 38 38	Terminal No. Color of Signal Name 27 BR –	Connector No. F1 Connector Name WIRE TO WIRE Connector Color WHITE 7 6 5 4	Terminal No. Wire Signal Name 9 W –	
Connector No. E38 Connector Name STOP LAMP SWITCH (WITH CVT) Connector Color WHITE	Terminal No. Wire Signal Name 1 R	Connector No. E52 Connector Name STOP LAMP SWITCH (WITH M/T) Connector Color BLACK	Terminal No. Wire Signal Name 1 R -	

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







S	N N	1 2
Signal Na	Color of Wire	Terminal No.

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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION SYMPTOMS [SEDAN WITH INTELLIGENT KEY]

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION SYMPTOMS

Symptom Table INFOID:0000000005429840

Engine cannot be started with all Intelligent Keys.

CAUTION:

- Follow Trouble Diagnosis Flowchart referring to "SEC-186, "Work Flow"". Determine malfunctioning condition before performing this diagnosis.
- · Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagno-
- 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 pro	Reference page	
1. Check newer august and ground circuit	ВСМ	BCS-42
Check power supply and ground circuit	IPDM E/R	PCS-23
2. Check push button ignition switch	<u>SEC-265</u>	
3. Check Intermittent Incident	<u>GI-41</u>	

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VEHICLE SECURITY SYSTEM SYMPTOMS

VEHICLE SECURITY SYSTEM SYMPTOMS

Symptom Table

	Procedure Symptom		Disapportio proceedings	Pofor to page	
			Diagnostic procedure	Refer to page	
-		Door switch	Check door switch	DLK-290	
	Vehicle security sys-	Trunk	Check trunk room lamp switch	DLK-313	
	tem cannot be set by	Door outside key	Check key cylinder switch	DLK-302	
1		Intelligent Key	Check Intelligent Key.	DLK-339	
		_	Check Intermittent Incident	<u>GI-41</u>	
	0		Check vehicle security indicator	SEC-281	
	Security indicator does	s not turn ON.	Check Intermittent Incident	<u>GI-41</u>	
	* Vehicle security		Check door switch	DLK-290	
2	system does not sound alarm when	Any door is opened.	Check Intermittent Incident	<u>GI-41</u>	
		Horn alarm	Check horn	DLK-343	
3	Vehicle security	Hom alarm	Check Intermittent Incident	<u>GI-41</u>	
3	vate.		Check head lamp alarm	SEC-279	
		Head lamp alarm	Check Intermittent Incident	<u>GI-41</u>	
		Door outside key	Check key cylinder switch	SEC-273	
4	Vehicle security sys-	Door outside key	Check Intermittent Incident	<u>GI-41</u>	
4	tem cannot be can- celed by ····	Intelligent Ver	Check Intelligent Key	DLK-339	
	•	Intelligent Key	Check Intermittent Incident	<u>GI-41</u>	

^{*:} Check that the system is in the armed phase.

NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS SYMPTOMS

< SYMPTOM DIAGNOSIS >

[SEDAN WITH INTELLIGENT KEY]

NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS SYMPTOMS

Symptom Table

Security indicator does not turn ON or flash.

CAUTION:

- Follow Trouble Diagnosis Flowchart referring to "<u>SEC-186, "Work Flow"</u>". 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
Check vehicle security indicator	SEC-281
2. Check Intermittent Incident	<u>GI-41</u>

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PRECAUTION

PRECAUTIONS

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

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

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

WARNING:

- When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

PREPARATION

< PREPARATION >

[SEDAN WITH INTELLIGENT KEY]

PREPARATION

PREPARATION

Special Service Tool

INFOID:0000000005806090 В

The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

Tool number (Kent-Moore No.) Tool name		Description	С
(J-46534) Trim Tool Set		Removing trim components	D
	EXT.C.		Е
	AW LA303ZZ		F

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ON-VEHICLE REPAIR

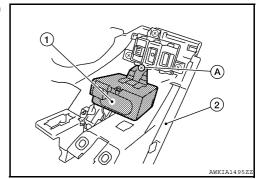
KEY SLOT

Removal and Installation

INFOID:0000000005429843

REMOVAL

- 1. Remove the instrument lower panel LH. Refer to IP-11, "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 WITH INTELLIGENT KEY]

PUSH BUTTON IGNITION SWITCH

Removal and Installation

INFOID:0000000005806084

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REMOVAL

1. Remove push-button ignition switch from cluster lid using Tool.

Tool number : — (J-46534)

2. Disconnect electrical harness connector from push-button ignition switch.

INSTALLATION

Installation is in the reverse order of removal.

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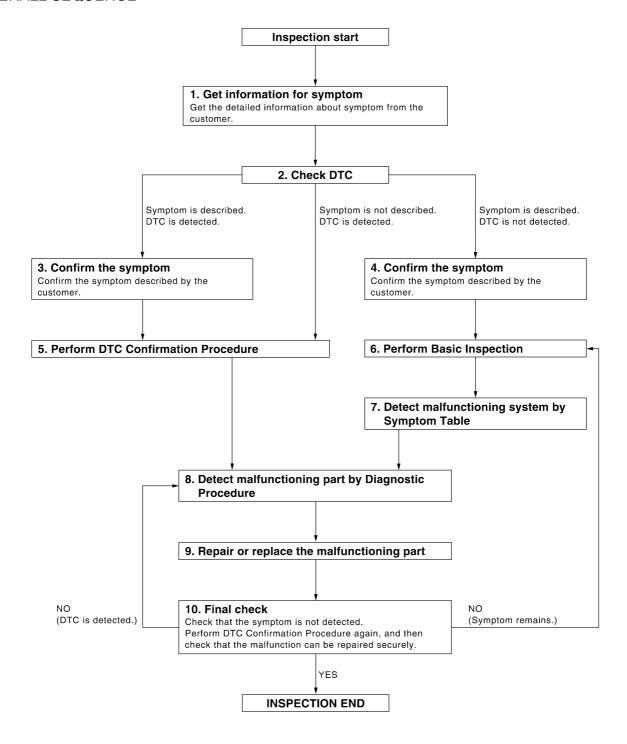
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BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

OVERALL SEQUENCE



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DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[SEDAN WITHOUT INTELLIGENT KEY]

${f 1}$.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

- Check "Self Diagnostic Result" with CONSULT-III.
- 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.
- 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 relationship between the symptom and the condition when the symptom is detected.

>> GO TO 5

4. CONFIRM THE SYMPTOM

Confirm the symptom described by the customer.

Connect CONSULT-III to the vehicle in "Data Monitor" mode and check real time diagnosis results.

Verify relationship between the symptom and the condition when the symptom is detected.

>> GO TO 6

${f 5.}$ 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-473, "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-41, "Intermittent Incident".

6. PERFORM BASIC INSPECTION

Perform SEC-367, "Basic Inspection".

Inspection End >>GO TO 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: <u>SEC-523</u>, "Symptom Table".
- Vehicle security system: <u>SEC-524</u>, "Symptom Table".

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SEC-365 2010 Altima Revision: September 2009

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[SEDAN WITHOUT INTELLIGENT KEY]

• Nissan vehicle immobilizer system-NATS: SEC-525, "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 >

[SEDAN WITHOUT INTELLIGENT KEY]

PRE-INSPECTION FOR DIAGNOSTIC

Basic Inspection INFOID:0000000005429846

The engine start function, door lock function, power distribution system and NATS-IVIS/NVIS 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

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

>> Refer to DLK-413, "INTELLIGENT KEY: Symptom Table". NO

2. CHECK ENGINE STARTING

Checks that the engine starts when operating the keyfob inserted into the key slot.

Does the engine start?

YFS >> GO TO 3

NO >> Refer to SEC-523, "Symptom Table".

3.CHECK POWER SUPPLY INDICATOR SWITCHING

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 4

NO >> Refer to <u>SEC-435</u>, "<u>Description</u>".

4. CHECK VEHICLE SECURITY SYSTEM

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-367, "Vehicle Security Operation Check".

Vehicle Security Operation Check

1.INSPECTION START

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

NOTE:

Before starting operation check, open front windows.

>> GO TO 2

2.CHECK SECURITY INDICATOR LAMP

Lock doors using keyfob or mechanical key.

Check that security indicator lamp illuminates for 30 seconds.

Does security indicator lamp illuminate?

YES >> GO TO 3

>> Perform diagnosis and repair. Refer to <u>SEC-450, "Component Function Check".</u> NO

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PRE-INSPECTION FOR DIAGNOSTIC

< BASIC INSPECTION >

[SEDAN WITHOUT INTELLIGENT KEY]

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.

Does alarm function properly?.

YES >> GO TO 4

NO >> Chec

- >> Check the following.
 - The vehicle security system does not phase in alarm mode. Refer to <u>SEC-524, "Symptom Table"</u>.
 - Alarm (horn, headlamp and hazard lamp) do not operate. Refer to SEC-524, "Symptom Table".

4. CHECK ALARM CANCEL OPERATION

Unlock any door or open trunk lid using keyfob or mechanical key.

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

YES >> Inspection End.

NO >> Check door lock function. Refer to DLK-244, "INTELLIGENT KEY: System Description".

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[SEDAN WITHOUT INTELLIGENT KEY]

INSPECTION AND ADJUSTMENT ECM RE-COMMUNICATING FUNCTION

ECM RE-COMMUNICATING FUNCTION: Description

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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:0000000005429849

1. PERFORM ECM RE-COMMUNICATING FUNCTION

- 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.
- Maintain ignition switch in "ON" position for at least 5 seconds.
- Turn ignition switch to "OFF".
- Start engine.

Can engine be started?

YES >> Procedure is completed.

NO >> Initialize control unit. Refer to CONSULT-III Operation Manual.

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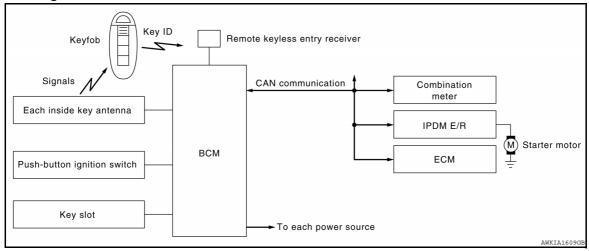
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FUNCTION DIAGNOSIS

ENGINE START FUNCTION

System Diagram

INFOID:0000000005429850



System Description

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INPUT/OUTPUT SIGNAL CHART

Switch	Input signal to BCM	BCM function	Actuator	
Push-button ignition switch	Push switch			
CVT shift selector (park position switch)	P range		 Starter relay (IPDM E/R) Starter control relay (IPDM E/R) Starter motor KEY warning lamp 	
Transmission range switch	N, P range	Engine start function		
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, 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 <u>DLK-244, "INTELLIGENT KEY: System Description"</u> for any functions other than engine start function of remote keyless entry system.

< FUNCTION DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

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.
- The keyfob sends the request signal and transmits the keyfob ID signal to the BCM via the remote keyless entry receiver.
- The BCM receives the keyfob ID signal and verifies it with the registered ID.
- 4. BCM turns ACC relay ON and transmits the ignition power supply ON signal to IPDM E/R.
- IPDM E/R turns the ignition relay ON and starts the ignition power supply.
- 6. BCM confirms that the shift position is P or N.
- 7. 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.
- 8. IPDM E/R turns the starter control relay ON when receiving the starter request signal.
- 9. 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.

10. 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 <u>SEC-370</u>. "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

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.

- · 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.

PUSH-BUTTON IGNITION SWITCH OPERATION PROCEDURE

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

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Revision: September 2009 SEC-371

[SEDAN WITHOUT INTELLIGENT KEY]

< FUNCTION DIAGNOSIS >

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
- 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 op-
rower supply position	Brake pedal	CVT selector lever position	eration frequency
$LOCK \to ACC$	Not depressed	Any position	1
$LOCK \to ACC \to ON$	Not depressed	Any position	2
$\begin{array}{c} LOCK \to ACC \to ON \to \\ OFF \end{array}$	Not depressed	Any position	3
$\begin{array}{c} LOCK \to START \\ ACC \to START \\ ON \to START \\ (Engine start) \end{array}$	Depressed	P or N position (*1)	I [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".)

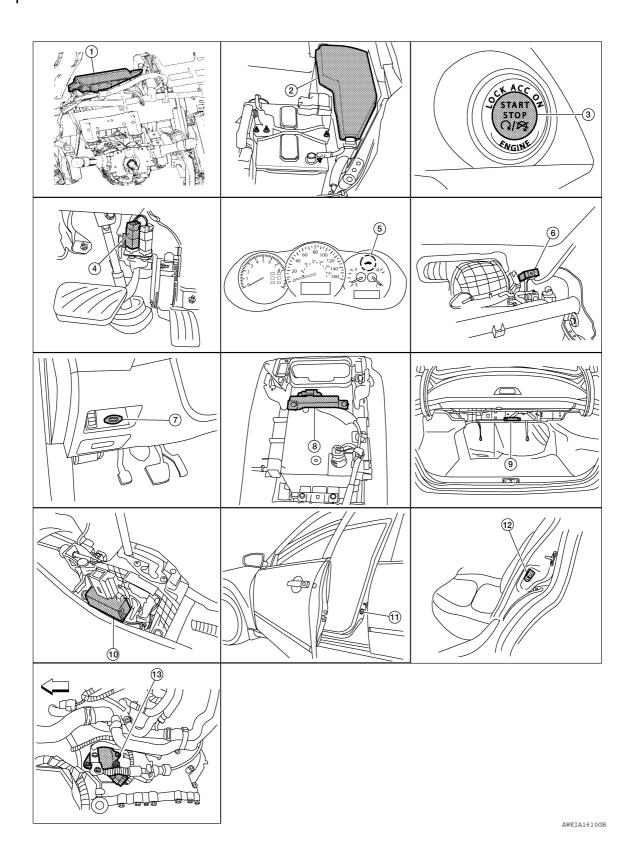
- Press and hold the push-button ignition switch for 2 seconds or more. (When the push-button ignition switch is pressed for too short a time, the operation may be invalid, so properly press and hold to prevent an incorrect operation.)
- Press the push-button ignition switch 3 times or more within 1.5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

^{*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.

[SEDAN WITHOUT INTELLIGENT KEY]

Component Parts Location

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< FUNCTION DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

- Body control module M16, M17, M18, M19, M21
 - (view with instrument panel removed)
- Stop lamp switch E38 (view with lower driver instrument panel removed)
- 7. Key slot M40
- 10. CVT shift selector (park position switch)
- 13. Transmission range switch F25

- 2. IPDM E/R E17, E18, F10
- Security indicator
- Front console antenna M203 8. (bottom view of center console)
- 11. Front door switch LH B8 **RH B108**

- Push button ignition switch M38
- Remote keyless entry receiver M27 (view with instrument panel removed)
- Rear parcel shelf antenna B29
- 12. Rear door switch LH B18 **RH B116**

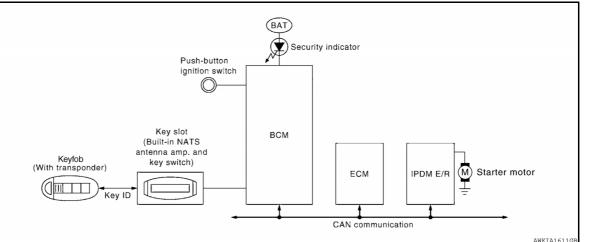
Component Description

INFOID:0000000005429853

Component	Reference
Push-button ignition switch	SEC-409
Door switch	DLK-290
CVT shift selector (park position switch)	<u>SEC-413</u>
Inside key antenna	DLK-484
Remote keyless entry receiver	DLK-335
Stop lamp switch	SEC-406
Transmission range switch	SEC-422
Starter relay	SEC-390
Starter control relay	SEC-388
Security indicator	SEC-450
Key warning lamp	SEC-449

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

CVT shift selector (park position switch) P range

Transmission range switch N, P range

• Starter relay (IPDM E/R)
• Starter control relay (IPDM I

Transmission range switch

Stop lamp switch

Key slot

Each door switch

Engine status signal

N, P range

NVIS (NATS)

Starter relay (IPDM E/R)

Starter routrol relay (IPDM E/R)

Starter motor

KEY warning lamp

Security indicator lamp

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 <u>SEC-364, "Work Flow"</u>.
- If ECM other than Genuine NISSAN is installed, the engine cannot be started. For ECM replacement procedure, refer to SEC-369, "ECM RE-COMMUNICATING FUNCTION: Special Repair Requirement".

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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

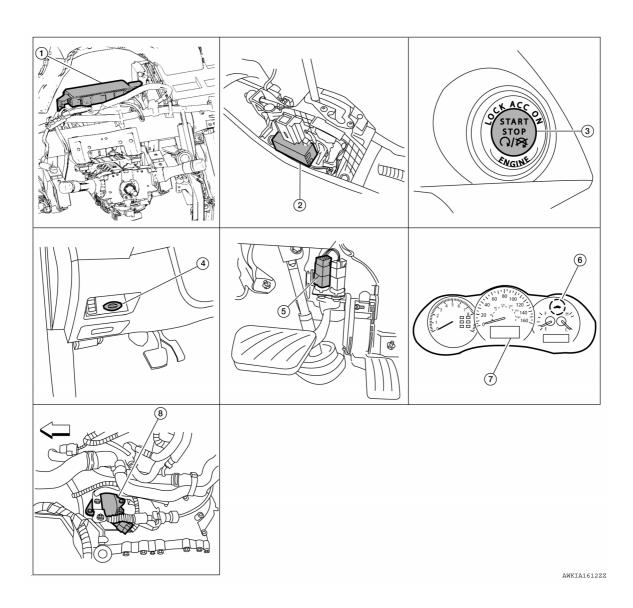
- Warns that the vehicle is equipped with NVIS (NATS).
- The security indicator always blinks when the keyfob is removed from the key slot and when the ignition switch is in LOCK position.

NOTE:

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

Component Parts Location

INFOID:0000000005429856



NVIS (NISSAN VEHICLE IMMOBILIZER SYSTEM-NATS) | ISEDAN WITHOUT INTELLIGENT KEY]

< FUNCTION DIAGNOSIS >

- Body control module M16, M17, M18, M19, M21 2. (view with instrument panel removed)
- 4. Key slot M40

- 2. CVT shift selection (park position 3. switch) M23
- 8. Push button ignition switch M38
- 5. Stop lamp switch E38 (view with lower LH instrument panel removed)
- Security indicator lamp

7. Information display

3. Transmission range switch F25

Component Description

Component	Reference	
Push-button ignition switch	<u>SEC-435</u>	
Door switch	DLK-290	
CVT shift selector (park position switch)	<u>SEC-413</u>	
Inside key antenna	DLK-484	
Remote keyless entry receiver	DLK-335	
Stop lamp switch	<u>SEC-406</u>	
Transmission range switch	<u>SEC-422</u>	
Starter relay	<u>SEC-426</u>	
Starter control relay	SEC-412	
Security indicator	<u>SEC-450</u>	
Key warning lamp	SEC-449	·

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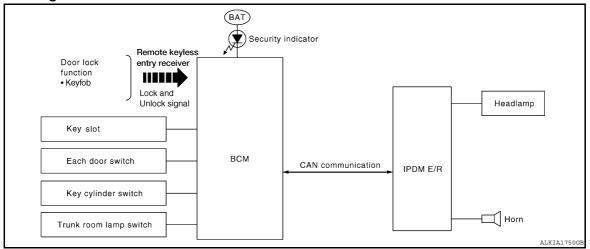
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Revision: September 2009 SEC-377 2010 Altima

VEHICLE SECURITY SYSTEM

System Diagram

INFOID:0000000005429858



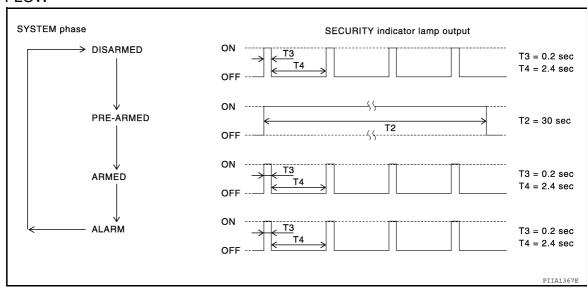
System Description

INFOID:0000000005429859

INPUT/OUTPUT SIGNAL CHART

Switch	Input signal to BCM	BCM system	Actuator
All door switch			
Trunk room lamp switch	Open or close		
Door key cylinder switch	ck switch Lock or unlock		IPDM E/R
Door lock and unlock switch		Vahiala a a suritu avatara	Head lamp
Door request switch		Vehicle security system	Horn Constitution diseases leaves
Kardah			Security indicator lamp
Keyfob	Panic alarm		
Key slot	Keyfob sensing		

OPERATION FLOW



SETTING THE VEHICLE SECURITY SYSTEM

Initial Condition

• Ignition switch is in OFF position.

VEHICLE SECURITY SYSTEM

< FUNCTION DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

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.)

- 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.

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Component Parts Location

INFOID:0000000005429860



- Body control module M16, M17, M18, M19, M21 (view with instrument panel removed)
- 4. Key slot M40
- Power window and door lock/unlock switch RH D105
- 2. IPDM E/R E17, E18, F10
- 5. Remote keyless entry receiver M27 (view with instrument panel removed)
- Front door lock assembly LH (key cyl- 9. inder switch) D10
- 3. Horn relay H-1
- Main power window and door lock/ unlock switch D7, D8
- Front door switch LH B8 RH B108

VEHICLE SECURITY SYSTEM

< FUNCTION DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

10. Rear door switch LH B18 RH B108

11. Trunk lamp switch and trunk release solenoid B28

Horn E216

 (view with front fender protector LH removed)

13. Combination meter M24

14. Security indicator lamp

INFOID:0000000005429861

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Component Description

Component	Reference
BCM	SEC-378
Horn relay	SEC-446
Security indicator	<u>SEC-450</u>
Door switch	<u>DLK-290</u>
Door lock actuator	DLK-323
Trunk lid lock assembly	DLK-328
Door key cylinder switch	DLK-302
Door lock and unlock switch	DLK-293
Key slot	DLK-300
Remote keyless entry receiver	<u>DLK-335</u>

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COMMON ITEM

COMMON ITEM: Diagnosis Description

INFOID:0000000005783554

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 DIAGNOSTIC RESULT	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	 Read and save the vehicle specification. Write the vehicle specification when replacing BCM.

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 system1	MULTI REMOTE ENT	×	×	×
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER	×	×	×
Air conditioner	AIR CONDITONER		×	
Intelligent Key system2	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	×	×	×

^{1 :} With remote keyless entry system

COMMON ITEM: CONSULT-III Function

INFOID:0000000005783555

^{2:} With intelligent Key system

[SEDAN WITHOUT INTELLIGENT KEY]

< FUNCTION DIAGNOSIS >

Displays the BCM part No.

SELF-DIAG RESULT

Refer to SEC-474, "DTC Index".

MULTI REMOTE ENT

MULTI REMOTE ENT : CONSULT-III Function (BCM - MULTIREMOTE ENT)

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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.
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.

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.
DOOR LOCK	This test is able to check door lock/unlock operation. 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.

WORK SUPPORT

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.	

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[SEDAN WITHOUT INTELLIGENT KEY]

Test item	Description	
HAZARD LAMP SET	Answer back function (hazard) mode can be changed in this mode. • MODE1: Non-operation • MODE2: Lock (non-operation) Unlock (blink once) • MODE3: Lock (blink twice) Unlock (non-operation) • MODE4: Lock (blink twice) Unlock (blink once)	
AUTO LOCK SET	Auto door lock time can be changed in this mode. • 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. • 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. • MODE 1: 3 sec. • MODE 2: Non-operation • MODE 3: 5 se	

THEFT ALM

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

INFOID:0000000005783557

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.	
CDL LOCK SW	Indicates [ON/OFF] condition of lock signal from door lock/unlock switch LH and RH.	
CDL UNLOCK SW	Indicates [ON/OFF] condition of unlock signal from door lock/unlock switch LH and RH.	
KEY CYL LK-SW	Indicates [ON/OFF] condition of lock signal from front door key cylinder switch.	
KEY CYL UN-SW	Indicates [ON/OFF] condition of unlock signal from front door key cylinder switch.	
TR/BD OPEN SW	Indicates [ON/OFF] condition of trunk opener switch.	
TRNK/HAT MNTR	Indicates [ON/OFF] condition of trunk lid.	

< FUNCTION DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

Monitored Item	Description	
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.	

^{* :} Sedan

ACTIVE TEST

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

IMMU

IMMU: CONSULT-III Function (BCM - IMMU)

INFOID:0000000005783558

DATA MONITOR

Monitor item	Content	
CONFRM ID ALL		
CONFIRM ID4		
CONFIRM ID3	Indicates [YET] at all time. Switch to [DONE] when a registered Intelligent Key is inserted into the key slot.	
CONFIRM ID2	Switch to [DONL] when a registered intelligent rely is inserted into the key slot.	
CONFIRM ID1		
TP 4		
TP 3	Indicates the number of ID which has been registered	
TP 2	Indicates the number of ID which has been registered.	
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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U1000 CAN COMM CIRCUIT

COMPONENT DIAGNOSIS

U1000 CAN COMM CIRCUIT

Description INFOID:000000005429867

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-26, "CAN Communication Signal Chart".

DTC Logic

DTC DETECTION LOGIC

CONSULT-III dis- play description	DTC Detection Condition	Possible cause
CAN COMM CIR- CUIT [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. • Transmission • Receiving (ECM) • Receiving (ABS) • Receiving (METER/M&A) • Receiving (TCM) • Receiving (IPDM E/R)

Diagnosis Procedure

INFOID:0000000005429869

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-41, "Intermittent Incident".

U1010 CONTROL UNIT (CAN)

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

U1010 CONTROL UNIT (CAN)

DTC Logic

DTC DETECTION LOGIC

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

Diagnosis Procedure

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1. REPLACE BCM

When DTC U1010 is detected, replace BCM.

>> Replace BCM. Refer to <u>BCS-96, "Removal and Installation"</u>.

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B210B STARTER CONTROL RELAY

[SEDAN WITHOUT INTELLIGENT KEY]

B210B STARTER CONTROL RELAY

Description INFOID:000000005429887

Starter control relay, integrated in IPDM E/R, permits the starter relay operation when in N or P position.

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B210B is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-386, "DTC Logic".
- If DTC B210B is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-387, "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. • Starter control relay ON/OFF signal from BCM • Shift transmission range switch input signal	• 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 <u>SEC-388</u>, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000005429889

1.INSPECTION START

- 1. Turn ignition switch ON.
- 2. Check "Self diagnostic result" with CONSULT-III.
- Touch "ERASE".
- 4. Perform DTC Confirmation Procedure.

See PCS-32, "DTC Index".

Is the DTC B210B displayed again?

YES >> Replace IPDM E/R. Refer to PCS-47, "Removal and Installation".

NO >> Inspection End.

B210C STARTER CONTROL RELAY

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B210C STARTER CONTROL RELAY

Description INFOID:000000005429890

Starter control relay, integrated in IPDM E/R, permits the starter relay operation when in N or P position.

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B210C is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-386, "DTC Logic".
- If DTC B210C is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-387, "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. • Starter control relay ON/OFF signal from BCM • Shift transmission range switch input signal	• 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 <u>SEC-389</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000005429892

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-32, "DTC Index".

Is the DTC B210C displayed again?

YES >> Replace IPDM E/R. Refer to PCS-47, "Removal and Installation".

NO >> Inspection End.

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Revision: September 2009 SEC-389 2010 Altima

B210D STARTER RELAY

Description INFOID:000000005429893

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

DTC DETECTION LOGIC

NOTE:

- If DTC B210D is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-386, "DTC Logic".
- If DTC B210D is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-387, "DTC Logic".
- If DTC B210D is displayed with DTC B2617, first perform the trouble diagnosis for DTC B2617. Refer to <u>SEC-432, "DTC Logic"</u>.

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. • Starter control relay ON/OFF signal from BCM • Shift transmission range switch input	• 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 <u>SEC-390, "Diagnosis Procedure"</u>.

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to PCS-129, "SEDAN: Wiring Diagram".

1. CHECK STARTER RELAY POWER SUPPLY CIRCUIT

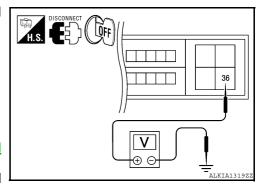
- Turn ignition switch OFF.
- Disconnect IPDM E/R harness connector.
- Check voltage between IPDM E/R harness connector and ground.

IPDI	И E/R	Ground	Voltage (V)
Connector	Terminal	Ground	voltage (v)
E18	36	Ground	Battery voltage

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to <u>PCS-47, "Removal and Installation"</u>.

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



INFOID:0000000005429895

B210E STARTER RELAY

Description INFOID:000000005429896

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

DTC DETECTION LOGIC

NOTE:

- If DTC B210E is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-386, "DTC Logic".
- If DTC B210E is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-387, "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. • Starter control relay ON/OFF signal from BCM • Shift transmission range switch input	• 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-391, "Diagnosis Procedure".

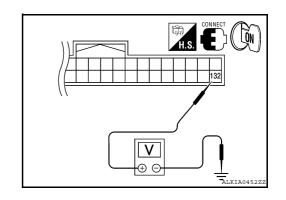
NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-514, "Wiring Diagram".

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.



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INFOID:0000000005429898

Revision: September 2009 SEC-391 2010 Altima

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

Is the inspection result normal?

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

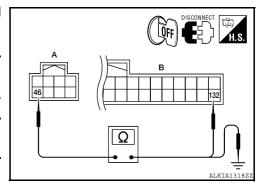
2.CHECK STARTER RELAY OUTPUT SIGNAL CIRCUIT

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

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

3. Check continuity between BCM harness connector and ground.

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



Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-47, "Removal and Installation".

NO >> Repair harness connector.

3.CHECK STARTER RELAY POWER SUPPLY CIRCUIT

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

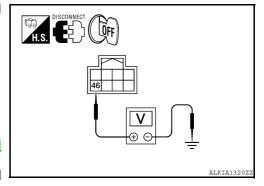
IPDN	Л E/R	Ground	Voltage (V)
Connector	Terminal	Ground	voltage (v)
E17	46	Ground	Battery voltage

Is the inspection result normal?

NO

YES >> Replace IPDM E/R. Refer to <u>PCS-47, "Removal and Installation"</u>.

>> Check harness for open or short between IPDM E/R and battery.



B210F TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH [SEDAN WITHOUT INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

B210F TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

Description INFOID:0000000005429899

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

- Transmission range switch
- Shift position signal from BCM (CAN)

DTC Logic INFOID:0000000005429900

DTC DETECTION LOGIC

NOTE:

- If DTC B210F is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-386, "DTC Logic"
- If DTC B210F is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-386, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B210F	INTER LOCK/TRANS- MISSION RANGE SW ON	IPDM E/R detects a mismatch between the signals below for 1 second or more. • Shift transmission range switch input signal • Shift position signal from BCM (CAN)	Harness or connectors [Transmission range switch circuit is open or shorted] Transmission range switch

DTC CONFIRMATION PROCEDURE

${f 1}$. PERFORM DTC CONFIRMATION PROCEDURE

- 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
- Check "Self diagnostic result" with CONSULT-III.

Is DTC detected?

>> Refer to SEC-393, "Diagnosis Procedure". YES

>> Inspection End. NO

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-514, "Wiring Diagram".

1. CHECK DTC WITH BCM

Refer to BCS-70, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace malfunctioning parts.

2.CHECK TRANSMISSION RANGE SWITCH INPUT SIGNAL

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

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B210F TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH [SEDAN WITHOUT INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

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

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

Is the inspection result normal?

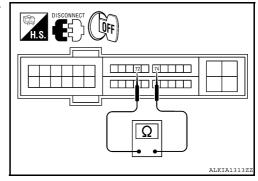
YES >> Replace IPDM E/R. Refer to PCS-47, "Removal and Installation".

NO >> GO TO 3

3. CHECK TRANSMISSION RANGE 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	Tern	ninals	Condition		Continuity
			transmis-	P or N	Yes
F10	72	74	sion range switch posi- tion	Other	No



Is the inspection result normal?

YES >> GO TO 4 NO >> GO TO 5

4. CHECK TRANSMISSION RANGE SWITCH CIRCUIT FOR SHORT

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

IPDM E/R		Ground	Continuity	
Connector	Terminal	Glound	Continuity	
F10	72	Ground	No	
FIO	74	Glound	INO	

72 74 72,74 Ω ALKIA1314Z

Is the inspection result normal?

YES >> Replace the IPDM E/R. Refer to PCS-47, "Removal and Installation".

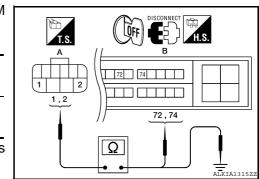
NO >> Repair or replace harness.

${f 5}.$ CHECK TRANSMISSION RANGE SWITCH INPUT SIGNAL CIRCUIT

- Disconnect transmission range switch harness connector.
- 2. Check continuity between transmission range switch and IPDM E/R harness connectors.

Transmission	range switch	IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: F25	1	B: F10	74	Yes
A. 1 23	2	D.110	72	165

Check continuity between transmission range switch harness connector and ground.



B210F TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH [SEDAN WITHOUT INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

Transmission	n range switch	Ground	Continuity
Connector	Terminal	Giodila	Continuity
A: F25	1	Ground	No
A. F25	2	Giodila	INO

Is the inspection result normal?

YES >> Replace transmission range switch.

NO >> Repair harness or connector. Α

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B2110 TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH [SEDAN WITHOUT INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

B2110 TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH

Description INFOID:0000000005429902

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

- Transmission range switch
- Shift position signal from BCM (CAN)

DTC Logic INFOID:0000000005429903

DTC DETECTION LOGIC

- If DTC B2110 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-386, "DTC Logic".
- If DTC B2110 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-387, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2110	INTER LOCK/ TRANSMISSION RANGE SW	IPDM E/R detects mismatch between the signals below for 1 second or more. • Shift NP switch input signal	Harness or connectors [Transmission range switch circuit is open or shorted] Transmission range switch

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 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
- Check "Self diagnostic result" with CONSULT-III.

Is DTC detected?

YES >> Refer to <u>SEC-396</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000005429904

Regarding Wiring Diagram information, refer to SEC-514, "Wiring Diagram".

1. CHECK DTC WITH BCM

Refer to BCS-70, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace malfunctioning parts.

2.CHECK TRANSMISSION RANGE SWITCH INPUT SIGNAL

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

B2110 TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH [SEDAN WITHOUT 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	Ground	Condition		voltage (v)
			CVT coloctor	P or N	0
E18	30	Ground	CVT selector - lever	Other than above	Battery voltage

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-47, "Removal and Installation".

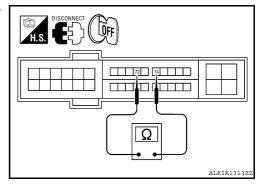
NO >> GO TO 3

3. CHECK TRANSMISSION RANGE 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			maition	Continuity
	Transmis-	P or N	Yes		
F10	72	74	sion range switch posi- tion	Other	No



Is the inspection result normal?

YES >> GO TO 4 NO >> GO TO 5

4. CHECK TRANSMISSION RANGE SWITCH CIRCUIT FOR SHORT

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

IPDM E/R		Ground	Continuity	
Connector	Terminal	Glound	Continuity	
F10	72	Ground	No	
1 10	74	Giouna	INO	

72 74 72,74 Ω ALKIA1314Z

Is the inspection result normal?

YES >> Replace the IPDM E/R. Refer to PCS-47, "Removal and Installation".

NO >> Repair or replace harness.

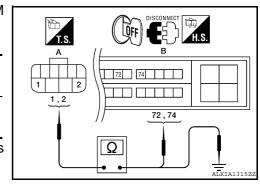
${f 5}.$ CHECK TRANSMISSION RANGE SWITCH INPUT SIGNAL CIRCUIT

Disconnect transmission range switch harness connector.

2. Check continuity between transmission range switch and IPDM E/R harness connectors.

Transmission range switch		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: F25	1	B: F10	74	Yes
A: F25	2	D.110	72	165

Check continuity between transmission range switch harness connector and ground.



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B2110 TRANSMISSION RANGE SWITCH/CLUTCH INTERLOCK SWITCH [SEDAN WITHOUT INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

Transmission	n range switch	Ground	Continuity
Connector	Terminal	Giodila	Continuity
A: F25	1	Ground	No
A. F25	2	Giodila	INO

Is the inspection result normal?

YES >> Replace transmission range switch.

NO >> Repair harness or connector.

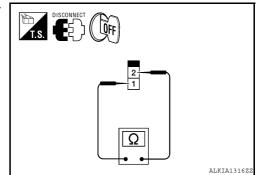
Component Inspection

INFOID:0000000005429905

1. CHECK CLUTCH INTERLOCK SWITCH

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

Clutch interlock switch		Condition		Continuity
Ter	minal	Condition		Continuity
1	2	Clutch pedal	Not depressed	No
1		Ciuton pedar	Depressed	Yes



Is the inspection result normal?

YES >> Inspection End.

>> Replace clutch interlock switch. NO

B2190, P1610 NATS ANTENNA AMP

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B2190, P1610 NATS ANTENNA AMP

Description INFOID:0000000005429906

Performs ID verification through BCM and keyfob when push-button ignition switch is pressed. Prohibits the starting of the engine when an unregistered ID of keyfob is used.

DTC Logic INFOID:0000000005429907

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2190			Harness or connectors (The leave let eigenit is a reason.)
P1610	NATS ANTENNA AMP	Inactive communication between key slot and BCM.	(The key slot circuit is open or shorted)Key slotBCM

DTC CONFIRMATION PROCEDURE

${f 1}$. PERFORM DTC CONFIRMATION PROCEDURE

- Insert keyfob into the key slot.
- Check "Self Diagnostic Result" with CONSULT-III.

Is DTC detected?

>> Refer to SEC-399, "Diagnosis Procedure".

NO >> GO TO 2

2. PERFORM DTC CONFIRMATION PROCEDURE

- Press the push-button ignition switch.
- Check "Self Diagnostic Result" with CONSULT-III.

Is DTC detected?

YES >> Refer to <u>SEC-399</u>, "<u>Diagnosis Procedure</u>".

>> Inspection End. NO

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-514, "Wiring Diagram".

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

- Turn ignition switch OFF.
- Disconnect key slot harness connector.

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INFOID:0000000005429908

SEC-399 2010 Altima Revision: September 2009

B2190, P1610 NATS ANTENNA AMP

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

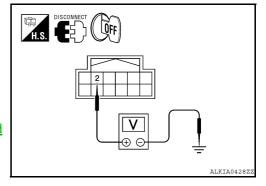
3. Check voltage between key slot harness connector and ground.

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

Is the inspection result normal?

YES >> Replace key slot. Refer to <u>SEC-528</u>, "Removal and <u>Installation"</u>.

NO >> GO TO 3



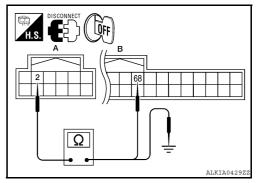
3. CHECK KEY SLOT CIRCUIT

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

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

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

Key	slot	Ground	Continuity
Connector	Terminal	Giodila	Continuity
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	Ground	Continuity	
M40	M40 3		Yes	

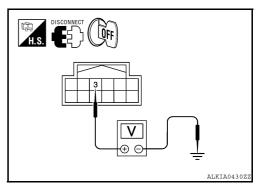
Is the inspection result normal?

YES >> Replace key slot. Refer to <u>SEC-528</u>, "Removal and <u>Installation"</u>.

NO >> GO TO 6

6. CHECK KEY SLOT COMMUNICATION SIGNAL CIRCUIT

Disconnect BCM harness connector.



B2190, P1610 NATS ANTENNA AMP

< COMPONENT DIAGNOSIS >

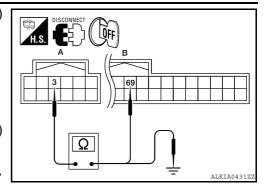
[SEDAN WITHOUT INTELLIGENT KEY]

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		Continuity
A: M40	3	B: M19	69	Yes

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

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



Is the inspection result normal?

YES >> GO TO 8

NO >> Repair harness or connector.

7.CHECK KEY SLOT GROUND CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect key slot harness connector.
- Check continuity between key slot harness connector and ground.

Key slot		Ground	Continuity
Connector	Terminal	Giodila	Continuity
M40	7	Ground	Yes



Is the inspection result normal?

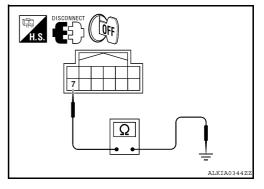
YES >> GO TO 8

NO >> Repair harness or connector.

8. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.



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B2191, P1615 DIFFERENCE OF KEY

[SEDAN WITHOUT INTELLIGENT KEY]

B2191, P1615 DIFFERENCE OF KEY

Description INFOID:00000000542990S

Performs ID verification through BCM and keyfob when push-button ignition switch is pressed. Prohibits the starting of the engine when an unregistered ID of keyfob is used.

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2191	DIFFERENCE OF	The ID verification results between BCM and key-	Kevfob
P1615	KEY	fob are NG. The registration is necessary.	Neylob

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 <u>SEC-402</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000005429911

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:0000000005429912

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

DTC DETECTION LOGIC

NOTE:

• If DTC B2192 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-386, "DTC Logic".

 If DTC B2192 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-387, "DTC Logic"</u>.

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2192	ID DISCORD, IMMU-	The ID verification results between BCM and ECM	• BCM
P1611	ECM	are NG. The registration is necessary.	• 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.
- Check "Self Diagnostic Result" with CONSULT-III.

Is DTC detected?

YES >> Refer to <u>SEC-403, "Diagnosis Procedure"</u>.

NO >> Inspection End.

Diagnosis Procedure

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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.

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B2193, P1612 CHAIN OF ECM-IMMU

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B2193, P1612 CHAIN OF ECM-IMMU

Description INFOID:000000005429915

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

DTC DETECTION LOGIC

NOTE:

- If DTC B2193 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-386, "DTC Logic".
- If DTC B2193 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-387</u>, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2193			Harness or connectors (The CAN expression line in
P1612	CHAIN OF ECM- IMMU	Inactive communication between ECM and BCM.	(The CAN communication line is open or shorted)BCMECM

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.
- Check "Self Diagnostic Result" with CONSULT-III.

Is DTC detected?

YES >> Refer to SEC-404, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000005429917

1.REPLACE BCM

- Replace BCM. Refer to <u>BCS-96</u>, "Removal and Installation".
- 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.

B2195 ANTI-SCANNING

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B2195 ANTI-SCANNING

Description INFOID:000000005783568

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

DTC Logic

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON under the following conditions.
- Selector lever is in the P or N position
- Do not depress brake pedal
- Check "Self-diagnostic result" using CONSULT-III.

Is DTC detected?

YES >> Refer to <u>SEC-405</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

${f 1}$.CHECK SELF-DIAGNOSTIC RESULT-1

- 1. Perform "Self-diagnostic result" of BCM using CONSULT-III.
- Erase DTC.
- 3. Perform DTC Confirmation Procedure. Refer to SEC-405, "DTC Logic".

Is DTC B2195 detected?

YES >> GO TO 2.

NO >> Inspection End

2. CHECK EQUIPMENT OF THE VEHICLE

Check that unspecified accessory part related to engine start is not installed.

Is unspecified accessory part related to engine start installed?

YES >> GO TO 3.

NO >> Replace BCM. Refer to BCS-96, "Removal and Installation".

3. CHECK SELF-DIAGNOSTIC RESULT-2

- 1. Obtain the customers approval to remove unspecified accessory part related to engine start, and then remove it.
- Perform "Self-diagnostic result" of BCM using CONSULT-III.
- Erase DTC.
- 4. Perform DTC Confirmation Procedure. Refer to SEC-405, "DTC Logic".

Is DTC B2195 detected?

YES >> Replace BCM. Refer to BCS-96, "Removal and Installation".

NO >> Inspection End

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INFOID:0000000005783570

Revision: September 2009 SEC-405 2010 Altima

B2555 STOP LAMP

Description INFOID:000000005429918

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

DTC DETECTION LOGIC

DTC No.	Trouble diagno- sis 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.	Harness or connectors (stop lamp switch circuit is open or shorted) Stop lamp switch Fuse

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Depress the brake pedal and wait for at least 1 second.
- 2. Check "Self Diagnostic Result" with CONSULT-III.

Is DTC detected?

YES >> Refer to <u>SEC-406</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to <a>SEC-514, "Wiring Diagram".

1. CHECK STOP LAMP SWITCH INPUT SIGNAL

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

ВСМ		Ground	Stop lamp	Voltage [V]	
Connector	Terminal	Orouna	switch position	voitage [v]	
M18	26	Ground	Depressed	Battery volt- age	
			Released	0	

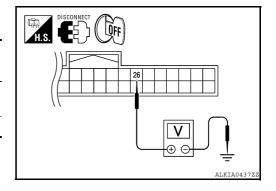
Is the inspection result normal?

YES >> Stop lamp switch is OK.

NO >> GO TO 2

2.CHECK STOP LAMP SWITCH POWER SUPPLY CIRCUIT

1. Disconnect stop lamp switch harness connector.



INFOID:0000000005429920

B2555 STOP LAMP

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

Check voltage between stop lamp harness connector and ground.

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

Is the inspection result normal?

YES >> GO TO 3

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

3. CHECK STOP LAMP SWITCH CIRCUIT

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

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

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

Stop lamp switch		Ground	Continuity
Connector	Terminal	Giodila	Continuity
A: E38	2	Ground	No

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Is the inspection result normal?

YES >> GO TO 4

NO >> Repair harness or connector.

4. CHECK STOP LAMP SWITCH

Refer to SEC-407, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5

NO >> Replace stop lamp switch.

5. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

Component Inspection

1. CHECK STOP LAMP SWITCH

Turn ignition switch OFF.

2. Disconnect stop lamp switch harness connector.

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INFOID:0000000005429921

SEC-407 Revision: September 2009 2010 Altima

B2555 STOP LAMP

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

3. Check continuity between stop lamp switch terminals under the following conditions.

Stop lan	np switch		Continuity	
Terr	minal	Condition		Continuity
1	2	Brake pedal	Not depressed	No
'		biake pedal	Depressed	Yes

DISCONNECT OFF

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:0000000005429922

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

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2556	PUSH-BUTTON IG- NITION SWITCH	BCM detects the push-button ignition switch stuck to ON for 100 seconds or more.	 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 <u>SEC-409</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-514, "Wiring Diagram".

1. CHECK PUSH-BUTTON IGNITION SWITCH INPUT SIGNAL

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

Push-button ignition switch		Ground	Voltage [V]
Connector	Terminal	Ground	voltage [v]
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-410, "Component Inspection".

Is the inspection result normal?

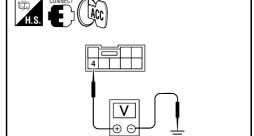
YES >> GO TO 3

NO >> Replace push-button ignition switch. Refer to SEC-529, "Removal and Installation".

3. CHECK INTERMITTENT INCIDENT

Refer to GI-41. "Intermittent Incident".

>> Inspection End.



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Revision: September 2009 SEC-409 2010 Altima

B2556 PUSH-BUTTON IGNITION SWITCH

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

4. CHECK PUSH-BUTTON IGNITION SWITCH CIRCUIT FOR SHORT

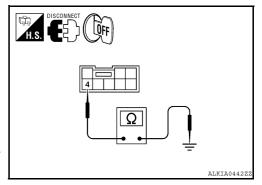
- 1. Disconnect BCM harness connector and IPDM E/R harness connector.
- 2. Check continuity between push-button ignition switch harness connector and ground.

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

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-96, "Removal and Installation"</u>.

NO >> Repair harness or connector.



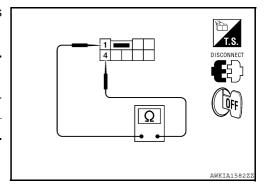
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Component Inspection

1. CHECK PUSH-BUTTON IGNITION SWITCH

- 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
Terr	Terminal		Continuity
1	4	Pressed	Yes
	1 4		No



Is the inspection result normal?

YES >> Inspection End.

NO

>> Replace push-button ignition switch. Refer to <u>SEC-529</u>. "Removal and Installation".

B2557 VEHICLE SPEED

[SEDAN WITHOUT INTELLIGENT KEY]

B2557 VEHICLE SPEED

Description INFOID:0000000005429926

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:0000000005429927

DTC DETECTION LOGIC

NOTE:

• If DTC B2557 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-386, "DTC Logic".

 If DTC B2557 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-387, "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 One is 10 km/h or more and the other is 4 km/h or less.	Wheel sensor Unified meter ABS actuator and electric unit (control unit)

SEC-411

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 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?

YFS >> Refer to SEC-411, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000005429928

${f 1}.$ CHECK DTC WITH "ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)"

Check "Self Diagnostic Result" with CONSULT-III. Refer to BRC-39, "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:000000005429929

Starter control relay, integrated in IPDM E/R, permits the starter relay operation when in N or P position.

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2560 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-386, "DTC Logic".
- If DTC B2560 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-387, "DTC Logic"</u>.

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 <u>SEC-412</u>, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000005429931

1. CHECK DTC WITH IPDM E/R

Check "Self Diagnostic Result" with CONSULT-III. Refer to PCS-32, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace malfunctioning parts.

2. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

B2601 SHIFT POSITION

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B2601 SHIFT POSITION

Description INFOID:0000000005429932

BCM confirms the shift position with the following 2 signals.

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

DTC Logic INFOID:0000000005429933

DTC DETECTION LOGIC

NOTE:

- If DTC B2601 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-386, "DTC Logic".
- If DTC B2601 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-387, "DTC Logic".
- If DTC B2601 is displayed with DTC B2605, first perform the trouble diagnosis for DTC B2605. Refer to SEC-424, "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	Harness or connectors (CVT shift selector circuit is open or shorted.) CVT shift selector

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 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.
- Check "Self diagnostic result" with CONSULT-III.
- 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.
- Check "Self diagnostic result" with CONSULT-III.

Is DTC detected?

YES >> Refer to SEC-413, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-490, "Wiring Diagram".

1. CHECK CVT SHIFT SELECTOR POWER SUPPLY

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

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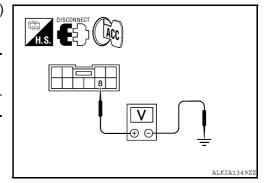
SEC-413 2010 Altima Revision: September 2009

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

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

Is the inspection result normal?

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



2.CHECK CVT SHIFT SELECTOR POWER SUPPLY CIRCUIT

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

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

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

H.s. DISCONNECT OFF
84
Ω = ALKIA0445ZZ

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

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-96, "Removal and Installation"</u>.

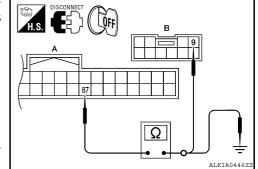
NO >> Repair harness or connector.

3. CHECK CVT SHIFT SELECTOR CIRCUIT (BCM)

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

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

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



В	BCM		Continuity
Connector	Terminal	Ground	Continuity
A: M19	87	Ground	No

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair harness or connector.

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

1. Disconnect BCM harness connector.

B2601 SHIFT POSITION

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

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

	t selector tion switch)	IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
A: M23	9	B: E17	43	Yes

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

1	DISCONNECT OFF
1	Ω

CVT shift selector (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.

CHECK CVT SHIFT SELECTOR

Refer to SEC-415, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 6

NO >> Replace CVT shift selector. Refer to TM-424, "Removal and Installation".

6. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

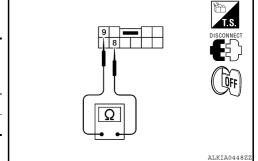
Component Inspection

INFOID:0000000005429935

1. CHECK CVT SHIFT SELECTOR (PARK POSITION SWITCH)

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

	t selector tion switch)	Condition		Continuity
Terr	ninal			
0	0	CVT coloctor lover	P position	No
	8 9	CVT selector lever Other than above		Yes



Is the inspection result normal?

YES >> Inspection End.

NO >> Replace CVT shift selector. Refer to TM-424, "Removal and Installation".

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Revision: September 2009 SEC-415 2010 Altima

INFOID:0000000005429938

B2602 SHIFT POSITION

Description INFOID:000000005429936

BCM confirms the shift position with the following 2 signals.

- CVT selector lever
- Speed signal from meter

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2602 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-386, "DTC Logic".
- If DTC B2602 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-387</u>, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2602	SHIFT POSITION	BCM detects the following status for 10 seconds. • Shift position is in P position • Vehicle speed is 4km/h (2 MPH) or more • Ignition switch is in the ON position	Harness or connectors (CVT drive circuit is open or shorted) CVT shift selector (park position switch) Combination meter

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

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

Is DTC detected?

YES >> Refer to <u>SEC-416</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to <u>SEC-514</u>, "Wiring Diagram".

1. CHECK DTC WITH "COMBINATION METER"

Check "Self diagnostic result" with CONSULT-III. Refer to MWI-62, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace malfunctioning parts.

2.CHECK CVT SHIFT SELECTOR POWER SUPPLY

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

B2602 SHIFT POSITION

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

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

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

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Is the inspection result normal?

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

3.CHECK CVT SHIFT SELECTOR POWER SUPPLY CIRCUIT

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

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

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

H.S. DISCONNECT OFF	B 8
84	Ω = ALKTA0445ZZ

В	BCM		Continuity
Connector	Terminal	Ground	Continuity
A: M19	84	Ground	No

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-96, "Removal and Installation"</u>.

NO >> Repair harness or connector.

4. CHECK CVT SHIFT SELECTOR CIRCUIT

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

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

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

ВСМ		Ground	Continuity
Connector	Terminal	Giodila	Continuity
A: M19	87	Ground	No

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Is the inspection result normal?

YES >> GO TO 5

NO >> Repair harness or connector.

5. CHECK CVT SHIFT SELECTOR

Refer to SEC-415, "Component Inspection".

Is the inspection result normal?

Revision: September 2009 SEC-417 2010 Altima

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B2602 SHIFT POSITION

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

YES >> GO TO 6

NO >> Replace CVT shift selector. Refer to TM-424, "Removal and Installation".

6. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

B2603 SHIFT POSITION STATUS

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B2603 SHIFT POSITION STATUS

Description INFOID:0000000005429939

BCM confirms the shift position with the following 2 signals.

- CVT selector lever
- P/N position switch

DTC Logic INFOID:0000000005429940

DTC DETECTION LOGIC

NOTE:

- If DTC B2603 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-386, "DTC Logic".
- If DTC B2603 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-387, "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. • Transmission range switch: approx. 0V • CVT shift selector (park position switch): approx 0V	Harness or connector (CVT shift selector circuit is open or shorted.) Harness or connectors [Transmission range switch circuit is open or shorted.] CVT shift selector (park position switch) Transmission range switch

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 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.
- Shift to N and wait for at least 1 second.
- Shift to any gear other than P or N and wait for at least 1 second.
- Check "Self diagnostic result" with CONSULT-III.

Is DTC detected?

YES >> Refer to SEC-419, "Diagnosis Procedure".

>> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-490, "Wiring Diagram".

1. CHECK DTC WITH IPDM E/R

Check "Self diagnostic result" with CONSULT-III. Refer to PCS-32, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace malfunctioning parts.

2.CHECK TRANSMISSION RANGE SWITCH CIRCUIT

- Turn ignition switch OFF.
- Disconnect TCM harness connector and BCM harness connector.

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INFOID:0000000005429941

B2603 SHIFT POSITION STATUS

< COMPONENT DIAGNOSIS >

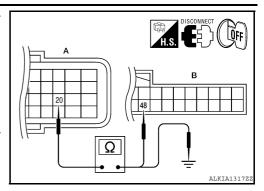
[SEDAN WITHOUT INTELLIGENT KEY]

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

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

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

TO	СМ	Ground	Continuity	
Connector Terminal		Ground	Continuity	
A: F16	20	Ground	No	



Is the inspection result normal?

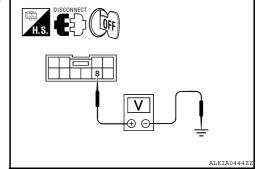
YES >> GO TO 3

NO >> Repair harness or connector.

3.CHECK CVT SHIFT SELECTOR POWER SUPPLY

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

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



Is the inspection result normal?

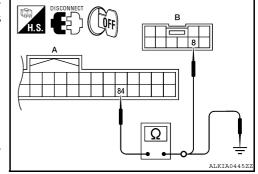
YES >> GO TO 5 NO >> GO TO 4

4. CHECK CVT SHIFT SELECTOR POWER SUPPLY CIRCUIT

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

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

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



В	CM	Ground	Continuity	
Connector Terminal		Giodila	Continuity	
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 SHIFT SELECTOR CIRCUIT

1. Disconnect BCM harness connector.

B2603 SHIFT POSITION STATUS

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

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

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

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

H.S. DISCONNECT OFF
A
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В	CM	Ground	Continuity
Connector	Terminal		
A: M19	87	Ground	No

Is the inspection result normal?

YES >> GO TO 6

NO >> Repair harness or connector.

6. CHECK CVT SHIFT SELECTOR

Refer to SEC-415, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 7

NO >> Replace CVT shift selector. Refer to TM-424, "Removal and Installation".

7. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

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B2604 TRANSMISSION RANGE SWITCH

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B2604 TRANSMISSION RANGE SWITCH

Description INFOID:000000005429942

BCM confirms the shift position with the following 4 signals.

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

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B2604 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-386, "DTC Logic".
- If DTC B2604 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-387, "DTC Logic"</u>.

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2604	TRANSMISSION RANGE SWITCH	 BCM detects the following status for 500 ms or more when the ignition switch is in the ON position. Transmission range switch indicates vehicle is in P or N shift position. Signal from TCM indicates vehicle is in forward or reverse gear. Transmission range switch indicates vehicle is in forward or reverse gear. Signal from TCM indicates vehicle is in P or N. 	Harness or connectors [The transmission range switch circuit is open or shorted.] Transmission range switch TCM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Start the engine under the following conditions and wait for at least 1 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.
- Check "Self diagnostic result" with CONSULT-III.

Is DTC detected?

YES >> Refer to SEC-422, "Diagnosis Procedure".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000005429944

Regarding Wiring Diagram information, refer to SEC-514, "Wiring Diagram".

1. CHECK DTC WITH TCM

Check "Self diagnostic result" with CONSULT-III. Refer to TM-369, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace malfunctioning parts.

2. CHECK TRANSMISSION RANGE SWITCH CIRCUIT

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

B2604 TRANSMISSION RANGE SWITCH

< COMPONENT DIAGNOSIS >

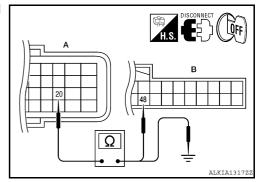
[SEDAN WITHOUT INTELLIGENT KEY]

Check continuity between TCM harness connector and BCM harness connector.

TCM		В	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
A: F33	20	B: M18	48	Yes

4. Check continuity between TCM harness connector and ground.

TO	CM	Ground	Continuity	
Connector	Terminal		Continuity	
A: F33	20	Ground	No	



Is the inspection result normal?

YES >> GO TO 3

NO >> Repair harness or connector.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

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B2605 TRANSMISSION RANGE SWITCH

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B2605 TRANSMISSION RANGE SWITCH

Description INFOID:000000005429945

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

DTC DETECTION LOGIC

NOTE:

- If DTC B2605 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-386, "DTC Logic".
- If DTC B2605 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-387, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2605	TRANSMISSION RANGE SWITCH	 BCM detects the following status for 500 ms or more when the ignition switch is in ON position 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. 	Transmission range 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 <u>SEC-424</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000005429947

Regarding Wiring Diagram information, refer to SEC-514. "Wiring Diagram".

1. CHECK DTC WITH IPDM E/R

Check "Self diagnostic result" with CONSULT-III. Refer to PCS-32, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace malfunctioning parts.

2. CHECK TRANSMISSION RANGE SWITCH CIRCUIT

- Turn ignition switch OFF.
- Disconnect TCM harness connector and BCM harness connector.

B2605 TRANSMISSION RANGE SWITCH

< COMPONENT DIAGNOSIS >

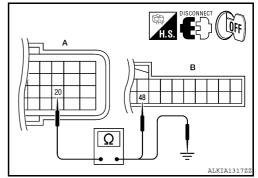
[SEDAN WITHOUT INTELLIGENT KEY]

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

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

4. Check continuity between TCM harness connector and ground.

TO	CM	Ground	Continuity	
Connector Terminal		Ground	Continuity	
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-41, "Intermittent Incident".

>> Inspection End.

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B2608 STARTER RELAY

Description INFOID:000000005429954

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

DTC DETECTION LOGIC

NOTE:

- If DTC B2608 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-386, "DTC Logic".
- If DTC B2608 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to <u>SEC-387, "DTC Logic"</u>.

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	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 <u>SEC-426</u>, "Diagnosis Procedure".

NO >> Inspection End.

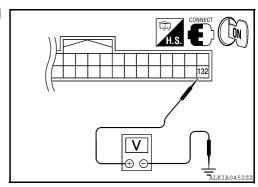
Diagnosis Procedure

INFOID:0000000005429956

Regarding Wiring Diagram information, refer to SEC-490, "Wiring Diagram".

1. CHECK STARTER RELAY

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



B2608 STARTER RELAY

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

ВСМ		Ground Co		Condition	Voltage (V)	
Connector	Terminal	Ground	Condition		voltage (v)	
M21	132	Ground	CVT selector lever	N or P position	Battery voltage	
IVIZ I	132	Giodila	CV i selector level	Other than above	0	

Is the measurement value within the specification?

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

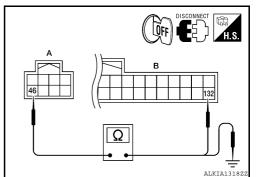
2. CHECK STARTER RELAY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM harness connector 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		Continuity
A: E17	46	B: M21	132	Yes

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

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



Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-47, "Removal and Installation".

NO >> Repair harness or connector.

3. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

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B260F ENGINE STATUS

Description INFOID:000000005429969

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

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B260F is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-386, "DTC Logic".
- If DTC B260F is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-387, "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 <u>SEC-428</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000005429971

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-428, "DTC Logic".

Is the DTC B260F displayed again?

YES >> GO TO 2

NO >> Inspection End.

2.REPLACE ECM

- 1. Replace ECM.
- 2. Refer to <u>EC-569</u>, "BASIC INSPECTION: Special Repair Requirement" (QR25DE except California) or <u>EC-26</u>, "BASIC INSPECTION: Special Repair Requirement" (QR25DE California).

>> Inspection End.

B26E8 CLUTCH INTERLOCK SWITCH

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B26E8 CLUTCH INTERLOCK SWITCH

Description INFOID:0000000005804684

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

DTC Logic INFOID:0000000005804685

NOTE:

If DTC B26E8 is displayed with DTC B210F, first perform the trouble diagnosis for DTC B210F. Refer to SEC-393, "DTC Logic".

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detection condition	Possible cause
B26E8	CLUTCH INTERLOCK SWITCH	Detects that ASCD cancel switch is in the ON position for 2 seconds or more while ignition switch and clutch interlock switch are ON.	Clutch interlock switch Harness or connector (Clutch interlock switch circuit open or shorted)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON under the following condition.
- Shift lever is in the neutral position.
- Depress clutch pedal.
- Check "Self-diagnostic result" using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-429, "Diagnosis Procedure".

NO >> Inspection End

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-145, "Wiring Diagram".

${f 1}$.CHECK CLUTCH INTERLOCK SWITCH POWER SUPPLY

- Turn ignition switch OFF.
- 2. Disconnect clutch interlock switch connector.
- 3. Check voltage between clutch interlock switch harness connector and ground.

(+)		Voltage (V) (Approx.)	
Clutch inte	rlock switch	(–)		
Connector Terminal			(11 - 7	
E36	1	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 2.

>> Check 10 A fuse [No. 31, located in the fuse and fusible link box]

NO-2 >> Check harness for open or short between clutch interlock switch and fuse.

2.CHECK CLUTCH INTERLOCK SWITCH SIGNAL

- Connect clutch interlock switch connector.
- 2. Disconnect BCM connector.
- 3. Check voltage between BCM harness connector and ground.

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B26E8 CLUTCH INTERLOCK SWITCH

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

	(+) BCM		Condition		Voltage (V) (Approx.)
Connector	Terminal				, , , ,
M18	22	Ground	Clutch pedal	Depressed	Battery voltage
IVITO	22 Giouna		Clutch pedal	Released	0

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-96, "Removal and Installation".

NO >> GO TO 3.

3.check clutch interlock switch signal circuit

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

Clutch interlock switch		BCM		Continuity
Connector	Terminal	Connector Terminal		Continuity
E36	2	M18	22	Yes

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

Clutch interlock switch			Continuity
Connector	Terminal	Ground	Continuity
E36	2		No

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK CLUTCH INTERLOCK SWITCH

Refer to SEC-430, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace clutch interlock switch. Refer to CL-9, "Exploded View".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End

Component Inspection

INFOID:0000000005804687

1. CHECK CLUTCH INTERLOCK SWITCH

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

Clutch interlock switch		- Condition		Continuity
Terminal				
1	2	Clutch pedal	Depressed	Yes
			Released	No

Is the inspection result normal?

YES >> Inspection End

NO >> Replace clutch interlock switch. Refer to CL-9, "Exploded View".

B26EA KEY REGISTRATION

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

B26EA KEY REGISTRATION

Description INFOID:000000005783571

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

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B26EA	KEY REGISTRA- TION	Keyfob is not registered successfully.	Improper registration operationKeyfobBCM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Perform initialization using CONSULT-III. Reregister all keyfobs. For initialization and registration of keyfob, refer to "CONSULT-III Operation Manual NATS-IVIS/NVIS".
- Check "Self-diagnostic result" using CONSULT-III.

Is DTC detected?

YES >> Go to SEC-431, "Diagnosis Procedure".

NO >> Inspection End

Diagnosis Procedure

1.PERFORM INITIALIZATION

- Perform initialization using CONSULT-III. Reregister all keyfobs.
 For initialization and registration of keyfob, refer to "CONSULT-III Operation Manual NATS-IVIS/NVIS".
- Check "Self-diagnostic result" using CONSULT-III.

Is DTC detected?

YES >> GO TO 2.

NO >> Inspection End

2.REPLACE KEYFOB

Replace keyfob. Reregister all keyfobs.

- Perform initialization using CONSULT-III. For initialization, refer to "CONSULT-III Operation Manual NATS-IVIS/NVIS".
- Check "Self-diagnostic result" using CONSULT-III.

Is DTC detected?

YES >> Replace BCM. Refer to BCS-96, "Removal and Installation".

NO >> Inspection End

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B2617 STARTER RELAY CIRCUIT

Description INFOID:000000005429975

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

DTC DETECTION LOGIC

NOTE:

- If DTC B2617 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-386, "DTC Logic".
- If DTC B2617 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-387, "DTC Logic".
- If DTC B2617 is displayed with DTC B210E, first perform the trouble diagnosis for DTC B210E. Refer to SEC-432, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2617	STARTER RELAY CIRCUIT	 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 	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 <u>SEC-432</u>, "Diagnosis Procedure".

NO >> Inspection End.

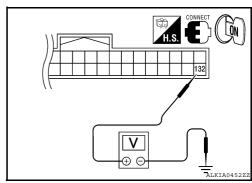
Diagnosis Procedure

INFOID:0000000005429977

Regarding Wiring Diagram information, refer to SEC-490, "Wiring Diagram".

1. CHECK STARTER RELAY

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



B2617 STARTER RELAY CIRCUIT

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

В	BCM Ground Transmission type		Condition	Voltage (V)	
Connector	Terminal	Giodila	Transmission type	Condition	voltage (v)
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

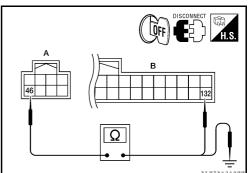
2. CHECK STARTER RELAY CIRCUIT

- Turn ignition switch OFF.
- 2. 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		В	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
A: E17	46	B: M21	132	Yes

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

IPDI	M E/R	Ground	Continuity	
Connector	Terminal	Ground	Continuity	
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-41, "Intermittent Incident".

>> Inspection End.

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Revision: September 2009 SEC-433 2010 Altima

B261E VEHICLE TYPE

[SEDAN WITHOUT INTELLIGENT KEY]

B261E VEHICLE TYPE

Description INFOID:000000005783574

There are two types of vehicles.

- HEV
- Conventional

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B261E is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-386, "DTC Logic".
- If DTC B261E is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-387, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B261E	VEHICLE TYPE	Difference of BCM configuration.	BCM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

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

Is DTC detected?

YES >> Go to SEC-434, "Diagnosis Procedure".

NO >> Inspection End

Diagnosis Procedure

INFOID:0000000005783576

1. INSPECTION START

- Turn ignition switch ON.
- 2. Check "Self-diagnostic result" using CONSULT-III.
- 3. Touch "ERASE".
- 4. Perform DTC Confirmation Procedure.

See SEC-434, "DTC Logic".

Is the 1st trip DTC B261E displayed again?

YES >> Replace BCM. Refer to BCS-96, "Removal and Installation".

NO >> Inspection End

B261A PUSH-BUTTON IGNITION SWITCH

Description INFOID:000000005429981

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

DTC DETECTION LOGIC

NOTE:

- If DTC B261A is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-386, "DTC Logic".
- If DTC B261A is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-387, "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 • Push-button ignition switch status • Push-button ignition switch status from IPDM E/R (CAN)	 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.
- Check "Self diagnostic result" with CONSULT-III.

Is DTC detected?

YES >> Refer to <u>SEC-435, "Diagnosis Procedure"</u>.

NO >> Inspection End.

Diagnosis Procedure

Regarding Wiring Diagram information, refer to SEC-514, "Wiring Diagram".

1. CHECK PUSH-BUTTON IGNITION SWITCH OUTPUT SIGNAL 1

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

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

Is the inspection result normal?

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

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2. CHECK PUSH-BUTTON IGNITION SWITCH CIRCUIT

. Disconnect BCM harness connector.

TITCH CIRCUIT

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B261A PUSH-BUTTON IGNITION SWITCH

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

2. Check continuity between push-button ignition switch harness connector M38 (A) terminal 4 and BCM harness connector M21 (B) terminal 140.

Push-button ignition switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: M38	4	B: M21	140	Yes

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

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

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair harness or connector.

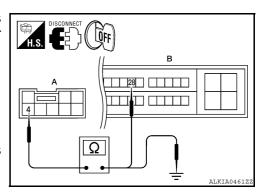
3.CHECK PUSH-BUTTON IGNITION SWITCH

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

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

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

Push-button	ignition switch	Ground	Continuity
Connector	Terminal	Ground	
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-41, "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:0000000005429984)

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

DTC Logic

DTC DETECTION LOGIC

NOTE:

- If DTC B26E1 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to SEC-386, "DTC Logic".
- If DTC B26E1 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to SEC-387, "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 <u>SEC-437</u>, "<u>Diagnosis Procedure</u>".

NO >> Inspection End.

Diagnosis Procedure

INFOID:0000000005429986

1. INSPECTION START

- 1. Turn ignition switch ON.
- 2. Check "Self diagnostic result" with CONSULT-III.
- Touch "ERASE".
- 4. Perform DTC Confirmation Procedure.

See SEC-437, "DTC Logic".

Is the DTC B26E1 displayed again?

YES >> GO TO 2

NO >> Inspection End.

2.REPLACE ECM

- Replace ECM.
- Refer to <u>EC-569</u>, "BASIC INSPECTION: Special Repair Requirement" (QR25DE except California) or <u>EC-26</u>, "BASIC INSPECTION: Special Repair Requirement" (QR25DE California).

>> Inspection End.

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Revision: September 2009 SEC-437 2010 Altima

POWER SUPPLY AND GROUND CIRCUIT BCM

BCM: Diagnosis Procedure

INFOID:000000005783565

Regarding Wiring Diagram information, refer to <u>BCS-75</u>, "COUPE: Wiring Diagram" or <u>BCS-84</u>, "SEDAN: <u>Wiring Diagram"</u>.

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	Н
11	battery power supply	10

Is the fuse or fusible link blown?

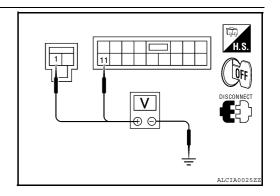
YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

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
В	CM		(Approx.)
Connector	Terminal	Ground	
M16	1	Ground	Pottony voltage
M17	11		Battery voltage



Is the measurement normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK GROUND CIRCUIT

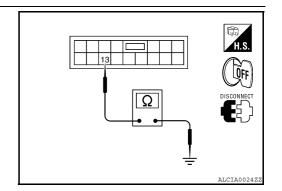
Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M17	13		Yes

Does continuity exist?

YES >> Inspection End.

NO >> Repair or replace harness.



BCM : Special Repair Requirement

1. REQUIRED WORK WHEN REPLACING BCM

Initialize control unit. Refer to BCS-6, "CONFIGURATION (BCM): Special Repair Requirement".

INFOID:0000000005783566

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

>> Work End.

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

Regarding Wiring Diagram information, refer to <u>PCS-34, "COUPE : Wiring Diagram"</u> (coupe) or <u>PCS-40, "SEDAN : Wiring Diagram"</u> (sedan).

1. CHECK FUSES AND FUSIBLE LINK

Check that the following IPDM E/R fuses or fusible link are not blown.

Terminal No.	Signal name	Fuses and fusible link No.
1, 2		B, D
	Battery power supply	42
_		43

Is the fuse blown?

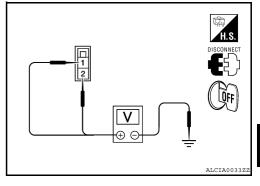
YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

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)	
IPDI	M E/R	(-)	(Approx.)	
Connector	Terminal			
E16	1	Ground	Battery voltage	
E16	2		Dattery Voltage	



Is the measurement value normal?

YES >> GO TO 3

NO >> Repair harness or connector.

3. CHECK GROUND CIRCUIT

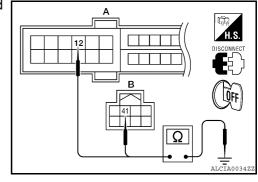
Check continuity between IPDM E/R harness connectors and ground.

IPDM I	E/R		Continuity
Connector	Terminal	Ground	Continuity
A: E18	12	Yes	Voc
B: E17	41		ies

Does continuity exist?

YES >> Inspection End.

NO >> Repair harness or connector.



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KEY SLOT

Diagnosis Procedure

INFOID:0000000005429990

Regarding Wiring Diagram information, refer to <u>SEC-514, "Wiring Diagram"</u>.

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)
Connector	Terminal	Ground	(Approx.)
M40	1 5	Ground	Battery voltage

DISCONNECT TH.S. DISCONNECT TH.S. DISCONNECT ALKIA04192Z

Is the inspection result normal?

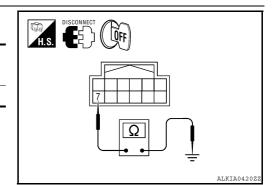
YES >> GO TO 2

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	Giodila	Continuity
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-41, "Intermittent Incident".

>> Inspection End.

KEY SLOT ILLUMINATION

Description INFOID:000000005429991

Blinks when keyfob insertion is required.

Component Function Check

INFOID:0000000005429992

1. CHECK FUNCTION

(P) With CONSULT-III

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

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Is the inspection result normal?

YES >> Key slot function is OK.

NO >> Refer to <u>SEC-441, "Diagnosis Procedure"</u>.

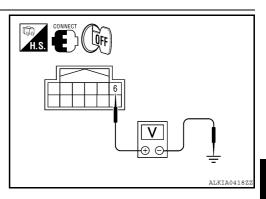
Diagnosis Procedure

INFOID:0000000005429993

Regarding Wiring Diagram information, refer to SEC-514, "Wiring Diagram".

1. CHECK KEY SLOT ILLUMINATION OUTPUT SIGNAL

Check voltage between key slot connector and ground.



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	Terminals				
	(+)		Condition	Key slot	Voltage (V) (Approx.)
Key slot connector	Terminal	(-)		illumination	
M40	6	Ground	Keyfob inserted	OFF	Battery voltage
10140	M40 6 Ground	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.
- Disconnect key slot connector.

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KEY SLOT ILLUMINATION

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

Check voltage between slot connector and ground.

	Terminals		V 1 00
(+)		(-)	Voltage (V) (Approx.)
Key slot connector	Terminal	(-)	, , ,
M40	1	Ground	Rattery voltage
M40	5	Ground	Battery voltage

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Is the inspection result normal?

YES >> GO TO 3

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

3. CHECK KEY SLOT GROUND CIRCUIT

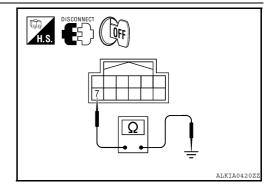
Check continuity between key slot connector and ground.

Key slot connector	Terminal	Ground	Continuity
M40	7		Yes

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace key slot ground circuit.



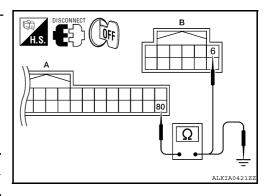
4. CHECK KEY SLOT CIRCUIT

- Turn ignition switch OFF.
- 2. 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.

A: M19 80 No	BCM connector	Terminal	Ground	Continuity
	A: M19	80	Orodria	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-441, "Description".

Is the inspection result normal?

YES >> GO TO 6

NO >> Replace key slot. Refer to <u>SEC-528</u>, "Removal and Installation".

6.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

KEY CYLINDER SWITCH

Description INFOID:0000000005429994

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:0000000005429995

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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 <u>DLK-229</u>, "Work Flow".

Monitor item	Condition	
KEY CYL LK-SW	Lock	: ON
RET CTL ER-SW	Neutral / Unlock	: OFF
KEY CYL UN-SW	Unlock	: ON
KET CTL CIN-SVV	Neutral / Lock	: OFF

Is the inspection result normal?

YES >> Key cylinder switch is OK.

NO >> Refer to <u>DLK-303</u>, "<u>Diagnosis Procedure (With LH Anti-Pinch Only)</u>".

Diagnosis Procedure

INFOID:0000000005429996

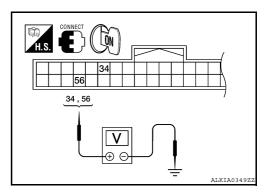
Regarding Wiring Diagram information, refer to <u>SEC-514. "Wiring Diagram"</u>.

1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

1. Turn ignition switch ON.

Revision: September 2009

2. Check voltage between BCM connector and ground.



Terminals				
(+)		(_)	Key position	Voltage (V) (Approx.)
BCM connector	Terminal	(-)		(11 -)
	56 34		Lock	0
M18		Ground	Neutral / Unlock	5
		Glound	Unlock	0
			Neutral / Lock	5

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KEY CYLINDER SWITCH

[SEDAN WITHOUT INTELLIGENT KEY]

< COMPONENT DIAGNOSIS >

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to PWC-78, "Removal and Installation".

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
D14	4	Oround	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: D14	5	B: M18	34	Yes
A. D14	6	D. MIO	56	163

Check continuity between front door lock assembly LH (key cylinder switch) connector and ground.

T.S. DISCONNECT OFF	
В	
A 34 56 56 56 56 56 56 56 56 56 56 56 56 56	
5,6 34,56	
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Front door lock assembly LH connector	Terminal	Ground	Continuity
A: D14	5		No
A. D14	6		NO

Is the inspection result normal?

YES >> GO TO 4

NO

NO >> Repair or replace harness.

4. CHECK DOOR KEY CYLINDER SWITCH

Check door key cylinder switch.

Refer to SEC-444, "Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".

>> Replace front door lock assembly LH (key cylinder switch). Refer to <u>DLK-449</u>. "FRONT DOOR <u>LOCK</u>: Removal and Installation".

Component Inspection

INFOID:0000000005429997

COMPONENT INSPECTION

1. CHECK DOOR KEY CYLINDER SWITCH

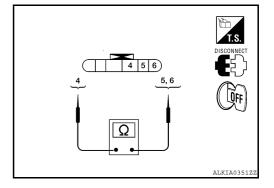
KEY CYLINDER SWITCH

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

Check front door lock assembly LH (key cylinder switch).

Term	ninal			
Front door lock assembly LH (key cylinder switch) connector		Key position	Continuity	
F	5 4	Unlock	Yes	
3		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 a

>> Replace front door lock assembly LH (key cylinder switch). Refer to <u>DLK-449</u>, "FRONT DOOR <u>LOCK</u>: Removal and Installation".

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HORN

Description INFOID:000000005429998

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

Component Function Check

INFOID:0000000005429999

1. CHECK FUNCTION

- 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 <u>SEC-446</u>, "<u>Diagnosis Procedure</u>".

Diagnosis Procedure

INFOID:0000000005430000

Regarding Wiring Diagram information, refer to SEC-503, "Wiring Diagram".

1. CHECK HORN FUNCTION

Check horn function with horn switch

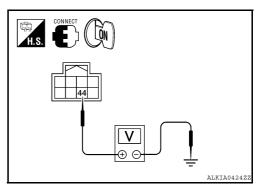
Do the horns sound?

YES >> GO TO 2

NO >> Refer to HRN-7, "SEDAN: Wiring Diagram".

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)	
Connector	Terminal	Ground	rest item		(Approx.)	
E17	44	Ground	HORN	ON	Battery voltage \rightarrow 0 \rightarrow Battery voltage	
	44	Ground	TIOKIN	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

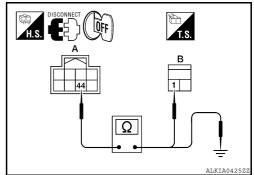
3.CHECK HORN RELAY CIRCUIT

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

IPDI	M E/R	Horn relay		Continuity
Connector	Terminal	Connector	Terminal	Continuity
A: E17	44	B: H-1	1	Yes

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

IPDM E/R		Ground	Continuity
Connector	Terminal	Giodila	Continuity
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-41, "Intermittent Incident".

Is the inspection result normal?

YES >> Replace IPDM E/R.Refer to PCS-47, "Removal and Installation".

NO >> Repair or replace the malfunctioning part.

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HEADLAMP

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

HEADLAMP

Description INFOID:000000005430001

Headlamp lighting when theft warning system is in alarm phase.

Component Function Check

INFOID:0000000005430002

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 <u>SEC-448, "Diagnosis Procedure"</u>.

Diagnosis Procedure

INFOID:0000000005430003

1. CHECK HEADLAMP OPERATION

Refer to EXL-99, "SEDAN: Wiring Diagram".

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace malfunctioning parts.

2. CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> Inspection End.

WARNING LAMP

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

WARNING LAMP

Description INFOID:000000005430004

- 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

1.check function

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

Test item		Description	
INDICATOR	ON	Warning Jamp	ON
INDICATOR	OFF	·	

Is the inspection result normal?

YES >> Inspection End.

NO >> Refer to <u>SEC-449</u>, "<u>Diagnosis Procedure</u>".

Diagnosis Procedure

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-41, "Intermittent Incident".

>> Inspection End.

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VEHICLE SECURITY INDICATOR

< COMPONENT DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

VEHICLE SECURITY INDICATOR

Description INFOID:000000005430007

- 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:0000000005430008

1. CHECK FUNCTION

- 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	vernole security indicator	OFF	

Is the inspection result normal?

YES >> Inspection End.

NO >> Refer to <u>SEC-450</u>, "<u>Diagnosis Procedure</u>".

Diagnosis Procedure

INFOID:000000005430009

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-41, "Intermittent Incident".

>> Inspection End.

< ECU DIAGNOSIS >

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ECU DIAGNOSIS

BCM (BODY CONTROL MODULE)

Reference Value

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
ED WIDED !!!	Other than front wiper switch HI	OFF
FR WIFEK HI	Front wiper switch HI	ON
ED WIDED LOW	Other than front wiper switch LO	OFF
FR WIPER LOW	Front wiper switch LO	ON
ED WASHED SW	Front washer switch OFF	OFF
FR WASHER SW	Front washer switch ON	ON
ED WIDED INT	Other than front wiper switch INT	OFF
FR WIFER IN	Front wiper switch INT	ON
ED WIDED STOD	Front wiper is not in STOP position	OFF
FR WIFER STOP	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 TURN SIGNAL L	Other than turn signal switch RH	OFF
TORN SIGNAL R	Turn signal switch RH	ON
FR WIPER HI FR WIPER LOW Front wiper sw FR WASHER SW FR WIPER INT FR WIPER INT FR WIPER STOP INT VOLUME TURN SIGNAL R TURN SIGNAL L TURN SIGNAL L TURN SIGNAL L THEAD LAMP SW HEAD LAMP SW 1 HEAD LAMP SW 2 PASSING SW AUTO LIGHT SW DOOR SW-DR DOOR SW-RR DOOR SW-RR Front wiper sw Other than fro Front wiper is Front foul and Lighting switch Lighting switch Lighting switch Lighting switch Lighting switch Front foul lamp Front	Other than turn signal switch LH	OFF
	Turn signal switch LH	ON
TAIL LAMD CVV	Other than front wiper switch HI Front wiper switch HI Other than front wiper switch LO Front wiper switch LO Front washer switch OFF Front washer switch ON Other than front wiper switch INT Front wiper switch INT Front wiper switch INT Front wiper is not in STOP position Front wiper is in STOP position Wiper intermittent dial is in a dial position 1 - 7 Other than turn signal switch RH Turn signal switch RH Turn signal switch LH Turn signal switch LH Uther than lighting switch 1ST and 2ND Lighting switch 1ST or 2ND Other than lighting switch 1ND Lighting switch 2ND Other than lighting switch 2ND Lighting switch 2ND Other than lighting switch PASS Lighting switch PASS Lighting switch AUTO Front fog lamp switch ON Driver door closed Driver door opened Rear door RH closed Rear door LH closed Rear door LH closed Rear door LH closed	OFF
TURN SIGNAL L Turn signal switch LH Other than lighting switch 1ST and 2N Lighting switch 1ST or 2ND Other than lighting switch HI Lighting switch HI Other than lighting switch 2ND	Lighting switch 1ST or 2ND	ON
LII DEAM CW	Other than lighting switch HI	OFF
HI BEAIN SW	Lighting switch HI	ON
HEAD LAMP SW/ 1	Other than lighting switch 2ND	OFF
HEAD LAWP SW 1	Other than front wiper switch HI Front wiper switch HI Other than front wiper switch LO Front washer switch OFF Front washer switch ON Other than front wiper switch INT Front wiper switch INT Front wiper switch INT Front wiper is not in STOP position Front wiper is in STOP position Wiper intermittent dial is in a dial position 1 - 7 Other than turn signal switch RH Turn signal switch RH Other than turn signal switch LH Turn signal switch LH Other than lighting switch 1ST and 2ND Lighting switch 1ST or 2ND Other than lighting switch HI Lighting switch HI Other than lighting switch 2ND Lighting switch 2ND Other than lighting switch PASS Lighting switch PASS Other than lighting switch AUTO Lighting switch AUTO Front fog lamp switch OFF Front fog lamp switch ON Driver door closed Driver door closed Passenger door closed Rear door RH closed Rear door LH closed	ON
FR WIPER HI FR WIPER LOW FR WASHER SW FR WASHER SW FR WIPER INT Front wiper sw FR WIPER INT Front wiper sw FR WIPER STOP Front wiper is r Turn signal swi Other than turn Turn signal swi Lighting switch Under than ligh Lighting switch Front fog lamp	Other than lighting switch 2ND	OFF
HEAD LAIMP SW 2	Lighting switch 2ND	ON
DA CCINIC CW	Other than lighting switch PASS	OFF
FR WIPER STOP INT VOLUME TURN SIGNAL R TURN SIGNAL L TAIL LAMP SW HI BEAM SW HEAD LAMP SW 1 HEAD LAMP SW 2 PASSING SW AUTO LIGHT SW FR FOG SW DOOR SW-DR DOOR SW-AS	Lighting switch PASS	ON
FR WIPER LOW Front FR WASHER SW Front FR WIPER INT FR WIPER STOP INT VOLUME INT VOLUME TURN SIGNAL R TURN SIGNAL L TAIL LAMP SW HI BEAM SW HEAD LAMP SW 1 Lightir HEAD LAMP SW 2 Lightir PASSING SW AUTO LIGHT SW DOOR SW-DR DOOR SW-RR Pront Rear of Rear of Rear of Front Fr	Other than lighting switch AUTO	OFF
	Lighting switch AUTO	ON
HI BEAM SW HEAD LAMP SW 1 HEAD LAMP SW 2 PASSING SW AUTO LIGHT SW FR FOG SW	Front fog lamp switch OFF	OFF
FR FOG SW	Front fog lamp switch ON	ON
Turn signal switch LH ON Other than lighting switch 1ST and 2ND OFF Lighting switch 1ST or 2ND ON Other than lighting switch HI OFF Lighting switch HI ON OTHER THAN ITEM SW OTHER THAN ITEM SWITCH ON O	Driver door closed	OFF
	ON	
DOOD SW AS	Passenger door closed	OFF
DOOK 200-42	Passenger door opened	ON
Light	Rear door RH closed	OFF
DOOK 200-KK	Rear door RH opened	ON
FR WIPER HI Front wiper switch HI Other than front wiper switch LO Front wiper switch LO Front wiper switch LO Front washer switch OFF Front washer switch ON Other than front wiper switch INT Front wiper sint of STOP position INT VOLUME Wiper intermittent dial is in a dial position 1 - 7 Other than turn signal switch RH TURN SIGNAL R TURN SIGNAL L TURN SIGNAL RH TURN SIGNAL L TURN SIGNAL RH TURN SIGNAL RH	Rear door LH closed	OFF
	ON	

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Monitor Item	Condition	Value/Status
CDL LOCK SW	Other than power door lock switch LOCK	OFF
CDL LOCK SW	Power door lock switch LOCK	ON
CDL TINII OCK SW	Other than power door lock switch UNLOCK	OFF
CDL UNLOCK SW	Power door lock switch UNLOCK	ON
KEY CYL LK-SW KEY CYL UN-SW HAZARD SW REAR DEF SW TR CANCEL SW TR/BD OPEN SW TRNK/HAT MNTR RKE-LOCK	Other than driver door key cylinder LOCK position	OFF
KET CTL LK-SW	Driver door key cylinder LOCK position	ON
CDL LOCK SW CDL UNLOCK SW KEY CYL LK-SW KEY CYL UN-SW HAZARD SW REAR DEF SW TR CANCEL SW TR/BD OPEN SW TRNK/HAT MNTR RKE-LOCK RKE-UNLOCK RKE-TR/BD RKE-PANIC RKE-PANIC RKE-PANIC RKE-PW OPEN RKE-MODE CHG OPTICAL SENSOR REQ SW-AS REQ SW-BD/TR	Other than driver door key cylinder UNLOCK position	OFF
KET CTL UN-SW	Driver door key cylinder UNLOCK position	ON
HAZADD SW	When hazard switch is not pressed	OFF
KEY CYL LK-SW KEY CYL UN-SW HAZARD SW REAR DEF SW TR CANCEL SW TR/BD OPEN SW TRNK/HAT MNTR RKE-LOCK RKE-UNLOCK RKE-TR/BD RKE-PANIC RKE-P/W OPEN	When hazard switch is pressed	ON
REAR DEF SW	When rear window defogger switch is pressed	ON
TR/BD OPEN SW FRNK/HAT MNTR RKE-LOCK	Trunk lid opener cancel switch OFF	OFF
	Trunk lid opener cancel switch ON	ON
Monitor Item CDL LOCK SW CDL UNLOCK SW KEY CYL LK-SW KEY CYL UN-SW HAZARD SW REAR DEF SW TR CANCEL SW TR/BD OPEN SW TRNK/HAT MNTR RKE-LOCK RKE-UNLOCK RKE-TR/BD RKE-PANIC RKE-PANIC RKE-PANIC RKE-P/W OPEN RKE-MODE CHG OPTICAL SENSOR REQ SW-AS REQ SW-AS REQ SW-BD/TR PUSH SW IGN RLY2-F/B	Trunk lid opener switch OFF	OFF
	While the trunk lid opener switch is turned ON	ON
	Trunk lid closed	OFF
	Trunk lid opened	ON
DKE I OOK	When LOCK button of Intelligent Key is not pressed	OFF
RKE-LUCK	When LOCK button of Intelligent Key is pressed	ON
DKE TIMI OCK	When UNLOCK button of Intelligent Key is not pressed	OFF
RKE-UNLOCK	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
	When PANIC button of Intelligent Key is not pressed	OFF
	When PANIC button of Intelligent Key is pressed	ON
RKE-TR/BD RKE-PANIC 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
DIVE MODE CHO	When LOCK/UNLOCK button of Intelligent Key is not pressed and held simultaneously	OFF
RRE-WODE CHG	When LOCK/UNLOCK button of Intelligent Key is pressed and held simultaneously	ON
ODTICAL SENSOR	When outside of the vehicle is bright	Close to 5 V
OF HOAL SENSOR	When outside of the vehicle is dark	Close to 0 V
DEO CW DD	When driver door request switch is not pressed	OFF
KEQ 5W-DK	When driver door request switch is pressed	ON
DEO SW AS	When passenger door request switch is not pressed	OFF
REQ SW-AS	When passenger door request switch is pressed	ON
DEO CW/ DD/TD	When trunk request switch is not pressed	OFF
REQ 5W-BD/TR	When trunk request switch is pressed	ON
DITCH C/W	When engine switch (push switch) is not pressed	OFF
FUON OVV	When engine switch (push switch) is pressed	ON
ION DI VO E/D	Ignition switch OFF or ACC	OFF
IGN KLY2-F/B	Ignition switch ON	ON
400 DIV 5/D	Ignition switch OFF	OFF
ACC RLY-F/B	Ignition switch ACC or ON	ON

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[SEDAN WITHOUT INTELLIGENT KEY]

Monitor Item	Condition	Value/Status
OLLITOLI OM	When the clutch pedal is not depressed	OFF
CLUTCH SW	When the clutch pedal is depressed	ON
DDAKE OWA	When the brake pedal is not depressed	ON
BRAKE SW 1	When the brake pedal is depressed	OFF
DETE/OANOL OW	When selector lever is in P position	OFF
DETE/CANCL SW	When selector lever is in any position other than P	ON
CET DAI/ALC/A/	When selector lever is in any position other than P or N	OFF
SFT PN/N SW	When selector lever is in P or N position	ON
	Driver door UNLOCK status	OFF
UNLK SEN-DR	Driver door LOCK status	ON
DUGU OW IDDM	When engine switch (push switch) is not pressed	OFF
PUSH SW-IPDM	When engine switch (push switch) is pressed	ON
SFT PN -IPDM SFT P-MET	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
SFT P-MET	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 stopped	STOP
ENOUGH OTATE	While the engine stalls	STALL
ENGINE STATE	At engine cranking	CRANK
	Engine running	RUN
VEH SPEED 1	While driving	Equivalent to speedometer reading
VEH SPEED 2	While driving	Equivalent to speedometer reading
	Driver door LOCK status	LOCK
DOOR STAT-DR	Wait with selective UNLOCK operation (5 seconds)	READY
	Driver door UNLOCK status	UNLK
	Passenger door LOCK status	LOCK
DOOR STAT-AS	Wait with selective UNLOCK operation (5 seconds)	READY
	Passenger door UNLOCK status	UNLK
	Ignition switch ACC or ON	RESET
ID OK FLAG	Ignition switch OFF	SET
	When the engine start is prohibited	RESET
PRMT ENG STAT	When the engine start is permitted	SET
	When Intelligent Key is not inserted into key slot	OFF
KEY SW -SLOT	When Intelligent Key is inserted into key slot	ON
RKE OPE COUN1	During the operation of Intelligent Key	Operation frequency of Intelligent Key
CONFIDATION	The key ID that the key slot receives does not accord with any key ID registered to BCM.	YET
CONFRM ID ALL	The key ID that the key slot receives accords with any key ID registered to BCM.	DONE

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Monitor Item	Condition	Value/Status
CONFIRM ID4	The key ID that the key slot receives does not accord with the fourth key ID registered to BCM.	YET
CONFINII ID4	The key ID that the key slot receives accords with the fourth key ID registered to BCM.	DONE
OONEDM IDO	The key ID that the key slot receives does not accord with the third key ID registered to BCM.	YET
CONFIRM ID3	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
CONTINUID2	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
CON INWIDT	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
4	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
TD 0	The ID of second key is not registered to BCM	YET
TP 2	The ID of second key is registered to BCM	DONE
TD 4	The ID of first key is not registered to BCM	YET
TP 1	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
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
ID NEOST LET	When ID of front LH tire transmitter is not registered	YET
ID REGST FR1	When ID of front RH tire transmitter is registered	DONE
ID REGGI FRI	When ID of front RH tire transmitter is not registered	YET
ID DECCT DD4	When ID of rear RH tire transmitter is registered	DONE
ID REGST RR1	When ID of rear RH tire transmitter is not registered	YET
ID DECCE DI 4	When ID of rear LH tire transmitter is registered	DONE
ID REGST RL1	When ID of rear LH tire transmitter is not registered	YET
IMA DAUNO I AMB	Tire pressure indicator OFF	OFF
WARNING LAMP	Tire pressure indicator ON	ON
	Tire proceure warning clarm is not counding	OFF
BUZZER	Tire pressure warning alarm is not sounding	OFF

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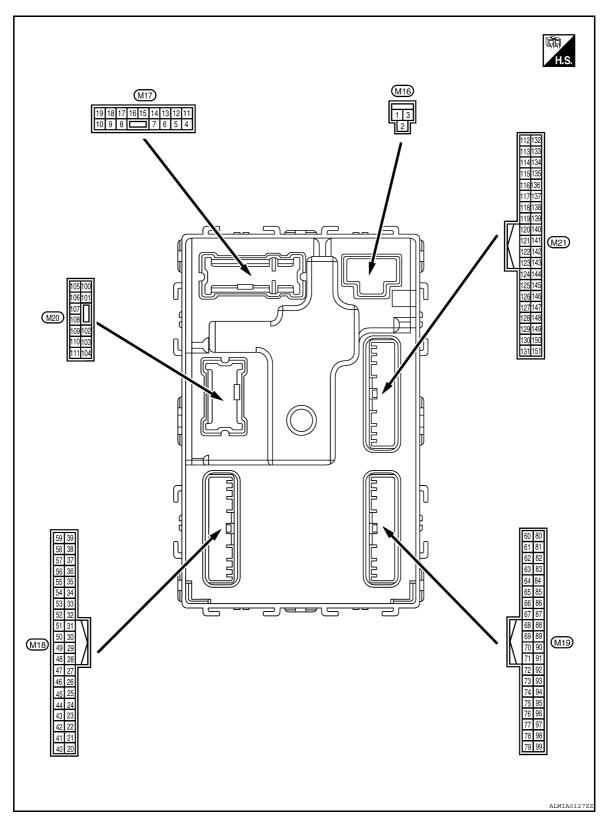
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Terminal Layout



Physical Values

	inal No. e color)	Description				Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
1 (W/B)	Ground	Battery power supply	Input	Ignition switch OF	F	Battery voltage
2 (R/Y)	Ground	Battery power supply output	Output	Ignition switch OF	F	Battery voltage
3 (L/W)	Ground	Ignition power supply output	Output	Ignition switch ON		Battery voltage
4	Ground	Interior room lamp	Output	After passing the ir er operation time	nterior room lamp battery sav-	OV
(P/W)	Ground	power supply	Output	Any other time after lamp battery save	er passing the interior room roperation time	Battery voltage
5	Ground	Front door RH UN-	Output	Front door RH	UNLOCK (actuator is activated)	Battery voltage
(G/Y)	Giodila	LOCK	Output	T TOTAL GOOT INT	Other than UNLOCK (actuator is not activated)	OV
7	Cround	Step lamp	Output	Cton lown	ON	0V
(R/W)	Ground	Step lamp	Output	Step lamp	OFF	Battery voltage
8	8 (V) Ground All doors LOCK	0.1.1	tput All doors	LOCK (actuator is activated)	Battery voltage	
(V)		Output		Other than LOCK (actuator is not activated)	0V	
9	9 0	Front door LH UN-	Output	Front door LH	UNLOCK (actuator is activated)	Battery voltage
(G)	Ground	LOCK	Output	TION GOOF ET	Other than UNLOCK (actuator is not activated)	OV
10 ¹	Ground	Rear door RH and rear door LH UN-	Output	Rear door RH	UNLOCK (actuator is activated)	Battery voltage
(G/Y)	Ground	LOCK	Output	and rear door LH	Other than UNLOCK (actuator is not activated)	0V
11 (Y/R)	Ground	Battery power supply	Input	Ignition switch OF	F	Battery voltage
13 (B)	Ground	Ground	_	Ignition switch ON		OV
					OFF	OV
14 ⁶ (R/Y)	Ground	Engine switch (push switch) illumination ground	Input	Tail lamp	ON	When the illumination brightening/dimming level is in the neutral position (V) 10 2 ms JSNIA0010GB

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[SEDAN WITHOUT INTELLIGENT KEY]

Terminal No. (Wire color)		Description		O v a little o		Value	
(+)	e color)	Signal name	Input/ Output		Condition	(Approx.)	
. ,	, ,				OFF	0V	
14 ¹ (O/W)	Ground	Engine switch (push switch) illumination ground	Input	Tail lamp	ON	NOTE: When the illumination brightening/dimming level is in the neutral position (V) 10 0 JSNIA0010GB	
15	0	400 : 1: - 1 - 1 - 1	0 1 1	185	OFF	Battery voltage	
(Y/L)	Ground	ACC indicator lamp	Output	Ignition switch	ACC or ON	0V	
-					Turn signal switch OFF	OV	
17 (G/B)	Ground	Turn signal (RH)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0 1 s PKID0926E 6.5 V	
					Turn signal switch OFF	ov v	
18 (G/Y)	Ground	Turn signal (LH)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 1	
					OFF	6.5 V Battery voltage	
19 (Y)	Ground	Room lamp timer control	Output	Interior room lamp	OFF	0V	
21	Craw	Ontical consequence	lac::4	Ignition switch	When outside of the vehi- cle is bright	Close to 5V	
(P/B)	Ground	Optical sensor signal	Input	ŎN	When outside of the vehi- cle is dark	Close to 0V	
22	Ground	Clutch interlock	Input	Clutch interlock	OFF (clutch pedal is not depressed)	0V	
(R/Y)	2.04114	switch	put	switch	ON (clutch pedal is de- pressed)	Battery voltage	
24 (R/W)	Ground	Stop lamp switch 1	Input		_	Battery voltage	
26	Ground	Stop lamp switch 2	Input	Stop lamp switch	OFF (brake pedal is not depressed)	OV	
(O/L)					ON (brake pedal is depressed)	Battery voltage	

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	inal No. e color)	Description			Condition	Value	
(+)	(-)	Signal name	Input/ Output	Condition		(Approx.)	
27 (G/W)	Ground	Front door lock as- sembly LH (unlock sensor)	Input	Front door LH	LOCK status	(V) 15 10 5 0 10 ms JPMIA0011GB	
						11.8V	
					UNLOCK status	0V	
29	Ground	Key slot switch	Input		ey is inserted into key slot	Battery voltage	
(Y)		,	<u> </u>	When Intelligent K	ey is not inserted into key slot	0V	
30	Ground	ACC feedback signal	Input	Ignition switch	OFF	0	
(V/Y)		3 4	•		ACC or ON	Battery voltage	
31	Ground	Rear window defog-	Input	Rear window de-	OFF	0V	
(G)		ger feedback signal	•	fogger switch	ON	Battery voltage	
32 (R/B)	Ground	Front door RH switch	Input	Front door RH switch	OFF (when front door RH closes)	(V) 15 10 0 10 ms JpmIa0011gB	
					ON (when front door RH opens)	11.8 V	
33		Compressor ON sig-		1.0	OFF	9.0 - 12.0V	
(SB)	Ground	nal	Input	A/C switch	ON	OV	
34 ² (L/R)	Ground	Front door lock as- sembly LH (key cylin-	Input	Front door lock assembly LH (key	OFF (neutral) ON (unlock)	5V 0V	
		der switch) (unlock)		cylinder switch)			
36 ² (GR)	Ground	Lock switch signal	Input	Door lock/unlock switch	Lock Unlock	Battery voltage 0V	
37 (O)	Ground	Trunk lid opener cancel switch	Input	Trunk lid opener cancel switch	CANCEL	(V) 15 10 5 0 10 ms JPMIA0012GB	
					ON	0V	
38		Deer wind		Door wie dewed	OFF	5V	
(GR/ W)	Ground	Rear window defog- ger ON signal	Input	Rear window de- fogger switch	ON	OV	
39 ²				Door lock/unlock	Unlock	Battery voltage	
(GR/ R)	Ground	Unlock switch signal	Input	switch	Lock	ov	

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	inal No. Description					Value
(+)	e color)	Signal name	Input/ Output		Condition	(Approx.)
40 ³ (Y/G)	Ground	Power window serial link	Input/ Output	Ignition switch ON		(V) 15 10 5 0 10 ms 10.2V
				Ignition switch OF	F or ACC	0V
41	0	Engine switch (push	0	Engine switch	ON	5.5V
(W)	Ground	switch) illumination	Output	(push switch) illu- mination	OFF	0V
42	Cround	LOCK indicator law-	Outerit	LOCK indicator	ON	0V
(R)	Ground	LOCK indicator lamp	Output	lamp	OFF	Battery voltage
45 (P)	Ground	Receiver & sensor ground	Input	Ignition switch ON		0V
46	Ground	Receiver & sensor	Output	Ignition switch	OFF	0V
(V/W)	Ciodila	power supply output	Caipat	- iginiion switon	ACC or ON	5.0V
47 (G/O)	Ground		Ignition switch ON	Standby state	(V) 6 4 2 0 ••• 0.2s	
					3.7.3.	When receiving the signal from the transmitter
48	Ground	Selector lever P/N	Input	Selector lever	P or N position	12.0V
(R/G)	Cround	position signal	input	Sciedioi ievei	Except P and N positions	0V
					ON	0V
49 (L/O)	Ground	Security indicator signal	Output	Security indicator	Blinking	(V) 15 10 5 0 1 s
						11.3V
					OFF	Battery voltage

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	inal No.	Description				Value
(Wire (+)	e color)	Signal name	Input/ Output		Condition	(Approx.)
	()		Output		All switch OFF	0V
					Lighting switch 1ST	
					Lighting switch high-beam	(V)
50		Combination switch	0 ()	Combination switch	Lighting switch 2ND	15 10 5
(LG/ B)	Ground	OUTPUT 5	Output	(Wiper intermittent dial 4)	Turn signal switch RH	2 ms JPMIA0031GB
					All switch OFF (Wiper intermittent dial 4)	ov
		nd Combination switch OUTPUT 1			Front wiper switch HI (Wiper intermittent dial 4)	(V)
51 (L/W)	Ground		Output	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	15 10 5 0 2 ms JPMIA0032GB
			Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	OV
					Front washer switch ON (Wiper intermittent dial 4)	(V)
52 (G/B)	Ground	Combination switch OUTPUT 2			Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 6	10 5 0 2 ms JPMIA00336
					All switch OFF	OV
					Front wiper switch INT	
		d Combination switch OUTPUT 3		Combination	Front wiper switch LO	(V)
53 (LG/ R)	Ground		Output	switch (Wiper intermittent dial 4)	Lighting switch AUTO	10 5 0 2 ms JPMIA0034GB
					All switch OFF	0V
					Front fog lamp switch ON	
				Combination	Lighting switch 2ND	(V) 15
54 (G/Y)	Ground	Combination switch OUTPUT 4	Output	switch (Wiper intermit-	Lighting switch flash-to- pass	10 5 0
				tent dial 4)	Turn signal switch LH	2 ms JPMIA0035GB
55				Front Harris	ON	Battery voltage
(BR/ W)	Ground	Front blower monitor	Input	Front blower mo- tor switch	OFF	ov

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	inal No.	Description				\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
	e color)	Signal name	Input/ Output		Condition	Value (Approx.)	F
(+)	(-)	Front door lock as-	Output	Front door lock	OFF (neutral)	5V	
56 ² (L/B)	Ground	sembly LH (key cylinder switch) (lock)	Input	assembly LH (key cylinder switch)	ON (lock)	ov	[
57 (W)	Ground	Tire pressure warning check switch	Input		· 	5V	(
58 (SB)	Ground	Front door LH switch	Input	Front door LH switch	OFF (front door LH CLOSE)	(V) 15 10 5 0 10 ms JPMIA0011GB	I
				ON (front door LH OPEN)	0V		
59		Rear window defog-	_	Rear window de-	Active	Battery voltage	
(G/R)	Ground	ger relay	Output	fogger	Not activated	0V	(
60 (B/R)		Front console anten-	() LITOLIT	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB	ŀ
(B/R) Ground na 2 (na 2 (-)		OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB	SI	
61	61	Center console an-	nter console an-	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB	1
(W/R) Ground	tenna 2 (+)			OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 1	F

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	inal No. e color)	Description		Condition		Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
62 ⁴	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	(V) 15 10 5 0 1 s JMKIA0062GB
(B/Y)					When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB
63 ⁴	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	(V) 15 10 5 0 JMKIA0062GB
(LG)					When Intelligent Key is not in the antenna detection area	(V) 15 10 5 11 1 s JMKIA0063GB
64 ⁴	Ground	ound Front outside handle LH antenna (-)		When the front door LH request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB
(V)			Output		When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB

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Terminal No.		Description				Value		
(+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)	Α	
0.54				When the front door LH request switch is operat- ed with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	B C	
65 ⁴ (P)	Ground	Front outside handle LH antenna (+)	Output		When Intelligent Key is not in the antenna detection area	(V) 15 10 5 11 1 s JMKIA0063GB	E	
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.	G	
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.	Н	
70 (R/B)	Ground	Ignition relay-2 control	Output	Ignition switch	OFF or ACC	0V Battery voltage	I	
71	Ground		Remote keyless entry Input/		During waiting		(V) 15 10 5 0 1 ms JMKIA0064GB	SE
(L/O)	Sibuliu		Output	When operating ei	ither button on Intelligent Key	(V) 15 10 5 0 1 ms	M	

< ECU DIAGNOSIS >

Terminal No.		Description				Value	
(+)	e color)	Signal name	Input/ Output	Condition		(Approx.)	
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0041GB 1.4V	
75 (R/Y)	Ground	Combination switch INPUT 5	Input	Combination switch	Front fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3V	
					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	(V) 15 10 5 0 2 ms JPMIA0040GB	

< ECU DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

Terminal No. (Wire color)		Description		Condition		Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
		Combination switch INPUT 3			All switch OFF (Wiper intermittent dial 4)	(V) 15 10 2 ms JPMIA0041GB 1.4V
76			Input	Combination switch	Lighting switch high-beam (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms 1.3V
(R/G)	Ground				Lighting switch 2ND (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB
					Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3	(V) 15 10 5 0 2 ms JPMIA0040GB 1.3V
78 (P)	Ground	CAN-L	Input/ Output		_	_
79 (L)	Ground	CAN-H	Input/ Output		_	_
80	Ground	Key slot illumination	Output	Key slot illumina- tion	OFF Blinking ON	OV (V) 15 10 5 0 JPMIA0015GB 6.5V Battery voltage
			Output	Ignition switch	OFF or ACC	0V

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< ECU DIAGNOSIS >

	inal No.	Description				Value
(+)	e color)	Signal name Imput		Condition	(Approx.)	
83	Ground	ACC relay control	Output	Ignition switch	OFF	OV
(L)	Ground	ACC relay control	Output	ignition switch	ACC or ON	Battery voltage
84 (Y/R)	Ground	CVT shift selector	Output		_	Battery voltage
87	Ground	Selector lever P posi-	Input	Selector lever	P position	OV
(G/B)	Ground	tion switch	mput	Selector level	Any position other than P	Battery voltage
					ON (pressed)	OV
88 ⁴ (P/L)	Ground	Front door RH request switch	Input	Front door RH request switch	OFF (not pressed)	(V) 15 10 5 10 ms JPMIA0016GB 1.0V
					ON (pressed)	OV
89 ⁴ (B/W)	Ground	Front door LH request switch	Input	Front door LH request switch	OFF (not pressed)	(V) 15 10 10 10 ms JPMIA0016GB 1.0V
90	Ground	Blower fan motor re-	Output	Ignition switch	OFF or ACC	OV
(Y)	Cround	lay control	Guipui	ignition switch	ON	Battery voltage
91 (L/R)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OFF		Battery voltage

< ECU DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

Terminal No. (Wire color)		Description				Value	
(+)	e color)	Signal name Input/ Output			Condition	(Approx.)	
					All switch OFF	(V) 15 10 5 0 2 ms JPMIA0041GB	B C
					Turn signal switch LH	(V) 15 10 2 ms JPMIA0037GB 1.3V	E
95 (R/W)	Ground	Combination switch INPUT 1	Input	Input Combination switch (Wiper intermittent dial 4)	Turn signal switch RH	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3V	G H
				Front wiper switch LO	(V) 15 10 5 0 2 ms JPMIA0038GB 1.3V	SEC	
					Front washer switch ON	(V) 15 10 5 0 2 ms	M
						1.3V	\circ

Revision: September 2009 SEC-467 2010 Altima

< ECU DIAGNOSIS >

	inal No. e color)	Description				Value	
(+)	(-)	Signal name	Input/ Output	Condition		(Approx.)	
	Ground	Combination switch Inpu	Input Switc	Combination	All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 JPMIA0041GB 1.4V	
96					Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0038GB 1.3V	
(P/B)				switch	Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB	
					Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	(V) 15 10 5 0 2 ms JPMIA0039GB	

< ECU DIAGNOSIS >

	inal No.	Description				Value	
(+)	e color)	Signal name	Input/ Output		Condition	(Approx.)	
					All switch OFF	(V) 15 10 5 0 2 ms JPMIA0041GB	
					Lighting switch flash-to- pass	(V) 15 10 5 0 2 ms JPMIA0037GB	
97 (R/B)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermit- tent dial 4)	Lighting switch 2ND	(V) 15 10 2 ms JPMIA0036GB 1.3V	
					Front wiper switch INT	(V) 15 10 5 0 2 ms JPMIA0038GB	S
					Front wiper switch HI	(V) 15 10 5 2 ms JPMIA0040GB	
					Pressed	1.3V 0 V	
98 (G/O)	Ground	Hazard switch	Input	Hazard switch	Not pressed	(V) 15 10 5 0 10 ms JPMIA0012GB	

< ECU DIAGNOSIS >

	inal No. e color)	Description				Value	
(+)	(-)	Signal name	Input/ Output			(Approx.)	
103	Ground	Trunk lid opening	Output	Trunk lid	Open (trunk lid opener actuator is activated)	Battery voltage	
(V)	Cround	Traink ind opening	Output	Trank na	Close (trunk lid opener actuator is not activated)	ov	
110	Ground	Trunk room lamp	Output	Trunk room lamp	ON	0V	
(V/W)			•		OFF	Battery voltage	
114	Ground	Cround Rear parcel shelf an-		Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB	
(B)		tenna 1 (-)	Output	ŌFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 8 JMKIA0063GE	
115	Ground	Rear parcel shelf an-	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB	
(W)	Giound	tenna 1 (+)	Output	ÖFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB	

< ECU DIAGNOSIS >

	inal No.	Description				Value	
(Wire	e color)	Signal name	Input/ Output	Condition		(Approx.)	А
		Rear bumper anten-		When the trunk	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	B C
(L/O)	Ground	na (-) is operated with ignition switch OFF	output is operated with ignition switch	is operated with ignition switch OFF		(V) 15 10 1	E
119 ⁴	Ground	Rear bumper anten-	Output	When the trunk lid request switch	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB	G H
(BR/ W)	Glound	na (+)		is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 11 1 s JMKIA0063GB	SE
127 (BR/ W)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC	Battery voltage 0V	R.A
130 (Y/G)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (trunk is closed)	(V) 15 10 0 10 ms JPMIA0011GB	M N
					ON (trunk is open)	0V	Р

< ECU DIAGNOSIS >

Terminal No. Description (Wire color)		Condition		Value		
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
				Ignition switch	When the clutch pedal is depressed	Battery voltage
				OFF (M/T vehi- cle)	When the clutch pedal is not depressed	oV
132 (R)	Ground	Starter motor relay control	Output	Ignition switch ON (other than M/	When selector lever is in P or N position and the brake is depressed	Battery voltage
				T vehicle)	When selector lever is in P or N position and the brake is not depressed	OV
140 (BR)	Ground	Engine switch (push switch)	Input	Engine switch (push switch)	Pressed Not pressed	0V Battery voltage
					ON (pressed)	0V
141 (G/R)	Ground	Trunk request switch	Input	Trunk request switch	OFF (not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB
144 ⁴	Ground	Intelligent Key warn-	Output	Request switch	Sounding	0V
(GR)	Giodila	ing buzzer	Output	buzzer	Not sounding	Battery voltage
144 ⁵	Ground	Outside warning	Output	Outside warning	Sounding	0V
(GR)	0.00	buzzer	- Canpan	buzzer	Not sounding	Battery voltage
147	Ground	Trunk lid opener	Input	Trunk lid opener	Pressed	0V
(L/R)		switch	•	switch	Not pressed	Battery voltage
148 ¹ (R/W)	Ground	Rear door RH switch	Input	Rear door RH switch	OFF (when rear door RH closes)	(V) 15 10 5 0 10 ms
					ON (when rear door RH opens)	11.8V 0V
149 ¹ (R/B)	Ground	Rear door LH switch	Input	Rear door LH switch	OFF (when rear door LH closes)	(V) 15 10 5 0 10 ms
					ON (when rear door LH opens)	11.8V 0V

^{1:} Sedan

^{2:} With LH front window anti-pinch

< ECU DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

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- 3: With LH and RH front window anti-pinch
- 4: With Intelligent Key
- 5: Without Intelligent Key
- 6: Coupe

Fail Safe

Display contents of CONSULT	Fail-safe	Cancellation
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI-SCANNING	Inhibit engine cranking	Ignition switch ON → OFF
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has become consistent • Starter control relay signal • Starter relay status signal
B2562: LO VOLTAGE	Inhibit engine cranking	100 ms after the power supply voltage increases to more than 8.8 V
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent Starter motor relay control signal Starter relay status signal (CAN)
B260A: IGNITION RELAY	Inhibit engine cranking	 500 ms after the following conditions are fulfilled 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 • Power position changes to ACC • Receives engine status signal (CAN)
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
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization
B26E1: ENG STATE NO RECIV	Inhibit engine cranking	When any of the following conditions is fulfilled • Power position changes to ACC • Receives engine status signal (CAN)
B26E8: CLUTCH SW	Inhibit engine cranking	When any of the following BCM recognition conditions are fulfilled Status 1 Clutch switch signal (CAN from ECM): ON Clutch interlock switch signal: OFF (0 V) Status 2 Clutch switch signal (CAN from ECM): OFF Clutch interlock switch signal: OFF (Battery voltage)

DTC Inspection Priority Chart

INFOID:0000000005783563

If some DTCs are displayed at the same time, perform inspections one by one based on the following priority chart.

Priority	DTC
1	B2562: LOW VOLTAGE
2	U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN)

[SEDAN WITHOUT INTELLIGENT KEY]

Priority	DTC	
3	B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2195: ANTI SCANNING	
4	 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: STARTER RELAY B2607: ENG STATE SIG LOST B2607: ENG STATE SIG LOST B2614: ACC RELAY CIRC B2615: BLOWER RELAY CIRC B2616: IGN RELAY CIRC B2617: STARTER RELAY CIRC B2618: BCM B2618: BCM B2611: PUSH-BTN IGN SW B2612: VEHICLE TYPE B2628: CLUTCH SW B2628: CLUTCH SW B2629: VHCL SPEED SIG ERR U0415: VEHICLE SPEED SIG 	
5	 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] RR C1716: [PRESSDATA ERR] FL C1717: [PRESSDATA ERR] FR C1718: [PRESSDATA ERR] RR C1719: [PRESSDATA ERR] RR C1720: [CODE ERR] FL C1721: [CODE ERR] FR C1721: [CODE ERR] RR C1722: [CODE ERR] RR C1723: [CODE ERR] RR C1724: [BATT VOLT LOW] FR C1725: [BATT VOLT LOW] RR C1727: [BATT VOLT LOW] RL C1724: CONTROL UNIT 	
6	B2622: INSIDE ANTENNA B2623: INSIDE ANTENNA	

DTC Index

NOTE:

Details of time display

< ECU DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

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, "Description"
U1010: CONTROL UNIT (CAN)	_	_	_	BCS-39, "DTC Logic"
U0415: VEHICLE SPEED SIG	_	_	_	BCS-40, "Description"
B2190: NATS ANTENNA AMP	×	_	_	SEC-53, "Description" (Coupe) SEC-229, "Description" (Sedan with I-Key) SEC-399, "Description" (Sedan without I-Key)
B2191: DIFFERENCE OF KEY	×	_	_	SEC-56, "Description" (Coupe) SEC-232, "Description" (Sedan with I-Key) SEC-402, "Description" (Sedan without I-Key)
B2192: ID DISCORD BCM-ECM	×	_	_	SEC-57, "Description" (Coupe) SEC-233, "Description" (Sedan with I-Key) SEC-403, "Description" (Sedan without I-Key)
B2193: CHAIN OF BCM-ECM	×	_	_	SEC-58, "Description" (Coupe) SEC-234, "Description" (Sedan with I-Key) SEC-404, "Description" (Sedan without I-Key)
B2195: ANTI SCANNING	×	_	_	SEC-59, "Description" (Coupe) SEC-235, "Description" (Sedan with I-Key) SEC-405, "Description" (Sedan without I-Key)
B2553: IGNITION RELAY	_	_	_	PCS-61, "Description"
B2555: STOP LAMP	_	_	_	SEC-60, "Description" (Coupe) SEC-236, "Description" (Sedan with I-Key) SEC-406, "Description" (Sedan without I-Key)
B2556: PUSH-BTN IGN SW	_	×	_	SEC-63, "Description" (Coupe) SEC-239, "Description" (Sedan with I-Key) SEC-409, "Description" (Sedan without I-Key)
B2557: VEHICLE SPEED	_	×	_	SEC-65, "Description" (Coupe) SEC-241, "Description" (Sedan with I-Key) SEC-411, "Description" (Sedan without I-Key)

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CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
B2560: STARTER CONT RELAY	×	×	_	SEC-66, "Description" (Coupe) SEC-242, "Description" (Sedan with I-Key) SEC-412, "Description" (Sedan without I-Key)
B2562: LOW VOLTAGE	×	_	_	BCS-41, "DTC Logic"
B2601: SHIFT POSITION	_	×	_	SEC-67, "Description" (Coupe) SEC-243, "Description" (Sedan with I-Key) SEC-413, "Description" (Sedan without I-Key)
B2602: SHIFT POSITION	_	×	_	SEC-71, "Description" (Coupe) SEC-246, "Description" (Sedan with I-Key) SEC-416, "Description" (Sedan without I-Key)
B2603: SHIFT POSI STATUS	_	×	_	SEC-74, "Description" (Coupe) SEC-249, "Description" (Sedan with I-Key) SEC-419, "Description" (Sedan without I-Key)
B2604: PNP SW	_	×	_	SEC-77, "Description" (Coupe) SEC-252, "Description" (Sedan with I- Key) SEC-422, "Description" (Sedan without I-Key)
B2605: PNP SW	_	×	_	SEC-79, "Description" (Coupe) SEC-254, "Description" (Sedan with I- Key) SEC-424, "Description" (Sedan without I-Key)
B2608: STARTER RELAY	×	×	_	SEC-81, "Description" (Coupe) SEC-256, "Description" (Sedan with I- Key) SEC-426, "Description" (Sedan without I-Key)
B260A: IGNITION RELAY	×	×	_	PCS-63, "Description"
B260F: ENG STATE SIG LOST	×	×	_	SEC-83, "Description" (Coupe) SEC-258, "Description" (Sedan with I-Key) SEC-428, "Description" (Sedan without I-Key)
B2614: ACC RELAY CIRC	_	×	_	PCS-66, "Description"
B2615: BLOWER RELAY CIRC	_	×	_	PCS-69, "Description"
B2616: IGN RELAY CIRC		×		PCS-72, "Description"
B2617: STARTER RELAY CIRC	×	×	_	SEC-87, "Description" (Coupe) SEC-262, "Description" (Sedan with I- Key) SEC-432, "Description" (Sedan without I-Key)
B2618: BCM	×	×		PCS-75, "Description"
B261A: PUSH-BTN IGN SW	_	×	_	SEC-90, "Description" (Coupe) SEC-265, "Description" (Sedan with I- Key) SEC-435, "Description" (Sedan without I-Key)

< ECU DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
B261E: VEHICLE TYPE	×	× (Turn ON for 15 seconds)	_	SEC-89, "Description" (Coupe) SEC-264, "Description" (Sedan with I-Key) SEC-434, "Description" (Sedan without I-Key)
B2622: INSIDE ANTENNA	_	_	_	DLK-60, "Description" (Coupe) DLK-283, "Description" (Sedan with I-Key) DLK-484, "Description" (Sedan without I-Key)
B2623: INSIDE ANTENNA	_	_	_	DLK-63, "Description" (Coupe) DLK-286, "Description" (Sedan with I-Key) DLK-487, "Description" (Sedan without I-Key)
B26E1: ENG STATE NO RES	×	×	_	SEC-92, "Description" (Coupe) SEC-267, "Description" (Sedan with I-Key) SEC-437, "Description" (Sedan without I-Key)
B26E8: CLUTCH SW	×	×	_	SEC-84, "Description" (Coupe) SEC-259, "Description" (Sedan with I-Key) SEC-429, "Description" (Sedan without I-Key)
B26EA: KEY REGISTRATION	×	× (Turn ON for 15 seconds)	_	SEC-86, "Description" (Coupe) SEC-261, "Description" (Sedan with I-Key) SEC-431, "Description" (Sedan without I-Key)
C1704: LOW PRESSURE FL	_	_	×	
C1705: LOW PRESSURE FR	_	_	×	WT-44, "Self-Diagnosis (With CON-
C1706: LOW PRESSURE RR	_	_	×	SULT-III)"
C1707: LOW PRESSURE RL	_	_	×	'
C1708: [NO DATA] FL	_	_	×	
C1709: [NO DATA] FR	_	_	×	W/T 14 "Deceription"
C1710: [NO DATA] RR	_	_	×	WT-14, "Description"
C1711: [NO DATA] RL	_	_	×	
C1712: [CHECKSUM ERR] FL	_	_	×	
C1713: [CHECKSUM ERR] FR	_	_	×	WT-16, "Description"
C1714: [CHECKSUM ERR] RR	_	_	×	<u>wr-ro, Description</u>
C1715: [CHECKSUM ERR] RL	_	_	×	
C1716: [PRESSDATA ERR] FL	_	_	×	
C1717: [PRESSDATA ERR] FR	_	_	×	W/T 19 "Description"
C1718: [PRESSDATA ERR] RR	_	_	×	WT-18, "Description"
C1719: [PRESSDATA ERR] RL	_	_	×	

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< ECU DIAGNOSIS >

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
C1720: [CODE ERR] FL	_	_	×	
C1721: [CODE ERR] FR	_	_	×	
C1722: [CODE ERR] RR	_	_	×	
C1723: [CODE ERR] RL	_	_	×	WT-16, "Description"
C1724: [BATT VOLT LOW] FL	_	_	×	W1-10, Description
C1725: [BATT VOLT LOW] FR	_	_	×	
C1726: [BATT VOLT LOW] RR	_	_	×	
C1727: [BATT VOLT LOW] RL	_	_	×	
C1729: VHCL SPEED SIG ERR	_	_	×	WT-19, "Description"
C1734: CONTROL UNIT	_	_	×	WT-20, "Description"

< ECU DIAGNOSIS >

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

Reference Value INFOID:0000000005818792

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	(Condition	Value/Status
MOTOR FAN REQ	Engine idle speed	Changes depending on engine coolant temperature, air conditioner operation status, vehicle speed, etc.	0 - 100 %
		A/C switch OFF	Off
AC COMP REQ	Engine running	A/C switch ON (Compressor is operating)	On
TAIL OOLD DEO	Lighting switch OFF		Off
TAIL&CLR REQ	Lighting switch 1ST, 2ND, HI or	AUTO (Light is illuminated)	On
III I O DEO	Lighting switch OFF		Off
HL LO REQ	Lighting switch 2ND HI or AUTO	(Light is illuminated)	On
	Lighting switch OFF		Off
HL HI REQ	Lighting switch HI		On
		Front fog lamp switch OFF	Off
FR FOG REQ	Lighting switch 2ND or AUTO (Light is illuminated)	 Front fog lamp switch ON Daytime running light activated (Only for Canada models) 	On
		Front wiper switch OFF	STOP
ED WID DEO	lonition quitab ON	Front wiper switch INT	1LOW
FR WIP REQ	Ignition switch ON	Front wiper switch LO	Low
		Front wiper switch HI	Hi
		Front wiper stop position	STOP P
WIP AUTO STOP	Ignition switch ON	Any position other than front wiper stop position	ACT P
		Front wiper operates normally	Off
WIP PROT	Ignition switch ON	Front wiper stops at fail-safe operation	BLOCK
ION DIVA DEO	Ignition switch OFF or ACC		Off
IGN RLY1 -REQ	Ignition switch ON		On
ION DLV	Ignition switch OFF or ACC	Off	
IGN RLY	Ignition switch ON		On
DUCU CW	Release the push-button ignition	switch	Off
PUSH SW	Press the push-button ignition s	witch	On
	Ignition switch ON	CVT selector lever in any position other than P or N (CVT models)	Off
INTER AIR OLL		Release clutch pedal (M/T models)	
INTER/NP SW	Ignition switch ON	CVT selector lever in P or N position (CVT models)	On
	1 11 11 11 11 11	Depress clutch pedal (M/T models)	0"
ST RLY CONT	Ignition switch ON		Off
	At engine cranking		On

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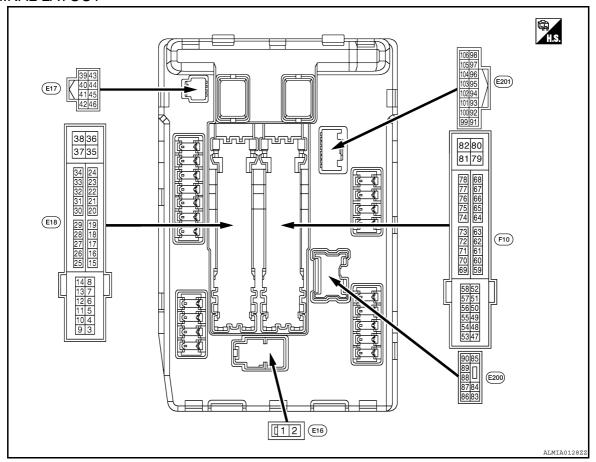
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LCO DIAGNOSIS >		-	
Monitor Item	Cor	ndition	Value/Status
IHBT RLY -REQ	Ignition switch ON		Off
IIIDI KEI KEQ	At engine cranking		On
	Ignition switch ON		Off
	At engine cranking		ST →INHI
ST/INHI RLY		control relay cannot be recognized by when the starter relay is ON and the	UNKWN
DETENT SW	Ignition switch ON	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 w NOTE: The lever is fixed ON for M/T	On	
DTRL REQ	DTRL OFF		Off
DIKL KEQ	DTRL ON	On	
OIL P SW	Ignition switch OFF, ACC or engine	running	Open
OIL P SW	Ignition switch ON	Close	
	Not operated		Off
THFT HRN REQ	Panic alarm is activated Horn is activated with VEHICLE \$ TEM	On	
LIODNI CLIIDD	Not operated	Off	
HORN CHIRP	Door locking with Intelligent Key (ho	orn chirp mode)	On
CRNRNG LMP REQ	NOTE: This item is displayed, but cannot b	Off	

< ECU DIAGNOSIS >

TERMINAL LAYOUT



PHYSICAL VALUES

	nal No.	Description				Value
(Wire	color)	Signal name	Input/ Output		Condition	(Approx.)
1 (R)	Ground	Battery power supply	Input	Ignition sw	itch OFF	Battery voltage
2 (L)	Ground	Battery power supply	Input	Ignition sw	itch OFF	Battery voltage
4	Cround	Front winer LO	Output	Ignition	Front wiper switch OFF	0V
(LG)	Ground	Front wiper LO	Output	switch ON	Front wiper switch LO	Battery voltage
5	Cravind	Front win or III	Outrout	Ignition	Front wiper switch OFF	0V
(Y)	Ground	Front wiper HI	Output switch ON	Front wiper switch HI	Battery voltage	
6 (SB)	Ground	Daytime light relay power supply (Canada models only)	Output	Ignition swi	itch OFF	Battery voltage
7	Ground	Tail, license plate lamps &	Output	Ignition	Lighting switch OFF	0V
(GR)	Ground	interior lamps	Output	switch ON	Lighting switch 1ST	Battery voltage
40				Ignition swi (For a few s switch OFF	seconds after turning ignition	0V
10 (BR) Ground	ECM relay power supply Output		Ignition s (More the	switch ON switch OFF an a few seconds after turn- on switch OFF)	Battery voltage	

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< ECU DIAGNOSIS >

Terminal No. Description (Wire color)		Description				Value		
+ (Wire	color)	Signal name	Input/ Output		Condition	(Approx.)		
12 (B)	Ground	Ground	_	Ignition switch ON		0V		
13					tely 1 second or more after ignition switch ON	0V		
(SB)	Ground	Fuel pump power supply	Output		nately 1 second after turning on switch ON unning	Battery voltage		
15 (W)	Ground	Ignition relay-1 power supply	Output	Ignition swi		0V Battery voltage		
				9	Front wiper stop position	0V		
16 (L/Y)	Ground	Front wiper auto stop	Input	Ignition switch ON	Any position other than front wiper stop position	Battery voltage		
19		Ignition relay-1 power sup-	.	Ignition swi	itch OFF	0V		
(Y)	Ground	ply	Output	Ignition swi	itch ON	Battery voltage		
20 (B/Y)	Ground	Ambient sensor ground		Ignition swi	itch ON	0V		
21 (O/B)	Ground	Ambient sensor	_	Ignition swi	itch ON	5V		
22 (W/R)	Ground	Refrigerant pressure sensor ground	_	Ignition switch ON		0V		
23 (B/R)	Ground	Refrigerant pressure sensor	_	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	Ground	Ignition relay-1 power sup-	Output	Ignition switch OFF		0V		
(GR)	Cround	ply	Output	Ignition swi	itch ON	Battery voltage		
27	Ground	Ignition relay monitor	Input	Ignition switch OFF or ACC		Battery voltage		
(W)	Cround	igiliadii folay filoriiloi	при	Ignition swi	itch ON	0V		
28	Ground	Push-button ignition	Input	Press the p	oush-button ignition switch	0V		
(SB)	Orodiid	switch	pat	Release the	e push-button ignition switch	Battery voltage		
30 (BR)	Ground	Starter relay control	Input	CVT mod-	CVT selector lever in any position other than P or N (ignition switch ON)	OV		
(DIV)						613	CVT selector lever P or N (ignition switch ON)	Battery voltage
30	Ground	Starter relay control	Input	M/T mod-	Release the clutch pedal	0V		
(R)	C.ourid	Startor roley control	put	els	Depress the clutch pedal	Battery voltage		
34	Ground	Cooling fan relay-3 control	Input	Ignition switch OFF or ACC		0V		
(O/L)		5 2, 2 . .	1 ***	Ignition switch ON		0.7V		
35 (P)	Ground	Cooling fan motor control	Output	Ignition swi	itch OFF or ACC itch ON	0V 0.7V		
36 (G)	Ground	Battery power supply	Input	Ignition swi	itch OFF	Battery voltage		
38	Cro	Cooling for mater	O: 14m : 14	Ignition swi	itch OFF or ACC	0V		
(R/W)	Ground	Cooling fan motor control	Output	Ignition swi	itch ON	0.7V		

< ECU DIAGNOSIS >

	nal No.	Description				Value					
+ (Wire	color)	Signal name	Input/ Output		Condition	(Approx.)					
39 (P)	_	CAN - L	Input/ Output		_	_					
40 (L)	_	CAN - H	Input/ Output		_	_					
41 (B)	Ground	Ground	_	Ignition swi	itch ON	0V					
42	Ground	Cooling fan relay-2 control	Input	Ignition swi	itch OFF or ACC	0V					
(SB)	Giodila	Cooling lan relay-2 control	IIIput	Ignition swi	itch ON	0.7V					
					Press the CVT selector button (CVT selector lever P)	Battery voltage					
43 (G/B)	Ground	CVT shift selector (Detention switch)	Input	Ignition switch ON	CVT selector lever in any position other than P Release the CVT selector button (CVT selector lever P)	0V					
44	Ground	Horn relay control	Innut	The horn is	deactivated	Battery voltage					
(G/W)	Giodila	Hom relay control	Input	The horn is activated		0V					
45	Ground	round Anti theft horn relay control Inp		The horn is deactivated		Battery voltage					
(L/O)	Ciodila	And their normalay control	mput	The horn is activated		0V					
								CVT mod-	CVT selector lever in any position other than P or N (ignition switch ON)	0V	
46 (BR)		Starter relay control	Input	eis	CVT selector lever P or N (ignition switch ON)	Battery voltage					
								M/T mod-	Release the clutch pedal	0V	
				els	Depress the clutch pedal	Battery voltage					
					A/C switch OFF	0V	9				
48 (W)	Ground	A/C relay power supply	Output	Engine running	A/C switch ON (A/C compressor is operating)	Battery voltage					
49		ECM relay power supply		Ignition swi (For a few s switch OFF	seconds after turning ignition	OV					
(V)	Ground	(with VQ35DE)	Output			Battery voltage					
51	Ground	Ignition relay power supply	Output	Ignition swi	itch OFF	0V					
(SB)				Ignition swi		Battery voltage					
52	Ground	Ignition relay power supply	Output	Ignition swi		0V					
(Y)				Ignition swi		Battery voltage					
53			Ignition swi (For a few s switch OFF	seconds after turning ignition	OV						
(G)	Ground	ECM relay power supply (with VQ35DE)	Output			Battery voltage					

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< ECU DIAGNOSIS >

	nal No.	Description				Value
+ (Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)
53		ECM relay power supply	•	switch OFF	seconds after turning ignition	OV
(V)	Ground	(without VQ35DE)	Output	`		Battery voltage
E4		Throttle control motor re		Ignition swi (For a few s switch OFF	seconds after turning ignition	0V
54 (GR)	Ground	Throttle control motor re- lay power supply	Output			Battery voltage
55 (LG)	Ground	ECM power supply	Output	Ignition swi	tch OFF	Battery voltage
56	Ground	lanition relay nower supply	Output	Ignition swi	tch OFF	0V
(R)	Ground	Ignition relay power supply	Output	Ignition swi	tch ON	Battery voltage
57	Ground	Ignition relay power supply	Output	Ignition swi	tch OFF	0V
(O)	Cround	ignition rolay power supply	Catpat	Ignition swi	tch ON	Battery voltage
58	Ground	Ignition relay power supply	Output	Ignition swi	tch OFF	0V
(BR)	Cround	ignition rolay power supply	Output	Ignition swi	tch ON	Battery voltage
69			Ignition switch OFF (For a few seconds after turning ignition switch OFF)		Battery voltage	
(SB)	Ground	ECM relay control	Output			0 - 1.5V
70		Throttle control motor re		Ignition swi	$tch ON \rightarrow OFF$	0 -1.0V ↓ Battery voltage
70 (G)	Ground	Throttle control motor re- lay control	Output	.g		↓ OV
				Ignition swi	tch ON	0 - 1.0V
72		Transmission range switch		Ignition	CVT selector lever in P or N position	Battery voltage
(BR)	Ground	signal (with VQ35DE)	Input	switch ON	CVT selector lever in any position other than P or N position	0V
					CVT selector lever in P or N position	Battery voltage
72 (W)	Ground	Transmission range switch signal (with QR25DE)	Input	Ignition switch ON	CVT selector lever in any position other than P or N position	oV
74	Ground	Ignition relay power supply	Output	Ignition swi	tch OFF	0V
(L)	Giouria	ignition relay power supply	Output	Ignition swi	tch ON	Battery voltage
75	Ground	Oil proceuro quitab	Input	Ignition	Engine stopped	0V
(LG)	Giodila	Oil pressure switch	Input	switch ON	Engine running	Battery voltage

< ECU DIAGNOSIS >

	nal No.	Description				Value			
+	color)	Signal name	Input/ Output		Condition	(Approx.)			
				Ignition swi	tch ON	(V) 6 4 2 0 → 4 2ms JPMIA0001GE			
76 (GR)	Ground	Power generation command signal		Output	40% is set on "Active test", "ALTERNA- ut TOR DUTY" of "ENGINE"				(V) 6 4 2 0 → 2ms JPMIA0002GE
			80% is set on "Active test", "ALTERNATOR DUTY" of "ENGINE"		(V) 6 4 2 0 → 2ms JPMIA0003GE				
77 (GR)	Ground	Fuel pump relay control	Output	Approximately 1 second after turning the ignition switch ON Engine running		1.4V 0 - 1.0V			
(OIV)					tely 1 second or more after ignition switch ON	Battery voltage			
80 (R)	Ground	Starter motor	Output	At engine of	ranking	Battery voltage			
83 (R/Y)	Ground	Headlamp LO (RH)	Output	Ignition switch ON	Lighting switch OFF Lighting switch 2ND	0V Battery voltage			
84 (L)	Ground	Headlamp LO (LH)	Output	Ignition switch ON	Lighting switch OFF Lighting switch 2ND	0V Battery voltage			
86 (W/R)	Ground	Front fog lamp (RH)	Output	Lighting switch 2ND	 Front fog lamp switch ON Daytime running light activated (Only for Can- ada models) 	Battery voltage			
					Front fog lamp switch OFF	0V			
87 (L/Y)	Ground	Front fog lamp (LH)	Output	Lighting switch 2ND	 Front fog lamp switch ON Daytime running light activated (Only for Can- ada models) 	Battery voltage			
					Front fog lamp switch OFF	0V			
88 (R/W)	Ground	Washer pump power supply	Output	Ignition swi	tch ON	Battery voltage			

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	nal No.	Description				Value
+ (Wire	color)	Signal name	Input/ Output	Condition		(Approx.)
89 (L/W)	Ground	nd Headlamp HI (RH) Ou		Ignition switch ON	Lighting switch HI lighting switch PASS	Battery voltage
(L/VV)				SWILCH ON	Lighting switch OFF	0V
90 (G)	Ground	Headlamp HI (LH)	Output	Ignition switch ON	Lighting switch HI Lighting switch PASS	Battery voltage
(0)				SWILCH OIL	Lighting switch OFF	0V
91	Ground	Parking lamp (RH)	Output	Ignition	Lighting switch 1ST	Battery voltage
(LG/R)	Ground	r arking lamp (IVII)	Output	switch ON	Lighting switch OFF	0V
92	Ground	Parking lamp (LH)	Output	Ignition	Lighting switch 1ST	Battery voltage
(LG/B)	Ground	Faiking lamp (Lin)	Output	switch ON	Lighting switch OFF	0V
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 swi	itch ON	0V
102 (R/B)	Ground	Refrigerant pressure sensor	_	Ignition switch ON (READY) Both A/C switch and blower motor switch ON (electric compressor operates)		1.0 - 4.0V
103 (P)	Ground	Refrigerant pressure sensor power supply	_	Ignition switch ON		5V
105	Ground	D-direction	Output	Ignition switch ON	Daytime light system active	Battery voltage
(V)	Giodila	Daytime light relay control	Output	Ignition switch ON	Daytime light system inactive	0V

Fail Safe INFOID:0000000005818793

CAN COMMUNICATION CONTROL

When CAN communication with ECM and BCM is impossible, IPDM E/R performs fail-safe control. After CAN communication recovers normally, it also returns to normal control.

If No CAN Communication Is Available With ECM

Control part	Fail-safe in operation
Cooling fan	 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	 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
Parking lampsLicense plate lampsIlluminationTail lamps	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

< ECU DIAGNOSIS >

Control part	Fail-safe in operation
Front wiper	 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

IGNITION RELAY MALFUNCTION DETECTION FUNCTION

- IPDM E/R monitors the voltage at the contact circuit and excitation coil circuit of the ignition relay inside it.
- IPDM E/R judges the ignition relay error if the voltage differs between the contact circuit and the excitation coil circuit.
- If the ignition relay cannot turn OFF due to contact seizure, it activates the tail lamp relay for 10 minutes to alert the user to the ignition relay malfunction when the ignition switch is turned OFF.

DTC	Ignition switch	Ignition relay	Tail lamp relay
_	ON	ON	_
_	OFF	OFF	_
B2098: IGN RELAY ON	OFF	ON	ON (10 minutes)
B2099: IGN RELAY OFF	ON	OFF	_

NOTE:

The tail lamp turns OFF when the ignition switch is turned ON.

FRONT WIPER CONTROL

IPDM E/R detects front wiper stop position by a front wiper auto stop signal.

When a front wiper auto stop signal is in the conditions listed below, IPDM E/R stops power supply to wiper after repeating a front wiper 10 second activation and 20 second stop five times.

Ignition switch	Front wiper switch	Auto stop signal
ON	OFF	Front wiper stop position signal cannot be input 10 seconds.
	ON	The signal does not change for 10 seconds.

NOTE:

This operation status can be confirmed on the IPDM E/R "Data Monitor" that displays "BLOCK" for the item "WIP PROT" while the wiper is stopped.

STARTER MOTOR PROTECTION FUNCTION

IPDM E/R turns OFF the starter control relay to protect the starter motor when the starter control relay remains active for 90 seconds.

DTC Index INFOID:0000000005818794

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
B210B: START CONT RLY ON	_	CRNT	1 – 39	<u>SEC-37</u>
B210C: START CONT RLY OFF	_	CRNT	1 – 39	SEC-38

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CONSULT-III display	Fail-safe	TIME	NOTE	Refer to
B210D: STARTER RELAY ON	_	CRNT	1 – 39	<u>SEC-39</u>
B210E: STARTER RELAY OFF	_	CRNT	1 – 39	SEC-40
B210F: INTRLCK/TRANSMISSION RANGE SW ON	_	CRNT	1 – 39	SEC-43
B2110: INTRLCK/TRANSMISSION RANGE SW OFF	_	CRNT	1 – 39	SEC-48

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 $0 \rightarrow 1 \rightarrow 2 \cdots 38 \rightarrow 39$ after returning to the normal condition whenever IGN OFF \rightarrow 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.

WIRING DIAGRAM

< ECU DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

WIRING DIAGRAM

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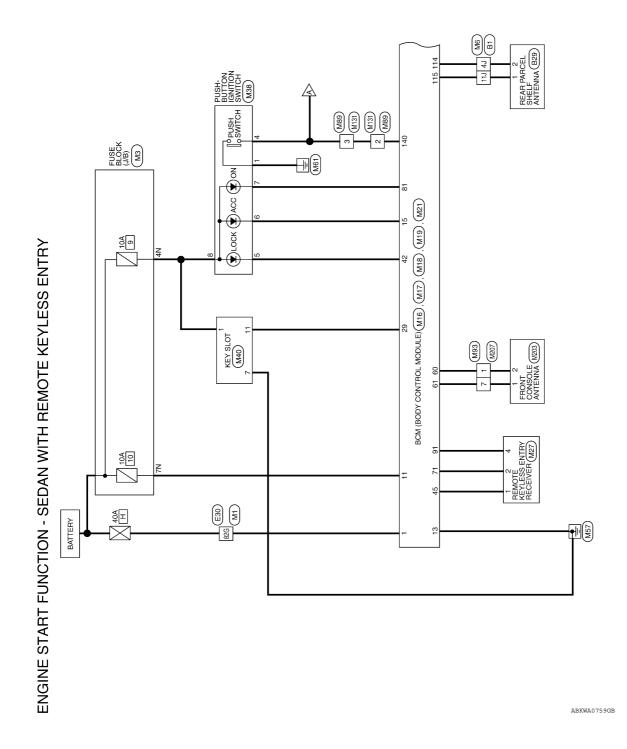
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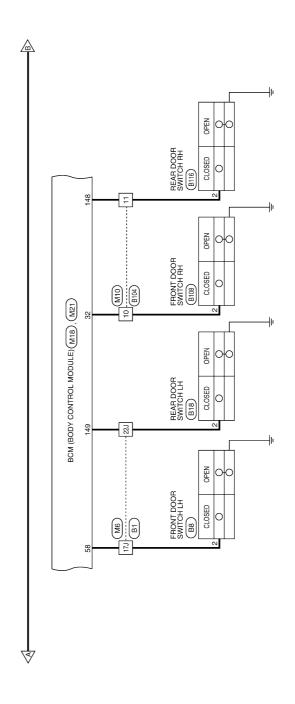
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WIRING DIAGRAM

ENGINE START FUNCTION - WITH REMOTE KEYLESS ENTRY

Wiring Diagram





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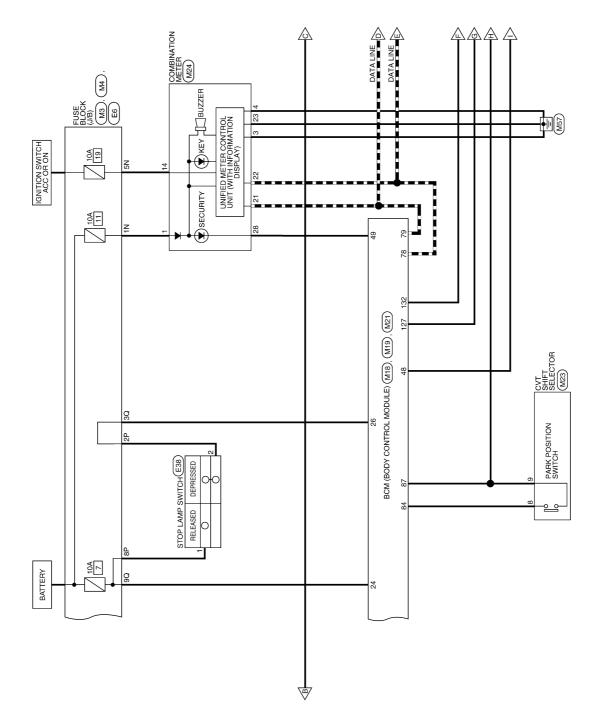
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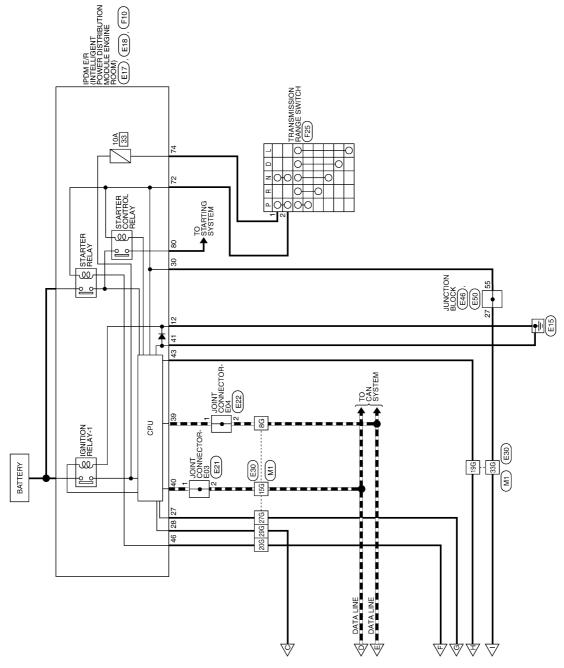
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ENGINE START FUNCTION CONNECTORS - SEDAN WITH REMOTE KEYLESS ENTRY

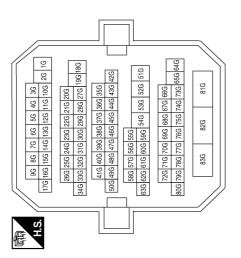
Connector Name WIRE TO WIRE Connector Color WHITE

Connector No.

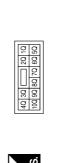
Connector No.	M3
Connector Name	Connector Name FUSE BLOCK (J/B)
Connector Color WHITE	WHITE
原 H.S.	3N
Color of	or of

Signal Name	1	l	ļ	I
Color of Wire	M/L	G/Y	٨/٨	Y/R
Terminal No. Wire	N.	N4	NS	N2

Signal Name	ı	1	1	I	1	1	1	-
Color of Wire	۵	٦	G/B	Ж	BR/W	BR	R/G	W/B
Terminal No.	8G	15G	19G	20G	27G	29G	33G	82G



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

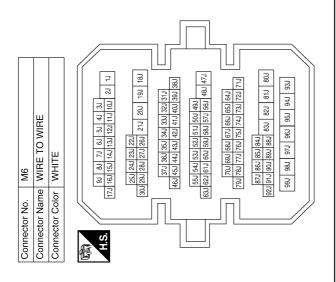


Signal Name	ı	ı	
Color of Wire	J/O	B/W	
Terminal No.	30	90	

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			,				_			
0	RE TO WIRE	HTE		3 2 1	9 2 8 6			Signal Name	-	-
. M10	me WIF	lor WH		5 4	12 11 10			Color of Wire	R/B	R/W
Connector No.	Connector Name WIRE TO WIRE	Connector Color WHITE			S II			Terminal No. Wire	10	11
	•	•	_			•	_		•	
du	2									

Signal Name	I	I	-	-	
Color of Wire	В	>	SB	B/B	
Terminal No. Wire	4.0	11)	17.1	22J	



Connector No.	M17
Connector Name	Connector Name BCM (BODY CONTROL MODULE)
Connector Color WHITE	WHITE
H.S.	11 12 13 14 15 16 17 18 19

]				
	Color of Wire	H/Y	В	J//
io.	Terminal No.	11	13	15

BAT_BCM_FUSE Signal Name

ACC_LED

GND1

Connector No. M16	Connector Name BCM (BODY CONTROL MODULE)	lor BLACK			Color of Signal Name Wire
Connector Name BCM (BMODUL	Connector Color		H.S.	Terminal No. W	

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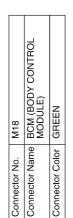
Signal Name	RF1_TUNER_SIGNAL	CAN-L	CAN-H	IGN_ON_LED	AT_DEVICE_OUT	SHIFT_P	RF1_POWER_SUPPLY
Color of Wire	0/1	Ь	T	LG	Y/R	G/B	L/R
minal No.	71	78	79	81	84	87	91

Signal Name	RF1_TUNER_S	CAN-L	CAN-H	IGN_ON_L	AT_DEVICE_	SHIFT_F	RF1_POWER_S
Color of Wire	0/1	Ь	Т	ГС	Y/R	G/B	L/R
Terminal No. Wire	71	28	62	81	84	87	91
							91 60

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	8	80
	19	8
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	65	85
	99	86
\square	67	87
117	88	88
IV .	8	88
I۸	2	90
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ᆿ	72	92
	73	93
	74	94
	75	92
	9/	96
 - 1	7	7

	24	8	
	99	85	
	99	86	
	67	87	
-117	89	88	
- IV	69	88	
- 11	20	90	
Π	7	91	
5	72	92	
	73	93	
	74	8	
	75	95	
	76	96	
9	77	97	
5	78	98	
	79	99	

Signal Name	ROOM_ANT_2_B	ROOM_ANT_2_A
Color of Wire	B/R	W/R
Terminal No.	09	61

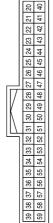


Connector Name Connector No.

M19

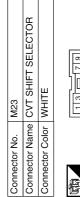
BLACK

Connector





	$\overline{}$	<u> </u>							
Signal Name	STOP_LAMP_LOW_SW	STOP_LAMP_HIGH_SW	FOB_IN_SW	AS_DOOR_SW	S/L_LOCK_LED	GND_RF2_A/L	SHIFT_N/P	IMMO_LED	WS ACCU AC
Color of Wire	B/W	O/L	У	R/B	В	Ь	B/G	0/7	SB
erminal No.	24	26	29	32	42	45	48	49	58



DETENT_KEY_SW DETENT_KEY_SW

Signal Name

Color of Wire Y/R G/B

Terminal No. ω 6

Signal Name	TRUNK_ANT_1_B	TRUNK_ANT_1_A	IGN_USM_CONT1	ST_CONT_USM	ENG START SW W/O ESCL	RR_DOOR_SW	RL_DOOR_SW
Color of Wire	В	W	BR/W	В	BR	R/W	R/B
Ferminal No.	114	115	127	132	140	148	149

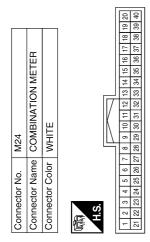
Connector No.	M21
Connector Name	Connector Name BCM (BODY CONTROL MODULE)
Connector Color GRAY	GRAY



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	. M27	/:
Connector Name		REMOTE KEYLESS ENTRY RECEIVER
Connector Color		BLACK
雨 H.S.	-	2 3 4
Terminal No.	Color of Wire	Signal Name
-	Д	GND
2	9	SIGNAL
4	Z,	12V

Signal Name	BAT	GND (POWER)	GND (ILL)	ACC	CAN-H	CAN-L	GND (CIRCUIT)	SECURITY
Color of Wire	M/L	В	В	٨/٨	٦	Ь	В	0/7
Terminal No.	-	3	4	14	21	22	23	28



Connector No.	. M89	6
Connector Name	me WII	WIRE TO WIRE
Connector Color		WHITE
H.S.		4
Terminal No. Wire	Color of Wire	Signal Name

8 8

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Signal Name

Color of Wire ďζ ш

Terminal No.

CARD_SW_1

=

GND b

ector No. M40 cctor Name KEY SLOT cctor Color WHITE	stor No. M40 stor Name KEY SLOT stor Color WHITE	6 0 0 10 11
---	--	-------------

Connector	Connector	Connector	E	H.S.	
	NO				

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



是 H.S.	

Signal Name	GND	START_SW	LOCK	ACC	NO	B+
Color of Wire	В	BR	ш	Y/L	FG	G/Y
rerminal No.	1	4	2	9	7	8

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SEC-497 Revision: September 2009 2010 Altima

ENGINE START FUNCTION - WITH REMOTE KEYLESS ENTRY DIAGRAM > [SEDAN WITHOUT INTELLIGENT KEY]

< WIRING DIAGRAM >

33	Connector Name FRONT CONSOLE	ENNA	∀ Ł	<u></u>		Signal Name	ANT+	ANT-
M203	ne FRC	AN	or GR/		ל	Solor of Wire	W/R	B/R
Connector No.	Connector Nan		Connector Color GRAY			Terminal No. Wire	-	2
	E TO WIRE	<u> </u>				Signal Name	1	ı
M131	e WIRE	r WHIT		4 3 2		color of Wire	BR	BR
Connector No.	Connector Name WIRE TO WIRE	Connector Color WHITE		师 H.S.		Terminal No. Wire	2	3
	r Name WIRE TO WIRE	Щ		3 2 4 0 1 1 1 1 2 1 1 1 1 2 1 1 1 1 1 1 1 1 1		Signal Name	1	ı
M93	ne WIRE	or WHITE		- 1	1	No. Wire	B/R	M/R
No	Nan	Color				9		

7	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	WHITE	42 41 40 33 45 44 43 33	Signal Name	CAN-L	CAN-H	GND (POWER)	DETENT_SW	F 400 F0 4 F0
. E17			46 42	Color of Wire	Д	_	В	G/B	0
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	39	40	41	43	ç

Connector No.). E6	
Connector Name		FUSE BLOCK (J/B)
Connector Color	olor WHITE	ITE
मून्	7P 6P 5P 16P 15P 14P	7P 6P 5P 4P 3P 72P 1P 8P 1P 8P 1SP 1SP 1SP 1SP 1SP 1SP 1SP 1SP 1SP 1S
Terminal No.	Color of Wire	Signal Name
2P	٦Э	I
8P	Я	_

M207 WIRE TO WIRE WHITE	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Signal Name	-	ı
9 Z	9 2	Color of Wire	B/R	W/R
Connector No. Connector Name Connector Color	原 H.S.	Terminal No.	٦	7

ABKIA2136GB

ENGINE START FUNCTION - WITH REMOTE KEYLESS ENTRY

< WIRING DIAGRAM >

[SEDAN WITHOUT INTELLIGENT KEY]

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Connector No. E21	Terminal No. Color of Signal Name 8G P -
Terminal No. Color of Signal Name 12 B GND (POWER)	Connector No. E30 Connector Name WIRE TO WIRE Connector Color WHITE To 200 216 266 76 86 96 T6 26 106 116 126 136 146 176 166 176 T86 196 276 286 286 300 316 326 336 346 T86 196 276 286 286 376 886 886 376 886 886 T86 186 1876 1876 1876 1876 1876 1876 187
Connector No. E18 Connector Name POWER DISTRIBUTION MODULE ENGINE ROOM) Connector Color WHITE ##S. ##S.	Connector No. E22 Connector Name JOINT CONNECTOR-E04 Connector Color WHITE Terminal No. Wire Signal Name 2 P

Revision: September 2009 SEC-499 2010 Altima

ENGINE START FUNCTION - WITH REMOTE KEYLESS ENTRY

< WIRING DIAGRAM >

[SEDAN WITHOUT INTELLIGENT KEY]

DIAGRA	.M >				[5]	DAN WITH
E50 JUNCTION BLOCK WHITE	98 98	of Signal Name –	F25	TRANSMISSION RANGE SWITCH BLACK	8 4 3 Z	e Signal Name IGN_P_N
Connector No. Connector Name	是 H.S.	Terminal No. Color of S5 BR		Connector Name Connector Color	H.S.	Terminal No. Wire
Connector No. E46 Connector Name JUNCTION BLOCK Connector Color WHITE	(新) (31 30 28 28 (三) 27 28 28 (三) 40 59 38 37 36 35 34 33 22 H.S.	Terminal No. Color of Signal Name	Terminal No. Wire Signal Name	72 W NPSW (WITH QR25DE) 74 L START IG EGI	α 	
nnector No. E38 nnector Name STOP LAMP SWITCH (WITH CVT)	_	minal No. Wire Signal Name 1 R	nnector No. F10		nnector Color WHITE	53 54 55 56 57 58 47 48 49 50 51 52 83 54 56 57 58 84 48 49 50 51 52 84 48 48 50 51 52

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Connector No. B8 Connector Name FRONT DOOR SWITCH LH Connector Color WHITE Terminal No. Color of Signal Name 2 SB DOOR SW (DR)	Connector No. B104 Connector Name WIRE TO WIRE Connector Color BROWN To a mark to the state of the state o	Terminal No. Color of Signal Name 10 GR 11 B
Terminal No. Wire Signal Name 4.0 V - (WITH SEDAN) 11.1 W - 17.1 SB - 22.1 BR -	Connector No. B29 Connector Name REAR PARCEL SHELF ANTENNA Connector Color GRAY H.S.	Terminal No. Wire Signal Name 1 W ANT+ 2 V ANT- (WITH SEDAN)
Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE Connector Color WHITE 33 40 51 61 71 81 81 81 13 13 22 13 40 51 61 71 81 81 81 18 130 20 21 22 23 24 28 33 33 40 41 42 81 83 83 83 7 647 481 561 57 82 83 83 80 87 647 481 561 57 82 83 83 80 87 647 481 561 57 82 83 80 80 87 80 81 82 83 84 85 80 91 87 80 81 82 83 84 85 80 91 92 83 94 95 85 85 85 85 85 80 91 92	Connector No. B18 Connector Name REAR DOOR SWITCH LH Connector Color WHITE	Terminal No. Color of Signal Name Wire BR DOOR SW (RL)

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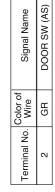




Signal Name	IH) WS HOOD
Color of Wire	В
Terminal No.	2







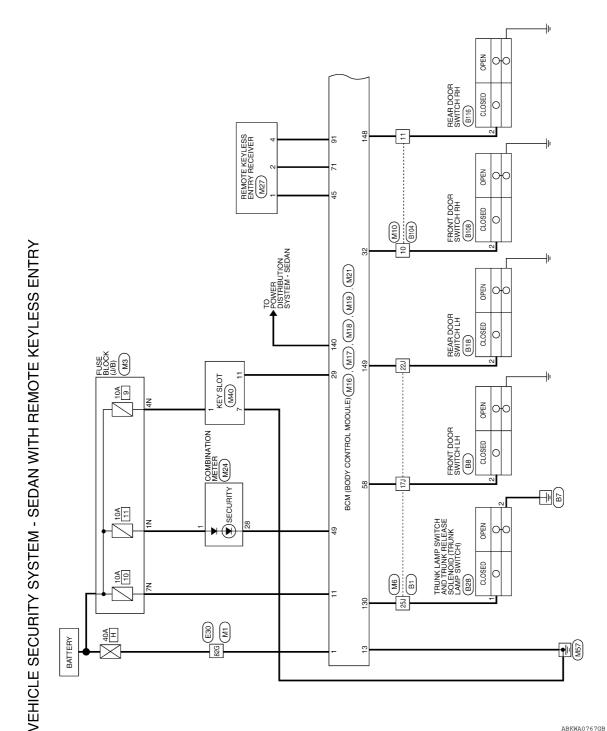


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Revision: September 2009 SEC-502 2010 Altima

VEHICLE SECURITY SYSTEM - WITH REMOTE KEYLESS ENTRY

Wiring Diagram INFOID:0000000005430014



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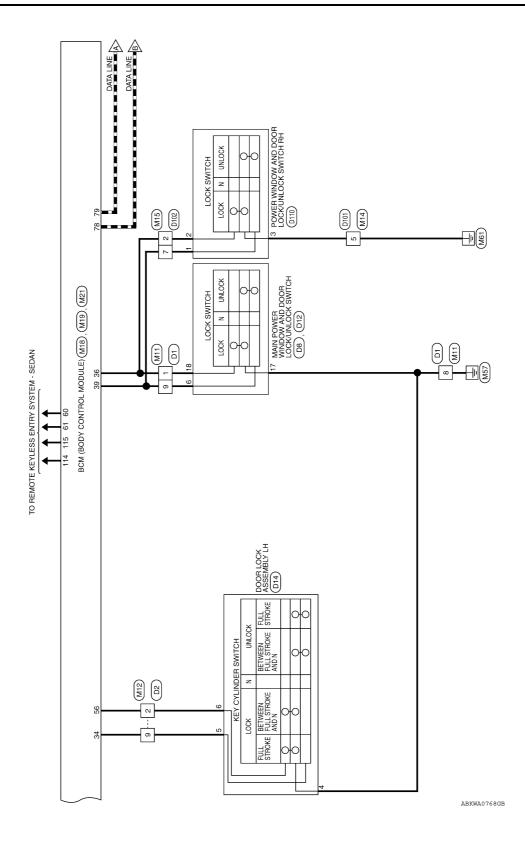
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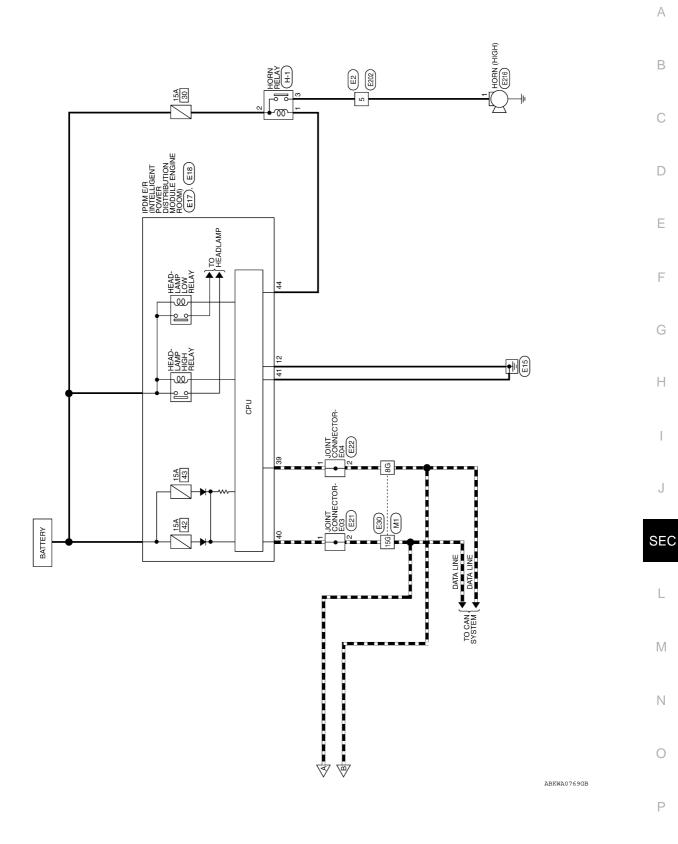
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SEC-505 Revision: September 2009 2010 Altima

25J 24J 23J 22J 30J 29J 28J 27J 26J 21J 20 19J 18J 90 80 70 60 50 40 30 170 160 150 150 150 150 10 10 55J 54J 53J 52J 51J 50J 49J 63J 62J 61J 60J 59J 58J 57J 56J 48J 47J 37.1 36.1 35.1 34.1 33.1 32.1 31.1 46.1 45.1 44.1 43.1 40.1 39.1 38.1 93 947 Signal Name 95J Connector Name WIRE TO WIRE 98 671 Connector Color WHITE Color of Wire 66 R/B Y/G SB VEHICLE SECURITY SYSTEM CONNECTORS - SEDAN WITH REMOTE KEYLESS ENTRY Connector No. Terminal No. 17.1 22J 25J Signal Name Connector Name FUSE BLOCK (J/B) Connector Color WHITE 1 7N 6N 5N 4N Color of Wire 38 38 W/L ď√ Y/R Connector No. Terminal No. 4 N Z K H.S. 偃 96 8G 7G 6G 5G 4G 3G 17G 16G 15G 14G 13G 12G 11G 10G 2G 1G 26G 25G 24G 23G 22G 21G 20G 34G 33G 32G 31G 30G 29G 28G 27G 19G 18G 72G 71G 70G 69G 68G 67G 66G 80G 79G 78G 77G 76G 75G 74G 73G 65G 64G 58G 57G 56G 55G 63G 62G 61G 60G 59G 54G 53G 52G 51G 416 406 396 376 366 356 506 496 486 476 466 456 446 436 426 81G Signal Name Connector Name WIRE TO WIRE Ī 82G Connector Color | WHITE 836 Color of Wire Ε M/B _ ۵ Connector No. Terminal No. 15G 82G 86 H.S. 偃

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Revision: September 2009 SEC-506 2010 Altima

VEHICLE SECURITY SYSTEM - WITH REMOTE KEYLESS ENTRY [SEDAN WITHOUT INTELLIGENT KEY]

< WIRING DIAGRAM >

Connector No.). M12	
Connector Name WIRE TO WIRE	ame WIF	E TO WIRE
Connector Color WHITE	olor WH	TE
斯 H.S.	9 10 11	2 3 4 5 6 7 8 10 11 12 13 14 15 16
Terminal No.	Color of Wire	Signal Name
2	L/B	1
6	L/R	ı

Connector No.	. M11	
Connector Name WIRE TO WIRE	me WIR	E TO WIRE
Connector Color WHITE	lor WHI	
原 H.S.	8 1 2 2 3 10 8	10 11 12 13 14 15 16
Terminal No.	Color of Wire	Signal Name
1	GR	ı

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Connector No.). M10)
Connector Name		WIRE TO WIRE
Connector Color		BROWN
所 H.S.	2 11 11	5 4 1 3 2 1 1 10 9 8 7 6
Terminal No.	Color of Wire	Signal Name
10	B/B	1
11	B/W	1

_			1		_
	Connector Name BCM (BODY CONTROL MODULE)	CK	113	Signal Name	I/3 d3/WCd T/a
M16	me BCN MOI	or BLA		Color of Wire	a/w
Connector No.	Connector Na	Connector Color BLACK	崎 H.S.	Terminal No. Wire	-
			·		

2	WIRE TO WIRE	WHITE	9 3 4 5 6	Signal Name	ı	ı
. M15			7 1 2 8 8	Color of Wire	GR	GR/R
Connector No.	Connector Name	Connector Color	原面 H.S.	Terminal No.	2	7

4	WIRE TO WIRE	ІТЕ	7 8 9 3 4 0 10	Signal Name	_	
M14	ıme WIF	olor WHITE	- 12 C/ 0	Color of Wire	В	
Connector No.	Connector Name	Connector Color	斯 H.S.	Terminal No.	5	

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SEC-507 Revision: September 2009 2010 Altima Α

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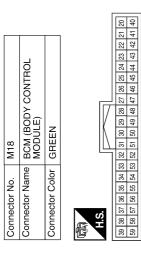
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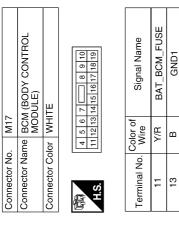
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Signal Name	FOB_IN_SW_1	AS_DOOR_SW	DOOR_KEY/C_ UNLOCK_SW	CENTRAL_LOCK_SW	CENTRAL_UNLOCK_ SW	GND_RF2_A/L	IMMO_LED	DOOR_KEY/C_LOCK_ SW	DR_DOOR_SW
Color of Wire	>	B/B	L/R	GR	GR/R	_	9	L/B	SB
Terminal No.	59	32	34	36	39	45	49	56	58







			1	# #	133	
				Ë	134	
	١.			115	85	
	占			9	88	
	lĚ –			#	137	
				118	82	
	18			139	139	
	<u> </u>		117	120	149	
	18 G		I IV	122 121	14	
	ĕ∃		l IN	122	142	
_	BCM (BOE MODULE)	Æ		123	₹	
MZZ	88	ЗF		124	144	
	0	<u> </u>		125	145	
	ΙĔ	ō		128	146	
ž	2	ပြ		127	149 148 147	
ŏ	ō	ō		82	148	
ect	당	ect	(6	129	149	
Ě	Ě	Ľ	H.S.	8	32	
Connector No.	Connector Name BCM (BODY CONTROL MODULE)	Connector Color GRAY	優	131	151	
_	_					1

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TRUNK_ANT_1_B TRUNK_ANT_1_A

Signal Name

Color of Wire

Terminal No. 114 115 130 140

ENG START SW W/O ESCL RR_DOOR_SW RL_DOOR_SW

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B/B

TRUNK_SW

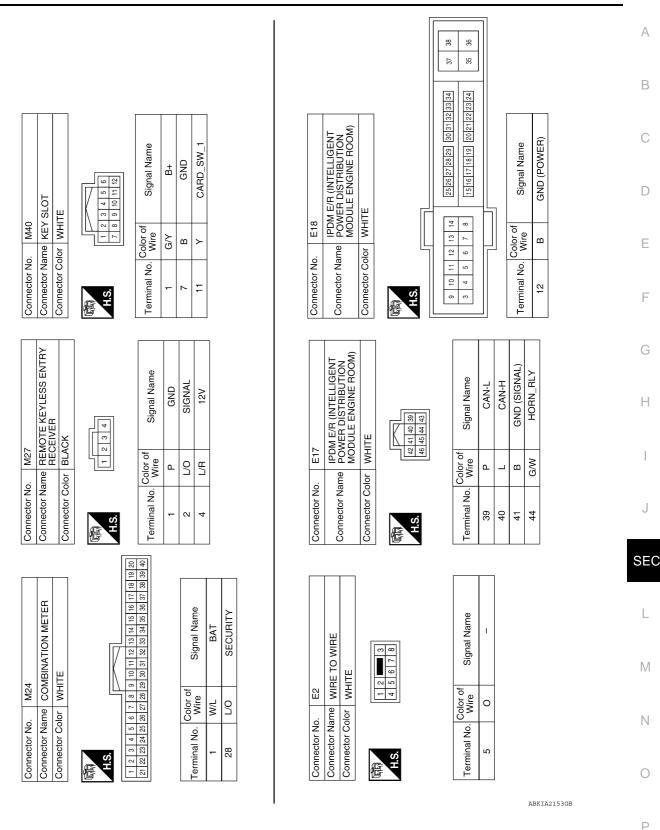
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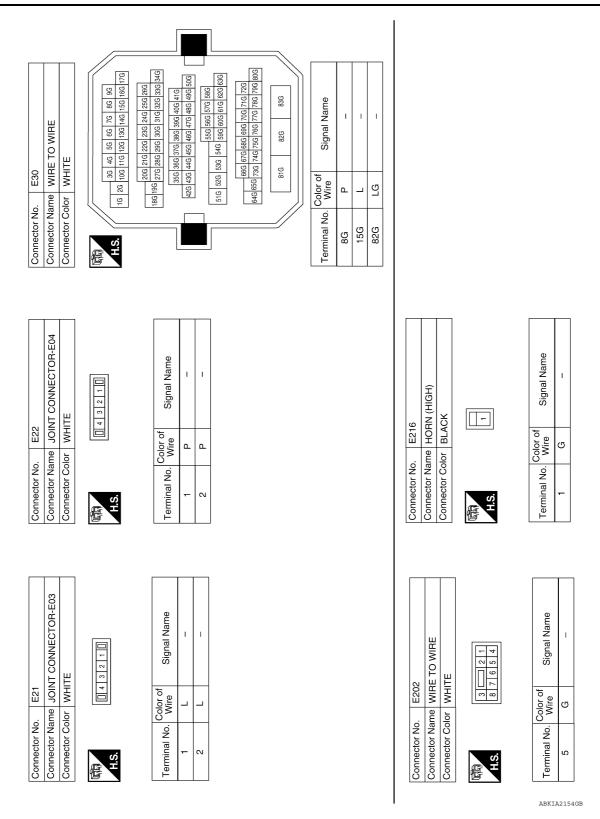
Signal Name	ROOM_ANT_2_B	ROOM_ANT_2_A	RF1_TUNER_SIGNAL	CAN-L	CAN-H	RF1_POWER_SUPPLY	
Color of Wire	B/R	W/R	0/1	Ь	٦	L/R	
Terminal No.	09	61	71	78	79	91	

ŭ	Connector No.	ec	ĕ	ž	٠.		M19	6										_	
ŏ	Connector Name	ec	Ď	Ž	١Ĕ	d)	B⊠	BCM (BOE MODULE)	<u>@</u> 5	l D (ii)	l≿	8	BCM (BODY CONTROL MODULE)	12	ᆼ	١.			
ပြ	Connector Color	ec	ĕ	ပြ	힏		뮵	BLACK	X									_	
恒	雨 H.S.	(6						l II\			17								
79	78	78 77 76 75 74 73 72 71 70 69 68	9/	75	74	73	72	7	2	69	88	29	99	65 64	64	8	63 62 61		99
8	99 98 97 96 95 94 93 92 91 90 89 88 87 86 85 84 83 82 81	97	96	95	8	83	85	91	96	88	88	87	98	88	8	83	82		88

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SEC-509 Revision: September 2009 2010 Altima



SEC-510 Revision: September 2009 2010 Altima

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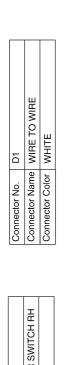
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SEC-511 Revision: September 2009 2010 Altima

VEHICLE SECURITY SYSTEM - WITH REMOTE KEYLESS ENTRY [SEDAN WITHOUT INTELLIGENT KEY]

< WIRING DIAGRAM >









DOOR SW (RR) Signal Name

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Color of Wire

Terminal No.

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

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Connector No.	B108
Connector Name	Connector Name FRONT DOOR SWITCH I
Connector Color WHITE	WHITE

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

Connector No.	D12
Connector Name	MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH (WITH LEFT FRONT ONLY POWER WINDOW ANTI-PINCH SYSTEM)
Connector Color WHITE	WHITE



UNLOCK	GR/R	9
Signal Name	Color of Wire	Terminal No.
3 4 6 7 10 11 12 13 14 15 16	8 9 10	H.S.
WHITE		Connector Color
MAIN POWER WINDOW AND DOOR LOCK/UNL/ SWITCH (WITH LEFT FRONT ONLY POWER WINDOW ANTI-PINCH SYSTEM)		Connector Name

Signal Name GND

Color of Wire

Terminal No. 17

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D8	MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH	WHITE	10 10 10 10 10 10 10 10 10 10 10 10 10 1
Connector No.	Connector Name	Connector Color	可 H.S.



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

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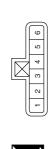
SEC-512 Revision: September 2009 2010 Altima

2	E TO WIRE	<u> </u>	11 10 9 8 7 1	Signal Name	I	ı
. D102	me WIF	lor WH	9 2 7	Color of Wire	GR	GR/R
Connector No.	Connector Name WIRE TO WIRE	Connector Color WHITE	用.S.	Terminal No.	2	7

Connector No.	D101
Connector Name WIRE TO WIRE	WIRE TO WIRE
Connector Color WHITE	WHITE
斯 H.S.	4 3 10 9 8 7 6 5

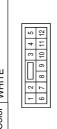
9 8 7 6 5 1	Signal Name	ı
4 01	Color of Wire	α
雨 H.S.	Terminal No.	ĸ

D14	FRONT DOOR LOCK ASSEMBLY LH (WITH LEFT FRONT ONLY POWER WINDOW ANTI-PINCH SYSTEM)	GRAY	
Connector No.	Connector Name	Connector Color GRAY	



Signal Name	GND	DOOR_KEY/C_ UNLOCK_SW	DOOR_KEYD/C_ LOCK_SW
Color of Wire	В	L/R	L/B
Terminal No.	4	5	9

Connector No.	D110
Connector Name	POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH (WITH LEFT POWER WINDOW ANTI-PINCH SYSTEM)
Connector Color WHITE	WHITE



Signal Naı	LOCK	UNLOCK	GND
Color of Wire	GR	GR/R	В
Terminal No.	1	2	3

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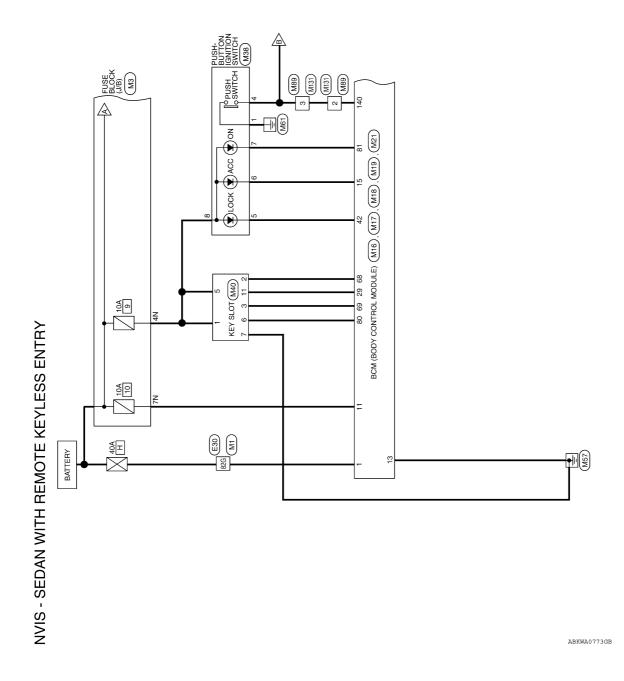
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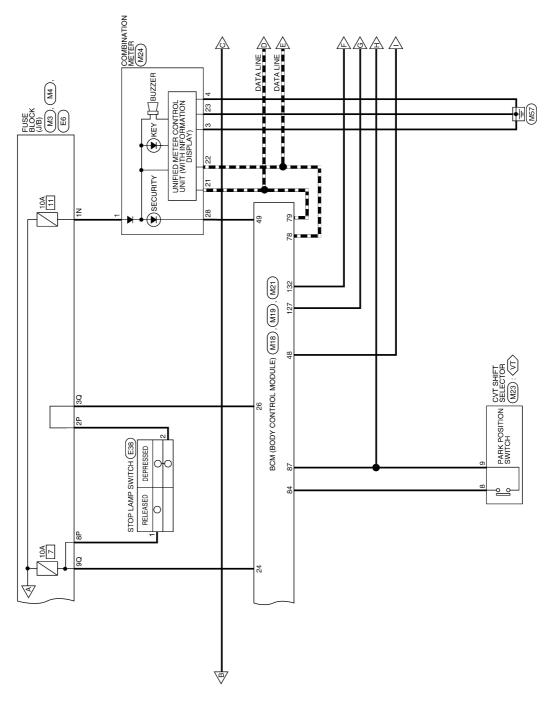
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SEC-513 Revision: September 2009 2010 Altima

NVIS - WITH REMOTE KEYLESS ENTRY

Wiring Diagram





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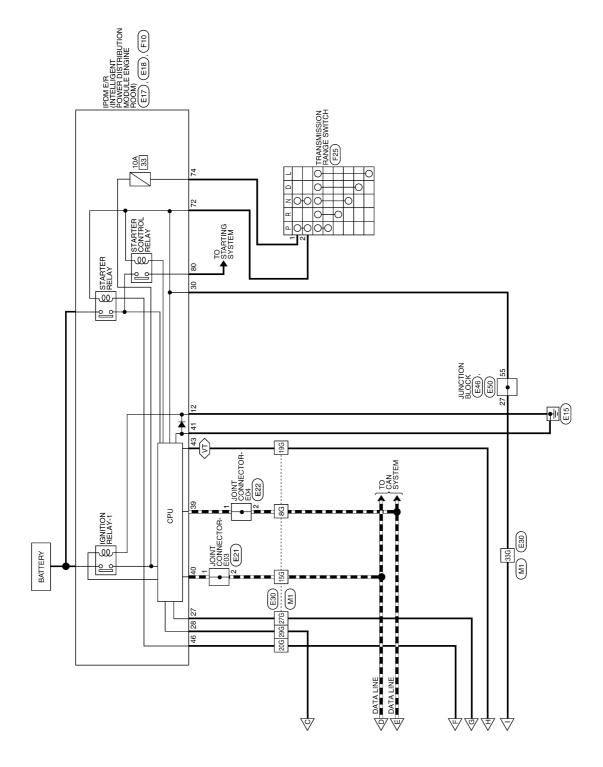
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NVIS CONNECTORS - SEDAN WITH REMOTE KEYLESS ENTRY

Connector No.		M3	
Connector Name	ame	FUS	FUSE BLOCK (J/B)
Connector Color	Sol	WHITE	<u> </u>
语. H.S.		N	2N 1N
Terminal No.	Color of Wire	or of re	Signal Name
Z	M/L	7	ı
N4	Ğ√	>	ı
N	Υ/R	œ	ı

Signal Name	Ī	I	I	-	I	I	_
Color of Wire	Ь	_	æ	BR/W	BR	B/G	M/B
Terminal No. Wire	8G	15G	20G	27G	29G	33G	82G

) WIRE		96 86 76 86 56 46 36 166 156 140 130 120 110 100 26 16 226 226 226 226 226 226 226 226 226 22	826 816
M1 WIRE TO WIRE	WHITE	16G 15G 25G 25G 25G 25G 25G 25G 25G 25G 25G 2	836
Connector No.	Connector Color	H.S. 176 8000 8000 8000 8000 8000 8000 8000 80	//

			1					
	Connector Name BCM (BODY CONTROL MODULE)	ITE		7 8 9 10 14 15 16 17 18 19	Signal Name	BAT_BCM_FUSE	GND1	ACC_LED
. M17	me BCI	lor WHITE		4 5 6 7 T	Color of Wire	Y/R	В	Y/L
Connector No.	Connector Na	Connector Color		優	Terminal No.	11	13	15

(a/i / A)O la loi lo	SE DECOR (3/D)			20 10	100 90 80 70 60 50		Signal Name	1	-
0 1		2		40 30	100		Color of Wire	O/L	R/W
Conclor Mono	Connector Color WHITE	COILLECTOL CO	\ \ \ !	晋	H.S.		Terminal No.	30	90

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Connector No.

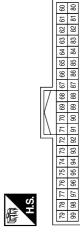
Signal Name	CAN-L	CAN-H	FOB_SLOT_ ILLUMINATION	IGN_ON_LED	AT_DEVICE_OUT	SHIFT_P
Color of Wire	Ь	٦	B/L	LG	Y/R	G/B
Terminal No. Wire	78	62	08	18	84	28

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

BCM (BODY CONTROL MODULE)

Connector No. M18 Connector Name GREEN

Connector Color



	24 23 22 21 20	52 51 50 49 48 47 46 45 44 43 42 41 40
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	27	121
7	88	48
	53	9/
	30	50
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٦	32	53
1	33	53
	34 33	54 53
1	33	55
	38	56
	37	57
1	38	52
1	39	59

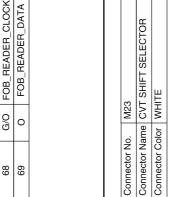
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3	43			ൃ	ال				
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3	46		ΙŽ	ا_ا	ا _ت ا	3	충	\Box	7
ì	47		Signal Name	STOP_LAMP_LOW_SW	STOP_LAMP_HIGH_SW	FOB_IN_SW_1	S/L_LOCK_LED	SHIFT_N/P	IMMO_LED
3	48		iĝ	4	১)B	J	SH	₫
3	49		0,	[슾	احً'	F	S/I		
3	50			띧	잍				
5	51			က	S				
3	52		Color of Wire	L					
3	53		color c Wire	₩.	O/L	_	В	R/G	9
5	54 53		0	Ι <u>"</u>	١			ш	_
3	56 55								
3	56		Ž						
5	57		la la	24	56	29	42	48	49
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2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	59		Terminal No.						
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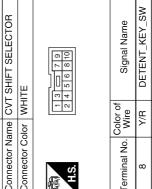
FOB_READER_CLOCK

Signal Name

Color of Wire 0/9

Terminal No.





Connector Name CVT SHIFT SELECTOR	ITE	4 5 6 8 10	Signal Name	WS_YENT_KEY_SW	DETENT_KEY_SW
me CV	lor WH	- 2	Color of Wire	Y/R	G/B
Connector Na	Connector Color WHITE	咸雨 H.S.	Terminal No.	8	6
•					

			5	83				
	BCM (BODY CONTROL MODULE)	٩Y	TON TON TON TON TON TON THE HEE HEE HE HE HE HE	142 141	Signal Name	IGN_USM_CONT1	ST_CONT_USM	ENG START SW W/O ESCL
M21		lor GRAY	200	146 145 144 1	Color of Wire	BR/W	æ	BR
Connector No.	Connector Name	Connector Color	H.S. H.S.		Terminal No.	127	132	140

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		Signal Name	B+	CLOCK	DATA	LIGHT_BAT+	LIGHT_A	GND	CARD_SW_1	
M40 • KEY SLOT WHITE		Color of Wire Signa	G/Y	G/O CL	o	G/Y LIGH	R/L LIG	В	Y CAR	
Connector No. M40 Connector Name KEY SLOT Connector Color WHITE	H.S.	Terminal No.	-	2	ဇ	5	9	7	1	
z										
Connector No. M38 Connector Name PUSH-BUTTON IGNITION SWITCH Connector Color BROWN	6 6 7 3 3 5 6 6 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	Signal Name	GND	START_SW	LOCK	ACC	NO	B+		
me PUSH-BI SWITCH lor BROWN	<u>- 4</u>	Color of Wire	В	BR	ч	Y/L	ΓG	G/Υ		
Connector No. M38 Connector Name PUSH-BI SWITCH Connector Color BROWN	H.S.	Terminal No.	+	4	2	9	2	8		
	18 19 20 38 39 40									
Connector No. M24 Connector Name COMBINATION METER Connector Color WHITE	10 11 12 13 14 15 16 17 30 31 32 33 34 35 36 37 37	Signal Name	BAT	GND (POWER)	GND (ILL)	ACC	CAN-H	CAN-L	GND (CIRCUIT)	SECURITY
me COMBI	6 8	Color of Wire	M/L	В	В	λ/Λ	7	Ь	В	9
Connector No. Connector Color	H.S. 1 2 3 4 5 6 7 8 2 2 2 2 2 2 2 2 2	Terminal No.	-	3	4	14	21	22	23	28

	FUSE BLOCK (J/B)	ITE	7P 6P 5P 4P (3P 2P 1P 1P 1P 1P 1P 3P 3P 3P	Signal Name	1	-
. E6	me FU	lor WH	7P 6P 5P 4P 1	Color of Wire	Ь	В
Connector No.	Connector Name	Connector Color WHITE	高 H.S.	Terminal No. Wire	2P	8P
				ame		

н	WIRE TO WIRE	TE	8 2 1	Signal Name	ı	1
. M131		lor WHITE		Color of Wire	BR	BB
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	2	c

Connector No.	. M89	6
Connector Name		WIRE TO WIRE
Connector Color	_	WHITE
原 H.S.		S S S S S S S S S S
Terminal No. Wire	Color of Wire	Signal Name
2	BR	1
က	BR	1

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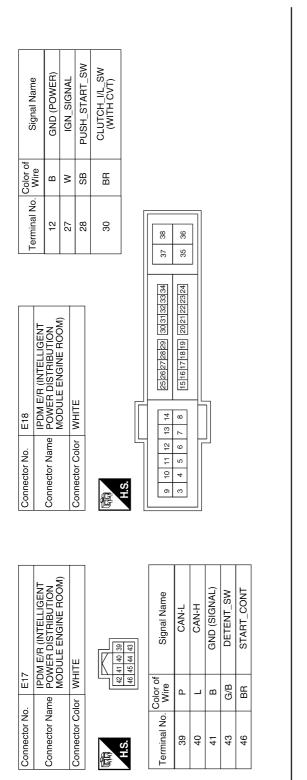
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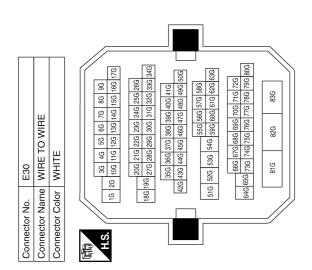
Connector No.	E21		ပိ	Connector No.	. E22	
Connector Na	Ime JOI	Connector Name JOINT CONNECTOR-E03	<u>8</u>	onnector Na	me JOI	Connector Name JOINT CONNECTOR-E04
Connector Color WHITE	lor WH	ITE	ပြ	Connector Color WHITE	lor WH	믵
原 H.S.	4	0 E		H.S.		4 3 2 1 0
Terminal No. Wire	Color of Wire	Signal Name	Te	Terminal No. Wire	Color of Wire	Signal Name
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2	٦	1		2	۵	1

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[SEDAN WITHOUT INTELLIGENT KEY]

E38 STOP LAMP SWITCH	IH CVI) ITE	2 4 7	Signal Name	1	1
e			Color of Wire	æ	LG
Connector No. Connector Name	Connector Color	H.S.	Terminal No.	-	2

me								
Signal Name	ı	ı	_	-	I	_	_	1
Color of Wire	۵	_	G/B	BR	W	SB	BR	LG
Terminal No. Wire	98	15G	19G	20G	27G	29G	33G	82G



Connector No. E50 Connector Name JUNCTION BLOCK Connector Color WHITE MAS For Ess For Ess						
nnector No. E5 nnector No. Meteror Color of Mr. S. S. RR S5 RR	0	NCTION BLOCK	HTE	98 55		-
nnector Nc nnector Nc nnector Cc nnector Cc			lor W		Color of Wire	BB
Cor Cor Terr	Connector No.	Connector Na	Connector Co	原 H.S.	Terminal No.	22

Connector No. E46						
Connector No. E46 Connector Name JUN Connector Color WH.S. H.S. Terminal No. Wire Z7 BR		NCTION BLOCK	ITE	36 35		-
Connector No Connector Na Connector Co Connector Co Connector Co Connector Co Connector Co Connector Na Conne			lor WF	31 30 2	Color of Wire	BR
	Connector No	Connector Na	Connector Co	南 H.S.	Terminal No.	27

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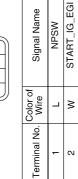
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1 11				
	Signal Name	NPSW (WITH QR25DE)	START IG EGI	STARTER_MOTOR
	Color of Wire	>	_	ш
	Terminal No. Wire	72	74	80

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ENGINE START FUNCTION SYMPTOMS

< SYMPTOM DIAGNOSIS >

[SEDAN WITHOUT INTELLIGENT KEY]

SYMPTOM DIAGNOSIS

ENGINE START FUNCTION SYMPTOMS

Symptom Table

Engine cannot be started with all keyfobs.

CAUTION:

- Follow Trouble Diagnosis Flowchart referring to "<u>SEC-364, "Work Flow"</u>". 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 procedu	Reference page		
1. Check power cumply and ground circuit	ВСМ	BCS-42	
Check power supply and ground circuit	IPDM E/R	PCS-23	
2. Check push button ignition switch		<u>SEC-435</u>	
3. Check Intermittent Incident		<u>GI-41</u>	

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VEHICLE SECURITY SYSTEM SYMPTOMS

VEHICLE SECURITY SYSTEM SYMPTOMS

Symptom Table

Procedure Symptom		dure	Diagnostic procedure	Refer to page
		tom	Diagnostic procedure	
1	Vehicle security system cannot be set by	Door switch	Check door switch	DLK-290
		Trunk	Check trunk room lamp switch	DLK-313
		Door outside key	Check key cylinder switch	DLK-302
		Keyfob	Check keyfob.	DLK-523
		_	Check Intermittent Incident	<u>GI-41</u>
	Security indicator does not turn ON.		Check vehicle security indicator	SEC-450
			Check Intermittent Incident	<u>GI-41</u>
2	* Vehicle security system does not sound alarm when	Any door is opened.	Check door switch	DLK-290
			Check Intermittent Incident	<u>GI-41</u>
3	Vehicle security alarm does not activate.	Horn alarm	Check horn	DLK-343
			Check Intermittent Incident	<u>GI-41</u>
		Head lamp alarm	Check head lamp alarm	SEC-448
			Check Intermittent Incident	<u>GI-41</u>
4	Vehicle security system cannot be canceled by	Door outside key	Check key cylinder switch	SEC-443
			Check Intermittent Incident	<u>GI-41</u>
		Keyfob	Check keyfob	DLK-523
			Check Intermittent Incident	<u>GI-41</u>

^{*:} 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

Security indicator does not turn ON or flash.

CAUTION:

- Follow Trouble Diagnosis Flowchart referring to "<u>SEC-364, "Work Flow"</u>". 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
Check vehicle security indicator	<u>SEC-450</u>
2. Check Intermittent Incident	<u>GI-41</u>

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Revision: September 2009 SEC-525 2010 Altima

PRECAUTION

PRECAUTIONS

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

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

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

WARNING:

- When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

PREPARATION

< PREPARATION >

[SEDAN WITHOUT INTELLIGENT KEY]

PREPARATION

PREPARATION

Special Service Tool

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The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

Tool number (Kent-Moore No.) Tool name	Description	
 (J-46534) Trim Tool Set	Removing trim compor	nents D
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ON-VEHICLE REPAIR

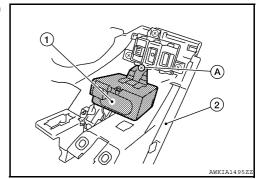
KEY SLOT

Removal and Installation

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REMOVAL

- 1. Remove the instrument lower panel LH. Refer to IP-11, "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

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REMOVAL

1. Remove push-button ignition switch from cluster lid using Tool.

Tool number : — (J-46534)

2. Disconnect electrical harness connector from push-button ignition switch.

INSTALLATION

Installation is in the reverse order of removal.

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