

SECTION **SEC**

SECURITY CONTROL SYSTEM

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DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[WITH INTELLIGENT KEY SYSTEM]

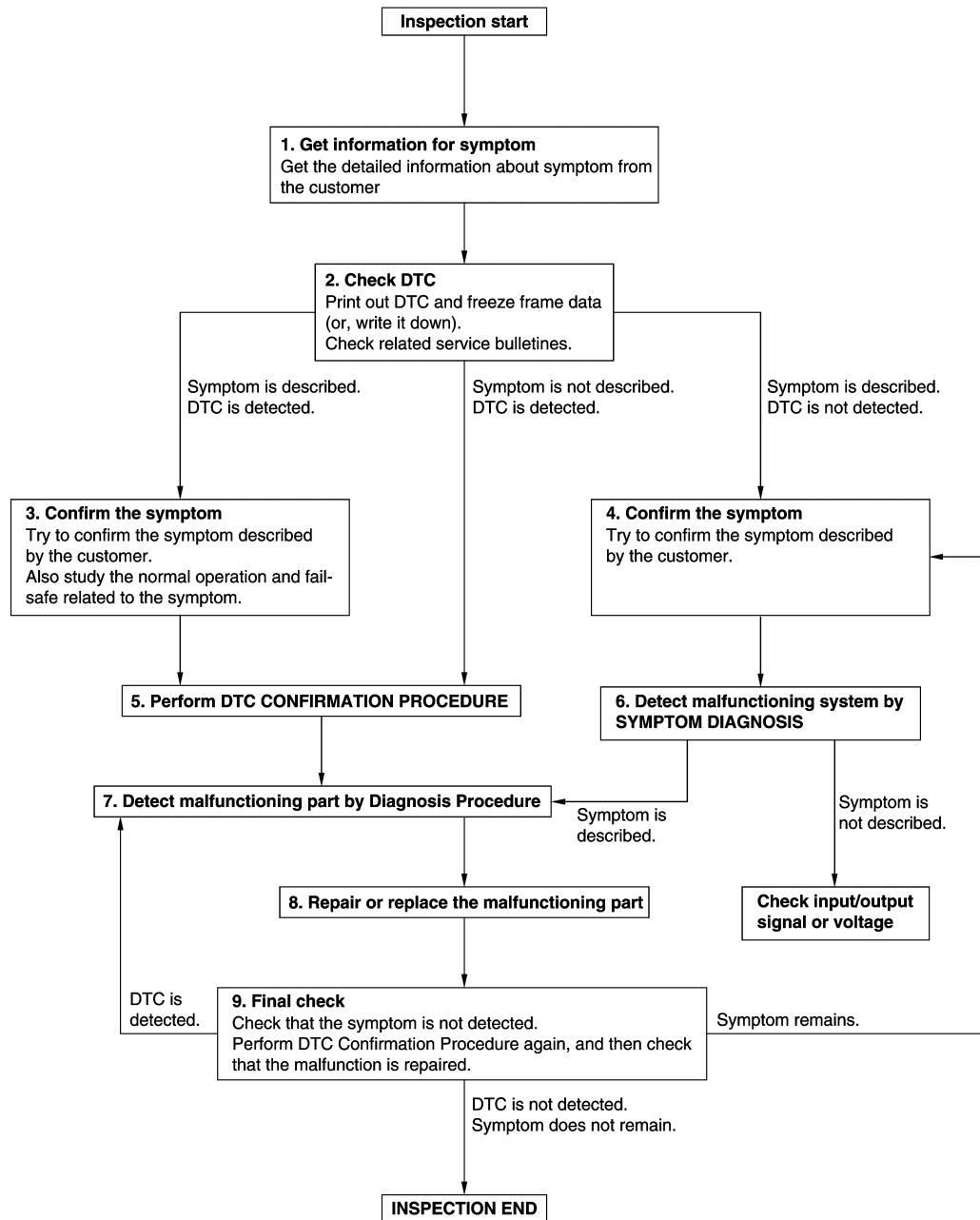
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

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DETAILED FLOW

DIAGNOSIS AND REPAIR WORK FLOW

[WITH INTELLIGENT KEY SYSTEM]

< BASIC INSPECTION >

1. GET INFORMATION FOR SYMPTOM

1. Get detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurs).
2. Check operation condition of the function that is malfunctioning.

>> GO TO 2.

2. CHECK DTC

1. Check DTC.
2. Perform the following procedure if DTC is detected.
 - Record DTC and freeze frame data (Print them out using CONSULT.)
 - Erase DTC.
 - Study the relationship between the cause detected by DTC and the symptom described by the customer.
3. Check related service bulletins for information.

Are any symptoms described and any DTC detected?

Symptom is described, DTC is detected>>GO TO 3.

Symptom is described, DTC is not detected>>GO TO 4.

Symptom is not described, DTC is detected>>GO TO 5.

3. CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

Also study the normal operation and fail-safe related to the symptom.

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

>> GO TO 5.

4. CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

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

>> GO TO 6.

5. PERFORM DTC CONFIRMATION PROCEDURE

Perform DTC CONFIRMATION PROCEDURE for the detected DTC, and then check that DTC is detected again. At this time, always connect CONSULT to the vehicle, and check self diagnostic results in real time.

If two or more DTCs are detected, refer to [BCS-90. "DTC Inspection Priority Chart"](#) (BCM) or [PCS-32. "DTC Index"](#) (IPDM E/R), and determine trouble diagnosis order.

NOTE:

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

Is DTC detected?

YES >> GO TO 7.

NO >> Check according to [GI-45. "Intermittent Incident"](#).

6. DETECT MALFUNCTIONING SYSTEM BY SYMPTOM DIAGNOSIS

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

Is the symptom described?

YES >> GO TO 7.

NO >> Monitor input data from related sensors or check voltage of related module terminals using CONSULT.

7. DETECT MALFUNCTIONING PART BY DIAGNOSIS PROCEDURE

DIAGNOSIS AND REPAIR WORK FLOW

[WITH INTELLIGENT KEY SYSTEM]

< BASIC INSPECTION >

Inspect according to Diagnosis Procedure of the system.

Is malfunctioning part detected?

YES >> GO TO 8.

NO >> Check according to [GI-45. "Intermittent Incident"](#).

8. REPAIR OR REPLACE THE MALFUNCTIONING PART

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

>> GO TO 9.

9. FINAL CHECK

When DTC is detected in step 2, perform DTC CONFIRMATION PROCEDURE again, and then check that the malfunction is repaired securely.

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

Is DTC detected and does symptom remain?

YES-1 >> DTC is detected: GO TO 7.

YES-2 >> Symptom remains: GO TO 4.

NO >> Before returning the vehicle to the customer, always erase DTC.

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INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[WITH INTELLIGENT KEY SYSTEM]

INSPECTION AND ADJUSTMENT ECM RE-COMMUNICATING FUNCTION

ECM RE-COMMUNICATING FUNCTION : Description

INFOID:0000000010593808

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

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

NOTE:

- When registering new Key IDs or replacing the ECM that is not brand new, follow the instruction of CONSULT display.
- 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:0000000010593809

1. PERFORM ECM RE-COMMUNICATING FUNCTION

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

Can engine be started?

- YES >> Procedure is completed.
NO >> Initialize control unit.

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

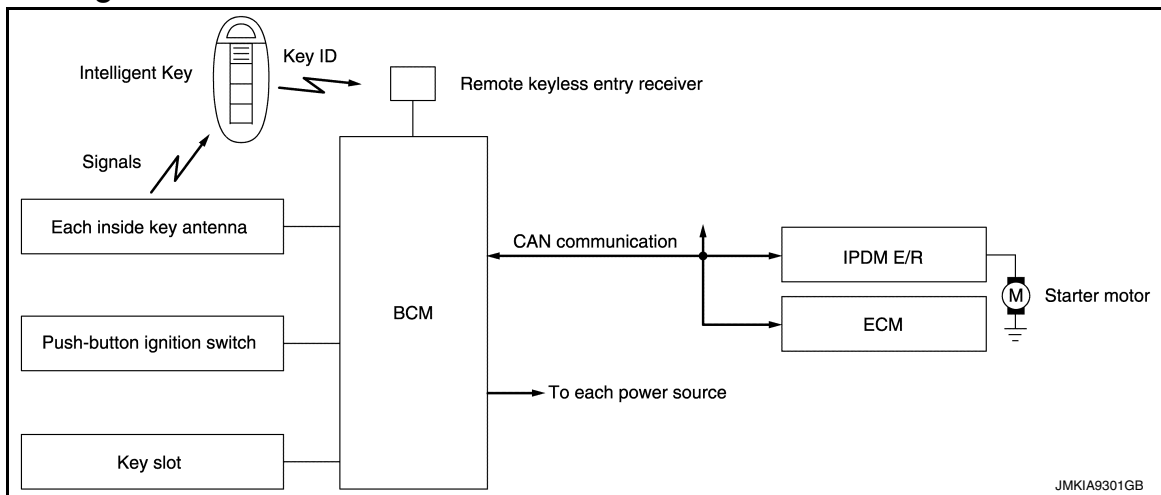
< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

SYSTEM DESCRIPTION

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

System Diagram



System Description

INFOID:0000000010593811

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 IVIS (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 IVIS (NATS) ID verification. If it is used when the Intelligent Key is carried, perform the Intelligent Key ID verification.
- 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 can be registered up to 4 keys (Including the standard Intelligent Key) on request from the owner.

NOTE:

- Refer to [DLK-15. "INTELLIGENT KEY SYSTEM : System Diagram"](#) for any functions other than engine start function of Intelligent Key system.

PRECAUTIONS FOR INTELLIGENT KEY SYSTEM

In the Intelligent Key system, the transponder [the chip for IVIS (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 IVIS (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, the BCM activates the inside key antenna and transmits the request signal to the Intelligent Key.
2. The Intelligent Key receives the request signal and transmits the Intelligent Key ID signal to the BCM.
3. The BCM receives the Intelligent Key ID signal via the remote keyless entry receiver, and verifies it with the registered ID.

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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

4. BCM turns ACC relay ON and transmits the ignition power supply ON signal to IPDM E/R.
5. IPDM E/R turns the ignition relay ON to start 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 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 indicating that the engine is started, the BCM transmits a stop signal to IPDM E/R and stops the cranking by turning OFF the starter motor relay. (If the engine initiating has failed, the cranking will stop automatically within 5 seconds.)

CAUTION:

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

*: For the engine start condition, refer to “POWER SUPPLY POSITION CHANGE TABLE BY PUSH-BUTTON IGNITION SWITCH OPERATION”.

OPERATION RANGE

Engine can be started when Intelligent Key is inside the vehicle. However, sometimes engine 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 IVIS (NATS) ID verification between the integrated transponder and BCM by inserting the Intelligent Key into the key slot, and then the engine can be started.

For details relating to starting the engine using key slot, refer to [SEC-14, "System Description"](#).

POWER SUPPLY POSITION CHANGE TABLE BY PUSH-BUTTON IGNITION SWITCH OPERATION

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 and 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
 - Selector lever position
 - Vehicle speed

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

Power supply position	Engine start/stop condition		Push-button ignition switch operation frequency
	Selector lever position	Brake pedal operation condition	
OFF → ACC	—	Not depressed	1
OFF → ACC → ON	—	Not depressed	2
OFF → ACC → ON → OFF	—	Not depressed	3
OFF → START ACC → START ON → START	P or N position	Depressed	1
Engine is running → OFF	—	—	1

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

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

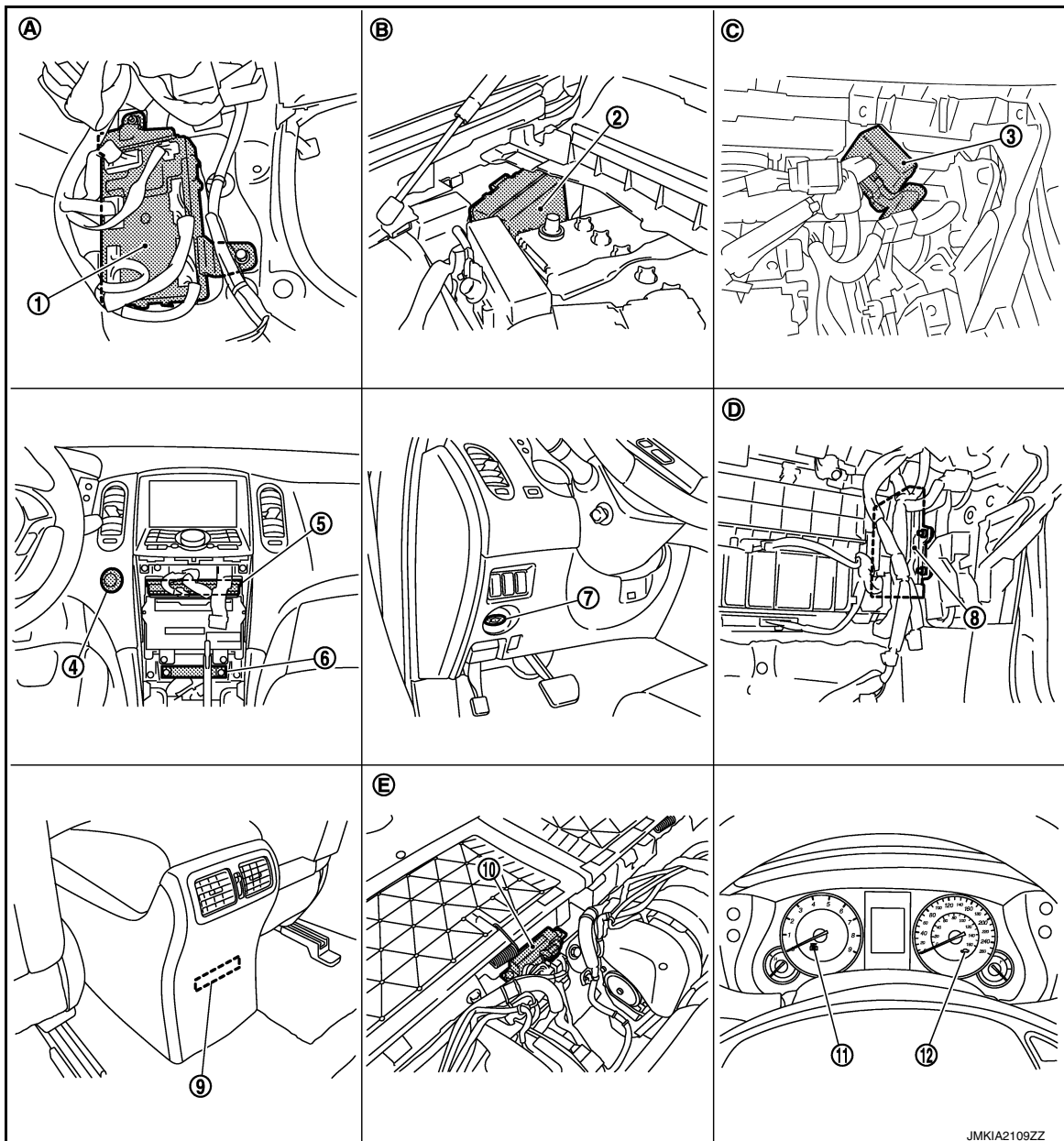
Power supply position	Engine start/stop condition		Push-button ignition switch operation frequency
	Selector lever position	Brake pedal operation condition	
Engine is running → ACC	—	—	Emergency stop operation
Engine stall return operation while driving	N position	Not depressed	1

Emergency stop operation

- Press and hold the push-button ignition switch for 2 seconds or more.
- Press the push-button ignition switch 3 times or more within 1.5 seconds.

Component Parts Location

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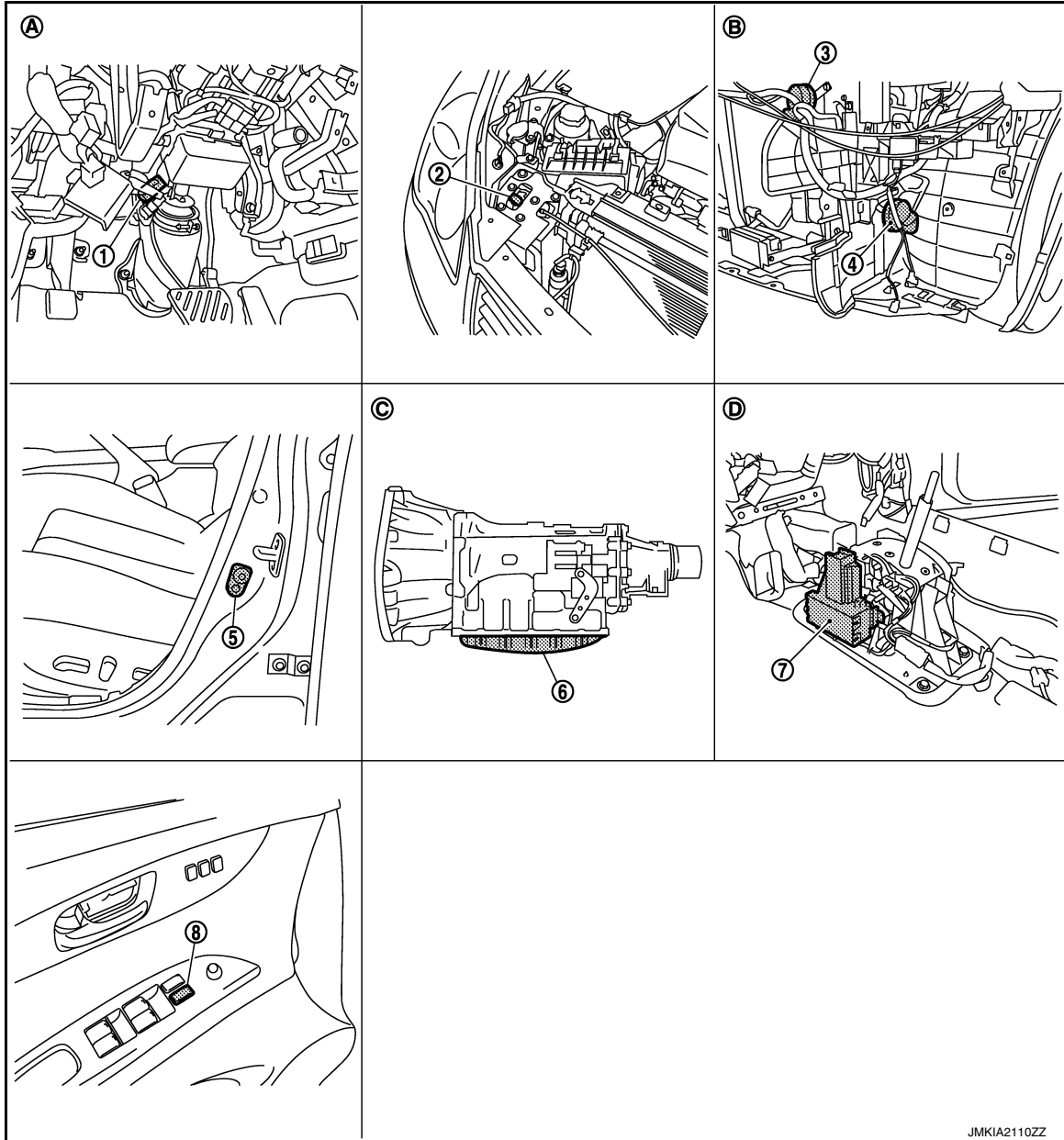
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| 1. BCM | 2. IPDM E/R | 3. Remote keyless entry receiver |
| 4. Push-button ignition switch | 5. Unified meter and A/C amp. | 6. Inside key antenna (instrument center) |
| 7. Key slot | 8. ECM | 9. Inside key antenna (console) |

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

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|---|--|---|
| 10. Inside key antenna (luggage room) | 11. Combination meter (KEY warning lamp) | 12. Combination meter (security indicator lamp) |
| A. Dash side lower (passenger side) | B. Engine room dash panel (RH) | C. Behind the instrument assist lower panel |
| D. Behind the instrument assist lower panel | E. Under the rear seat seatback | |



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| 1. Stop lamp switch | 2. Hood switch | 3. Horn (high) |
| 4. Horn (low) | 5. Front door switch (driver side) | 6. TCM (built into A/T assembly) |
| 7. A/T shift selector (detention switch) | 8. Power window main switch (door lock and unlock switch) | |
| A. Behind the instrument driver lower cover | B. Behind the front bumper | C. A/T assembly |
| D. View with the center console assembly removed | | |

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Component Description

INFOID:000000010593813

Component	Reference
Push-button ignition switch	SEC-73
Door switch	DLK-63
A/T shift selector (detention switch)	SEC-53
Inside key antenna	DLK-58
Remote keyless entry receiver	DLK-78
Stop lamp switch	SEC-47
Transmission range switch	SEC-62
Starter relay	SEC-66
Starter control relay	SEC-52
Security indicator lamp	SEC-93
Key warning lamp	SEC-94

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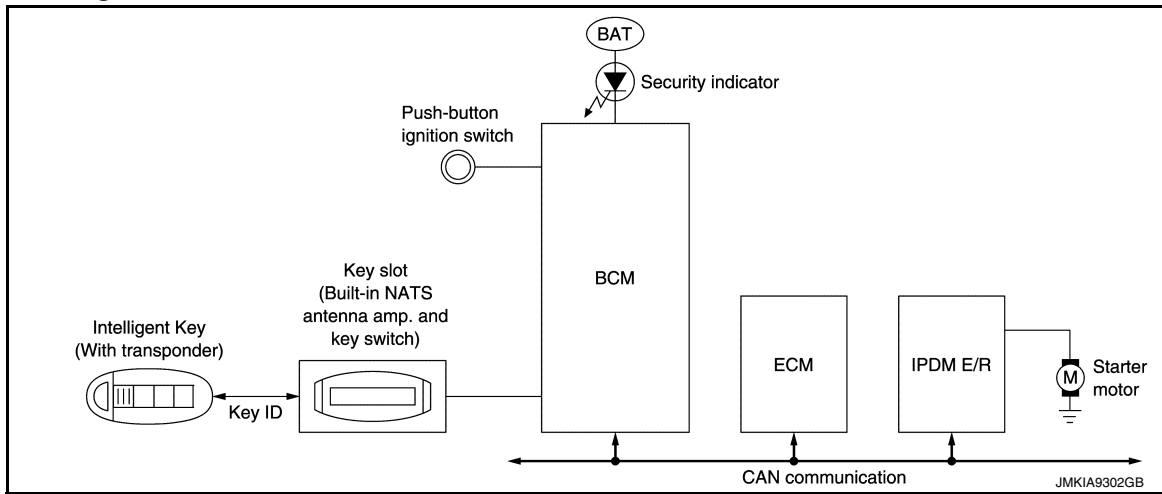
INFINITI VEHICLE IMMOBILIZER SYSTEM-NATS

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

INFINITI VEHICLE IMMOBILIZER SYSTEM-NATS

System Diagram



System Description

INFOID:000000010593815

SYSTEM DESCRIPTION

- The IVIS (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 IVIS (NATS) ID verification when inserting the Intelligent Key and performs the Intelligent Key ID verification when carrying the Intelligent Key.
- The mechanical key integrated in the Intelligent Key cannot start the engine. When the Intelligent Key battery is discharged, the IVIS (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 lamp, that warns the IVIS (NATS) is on board the model.
- Security indicator lamp always blinks when the ignition switch is in any position except the ON 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 IVIS (NATS) and registration procedure for Intelligent Key when installing the BCM, follow the instruction of CONSULT display.
- Possible symptom of IVIS (NATS) malfunction is "Engine can not start". The engine can be started with the Intelligent Key system and IVIS (NATS). Identify the possible causes according to "Work Flow", Refer to [SEC-5, "Work Flow"](#).
- If ECM other than Genuine NISSAN is installed, the engine cannot be started. For ECM replacement procedure, refer to [SEC-8, "ECM RE-COMMUNICATING FUNCTION : Special Repair Requirement"](#).

PRECAUTIONS FOR KEY REGISTRATION

- The key registration is a procedure that erases the current IVIS (NATS) ID once, and then 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 (IVIS "NATS" ID registration and Intelligent Key ID registration).
The IVIS (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 IVIS (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 LAMP

- Warns that the vehicle is equipped with IVIS (NATS).

INFINITI VEHICLE IMMOBILIZER SYSTEM-NATS

[WITH INTELLIGENT KEY SYSTEM]

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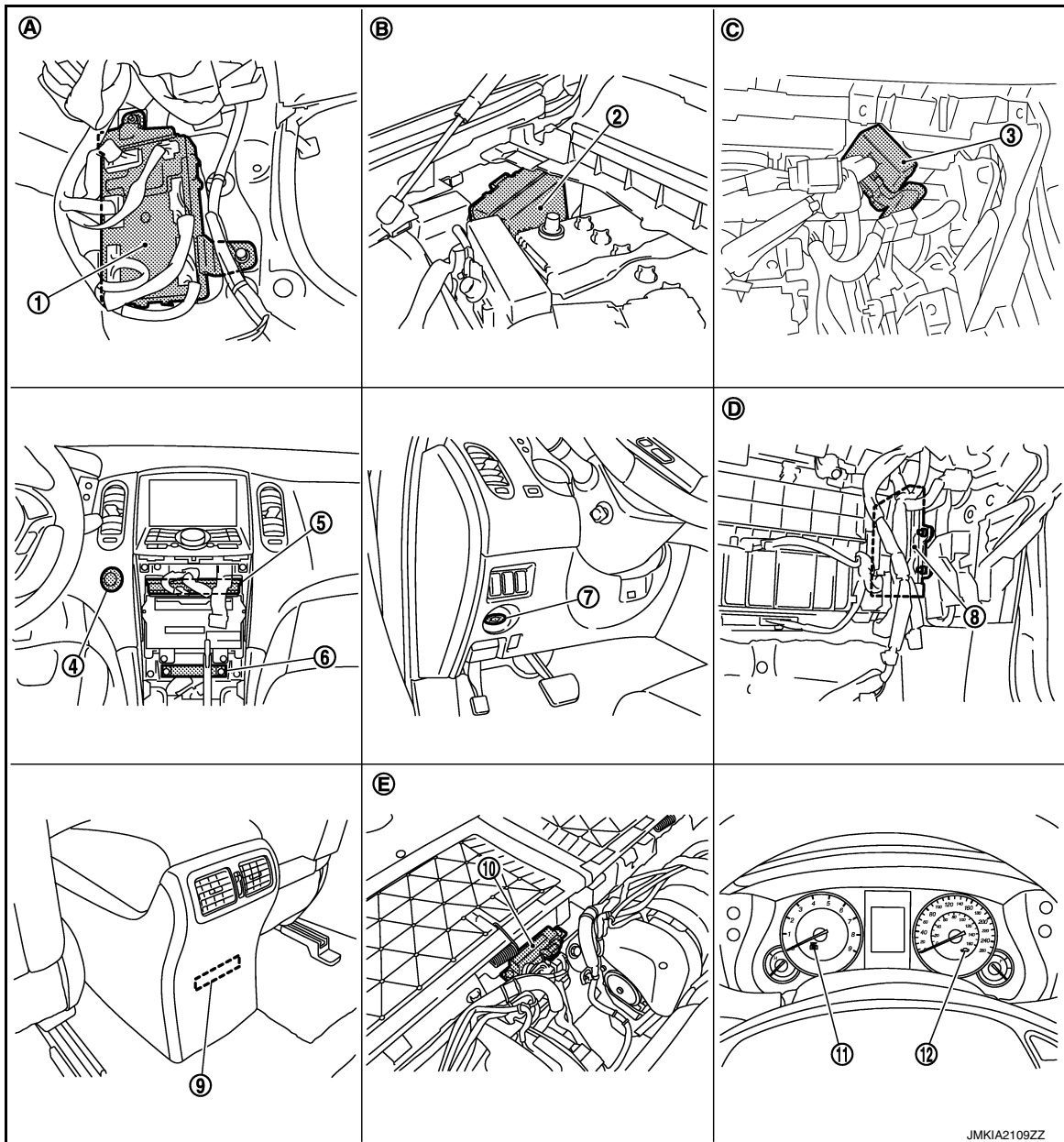
- Security indicator lamp always blinks when the ignition switch is in any position except the ON position.

NOTE:

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

Component Parts Location

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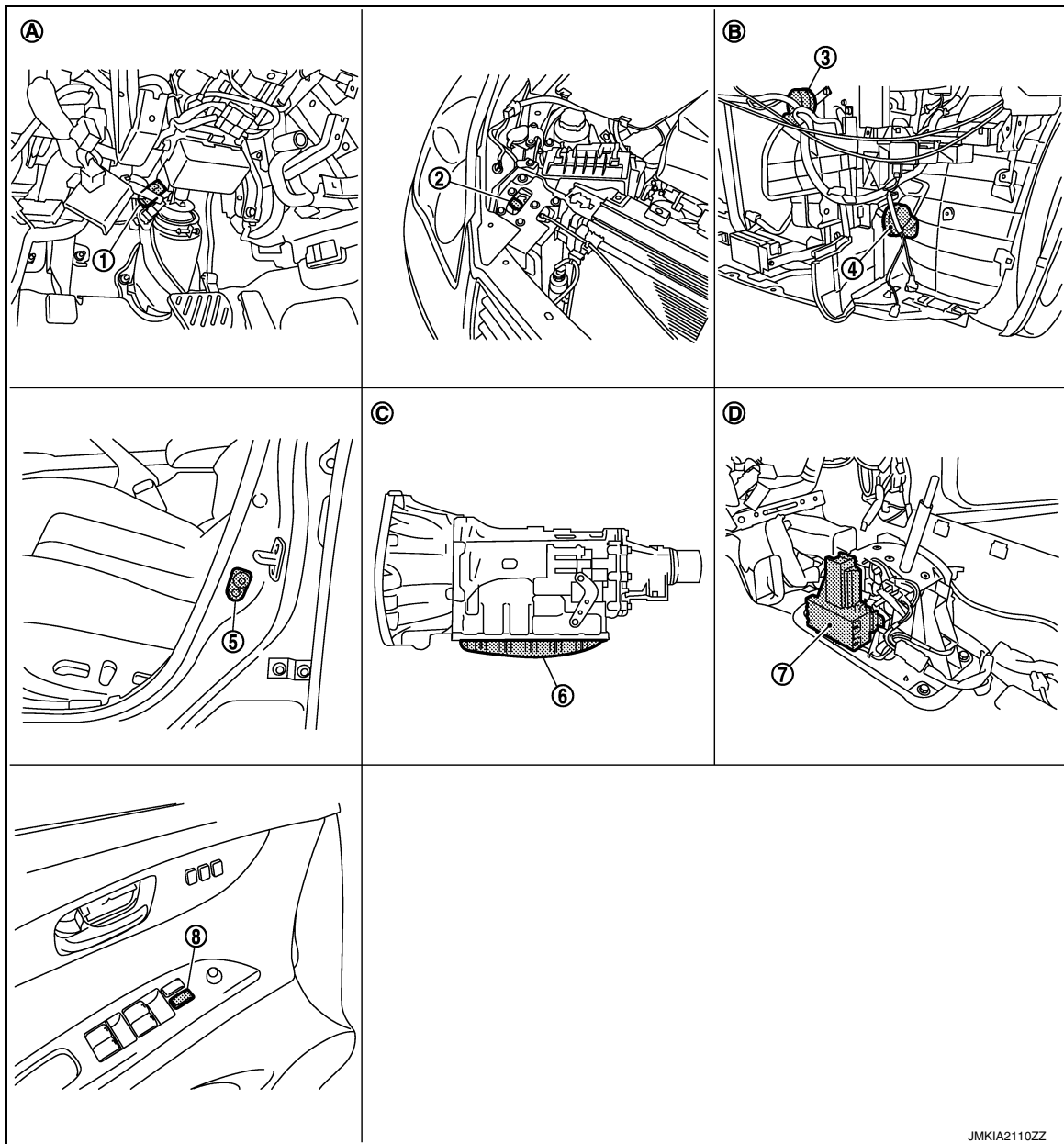
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|---|--|---|
| 1. BCM | 2. IPDM E/R | 3. Remote keyless entry receiver |
| 4. Push-button ignition switch | 5. Unified meter and A/C amp. | 6. Inside key antenna (instrument center) |
| 7. Key slot | 8. ECM | 9. Inside key antenna (console) |
| 10. Inside key antenna (luggage room) | 11. Combination meter (KEY warning lamp) | 12. Combination meter (security indicator lamp) |
| A. Dash side lower (passenger side) | B. Engine room dash panel (RH) | C. Behind the instrument assist lower panel |
| D. Behind the instrument assist lower panel | E. Under the rear seat seatback | |

INFINITI VEHICLE IMMOBILIZER SYSTEM-NATS

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]



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|--|---|----------------------------------|
| 1. Stop lamp switch | 2. Hood switch | 3. Horn (high) |
| 4. Horn (low) | 5. Front door switch (driver side) | 6. TCM (built into A/T assembly) |
| 7. A/T shift selector (detention switch) | 8. Power window main switch (door lock and unlock switch) | |
| A. Behind the instrument driver lower cover | B. Behind the front bumper | C. A/T assembly |
| D. View with the center console assembly removed | | |

Component Description

INFOID:000000010593817

Component	Reference
Push-button ignition switch	SEC-73. "Description"
Door switch	DLK-63. "Description"
key slot	DLK-95. "Description"
A/T shift selector (detention switch)	SEC-53. "Description"

INFINITI VEHICLE IMMOBILIZER SYSTEM-NATS

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Component	Reference
Inside key antenna	DLK-58. "Description"
Remote keyless entry receiver	DLK-78. "Description"
Stop lamp switch	SEC-47. "Description"
Transmission range switch	SEC-62. "Description"
Starter relay	SEC-66. "Description"
Starter control relay	SEC-52. "Description"
Security indicator lamp	SEC-93. "Description"
Key warning lamp	SEC-94. "Description"

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VEHICLE SECURITY SYSTEM

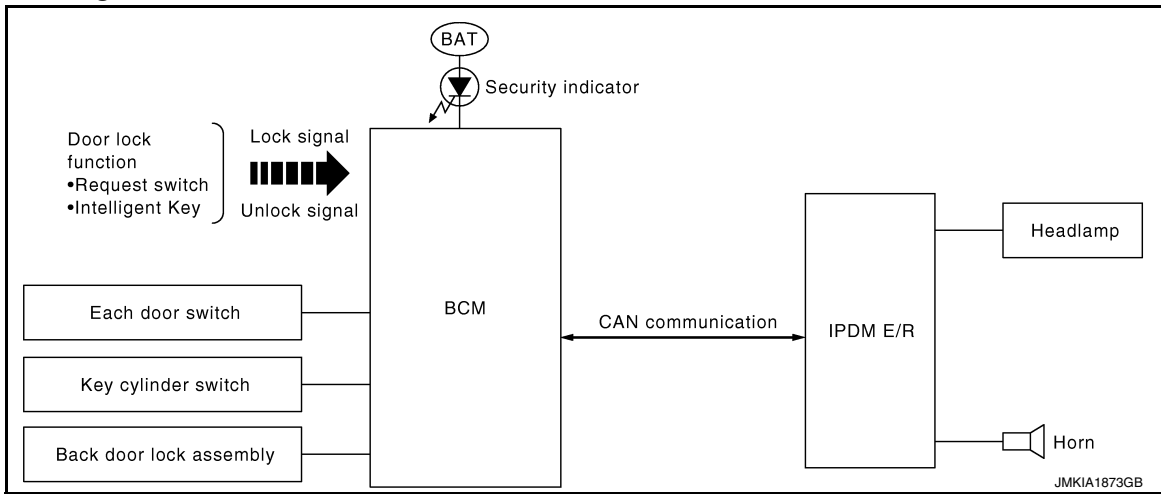
[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

VEHICLE SECURITY SYSTEM

System Diagram

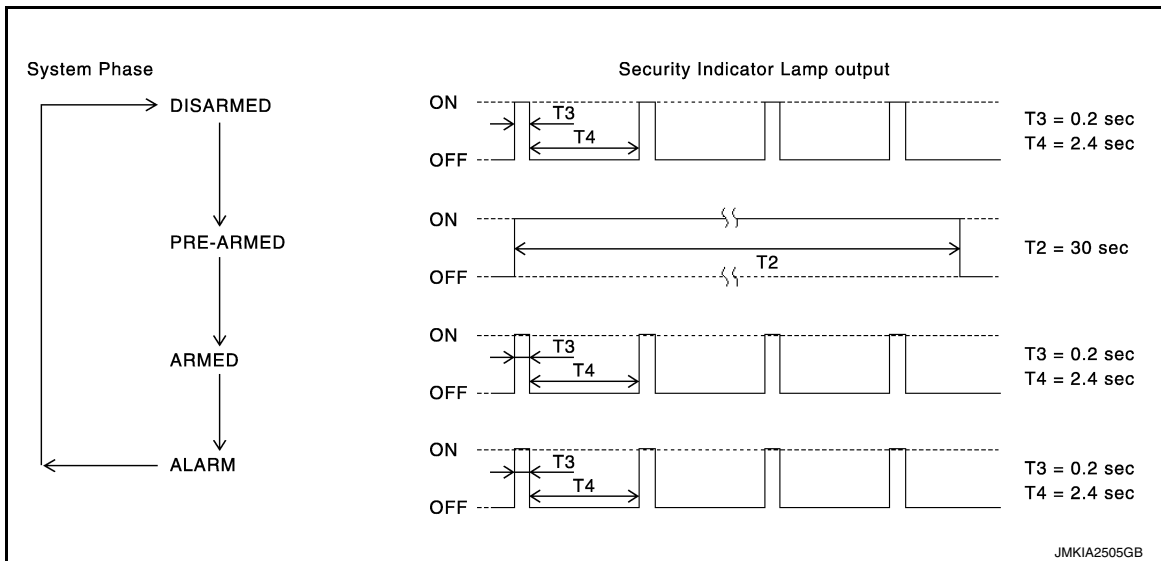
INFOID:0000000010593818



System Description

INFOID:0000000010593819

OPERATION FLOW



SETTING THE VEHICLE SECURITY SYSTEM

Initial Condition

Ignition switch is in OFF position.

Disarmed Phase

- When any door or back door 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, security indicator lamp blinks every 2.4 seconds.

Pre-armed Phase and Armed Phase

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

1. BCM receives LOCK signal from front door request switch, Intelligent Key or door key cylinder, after back door and all doors are closed.
2. Security indicator lamp illuminates for 30 seconds. Then, the system automatically shifts into the “armed” phase.

CANCELING THE SET VEHICLE SECURITY SYSTEM

VEHICLE SECURITY SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

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

1. Unlock the all doors with the door request switch, Intelligent Key or door key cylinder.
2. Turn ignition switch "ON" or "ACC" position.

A

CANCELING THE ALARM OPERATION OF THE VEHICLE SECURITY SYSTEM

When unlocking the all doors with the door request switch, Intelligent Key or door key cylinder switch the alarm operation is canceled.

B

ACTIVATING THE ALARM OPERATION OF THE VEHICLE SECURITY SYSTEM

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

C

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

D

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

E

PANIC ALARM OPERATION

Intelligent Key system may or may not operate vehicle security system (horn and headlamps) as required.

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

F

When headlamp relay and horn relay are energized, then power is supplied to headlamps (high beam and low beam) and horns (high and low).

The headlamps flash and the horn sounds intermittently.

G

The alarm automatically turns off after 50 seconds or when BCM receives any signal from Intelligent Key, door request switch or door key cylinder.

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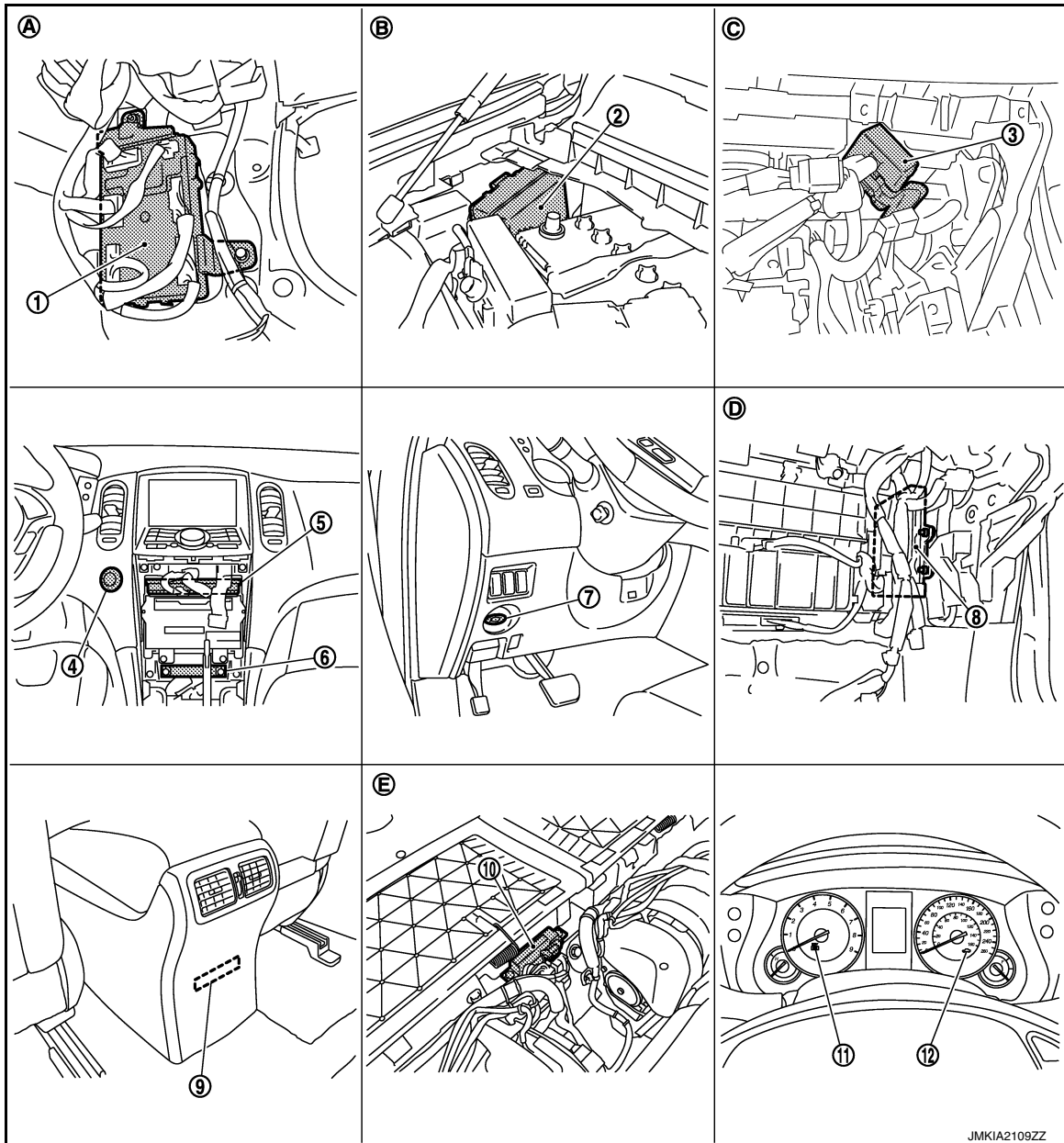
VEHICLE SECURITY SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Component Parts Location

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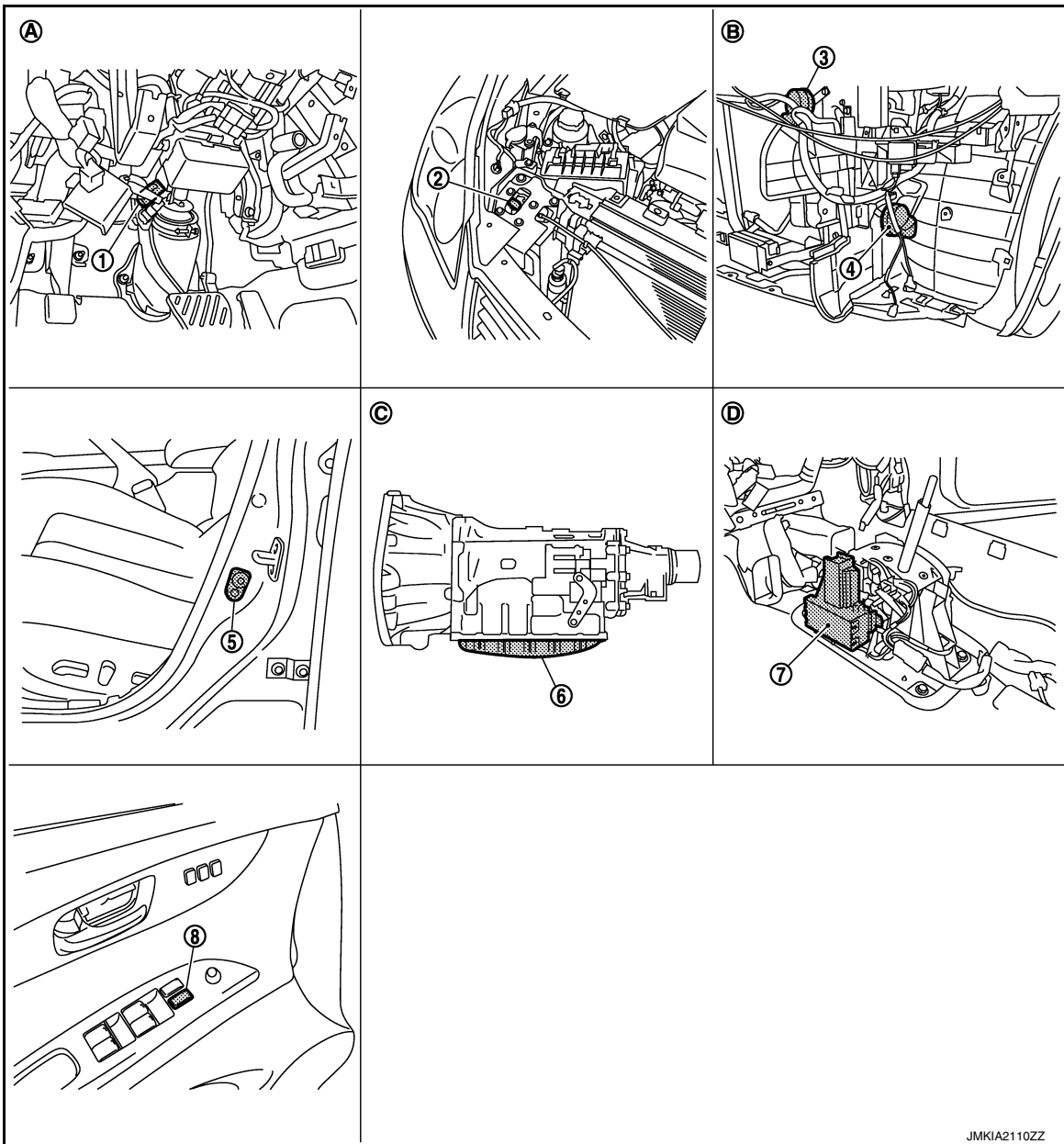
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- | | | |
|---|--|---|
| 1. BCM | 2. IPDM E/R | 3. Remote keyless entry receiver |
| 4. Push-button ignition switch | 5. Unified meter and A/C amp. | 6. Inside key antenna (instrument center) |
| 7. Key slot | 8. ECM | 9. Inside key antenna (console) |
| 10. Inside key antenna (luggage room) | 11. Combination meter (KEY warning lamp) | 12. Combination meter (security indicator lamp) |
| A. Dash side lower (passenger side) | B. Engine room dash panel (RH) | C. Behind the instrument assist lower panel |
| D. Behind the instrument assist lower panel | E. Under the rear seat seatback | |

VEHICLE SECURITY SYSTEM

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]



- | | | |
|--|---|----------------------------------|
| 1. Stop lamp switch | 2. Hood switch | 3. Horn (high) |
| 4. Horn (low) | 5. Front door switch (driver side) | 6. TCM (built into A/T assembly) |
| 7. A/T shift selector (detention switch) | 8. Power window main switch (door lock and unlock switch) | |
| A. Behind the instrument driver lower cover | B. Behind the front bumper | C. A/T assembly |
| D. View with the center console assembly removed | | |

Component Description

INFOID:0000000010593821

Component	Reference
Horn relay 1	DLK-99. "Description"
Horn relay 2	DLK-99. "Description"
Security indicator lamp	SEC-93. "Description"
Door switch	DLK-63. "Description"

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SEC

VEHICLE SECURITY SYSTEM

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Component	Reference
Hood switch	SEC-90. "Description"
Back door lock assembly (door witch)	DLK-63. "Description"
Door key cylinder switch	DLK-76. "Description"

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000011016842

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

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

×: Applicable item

System	Sub system selection item	Diagnosis mode		
		Work Support	Data Monitor	Active Test
Door lock	DOOR LOCK	×	×	×
Rear window defogger	REAR DEFOGGER		×	×
Warning chime	BUZZER		×	×
Interior room lamp timer	INT LAMP	×	×	×
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER	×	×	×
—	AIR CONDITONER*			
<ul style="list-style-type: none"> Intelligent Key system Engine start system 	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
Body control system	BCM	×		
IVIS - NATS	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Back door open system	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×
TPMS	AIR PRESSURE MONITOR	×	×	×

NOTE:

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

FREEZE FRAME DATA (FFD)

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

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

CONSULT screen item	Indication/Unit	Description	
Vehicle Speed	km/h	Vehicle speed of the moment a particular DTC is detected	
Odo/Trip Meter	km	Total mileage (Odometer value) of the moment a particular DTC is detected	
Vehicle Condition	SLEEP>LOCK	Power supply position status of the moment a particular DTC is detected*	While turning BCM status from low power consumption mode to normal mode (Power supply position is "LOCK"*)
	SLEEP>OFF		While turning BCM status from low power consumption mode to normal mode (Power supply position is "OFF".)
	LOCK>ACC		While turning power supply position from "LOCK"* to "ACC"
	ACC>ON		While turning power supply position from "ACC" to "IGN"
	RUN>ACC		While turning power supply position from "RUN" to "ACC" (Except emergency stop operation)
	CRANK>RUN		While turning power supply position from "CRANKING" to "RUN" (From cranking up the engine to run it)
	RUN>URGENT		While turning power supply position from "RUN" to "ACC" (Emergency stop operation)
	ACC>OFF		While turning power supply position from "ACC" to "OFF"
	OFF>LOCK		While turning power supply position from "OFF" to "LOCK"*
	OFF>ACC		While turning power supply position from "OFF" to "ACC"
	ON>CRANK		While turning power supply position from "IGN" to "CRANKING"
	OFF>SLEEP		While turning BCM status from normal mode (Power supply position is "OFF".) to low power consumption mode
	LOCK>SLEEP		While turning BCM status from normal mode (Power supply position is "LOCK"*.) to low power consumption mode
	LOCK		Power supply position is "LOCK"*
	OFF		Power supply position is "OFF" (Ignition switch OFF)
	ACC		Power supply position is "ACC" (Ignition switch ACC)
	ON		Power supply position is "IGN" (Ignition switch ON with engine stopped)
ENGINE RUN	Power supply position is "RUN" (Ignition switch ON with engine running)		
CRANKING	Power supply position is "CRANKING" (At engine cranking)		
IGN Counter	0 - 39	The number of times that ignition switch is turned ON after DTC is detected <ul style="list-style-type: none"> • The number is 0 when a malfunction is detected now. • The number increases like 1 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. • The number is fixed to 39 until the self-diagnosis results are erased if it is over 39. 	

NOTE:

*: Power supply position shifts to "LOCK" from "OFF", when ignition switch is in the OFF position, selector lever is in the P position, and any of the following conditions are met.

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

The power supply position shifts to "ACC" when the push-button ignition switch (push switch) is pushed at "LOCK".

INTELLIGENT KEY

INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)

INFOID:000000011016840

WORK SUPPORT

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Monitor item	Description
CONFIRM KEY FOB ID	It can be checked whether Intelligent Key ID code is registered or not in this mode.
AUTO LOCK SET	Auto door lock time can be changed in this mode. <ul style="list-style-type: none"> • MODE 1: 1 minute • MODE 2: 5 minutes • MODE 3: 30 seconds • MODE 4: 2 minutes
LOCK/UNLOCK BY I-KEY	Door lock/unlock function by door request switch (driver side, passenger side and back door) 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. <ul style="list-style-type: none"> • MODE 1: 0.5 sec. • MODE 2: Non-operation • MODE 3: 1.5 sec.
PW DOWN SET	Unlock button pressing time on Intelligent Key button can be selected from the following with this mode. <ul style="list-style-type: none"> • MODE 1: 3 sec. • MODE 2: Non-operation • MODE 3: 5 sec.
TAKE OUT FROM WIN WARN	NOTE: This item is displayed, but cannot be supported.
TRUNK OPEN DELAY	NOTE: This item is displayed, but cannot be supported.
LO- BATT OF KEY FOB WARN	Intelligent Key low battery warning mode can be changed to operate (ON) or not operate (OFF) with this mode.
ANTI KEY LOCK IN FUNCTI	Key reminder function mode can be changed to operate (ON) or not operate (OFF) with this mode.
HAZARD ANSWER BACK	Hazard reminder function mode can be selected from the following with this mode. <ul style="list-style-type: none"> • LOCK ONLY: Door lock operation only • UNLOCK ONLY: Door unlock operation only • LOCK/UNLOCK: Lock/unlock operation • OFF: Non-operation
ANS BACK I-KEY LOCK	Buzzer reminder function (lock operation) mode by door request switch (driver side and passenger side) can be selected from the following with this mode. <ul style="list-style-type: none"> • Horn chirp: Sound horn • Buzzer: Sound Intelligent Key warning buzzer • OFF: Non-operation
ANS BACK I-KEY UNLOCK	Buzzer reminder function (unlock operation) mode by door request switch can be changed to operate (ON) or not operate (OFF) with this mode.
SHORT CRANKING OUTPUT	Starter motor can operate during the times below. <ul style="list-style-type: none"> • 70 msec. • 100 msec. • 200 msec.
INSIDE ANT DIAGNOSIS	This function allows inside key antenna self-diagnosis.
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.
WELCOME LIGHT OP SET	Welcome light function mode can be changed to operate (WITH) or not operate (WITHOUT) with this mode.
WELCOME LIGHT SELECT	Welcome light function mode can be selected from the following with this mode. <ul style="list-style-type: none"> • Without room lamp • With room lamp • Without paddle lamp • With paddle lamp

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DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

SELF-DIAG RESULT

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

DATA MONITOR

NOTE:

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

Monitor Item	Condition
REQ SW -DR	Indicates [ON/OFF] condition of door request switch (driver side).
REQ SW -AS	Indicates [ON/OFF] condition of door request switch (passenger side).
REQ SW -RR	NOTE: This item is displayed, but cannot be monitored.
REQ SW -RL	NOTE: This item is displayed, but cannot be monitored.
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.
CLUCH SW	NOTE: This item is displayed, but cannot be monitored.
BRAKE SW 1	Indicates [ON/OFF] 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.
S/L -LOCK	NOTE: This item is displayed, but cannot be monitored.
S/L -UNLOCK	NOTE: This item is displayed, but cannot be monitored.
S/L RELAY -F/B	NOTE: This item is displayed, but cannot be monitored.
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/START/CRANK/RUN] condition of engine states.
S/L LOCK-IPDM	NOTE: This item is displayed, but cannot be monitored.
S/L UNLK-IPDM	NOTE: This item is displayed, but cannot be monitored.
S/L RELAY-REQ	NOTE: This item is displayed, but cannot be monitored.
VEH SPEED 1	Display the vehicle speed signal received from unified meter and A/C amp. by numerical value [Km/h].
VEH SPEED 2	Display the vehicle speed signal received from ABS or VDC or CVT by numerical value [Km/h].
DOOR STAT-DR	Indicates [LOCK/READY/UNLOCK] condition of driver side door status.
DOOR STAT-AS	Indicates [LOCK/READY/UNLOCK] 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.

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[WITH INTELLIGENT KEY SYSTEM]

Monitor Item	Condition
PRMT RKE STRT	NOTE: This item is displayed, but cannot be monitored.
KEY SW -SLOT	Indicates [ON/OFF] condition of key slot.
TRNK/HAT MNTR	NOTE: This item is displayed, but cannot be monitored.
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	NOTE: This item is displayed, but cannot be monitored.
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.
RKE OPE COUN2	NOTE: This item is displayed, but cannot be monitored.

ACTIVE TEST

Test item	Description
BATTERY SAVER	This test is able to check interior room lamp operation. The interior room lamp will be activated after "ON" on CONSULT screen is touched.
PW REMOTO DOWN SET	This test is able to check power window down operation. The power window down will be activated after "ON" on CONSULT screen is touched.
INSIDE BUZZER	This test is able to check warning chime in combination meter operation. <ul style="list-style-type: none"> • Take away warning chime sounds when "TAKE OUT" on CONSULT screen is touched. • Key warning chime sounds when "KEY WARN" on CONSULT screen is touched. • P position warning chime sounds when "P RNG WARN" on CONSULT screen is touched. • ACC warning chime sounds when "ACC WARN" on CONSULT screen is touched.
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation. The Intelligent Key warning buzzer will be activated after "ON" on CONSULT screen is touched.
INDICATOR	This test is able to check warning lamp operation. <ul style="list-style-type: none"> • "KEY" Warning lamp illuminates when "KEY ON" on CONSULT screen is touched. • "KEY" Warning lamp flashes when "KEY IND" on CONSULT screen is touched.
INT LAMP	This test is able to check interior room lamp operation. The interior room lamp will be activated after "ON" on CONSULT screen is touched.
LCD	This test is able to check meter display information <ul style="list-style-type: none"> • Engine start information displays when "BP N" on CONSULT screen is touched. • Engine start information displays when "BP I" on CONSULT screen is touched. • Key ID warning displays when "ID NG" on CONSULT screen is touched. • ROTAT: This item is displayed, but cannot be tested. • P position warning displays when "SFT P" on CONSULT screen is touched. • Intelligent Key insert information displays when "INSRT" on CONSULT screen is touched. • Intelligent Key low battery warning displays when "BATT" on CONSULT screen is touched. • Take away through window warning displays when "NO KY" on CONSULT screen is touched. • Take away warning display when "OUTKY" on CONSULT screen is touched. • OFF position warning display when "LK WN" on CONSULT screen is touched.
TRUNK/GLASS HATCH	This test is able to check back door opener actuator open operation. This actuator opens when "ON" on CONSULT screen is touched.
FLASHER	This test is able to check hazard warning lamp operation. The hazard warning lamps will be activated after "ON" on CONSULT screen is touched.
HORN	This test is able to check horn operation. The horn will be activated after "ON" on CONSULT screen is touched.
P RANGE	This test is able to check A/T shift selector power supply A/T shift selector power is supplied when "ON" on CONSULT screen is touched.

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

Test item	Description
ENGINE SW ILLUMI	This test is able to check push-ignition switch illumination operation. Push-ignition switch illumination illuminates when "ON" on CONSULT screen is touched.
LOCK INDICATOR	This test is able to check LOCK indicator in push-ignition switch operation. LOCK indicator in push-ignition switch illuminates when "ON" on CONSULT screen is touched;
ACC INDICATOR	This test is able to check ACC indicator in push-ignition switch operation. Indicator in push-ignition switch illuminates when "ON" on CONSULT screen is touched.
IGNITION ON IND	This test is able to check ON indicator in push-ignition switch operation. Indicator in push-ignition switch illuminates when "ON" on CONSULT screen is touched.
KEY SLOT ILLUMI	This test is able to check key slot illumination operation. Key slot illumination flash when "ON" on CONSULT screen is touched.
TRUNK/BACK DOOR	NOTE: This item is displayed, but cannot be tested.

THEFT ALM

THEFT ALM : CONSULT Function (BCM - THEFT)

INFOID:000000010593824

DATA MONITOR

NOTE:

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

Monitored Item	Description
REQ SW -DR	Indicates [ON/OFF] condition of door request switch (driver side).
REQ SW -AS	Indicates [ON/OFF] condition of door request switch (passenger side).
REQ SW -RR	NOTE: This is displayed even when it is not equipped.
REQ SW -RL	NOTE: This is displayed even when it is not equipped.
REQ SW -BD/TR	Indicates [ON/OFF] condition of back door request switch.
PUSH SW	Indicates [ON/OFF] condition of push-button ignition switch
UNLK SEN -DR	Indicates [ON/OFF] condition of driver door UNLOCK status.
KEY SW -SLOT	Indicates [ON/OFF] condition of key slot.
DOOR SW-DR	Indicates [ON/OFF] condition of front door switch LH.
DOOR SW-AS	Indicates [ON/OFF] condition of front door switch RH.
DOOR SW-RR	Indicates [ON/OFF] condition of rear door switch RH.
DOOR SW-RL	Indicates [ON/OFF] condition of rear door switch LH.
DOOR SW-BK	Indicates [ON/OFF] condition of back door switch.
CDL LOCK SW	Indicates [ON/OFF] condition of lock signal from door lock/unlock switch LH and RH.
CDL UNLOCK SW	Indicates [ON/OFF] condition of unlock signal from door lock/unlock switch LH and RH.
KEY CYL LK-SW	Indicates [ON/OFF] condition of lock signal from front door key cylinder switch.
KEY CYL UN-SW	Indicates [ON/OFF] condition of unlock signal from front door key cylinder switch.
KEY CYL SW-TR	NOTE: This is displayed even when it is not equipped.
TR/BD OPEN SW	Indicates [ON/OFF] condition of back door opener switch.
TRNK/HAT MNTR	NOTE: This is displayed even when it is not equipped.
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	NOTE: This is displayed even when it is not equipped.

DIAGNOSIS SYSTEM (BCM)

[WITH INTELLIGENT KEY SYSTEM]

< SYSTEM DESCRIPTION >

WORK SUPPORT

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

ACTIVE TEST

Test Item	Description
THEFT IND	This test is able to check security indicator lamp operation. The lamp will be turned on when "ON" on CONSULT screen is touched.
VEHICLE SECURITY HORN	This test is able to check vehicle security horn operation. The horns will be activated for 0.5 seconds after "ON" on CONSULT screen is touched.
HEADLAMP(HI)	This test is able to check vehicle security lamp operation. The headlamps will be activated for 0.5 seconds after "ON" on CONSULT screen is touched.
FLASHER	This test is able to check vehicle security hazard lamp operation. The hazard lamps will be activated after "ON" on CONSULT screen is touched.

IMMU

IMMU : CONSULT Function (BCM - IMMU)

INFOID:000000010593825

DATA MONITOR

NOTE:

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

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

ACTIVE TEST

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

U1000 CAN COMM CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

DTC/CIRCUIT DIAGNOSIS

U1000 CAN COMM CIRCUIT

BCM

BCM : Description

INFOID:0000000010593826

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

BCM : DTC Logic

INFOID:0000000010593827

DTC DETECTION LOGIC

DTC	CONSULT display description	DTC Detection Condition	Possible cause
U1000	CAN COMM CIRCUIT	When BCM cannot communicate CAN communication signal continuously for 2 seconds or more.	CAN communication system

BCM : Diagnosis Procedure

INFOID:0000000010593828

1.PERFORM SELF DIAGNOSTIC

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

Is "U1000: CAN COMM CIRCUIT" displayed?

YES >> Refer to [LAN-16, "Trouble Diagnosis Flow Chart"](#).

NO >> Refer to [GI-45, "Intermittent Incident"](#).

IPDM E/R

IPDM E/R : Description

INFOID:0000000010593829

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

IPDM E/R : DTC Logic

INFOID:0000000010593830

DTC DETECTION LOGIC

DTC	CONSULT display description	DTC Detection Condition	Possible cause
U1000	CAN COMM CIRCUIT	When IPDM E/R cannot communicate CAN communication signal continuously for 2 seconds or more	CAN communication system

IPDM E/R : Diagnosis Procedure

INFOID:0000000010593831

1.PERFORM SELF DIAGNOSTIC

U1000 CAN COMM CIRCUIT

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

1. Turn ignition switch ON and wait for 2 seconds or more.
2. Check "Self Diagnostic Result" of IPDM E/R.

Is "CAN COMM CIRCUIT" displayed?

- YES >> Refer to [LAN-16, "Trouble Diagnosis Flow Chart"](#).
NO >> Refer to [GI-45, "Intermittent Incident"](#).

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U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

U1010 CONTROL UNIT (CAN)

BCM

BCM : DTC Logic

INFOID:0000000010593832

DTC DETECTION LOGIC

DTC	CONSULT display de- scription	DTC Detection Condition	Possible cause
U1010	CONTROL UNIT (CAN)	BCM detected internal CAN communication circuit malfunction.	BCM

BCM : Diagnosis Procedure

INFOID:0000000010593833

1.REPLACE BCM

When DTC "U1010: CONTROL UNIT (CAN)" is detected, replace BCM.

>> Replace BCM. Refer to [BCS-97. "Exploded View"](#).

BCM : Special Repair Requirement

INFOID:0000000010593834

1.REQUIRED WORK WHEN REPLACING BCM

Initialize control unit, follow the instruction of CONSULT display.

>> Work end.

P1610 LOCK MODE

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

P1610 LOCK MODE

Description

INFOID:0000000010593835

When the starting operation is carried more than five times consecutively under the following conditions, NATS will shift to the mode which prevents the engine from being started.

- Unregistered Intelligent Key is used.
- BCM or ECM is malfunctioning.

DTC Logic

INFOID:0000000010593836

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
P1610	LOCK MODE	When the starting operation is carried out five or more times consecutively under the following conditions. <ul style="list-style-type: none">• Unregistered Intelligent Key• BCM or ECM is malfunctioning.	—

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

- YES >> Go to [SEC-33. "Diagnosis Procedure"](#).
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000010593837

1.CHECK ENGINE START FUNCTION

1. Perform the check for DTC except DTC P1610.
2. Use CONSULT to erase DTC after fixing.
3. Turn ignition switch OFF.
4. Turn ignition switch ON when registered Intelligent Key insert into key slot and wait for 5 seconds.
5. Return the ignition switch OFF and wait 5 seconds.
6. Repeat steps 4 and 5 twice (total of 3 cycles).
7. Check that engine can start when registered Intelligent Key insert into key slot.

>> INSPECTION END

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P1611 ID DISCORD, IMMU-ECM

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

P1611 ID DISCORD, IMMU-ECM

Description

INFOID:000000010593838

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:000000010593839

DTC DETECTION LOGIC

NOTE:

- If DTC B1611 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-30, "BCM : DTC Logic"](#).
- If DTC B1611 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-32, "BCM : DTC Logic"](#).

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

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

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

Is DTC detected?

- YES >> Go to [SEC-34, "Diagnosis Procedure"](#).
NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000010593840

1.PERFORM INITIALIZATION

Perform initialization with CONSULT. Register all Intelligent Keys.
For initialization and registration of Intelligent Key, follow the instruction of CONSULT display.

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

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

2.REPLACE BCM

1. Replace BCM. Refer to [BCS-97, "Removal and Installation"](#).
2. Perform initialization with CONSULT.
For initialization, follow the instruction of CONSULT display.

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

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

3.CHECK INTERMITTENT INCIDENT

Refer to [GI-45, "Intermittent Incident"](#).

>> INSPECTION END

P1612 CHAIN OF ECM-IMMU

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

P1612 CHAIN OF ECM-IMMU

Description

INFOID:000000010593841

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:000000010593842

DTC DETECTION LOGIC

NOTE:

- If DTC P1612 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-30, "BCM : DTC Logic"](#).
- If DTC P1612 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-32, "BCM : DTC Logic"](#).

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

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" with CONSULT.

Is DTC detected?

- YES >> Go to [SEC-35, "Diagnosis Procedure"](#).
NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000010593843

1. REPLACE BCM

1. Replace BCM. Refer to [BCS-97, "Removal and Installation"](#).
2. Perform initialization with CONSULT.
For initialization, follow the instruction of CONSULT display.

Does the engine start?

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

2. REPLACE ECM

Replace ECM. Refer to [SEC-8, "ECM RE-COMMUNICATING FUNCTION : Description"](#).

>> INSPECTION END

P1614 CHAIN OF IMMU-KEY

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

P1614 CHAIN OF IMMU-KEY

Description

INFOID:0000000010593844

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

DTC Logic

INFOID:0000000010593845

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
P1614	CHAIN OF IMMU-KEY	Inactive communication between key slot and BCM.	<ul style="list-style-type: none">• Harness or connectors (key slot circuit is open or shorted)• Key slot• BCM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE 1

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

Is DTC detected?

- YES >> Go to [SEC-36, "Diagnosis Procedure"](#).
NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE 2

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

Is DTC detected?

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

Diagnosis Procedure

INFOID:0000000010593846

1. INSPECTION START

Perform inspection in accordance with procedure that confirms DTC.

Which procedure confirms DTC?

- DTC confirmation procedure 1 >> GO TO 2.
DTC confirmation procedure 2 >> GO TO 4.

2. CHECK KEY SLOT INPUT SIGNAL

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

(+)		(-)	Voltage (V) (Approx.)
Key slot			
Connector	Terminal	Ground	Battery voltage
M22	2		

Is the inspection result normal?

- YES >> Replace key slot. Refer to [SEC-196, "Removal and Installation"](#).
NO >> GO TO 3.

3. CHECK KEY SLOT CIRCUIT

1. Disconnect BCM connector.

P1614 CHAIN OF IMMU-KEY

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

2. Check continuity between key slot harness connector and BCM harness connector.

Key slot		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M22	2	M122	80	Existed

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

Key slot		Ground	Continuity
Connector	Terminal		
M22	2		Not existed

Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair or replace harness or connector.

4. CHECK PUSH-BUTTON IGNITION SWITCH OPERATION

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

Does ignition switch turn to ON?

YES >> GO TO 5.

NO >> GO TO 7.

5. CHECK KEY SLOT COMMUNICATION SIGNAL

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

(+)		(-)	Voltage (V) (Approx.)
Key slot			
Connector	Terminal		
M22	3	Ground	Battery voltage

Is the inspection result normal?

YES >> Replace key slot. Refer to [SEC-196. "Removal and Installation"](#).

NO >> GO TO 6.

6. CHECK KEY SLOT COMMUNICATION SIGNAL CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between key slot harness connector and BCM harness connector.

Key slot		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M22	3	M122	81	Existed

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

Key slot		Ground	Continuity
Connector	Terminal		
M22	3		Not existed

Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair or replace harness or connector.

7. CHECK KEY SLOT GROUND CIRCUIT

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

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P1614 CHAIN OF IMMU-KEY

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Key slot		Ground	Continuity
Connector	Terminal		Existed
M22	7		

Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair or replace harness or connector.

8. CHECK INTERMITTENT INCIDENT

Refer to [GI-45. "Intermittent Incident"](#).

>> INSPECTION END

P1615 DIFFERENCE OF KEY

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

P1615 DIFFERENCE OF KEY

Description

INFOID:0000000010593847

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

DTC Logic

INFOID:0000000010593848

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

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

Is DTC detected?

- YES >> Go to [SEC-39, "Diagnosis Procedure"](#).
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000010593849

1.PERFORM INITIALIZATION

Perform initialization with CONSULT. Register all Intelligent Keys. For initialization and registration of Intelligent Key, follow the instruction of CONSULT display.

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

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

2.REPLACE INTELLIGENT KEY

1. Replace Intelligent Key.
2. Perform initialization with CONSULT.
For initialization and registration of Intelligent Key, follow the instruction of CONSULT display.

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

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

3.CHECK INTERMITTENT INCIDENT

Refer to [GI-45, "Intermittent Incident"](#).

>> INSPECTION END

B2190 NATS ANTENNA AMP.

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

B2190 NATS ANTENNA AMP.

Description

INFOID:0000000010593850

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

DTC Logic

INFOID:0000000010593851

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

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

Is DTC detected?

- YES >> Go to [SEC-40, "Diagnosis Procedure"](#).
NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE

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

Is DTC detected?

- YES >> Go to [SEC-40, "Diagnosis Procedure"](#).
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000010593852

1. INSPECTION START

Perform inspection in accordance with procedure that confirms DTC.

Which procedure confirms DTC?

- DTC confirmation procedure 1 >> GO TO 2.
DTC confirmation procedure 2 >> GO TO 4.

2. CHECK KEY SLOT INPUT SIGNAL

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

(+)		(-)	Voltage (V) (Approx.)
Key slot			
Connector	Terminal		
M22	2	Ground	Battery voltage

Is the inspection result normal?

- YES >> Replace key slot. Refer to [SEC-196, "Removal and Installation"](#).
NO >> GO TO 3.

3. CHECK KEY SLOT CIRCUIT

B2190 NATS ANTENNA AMP.

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

1. Disconnect BCM connector.
2. Check continuity between key slot harness connector and BCM harness connector.

Key slot		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M22	2	M122	80	Existed

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

Key slot		Ground	Continuity
Connector	Terminal		
M22	2		Not existed

Is the inspection result normal?

- YES >> GO TO 8.
NO >> Repair or replace harness or connector.

4.CHECK PUSH-BUTTON IGNITION SWITCH OPERATION

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

Does ignition switch turn to ON?

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

5.CHECK KEY SLOT COMMUNICATION SIGNAL

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

(+)		(-)	Voltage (V) (Approx.)
Key slot			
Connector	Terminal		
M22	3	Ground	Battery voltage

Is the inspection result normal?

- YES >> Replace key slot. Refer to [SEC-196. "Removal and Installation"](#).
NO >> GO TO 6.

6.CHECK KEY SLOT COMMUNICATION SIGNAL CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between key slot harness connector and BCM harness connector.

Key slot		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M22	3	M122	81	Existed

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

Key slot		Ground	Continuity
Connector	Terminal		
M22	3		Not existed

Is the inspection result normal?

- YES >> GO TO 8.
NO >> Repair or replace harness or connector.

7.CHECK KEY SLOT GROUND CIRCUIT

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

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B2190 NATS ANTENNA AMP.

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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

Key slot		Ground	Continuity
Connector	Terminal		
M22	7		Existed

Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair or replace harness or connector.

8. CHECK INTERMITTENT INCIDENT

Refer to [GI-45. "Intermittent Incident"](#).

>> INSPECTION END

B2191 DIFFERENCE OF KEY

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

B2191 DIFFERENCE OF KEY

Description

INFOID:0000000010593853

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

DTC Logic

INFOID:0000000010593854

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

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

Is DTC detected?

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

Diagnosis Procedure

INFOID:0000000010593855

1.PERFORM INITIALIZATION

Perform initialization with CONSULT. Register all Intelligent Keys. For initialization and registration of Intelligent Key, follow the instruction of CONSULT display.

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

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

2.REPLACE INTELLIGENT KEY

1. Replace Intelligent Key.
2. Perform initialization with CONSULT.
For initialization and registration of Intelligent Key, follow the instruction of CONSULT display.

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

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

3.CHECK INTERMITTENT INCIDENT

Refer to [GI-45, "Intermittent Incident"](#).

>> INSPECTION END

B2192 ID DISCORD, IMMUECM

Description

INFOID:000000010593856

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:000000010593857

DTC DETECTION LOGIC

NOTE:

- If DTC B2192 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-30, "BCM : DTC Logic"](#).
- If DTC B2192 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-32, "BCM : DTC Logic"](#).

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

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

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

Is DTC detected?

- YES >> Go to [SEC-44, "Diagnosis Procedure"](#).
- NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000010593858

1. PERFORM INITIALIZATION

Perform initialization with CONSULT. Register all Intelligent Keys. For initialization and registration of Intelligent Key, follow the instruction of CONSULT display.

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

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

2. REPLACE BCM

1. Replace BCM. Refer to [BCS-97, "Removal and Installation"](#).
2. Perform initialization with CONSULT. For initialization, follow the instruction of CONSULT display.

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

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

3. CHECK INTERMITTENT INCIDENT

Refer to [GI-45, "Intermittent Incident"](#).

>> INSPECTION END

B2193 CHAIN OF ECM-IMMU

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

B2193 CHAIN OF ECM-IMMU

Description

INFOID:000000010593859

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:000000010593860

DTC DETECTION LOGIC

NOTE:

- If DTC B2193 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-30, "BCM : DTC Logic"](#).
- If DTC B2193 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-32, "BCM : DTC Logic"](#).

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

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" with CONSULT.

Is DTC detected?

- YES >> Go to [SEC-45, "Diagnosis Procedure"](#).
NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000010593861

1.REPLACE BCM

1. Replace BCM. Refer to [BCS-97, "Removal and Installation"](#).
2. Perform initialization with CONSULT.
For initialization, follow the instruction of CONSULT display.

Does the engine start?

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

2.REPLACE ECM

Replace ECM. Refer to [SEC-8, "ECM RE-COMMUNICATING FUNCTION : Description"](#).

>> INSPECTION END

B2195 ANTI-SCANNING

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

B2195 ANTI-SCANNING

Description

INFOID:000000010593862

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

DTC Logic

INFOID:000000010593863

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.
 - Selector lever is in the P or N position
 - Do not depress brake pedal
2. Check "Self-diagnostic result" using CONSULT.

Is DTC detected?

- YES >> Refer to [SEC-46. "Diagnosis Procedure"](#).
NO >> INSPECTION END.

Diagnosis Procedure

INFOID:000000010593864

1. CHECK SELF-DIAGNOSTIC RESULT-1

1. Perform "Self-diagnostic result" of BCM using CONSULT.
2. Erase DTC.
3. Perform DTC Confirmation Procedure. Refer to [SEC-46. "DTC Logic"](#).

Is DTC 2195 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-97. "Removal and Installation"](#).

3. CHECK SELF-DIAGNOSTIC RESULT-2

1. Obtain the customers approval to remove unspecified accessory part related to engine start, and then remove it.
2. Perform "Self-diagnostic result" of BCM using CONSULT.
3. Erase DTC.
4. Perform DTC Confirmation Procedure. Refer to [SEC-46. "DTC Logic"](#).

Is DTC 2195 detected?

- YES >> Replace BCM. Refer to [BCS-97. "Removal and Installation"](#).
NO >> INSPECTION END

B2555 STOP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

B2555 STOP LAMP

Description

INFOID:000000010593865

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

DTC Logic

INFOID:000000010593866

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

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

Is DTC detected?

- YES >> Go to [SEC-47, "Diagnosis Procedure"](#).
 NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000010593867

1. CHECK STOP LAMP SWITCH INPUT SIGNAL

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

(+)		(-)	Voltage (V) (Approx.)
BCM			
Connector	Terminal		
M123	116	Ground	Battery voltage

Is the inspection normal?

- YES >> GO TO 2.
 NO-1 >> Check 10A fuse [No. 7, located in the fuse block (J/B)]
 NO-2 >> Check harness for open or short between BCM and fuse.

2. CHECK STOP LAMP SWITCH POWER SUPPLY CIRCUIT

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

(+)		(-)	Voltage (V) (Approx.)
Stop lamp switch			
Connector	Terminal		
E110	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

B2555 STOP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

1. Check continuity between stop lamp switch harness connector and BCM harness connector.

Stop lamp switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
E110	2	M123	118	Existed

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

Stop lamp switch		Ground	Continuity
Connector	Terminal		
E110	2		Not existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness or connector.

4.CHECK STOP LAMP SWITCH

Refer to [SEC-48, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace stop lamp switch. Refer to [BR-20, "Exploded View"](#).

5.CHECK INTERMITTENT INCIDENT

Refer to [GI-45, "Intermittent Incident"](#).

>> INSPECTION END

Component Inspection

INFOID:000000010593868

1.CHECK STOP LAMP SWITCH

1. Turn ignition switch OFF.
2. Disconnect stop lamp switch connector.
3. Check continuity between stop lamp switch terminals.

Stop lamp switch		Condition		Continuity
Terminal				
1	2	Brake pedal	Not depressed	Not existed
			Depressed	Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace stop lamp switch. Refer to [BR-20, "Exploded View"](#).

B2556 PUSH-BUTTON IGNITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

B2556 PUSH-BUTTON IGNITION SWITCH

Description

INFOID:000000010593869

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:000000010593870

DTC DETECTION LOGIC

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

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

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

Is DTC detected?

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

Diagnosis Procedure

INFOID:000000010593871

1. CHECK PUSH-BUTTON IGNITION SWITCH INPUT SIGNAL

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

(+)		(-)	Voltage (V) (Approx.)
Push-button ignition switch			
Connector	Terminal	Ground	Battery voltage
M50	4		

Is the inspection result normal?

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

2. CHECK PUSH-BUTTON IGNITION SWITCH CIRCUIT

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

Push-button ignition switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M50	4	M122	60	Existed

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

Push-button ignition switch		Ground	Continuity
Connector	Terminal		
M50	4		Not existed

Is the inspection result normal?

- YES >> Replace BCM. Refer to [BCS-97, "Removal and Installation"](#).

B2556 PUSH-BUTTON IGNITION SWITCH

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace harness or connector.

3.CHECK PUSH-BUTTON IGNITION SWITCH GROUND CIRCUIT

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

Push-button ignition switch		Ground	Continuity
Connector	Terminal		
M50	1		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness or connector.

4.CHECK PUSH-BUTTON IGNITION SWITCH

Refer to [SEC-50, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace push-button ignition switch. Refer to [SEC-197, "Removal and Installation"](#).

5.CHECK INTERMITTENT INCIDENT

Refer to [GI-45, "Intermittent Incident"](#).

>> INSPECTION END

Component Inspection

INFOID:000000010593872

1.CHECK PUSH-BUTTON IGNITION SWITCH

1. Turn ignition switch OFF.
2. Disconnect push-button ignition switch connector.
3. Check continuity between push-button ignition switch terminals.

Push-button ignition switch		Condition	Continuity
Terminals			
1	4	Pressed	Existed
		Not pressed	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace push-button ignition switch. Refer to [SEC-197, "Removal and Installation"](#).

B2557 VEHICLE SPEED

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

B2557 VEHICLE SPEED

Description

INFOID:0000000010593873

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

DTC Logic

INFOID:0000000010593874

DTC DETECTION LOGIC

NOTE:

- If DTC B2557 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-30, "BCM : DTC Logic"](#).
- If DTC B2557 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-32, "BCM : 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 A/C amp” and the one from “ABS actuator and electric unit” for 10 seconds continuously <ul style="list-style-type: none">• One is 10 km/h (6.2 MPH) or more and the other is 4 km/h (2.5 MPH) or less.	<ul style="list-style-type: none">• Wheel sensor• Unified meter and A/C amp.• ABS actuator and electric unit (control unit)

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

1. Drive the vehicle at the vehicle speed of 10 km/h (6.2 MPH) or more and wait for at least 10 seconds.
2. Check “Self diagnostic result” with CONSULT.

Is DTC detected?

- YES >> Go to [SEC-51, "Diagnosis Procedure"](#).
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000010593875

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

Check “Self diagnostic result” with CONSULT. Refer to [BRC-140, "DTC No. Index"](#).

Is the inspection result normal?

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

2.CHECK DTC WITH “UNIFIED METER AND A/C AMP.”

Check “Self diagnostic result” with CONSULT. Refer to [MWI-109, "DTC Index"](#).

Is the inspection result normal?

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

3.CHECK INTERMITTENT INCIDENT

Refer to [GI-45, "Intermittent Incident"](#).

>> INSPECTION END

B2560 STARTER CONTROL RELAY

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

B2560 STARTER CONTROL RELAY

Description

INFOID:000000010593876

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

DTC Logic

INFOID:000000010593877

DTC DETECTION LOGIC

NOTE:

- If DTC B2560 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-30, "BCM : DTC Logic"](#)
- If DTC B2560 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-32, "BCM : 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.
 - Selector lever is in the P or N position.
 - Do not depress brake pedal.
2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

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

Diagnosis Procedure

INFOID:000000010593878

1. CHECK DTC WITH IPDM E/R

Check "Self diagnostic result" with CONSULT. Refer to [PCS-32, "DTC Index"](#).

Is the inspection result normal?

- YES >> GO TO 2.
NO >> Replace IPDM E/R. Refer to [PCS-35, "Removal and Installation"](#).

2. CHECK INTERMITTENT INCIDENT

Refer to [GI-45, "Intermittent Incident"](#)

>> INSPECTION END

B2601 SHIFT POSITION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

B2601 SHIFT POSITION

Description

INFOID:0000000010593879

BCM confirms the shift position with the following 4 signals.

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

DTC Logic

INFOID:0000000010593880

DTC DETECTION LOGIC

NOTE:

- If DTC B2601 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-30, "BCM : DTC Logic"](#).
- If DTC B2601 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-32, "BCM : DTC Logic"](#).
- If DTC B2601 is displayed with DTC B2603, first perform the trouble diagnosis for DTC B2603. Refer to [SEC-64, "DTC Logic"](#).

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

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

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

Is DTC detected?

- YES >> Go to [SEC-53, "Diagnosis Procedure"](#).
 NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000010593881

1. CHECK A/T SHIFT SELECTOR POWER SUPPLY

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

(+)		(-)	Voltage (V) (Approx.)
Connector	Terminal		
M137	10	Ground	Battery voltage

Is the inspection result normal?

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

2. CHECK A/T SHIFT SELECTOR POWER SUPPLY CIRCUIT

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

B2601 SHIFT POSITION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

A/T shift selector (detention switch)		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M137	10	M122	96	Existed

3. Check continuity between A/T shift selector (detention switch) harness connector and ground.

A/T shift selector (detention switch)		Ground	Continuity
Connector	Terminal		
M137	10		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-97, "Removal and Installation"](#).

NO >> Repair or replace harness or connector.

3. CHECK A/T SHIFT SELECTOR CIRCUIT (BCM)

1. Disconnect BCM connector and IPDM E/R connector.
2. Check continuity between A/T shift selector (detention switch) harness connector and BCM harness connector.

A/T shift selector (detention switch)		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M137	11	M122	99	Existed

3. Check continuity between A/T shift selector (detention switch) harness connector and ground.

A/T shift selector (detention switch)		Ground	Continuity
Connector	Terminal		
M137	11		Not existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness or connector.

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

1. Check continuity between A/T shift selector (detention switch) harness connector and IPDM E/R harness connector.

A/T shift selector (detention switch)		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
M137	11	E6	43	Existed

2. Check continuity between A/T shift selector (detention switch) harness connector and ground.

A/T shift selector (detention switch)		Ground	Continuity
Connector	Terminal		
M137	11		Not existed

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness or connector.

5. CHECK A/T SHIFT SELECTOR (DETENTION SWITCH)

Refer to [SEC-55, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace A/T shift selector. Refer to [TM-182, "Removal and Installation"](#).

6. CHECK INTERMITTENT INCIDENT

B2601 SHIFT POSITION

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

Refer to [GI-45. "Intermittent Incident"](#).

>> INSPECTION END

Component Inspection

INFOID:0000000010593882

1. CHECK A/T SHIFT SELECTOR (DETENTION SWITCH)

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

A/T shift selector (detention switch)		Condition		Continuity
Terminal				
10	11	Selector lever	P position	Not existed
			Other than above	Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace A/T shift selector (detention switch). Refer to [TM-182. "Removal and Installation"](#).

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B2602 SHIFT POSITION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

B2602 SHIFT POSITION

Description

INFOID:0000000010593883

BCM confirms the shift position with the following 4 signals.

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

DTC Logic

INFOID:0000000010593884

DTC DETECTION LOGIC

NOTE:

- If DTC B2602 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-30, "BCM : DTC Logic"](#).
- If DTC B2602 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-32, "BCM : DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2602	SHIFT POSITION	BCM detects the following status for 10 seconds. <ul style="list-style-type: none"> • Shift position is in P position • Vehicle speed is 4 km/h (2.5 MPH) or more • Ignition switch is in the ON position 	<ul style="list-style-type: none"> • Harness or connectors (A/T shift selector circuit is open or shorted) • A/T shift selector (detention switch) • ABS actuator and electric unit (control unit)

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Start the engine under the following conditions and wait for at least 10 seconds.
 - Selector lever is in the P or N position
 - Depress the brake pedal.
2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

- YES >> Go to [SEC-56, "Diagnosis Procedure"](#).
 NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000010593885

1. CHECK DTC WITH "ABS ACTUATOR AND ELECTRIC UNIT"

Check "Self diagnostic result" with CONSULT. Refer to [BRC-140, "DTC No. Index"](#).

Is the inspection result normal?

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

2. CHECK A/T SHIFT SELECTOR POWER SUPPLY

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

(+)		(-)	Voltage (V) (Approx.)
Connector	Terminal		
M137	10	Ground	Battery voltage

Is the inspection result normal?

B2602 SHIFT POSITION

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

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

3.CHECK A/T SHIFT SELECTOR POWER SUPPLY CIRCUIT

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

A/T shift selector (detention switch)		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M137	10	M122	96	Existed

3. Check continuity between A/T shift selector (detention switch) harness connector and ground.

A/T shift selector (detention switch)		Ground	Continuity
Connector	Terminal		
M137	10		No existed

Is the inspection result normal?

- YES >> Replace BCM. Refer to [BCS-97. "Removal and Installation"](#).
- NO >> Repair or replace harness or connector.

4.CHECK A/T SHIFT SELECTOR CIRCUIT

1. Disconnect BCM connector and IPDM E/R connector.
2. Check continuity between A/T shift selector (detention switch) harness connector and BCM harness connector.

A/T shift selector (detention switch)		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M137	11	M122	99	Existed

3. Check continuity between A/T shift selector (detention switch) harness connector and ground.

A/T shift selector (detention switch)		Ground	Continuity
Connector	Terminal		
M137	11		No existed

Is the inspection result normal?

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

5.CHECK A/T SHIFT SELECTOR (DETENTION SWITCH)

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

Is the inspection result normal?

- YES >> GO TO 6.
- NO >> Replace A/T shift selector. Refer to [TM-182. "Removal and Installation"](#).

6.CHECK INTERMITTENT INCIDENT

Refer to [GI-45. "Intermittent Incident"](#).

>> INSPECTION END

Component Inspection

INFOID:0000000010593886

1.CHECK A/T SHIFT SELECTOR (DETENTION SWITCH)

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

B2602 SHIFT POSITION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

A/T shift selector (detention switch)		Condition		Continuity
Terminal				
10	11	Selector lever	P position	Not existed
			Other than above	Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace A/T shift selector (detention switch). Refer to [TM-182, "Removal and Installation"](#).

B2603 SHIFT POSITION STATUS

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

B2603 SHIFT POSITION STATUS

Description

INFOID:0000000010593887

BCM confirms the shift position with the following 4 signals.

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

DTC Logic

INFOID:0000000010593888

DTC DETECTION LOGIC

NOTE:

- If DTC B2603 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-30. "BCM : DTC Logic"](#).
- If DTC B2603 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-32. "BCM : DTC Logic"](#).

DTC	Self-diagnosis name	DTC detecting condition	Possible causes
B2603	SHIFT POSITION STATUS	BCM detects the followings status for 500 ms or more when shift is in P position, and ignition switch is in ON position. <ul style="list-style-type: none">• Transmission range switch: approx. 0V• A/T shift selector (detention switch): approx. 0V	<ul style="list-style-type: none">• Harness or connector (A/T shift selector circuit is open or shorted.)• Harness or connectors (Transmission range switch circuit is open or shorted.)• A/T shift selector (detention 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.
 - Selector lever is in the P position.
 - Do not depress the brake pedal.
2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

- YES >> Go to [SEC-59. "Diagnosis Procedure"](#).
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000010593889

1. CHECK DTC WITH TCM

Check "Self diagnostic result" with CONSULT. Refer to [TM-156. "DTC Index"](#).

Is the inspection result normal?

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

2. CHECK TRANSMISSION RANGE SWITCH CIRCUIT

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

TCM		BCM		Continuity
Connector	Terminal	Connector	Terminal	
F51	9	M123	140	Existed

4. Check continuity between TCM harness connector and ground.

B2603 SHIFT POSITION STATUS

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

TCM		Ground	Continuity
Connector	Terminal		
F51	9		Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

3. CHECK A/T SHIFT SELECTOR POWER SUPPLY

1. Disconnect A/T shift selector (detention switch) connector.
2. Check voltage between A/T shift selector (detention switch) harness connector and ground.

(+)		(-)	Voltage (V) (Approx.)
A/T shift selector (detention switch)			
Connector	Terminal		
M137	10	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4. CHECK A/T SHIFT SELECTOR POWER SUPPLY CIRCUIT

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

A/T shift selector (detention switch)		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M137	10	M122	96	Existed

3. Check continuity between A/T shift selector (detention switch) harness connector and ground.

A/T shift selector (detention switch)		Ground	Continuity
Connector	Terminal		
M137	10		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-97. "Removal and Installation"](#).

NO >> Repair or replace harness or connector.

5. CHECK A/T SHIFT SELECTOR CIRCUIT

1. Disconnect BCM connector and IPDM E/R connector.
2. Check continuity between A/T shift selector (detention switch) harness connector and BCM harness connector.

A/T shift selector (detention switch)		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M137	11	M122	99	Existed

3. Check continuity between A/T shift selector (detention switch) harness connector and ground.

A/T shift selector (detention switch)		Ground	Continuity
Connector	Terminal		
M137	11		Not existed

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness or connector.

B2603 SHIFT POSITION STATUS

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

6. CHECK A/T SHIFT SELECTOR (DETENTION SWITCH)

Refer to [SEC-61. "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 7.

NO >> Replace A/T shift selector. Refer to [TM-182. "Removal and Installation"](#).

7. CHECK INTERMITTENT INCIDENT

Refer to [GI-45. "Intermittent Incident"](#).

>> INSPECTION END

Component Inspection

INFOID:000000010593890

1. CHECK A/T SHIFT SELECTOR (DETENTION SWITCH)

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

A/T shift selector (detention switch)		Condition	Continuity
Terminal			
10	11	Selector lever	P position Not existed
			Other than above Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace A/T shift selector (detention switch). Refer to [TM-182. "Removal and Installation"](#).

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B2604 PNP SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

B2604 PNP SWITCH

Description

INFOID:0000000010593891

BCM confirms the shift position with the following 4 signals.

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

DTC Logic

INFOID:0000000010593892

DTC DETECTION LOGIC

NOTE:

- If DTC B2604 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-30, "BCM : DTC Logic"](#).
- If DTC B2604 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-32, "BCM : DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2604	PNP SWITCH	BCM detects the following status for 500 ms or more when the ignition switch is in the ON position. <ul style="list-style-type: none">• N position input signal exists. Shift position signal from TCM does not exist.• N position input signal does not exist. Shift position signal from TCM exists.	<ul style="list-style-type: none">• Harness or connectors (Transmission range switch circuit is open or shorted.)• 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.
 - Selector lever is in the P or N position
 - Do not depress the brake pedal
2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

- YES >> Go to [SEC-62, "Diagnosis Procedure"](#).
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000010593893

1. CHECK DTC WITH TCM

Check "Self diagnostic result" with CONSULT. Refer to [TM-156, "DTC Index"](#).

Is the inspection result normal?

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

2. CHECK TRANSMISSION RANGE SWITCH CIRCUIT

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

TCM		BCM		Continuity
Connector	Terminal	Connector	Terminal	
F51	9	M123	140	Existed

4. Check continuity between TCM harness connector and ground.

B2604 PNP SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

TCM		Ground	Continuity
Connector	Terminal		
F51	9		Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

3.CHECK INTERMITTENT INCIDENT

Refer to [GI-45. "Intermittent Incident"](#).

>> INSPECTION END

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SEC

B2605 PNP SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

B2605 PNP SWITCH

Description

INFOID:0000000010593894

BCM confirms the shift position with the following 4 signals.

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

DTC Logic

INFOID:0000000010593895

DTC DETECTION LOGIC

NOTE:

- If DTC B2605 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-30, "BCM : DTC Logic"](#).
- If DTC B2605 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-32, "BCM : DTC Logic"](#).

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

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

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

Is DTC detected?

- YES >> Go to [SEC-64, "Diagnosis Procedure"](#).
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000010593896

1. CHECK DTC WITH IPDM E/R

Check "Self diagnostic result" with CONSULT. Refer to [PCS-32, "DTC Index"](#).

Is the inspection result normal?

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

2. CHECK TRANSMISSION RANGE SWITCH CIRCUIT

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

TCM		BCM		Continuity
Connector	Terminal	Connector	Terminal	
F51	9	M123	140	Existed

4. Check continuity between TCM harness connector and ground.

B2605 PNP SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

TCM		Ground	Continuity
Connector	Terminal		
F51	9		Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

3.CHECK INTERMITTENT INCIDENT

Refer to [GI-45. "Intermittent Incident"](#).

>> INSPECTION END

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SEC

B2608 STARTER RELAY

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

B2608 STARTER RELAY

Description

INFOID:000000010593897

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:000000010593898

DTC DETECTION LOGIC

NOTE:

- If DTC B2608 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-30, "BCM : DTC Logic"](#).
- If DTC B2608 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-32, "BCM : DTC Logic"](#).
- If DTC B2608 is displayed with DTC B210D for IPDM E/R, first perform the trouble diagnosis for DTC B210D. Refer to [SEC-80, "DTC Logic"](#).

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

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

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

Is DTC detected?

- YES >> Go to [SEC-66, "Diagnosis Procedure"](#).
 NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000010593899

1. CHECK BCM POWER SUPPLY CIRCUIT

1. Turn ignition switch ON.
2. Check voltage between BCM harness connector and ground.

(+)		(-)	Condition	Voltage (V) (Approx.)
BCM				
Connector	Terminal			
M121	52	Ground	Selector lever	N or P position Battery voltage
				Other than above 0

Is the measurement value within the specification?

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

2. CHECK STARTER RELAY CIRCUIT

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

B2608 STARTER RELAY

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

IPDM E/R		BCM		Continuity
Connector	Terminal	Connector	Terminal	
E6	46	M121	52	Existed

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
E6	46		Not existed

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-35, "Removal and Installation"](#).

NO >> Repair or replace harness or connector.

3. CHECK INTERMITTENT INCIDENT

Refer to [GI-45, "Intermittent Incident"](#).

>> INSPECTION END

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SEC

B260F ENGINE STATUS

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

B260F ENGINE STATUS

Description

INFOID:0000000010593900

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

DTC Logic

INFOID:0000000010593901

DTC DETECTION LOGIC

NOTE:

- If DTC B260F is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-30, "BCM : DTC Logic"](#).
- If DTC B260F is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-32, "BCM : DTC Logic"](#).

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

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

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

Is DTC detected?

- YES >> Go to [SEC-68, "Diagnosis Procedure"](#).
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000010593902

1. INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**
See [SEC-68, "DTC Logic"](#).

Is the DTC B260F displayed again?

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

2. REPLACE ECM

Replace ECM. Refer to [SEC-8, "ECM RE-COMMUNICATING FUNCTION : Description"](#).

>> INSPECTION END

3. CHECK INTERMITTENT INCIDENT

Refer to [GI-45, "Intermittent Incident"](#).

>> INSPECTION END

B26E1 NO RECEPTION OF ENGINE STATUS SIGNAL

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

B26E1 NO RECEPTION OF ENGINE STATUS SIGNAL

Description

INFOID:0000000010593903

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

DTC Logic

INFOID:0000000010593904

DTC DETECTION LOGIC

NOTE:

- If DTC B26E1 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-30. "BCM : DTC Logic"](#).
- If DTC B26E1 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-32. "BCM : 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 ON position	ECM

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" with CONSULT.

Is DTC detected?

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

Diagnosis Procedure

INFOID:0000000010593905

1. INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**
See [SEC-69. "DTC Logic"](#).

Is the DTC B26E1 displayed again?

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

2. REPLACE ECM

Replace ECM. Refer to [SEC-8. "ECM RE-COMMUNICATING FUNCTION : Description"](#).

>> INSPECTION END

3. CHECK INTERMITTENT INCIDENT

Refer to [GI-45. "Intermittent Incident"](#).

>> INSPECTION END

B26EA KEY REGISTRATION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

B26EA KEY REGISTRATION

Description

INFOID:000000010593906

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

DTC Logic

INFOID:000000010593907

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B26EA	KEY REGISTRATION	Intelligent Key is not registered successfully.	<ul style="list-style-type: none">• Improper registration operation• Intelligent Key• BCM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Perform initialization with CONSULT. Register all Intelligent Keys.
For initialization and registration of Intelligent Key, follow the instruction of CONSULT display.
2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Go to [SEC-70. "Diagnosis Procedure"](#)
NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000010593908

1. PERFORM INITIALIZATION

1. Perform initialization with CONSULT. Register all Intelligent Keys.
For initialization and registration of Intelligent Key, follow the instruction of CONSULT display.
2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

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

2. REPLACE INTELLIGENT KEY

1. Replace Intelligent Key. Register all Intelligent Keys
2. Perform initialization with CONSULT. For initialization, follow the instruction of CONSULT display.
3. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

YES >> Replace BCM. Refer to [BCS-97. "Removal and Installation"](#).
NO >> INSPECTION END

B2617 STARTER RELAY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

B2617 STARTER RELAY CIRCUIT

Description

INFOID:000000010593909

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:000000010593910

DTC DETECTION LOGIC

NOTE:

- If DTC B2617 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-30, "BCM : DTC Logic"](#).
- If DTC B2617 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-32, "BCM : DTC Logic"](#).
- If DTC B2617 is displayed with DTC B210E for IPDM E/R, first perform the trouble diagnosis for DTC B210E. Refer to [SEC-82, "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	<ul style="list-style-type: none">• Harness or connectors (Starter relay circuit is open or shorted.)• IPDM E/R

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

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

Is DTC detected?

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

Diagnosis Procedure

INFOID:000000010593911

1. CHECK STARTER RELAY

1. Turn ignition switch ON.
2. Check voltage between BCM harness connector and ground.

(+)		(-)	Condition	Voltage (V) (Approx.)
BCM				
Connector	Terminal			
M121	52	Ground	Selector lever	N or P position Battery voltage
				Other than above 0

Is the measurement value within the specification.

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

2. CHECK STARTER RELAY CIRCUIT

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

B2617 STARTER RELAY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

IPDM E/R		BCM		Continuity
Connector	Terminal	Connector	Terminal	
E6	46	M121	52	Existed

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
E6	46		Not existed

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-35, "Removal and Installation"](#).

NO >> Repair or replace harness or connector.

3. CHECK INTERMITTENT INCIDENT

Refer to [GI-45, "Intermittent Incident"](#).

>> INSPECTION END

B261A PUSH-BUTTON IGNITION SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

B261A PUSH-BUTTON IGNITION SWITCH

Description

INFOID:0000000010593912

BCM transmits the change in the power supply position with the push-button ignition switch to IPDM E/R via the CAN communication. IPDM E/R transmits the power supply position status via CAN communication to BCM.

DTC Logic

INFOID:0000000010593913

DTC DETECTION LOGIC

NOTE:

- If DTC B261A is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-30, "BCM : DTC Logic"](#).
- If DTC B261A is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-32, "BCM : DTC Logic"](#).

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

1. Press push-button ignition switch for 1 second under the following condition.
 - Selector lever is in the P or N position.
 - Do not depress brake pedal.
2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

- YES >> Go to [SEC-73, "Diagnosis Procedure"](#)
NO >> GO TO 2.

2. PERFORM DTC CONFIRMATION PROCEDURE 2

1. Insert Intelligent Key into the key slot.
2. Press the push-button ignition switch under the following conditions and wait for at least 1 second.
 - Selector lever is in the P or N position.
 - Do not depress brake pedal.
3. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

- YES >> Go to [SEC-73, "Diagnosis Procedure"](#).
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000010593914

1. INSPECTION START

Perform inspection in accordance with procedure that confirms DTC.

Which procedure confirms DTC?

- DTC confirmation procedure 1 >> GO TO 2.
DTC confirmation procedure 2 >> GO TO 4.

2. CHECK PUSH-BUTTON IGNITION SWITCH OUTPUT SIGNAL 1

1. Turn ignition switch OFF.
2. Disconnect push-button ignition switch connector and IPDM E/R connector.

B261A PUSH-BUTTON IGNITION SWITCH

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

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

(+)		(-)	Voltage (V) (Approx.)
Push-button ignition switch			
Connector	Terminal	Ground	Battery voltage
M50	4		

Is the inspection result normal?

- YES >> GO TO 6.
NO >> GO TO 3.

3.CHECK PUSH-BUTTON IGNITION SWITCH CIRCUIT 1

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

Push-button ignition switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M50	4	M122	60	Existed

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

Push-button ignition switch		Ground	Continuity
Connector	Terminal		
M50	4	Not existed	

Is the inspection result normal?

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

4.CHECK PUSH-BUTTON IGNITION SWITCH OUTPUT SIGNAL 2

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

(+)		(-)	Voltage (V) (Approx.)
Push-button ignition switch			
Connector	Terminal	Ground	Battery voltage
M50	4		

Is the inspection result normal?

- YES >> GO TO 6.
NO >> GO TO 5.

5.CHECK PUSH-BUTTON IGNITION SWITCH CIRCUIT 2

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

Push-button ignition switch		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
M50	4	E5	28	Existed

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

Push-button ignition switch		Ground	Continuity
Connector	Terminal		
M50	4	Not existed	

B261A PUSH-BUTTON IGNITION SWITCH

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness or connector.

6.CHECK INTERMITTENT INCIDENT

Refer to [GI-45. "Intermittent Incident"](#).

>> INSPECTION END

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B261E VEHICLE TYPE

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

B261E VEHICLE TYPE

Description

INFOID:000000010593915

There are two types of vehicle.

- HEV
- Conventional

DTC Logic

INFOID:000000010593916

DTC DETECTION LOGIC

NOTE:

- If DTC B261E is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-30, "BCM : DTC Logic"](#).
- If DTC B261E is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to [SEC-32, "BCM : 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.
2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

- YES >> Go to [SEC-76, "Diagnosis Procedure"](#).
NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000010593917

1. INSPECTION START

1. Turn ignition switch ON.
2. Check "Self diagnostic result" with CONSULT.
3. Touch "ERASE".
4. **Perform DTC Confirmation Procedure.**
See [SEC-76, "DTC Logic"](#).

Is the 1st trip DTC B261E displayed again?

- YES >> Replace BCM. Refer to [BCS-97, "Removal and Installation"](#).
NO >> INSPECTION END

B210B STARTER CONTROL RELAY

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

B210B STARTER CONTROL RELAY

Description

INFOID:000000010593918

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

DTC Logic

INFOID:000000010593919

DTC DETECTION LOGIC

NOTE:

If DTC B210B is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-30, "IPDM E/R : DTC Logic"](#).

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

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON.
2. Turn ignition switch OFF and wait for 1 second or more.
3. Check DTC in "Self Diagnostic Result" mode of "IPDM E/R" using CONSULT.

Is DTC detected?

- YES >> Go to [SEC-77, "Diagnosis Procedure"](#).
NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000010593920

1. CHECK SELF DIAGNOSTIC RESULT

Check DTC using CONSULT.

What is the display history of DTC "B210B"?

- "CRNT">> Replace IPDM E/R. Refer to [PCS-35, "Removal and Installation"](#).
"PAST">> GO TO 2.

2. CHECK INTERMITTENT INCIDENT

Refer to [GI-45, "Intermittent Incident"](#)

>> INSPECTION END

B210C STARTER CONTROL RELAY

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

B210C STARTER CONTROL RELAY

Description

INFOID:000000010593921

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

DTC Logic

INFOID:000000010593922

DTC DETECTION LOGIC

NOTE:

- If DTC B210C is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-30, "BCM : DTC Logic"](#).
- When IPDM E/R power supply voltage is low (Approx. 7 - 8 V for about 1 second), the DTC B210C may be detected.

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

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

1. Press push-button ignition switch to start engine, and wait 1 second or more.
2. Check DTC in "Self Diagnostic Result" mode of "IPDM E/R" using CONSULT.

Is DTC detected?

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

Diagnosis Procedure

INFOID:000000010593923

1. CHECK SELF DIAGNOSTIC RESULT

Check DTC in "Self Diagnostic Result" mode of "IPDM E/R" using CONSULT.

What is the display history of DTC "B210C"?

- "CRNT">> GO TO 3.
"PAST">> GO TO 2.

2. CHECK BATTERY VOLTAGE

Measure the battery voltage.

Which is the measurement result?

- More than 12.4 V>>GO TO 5
Less than 12.4 V>>Perform battery inspection. Refer to [PG-3, "How to Handle Battery"](#).

3. CHECK P/N POSITION SIGNAL CIRCUIT VOLTAGE

1. Turn ignition switch ON
2. Selector lever is in P position.
3. Check the voltage between IPDM E/R harness connector and ground.

(+)		(-)	Voltage (Approx.)
IPDM E/R			
Connector	Terminal		
E5	30	Ground	Battery voltage

Is the inspection result normal?

- YES >> Replace IPDM E/R. Refer to [PCS-35, "Removal and Installation"](#).

B210C STARTER CONTROL RELAY

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

NO >> GO TO 4.

4.CHECK P/N POSITION SIGNAL CIRCUIT

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

IPDM E/R		BCM		Continuity
Connector	Terminal	Connector	Terminal	
E5	30	M123	140	Existed

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-97, "Removal and Installation"](#).

NO >> Repair or replace harness.

5.CHECK INTERMITTENT INCIDENT

Check intermittent incident. Refer to [GI-45, "Intermittent Incident"](#).

>> INSPECTION END

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B210D STARTER RELAY

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

B210D STARTER RELAY

Description

INFOID:0000000010593924

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:0000000010593925

DTC DETECTION LOGIC

NOTE:

- If DTC B210D is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-30, "BCM : DTC Logic"](#).
- If DTC B210D is displayed with DTC B2617, first perform the trouble diagnosis for DTC B2617. Refer to [SEC-71, "DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B210D	STARTER RLY ON CIRC	IPDM E/R detects that the relay is stuck at ON position even if the followings condition are met for about 1 second. <ul style="list-style-type: none"> • Starter control relay ON/OFF signal from BCM • 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.
 - Selector lever is in the P or N position.
 - Do not depress brake pedal.
2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

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

Diagnosis Procedure

INFOID:0000000010593926

1.CHECK SELF DIAGNOSTIC RESULT

Check DTC in "Self Diagnostic Result" mode of "IPDM E/R" using CONSULT.

What is the display history of DTC "B210D"?

- "CRNT">> GO TO 2.
 "PAST" >> GO TO 4.

2.CHECK STARTER RELAY CONTROL SIGNAL CIRCUIT VOLTAGE

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

(+)		(-)	Condition	Voltage (Approx.)
IPDM E/R				
Connector	Terminal			
E6	46	Ground	Other than at engine cranking	Battery voltage

Is the inspection result normal?

- YES >> Replace IPDM E/R. Refer to [PCS-35, "Removal and Installation"](#).
 NO >> GO TO 3.

3.CHECK STARTER RELAY CONTROL SIGNAL CIRCUIT

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

B210D STARTER RELAY

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

IPDM E/R		Ground	Continuity
Connector	Terminal		
E6	46		Not existed

Is the inspection result normal?

YES >> Perform the diagnosis procedure for DTC B2608 of BCM. Refer to [SEC-66, "DTC Logic"](#).

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Check intermittent incident. Refer to [GI-45, "Intermittent Incident"](#).

>> INSPECTION END

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B210E STARTER RELAY

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

B210E STARTER RELAY

Description

INFOID:0000000010593927

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:0000000010593928

DTC DETECTION LOGIC

NOTE:

- If DTC B210E is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-30, "BCM : DTC Logic"](#).
- If DTC B210E is displayed with DTC B2110 for IPDM E/R, first perform the trouble diagnosis for DTC B2110. Refer to [SEC-86, "DTC Logic"](#).
- If DTC B210E is displayed with DTC B2617 for BCM, first perform the trouble diagnosis for DTC B2617. Refer to [SEC-71, "DTC Logic"](#).
- When IPDM E/R power supply voltage is low (Approx. 7 - 8 V for about 1 second), the DTC B210F may be detected.

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

DTC CONFIRMATION PROCEDURE

1.PERFORM DTC CONFIRMATION PROCEDURE

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

Is DTC detected?

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

Diagnosis Procedure

INFOID:0000000010593929

1.CHECK SELF DIAGNOSTIC RESULT

Check DTC in "Self Diagnostic Result" mode of "IPDM E/R" using CONSULT.

What is the display history of DTC "B210E"?

- "CRNT">> GO TO 3.
"PAST">> GO TO 2.

2.CHECK BATTERY VOLTAGE

Check the battery voltage.

Which is the measurement result?

- More than 12.4 V>>GO TO 5.
Less than 12.4 V>>Perform battery inspection. Refer to [PG-3, "How to Handle Battery"](#).

3.CHECK STARTER RELAY CONTROL SIGNAL

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

B210E STARTER RELAY

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

(+)		(-)	Condition	Voltage (Approx.)
IPDM E/R				
Connector	Terminal			
E6	46	Ground	Other than at engine cranking	Battery voltage

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace IPDM E/R. Refer to [PCS-35. "Removal and Installation"](#).

4.CHECK STARTER RELAY CONTROL SIGNAL CIRCUIT

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

BCM		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
M121	52	E6	46	Existed

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-97. "Removal and Installation"](#).

NO >> Repair or replace harness.

5.CHECK INTERMITTENT INCIDENT

Check intermittent incident. Refer to [GI-45. "Intermittent Incident"](#).

>> INSPECTION END

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SEC

B210F PNP/CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

B210F PNP/CLUTCH INTERLOCK SWITCH

Description

INFOID:000000010593930

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

- Transmission range switch
- Shift position signal from BCM (CAN)

DTC Logic

INFOID:000000010593931

DTC DETECTION LOGIC

NOTE:

If DTC B210F is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-30, "BCM : DTC Logic"](#)

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B210F	INTER LOCK/PNP SW ON	IPDM E/R detects a mismatch between the signals below for 1 second or more. <ul style="list-style-type: none"> • Transmission range switch input signal • Shift position signal from BCM (CAN) 	<ul style="list-style-type: none"> • Harness or connectors (Transmission range switch circuit is open or shorted) • 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.
 - Selector lever is in the P or N position.
 - Do not depress brake pedal.
2. Check "Self diagnostic result" with CONSULT.

Is DTC detected?

- YES >> Go to [SEC-84, "Diagnosis Procedure"](#).
NO >> INSPECTION END

Diagnosis Procedure

INFOID:000000010593932

1. CHECK DTC WITH BCM

Check "Self diagnostic result" with CONSULT. Refer to [BCS-91, "DTC Index"](#).

Is the inspection result normal?

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

2. CHECK TRANSMISSION RANGE SWITCH INPUT SIGNAL

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

(+)		(-)	Condition	Voltage (V) (Approx.)
IPDM E/R				
Connector	Terminal			
E5	30	Ground	Selector lever	P or N Battery voltage
			Other than above	0

Is the inspection result normal?

- YES >> Replace IPDM E/R. Refer to [PCS-35, "Removal and Installation"](#).
NO >> GO TO 3.

3. CHECK TRANSMISSION RANGE SWITCH CIRCUIT

1. Turn ignition switch OFF.

B210F PNP/CLUTCH INTERLOCK SWITCH

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

2. Disconnect TCM connector.
3. Check continuity between IPDM E/R harness connector and TCM harness connector.

IPDM E/R		TCM		Continuity
Connector	Terminal	Connector	Terminal	
E5	30	F51	9	Existed

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
E5	30		Not existed

Is the inspection result normal?

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

4. CHECK INTERMITTENT INCIDENT

Refer to [GI-45. "Intermittent Incident"](#).

>> INSPECTION END

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SEC

B2110 PNP/CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

B2110 PNP/CLUTCH INTERLOCK SWITCH

Description

INFOID:0000000010593933

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

- Transmission range switch
- Shift position signal from BCM (CAN)

DTC Logic

INFOID:0000000010593934

DTC DETECTION LOGIC

NOTE:

If DTC B2110 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to [SEC-30, "BCM : DTC Logic"](#).

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2110	INTER LOCK/PNP SW	IPDM E/R detects mismatch between the signals below for 1 second or more. <ul style="list-style-type: none">• Transmission range switch input signal• Shift position signal from BCM (CAN)	<ul style="list-style-type: none">• Harness or connectors (Transmission range switch circuit is open or shorted)• Transmission range switch• IPDM E/R• BCM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

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

Is DTC detected?

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

Diagnosis Procedure

INFOID:0000000010593935

1. CHECK DTC WITH TCM

Check "Self diagnostic result" with CONSULT. Refer to [TM-156, "DTC Index"](#).

Is the inspection result normal?

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

2. CHECK TRANSMISSION RANGE SWITCH INPUT SIGNAL

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

(+)		(-)	Condition	Voltage (V) (Approx.)
Connector	Terminal			
E5	30	Ground	Selector lever	Battery voltage
			Other than above	0

Is the inspection result normal?

- YES >> Replace IPDM E/R. Refer to [PCS-35, "Removal and Installation"](#).
NO >> GO TO 3.

B2110 PNP/CLUTCH INTERLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

3. CHECK TRANSMISSION RANGE SWITCH CIRCUIT

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

IPDM E/R		TCM		Continuity
Connector	Terminal	Connector	Terminal	
E5	30	F51	9	Existed

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
E5	30		Not existed

Is the inspection result normal?

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

4. CHECK INTERMITTENT INCIDENT

Refer to [GI-45. "Intermittent Incident"](#).

>> INSPECTION END

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SEC

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM : Diagnosis Procedure

INFOID:000000011017008

1. CHECK FUSE AND FUSIBLE LINK

Check that the following fuse and fusible link are not blown.

Signal name	Fuse and fusible link No.
Battery power supply	K
	10

Is the fuse fusing?

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

NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

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

Terminals		Voltage (Approx.)
(+)	(-)	
BCM		Ground Battery voltage
Connector	Terminal	
M118	1	
M119	11	

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3. CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		Existed
M119	13		

Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector.

IPDM E/R

IPDM E/R : Diagnosis Procedure

INFOID:000000011017010

1. CHECK FUSES AND FUSIBLE LINK

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

Signal name	Fuses and fusible link No.
Battery power supply	C
	50
	51

POWER SUPPLY AND GROUND CIRCUIT

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

Is the fuse fusing?

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

NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

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

Terminals		Voltage (Approx.)
(+)	(-)	
IPDM E/R		Battery voltage
Connector	Terminal	
E4	1	

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair the harness or connector.

3. CHECK GROUND CIRCUIT

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
E5	12		Existed
E6	41		

Does continuity exist?

YES >> INSPECTION END

NO >> Repair the harness or connector.

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SEC

HOOD SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

HOOD SWITCH

Description

INFOID:000000010593938

Hood switch is built into hood lock (RH) and connected to IPDM E/R which detects the open/close condition of hood.

Component Function Check

INFOID:000000010593939

1.CHECK FUNCTION

1. Select "HOOD SW" in "Data Monitor" mode with CONSULT.
2. Check the hood switch signal under the following condition.

Test item	Condition		Status
HOOD SW	Hood	Open	ON
		Close	OFF

Is the indication normal?

- YES >> Hood switch is OK.
 NO >> Go to [SEC-90, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000010593940

1.CHECK HOOD SWITCH POWER SUPPLY

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

(+)		(-)	Voltage (V) (Approx.)
Hood switch			
Connector	Terminal	Ground	Battery voltage
E30	2		

Is the inspection result normal?

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

2.CHECK HOOD SWITCH CIRCUIT

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

IPDM E/R		Hood switch		Continuity
Connector	Terminal	Connector	Terminal	
E9	104	E30	2	Existed

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
E9	104		Not existed

Is the inspection result normal?

- YES >> Replace IPDM E/R. Refer to [PCS-35, "Removal and Installation"](#).
 NO >> Repair or replace harness.

3.CHECK HOOD SWITCH GROUND CIRCUIT

Check continuity between hood switch harness connector and ground.

HOOD SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

Hood switch		Ground	Continuity
Connector	Terminal		Existed
E30	1		

Is the inspection result normal?

- YES >> GO TO 4.
- NO >> Repair or replace harness.

4.CHECK HOOD SWITCH

Refer to [SEC-91. "Component Inspection"](#).

Is the inspection result normal?

- YES >> GO TO 5.
- NO >> Replace hood lock (RH). Refer to [DLK-256. "Removal and Installation"](#).

5.CHECK INTERMITTENT INCIDENT

Refer to [GI-45. "Intermittent Incident"](#).

>> INSPECTION END

Component Inspection

INFOID:000000010593941

1.CHECK HOOD SWITCH

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

Hood switch		Condition	Continuity
Terminal			Continuity
1	2	Hood	Close Not existed
			Open Existed

Is the inspection result normal?

- YES >> INSPECTION END
- NO >> Replace hood lock (RH). Refer to [DLK-256. "Removal and Installation"](#).

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SEC

HEADLAMP

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

HEADLAMP

Description

INFOID:000000010593942

Headlamp lighting when vehicle security system is alarm phase.

Component Function Check

INFOID:000000010593943

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 >> Go to [SEC-92, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000010593944

1.CHECK HEADLAMP OPERATION

Refer to [SEC-92, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> repair or replace the malfunctioning parts.

2.CHECK INTERMITTENT INCIDENT

Refer to [GI-45, "Intermittent Incident"](#).

>> INSPECTION END

SECURITY INDICATOR LAMP

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

SECURITY INDICATOR LAMP

Description

INFOID:0000000010593945

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

Component Function Check

INFOID:0000000010593946

1.CHECK FUNCTION

1. Perform "THEFT IND" in the "ACTIVE TEST" mode with CONSULT.
2. Check security indicator lamp operation.

Test item		Description	
THEFT IND	ON	Security indicator lamp	Illuminate
	OFF		Not illuminate

Is the inspection result normal?

- YES >> INSPECTION END
NO >> Go to [SEC-93, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000010593947

1.CHECK DTC WITH "UNIFIED METER AND A/C AMP."

Perform "Self Diagnostic Result" for unified meter and A/C amp. Refer to [MWI-109, "DTC Index"](#).

Is the inspection result is normal?

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

2.CHECK INTERMITTENT INCIDENT

Refer to [GI-45, "Intermittent Incident"](#).

>> INSPECTION END

SEC

KEY WARNING LAMP

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

KEY WARNING LAMP

Description

INFOID:0000000010593948

Performs operation method guide and warning together with buzzer.

Component Function Check

INFOID:0000000010593949

1.CHECK FUNCTION

Check the operation with "INDICATOR" in "Active Test" mode with CONSULT.

Test item	Condition	
INDICATOR	KEY ON	Key warning lamp illuminates
	KEY IND	Key warning lamp flashes

Is the inspection result normal?

YES >> Key warning lamp in combination meter is OK.

NO >> Refer to [SEC-94, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000010593950

1.CHECK KEY WARNING LAMP

Refer to [DLK-103, "Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

2.CHECK INTERMITTENT INCIDENT

Refer to [GI-45, "Intermittent Incident"](#).

>> INSPECTION END

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

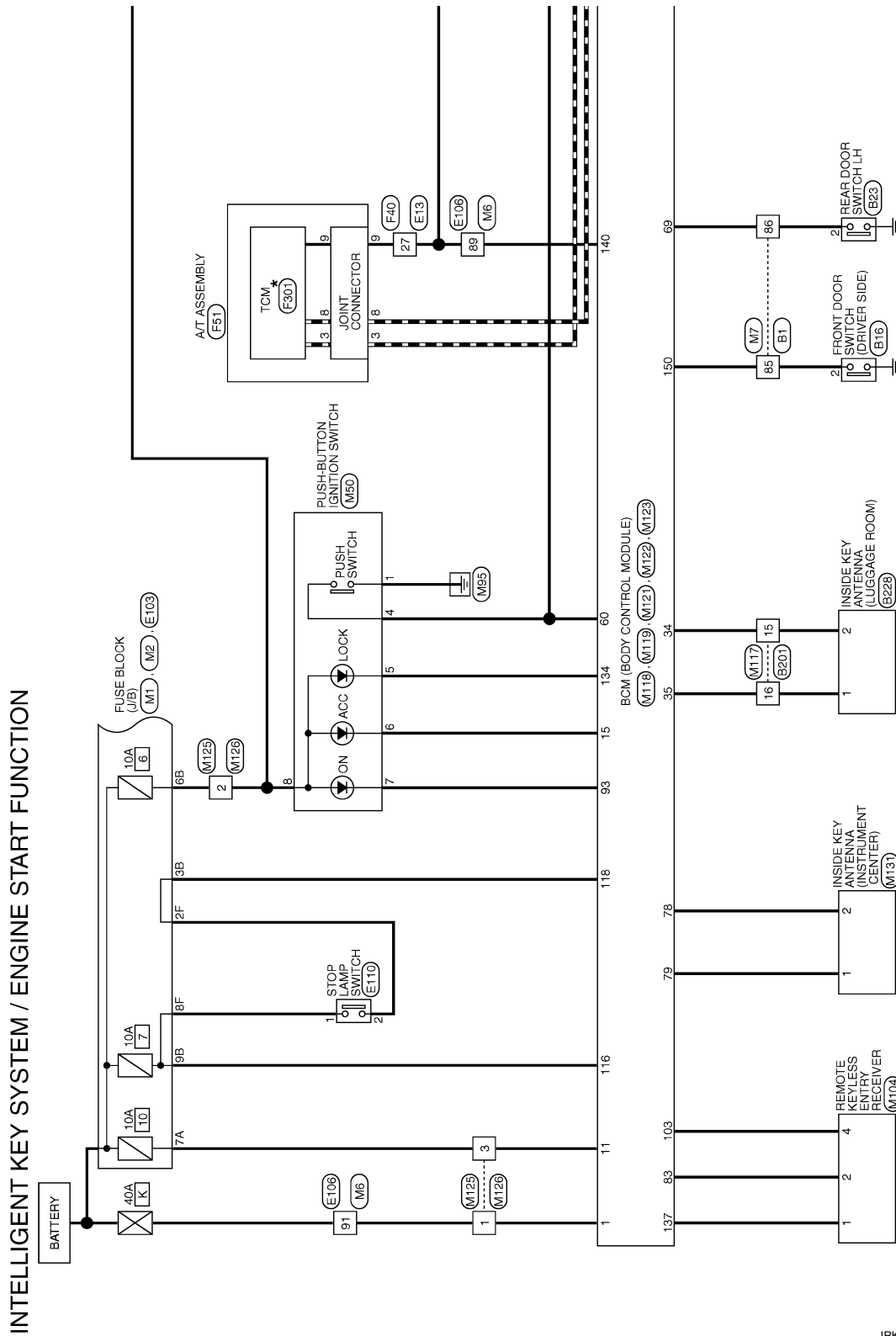
< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

Wiring Diagram - INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION -

INFOID:000000010593951



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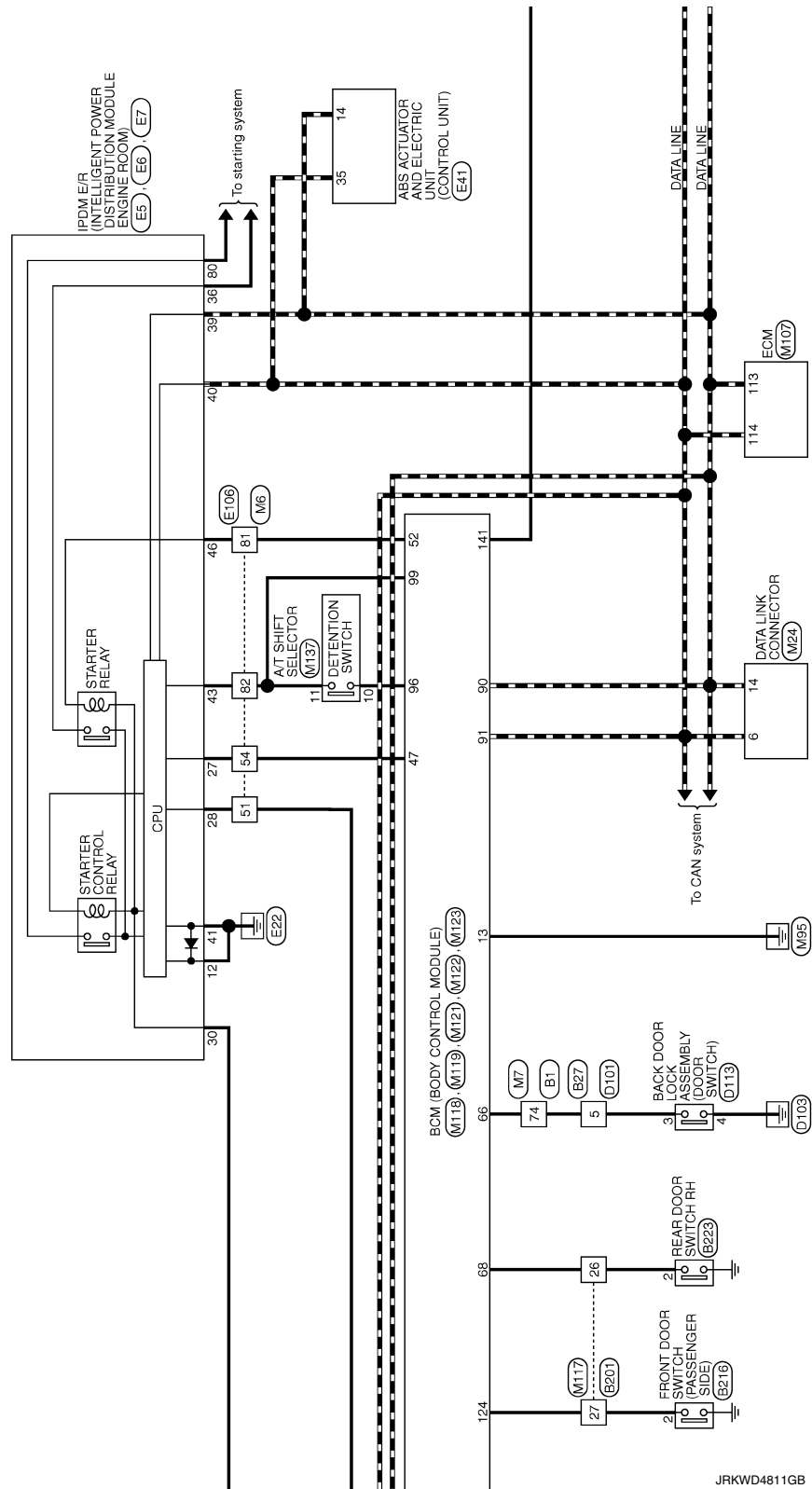
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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

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

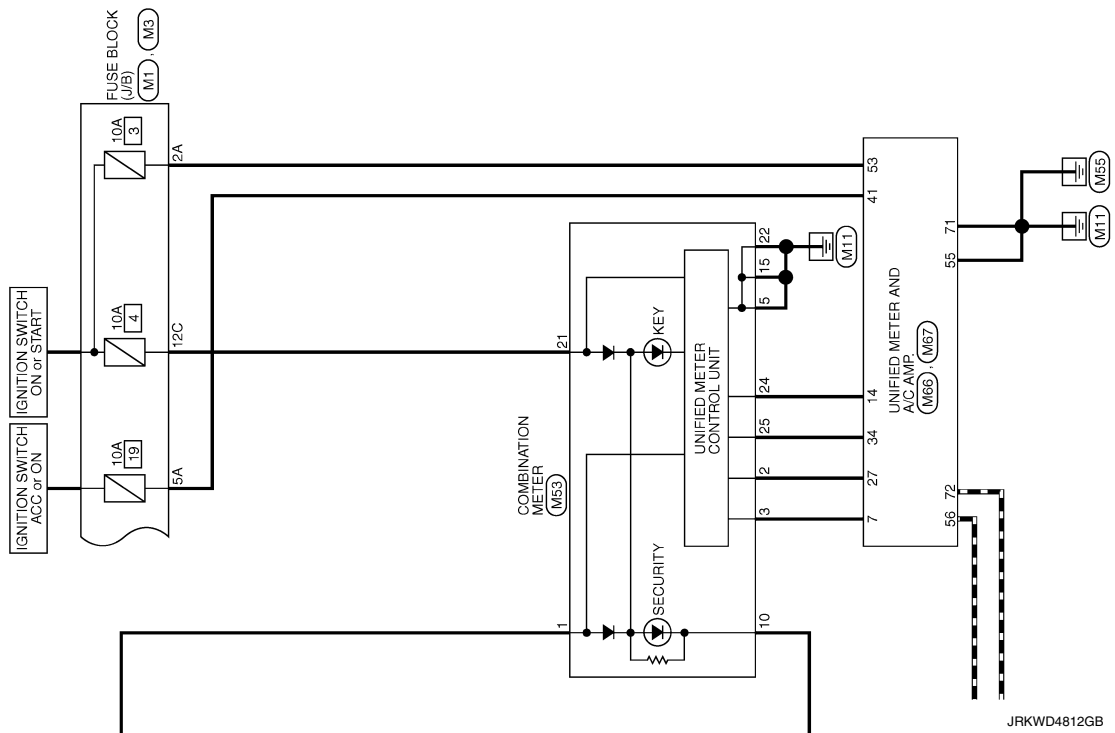


JRKWD4811GB

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]



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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

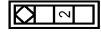
INTELLIGENT KEY SYSTEM / ENGINE START FUNCTION

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH88FW-CS1F-TM4



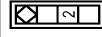
Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	G	-
3	SB	-
4	V	-
5	L	-
6	SB	-
7	V	-
8	L	-
9	V	-
10	SB	-
11	V	-
12	SB	-
13	LG	-
14	GR	-
15	LG	-
16	R	-
17	W	-
18	SB	-
19	LG	-
20	GR	-
21	SHIELD	-
22	V	-
23	GR	-
24	P	-
25	B	-
26	R	-
27	L	-
28	R	-
29	W	-
30	SHIELD	-
31	SHIELD	-
32	W	-
33	SB	-
34	L	-
35	P	-
36	L	-
37	P	-
38	P	-
39	Y	-
40	SB	-
41	Y	-
42	Y	-
43	Y	-
44	Y	-
45	GR	-
46	LG	-

Connector No.	B16
Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)
Connector Type	AG8FW



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

Connector No.	B23
Connector Name	REAR DOOR SWITCH LH
Connector Type	AG8FW



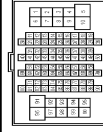
Terminal No.	Color Of Wire	Signal Name [Specification]
2	LG	-

Connector No.	B27
Connector Name	WIRE TO WIRE
Connector Type	MM8MP-LG



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	G	-
3	B	-
4	SB	-
5	L	-

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH88FW-CS1F-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	R	-
3	GR	-
4	EG	-
7	LG	-
15	SB	-
16	V	-
17	BR	-
26	BR	-
27	L	-
28	Y	-
29	Y	-
30	GR	-
31	R	-
32	BR	-
33	G	-
35	R	-
36	G	-
37	W	-
38	W	-
58	SHIELD	-
60	LG	-
61	W	-
62	BR	-

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

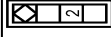
< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

INTELLIGENT KEY SYSTEM / ENGINE START FUNCTION

83	P	-	
84	L	-	
85	G	-	
86	P	-	
87	L	-	
88	SHIELD	-	
89	V	-	
70	Y	-	
71	SB	-	
72	W	-	
73	BR	-	
75	Y	-	
81	SB	-	
82	LG	-	
83	P	-	
85	L	-	
86	BG	-	
87	L	-	
88	P	-	
91	V	-	
92	R	-	
94	R	-	
95	SB	-	
96	G	-	
97	G	-	
98	R	-	
99	P	-	
100	L	-	

Connector No.	B223
Connector Name	REAR DOOR SWITCH RH
Connector Type	A03FW




Terminal No.	2
Color Of Wire	BR

Signal Name [Specification]	-
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
Connector No.	B228
Connector Name	INSIDE KEY ANTENNA (LUGGAGE ROOM)
Connector Type	FROZEGY




Terminal No.	1
Color Of Wire	V
Terminal No.	2
Color Of Wire	SB

Signal Name [Specification]	-
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Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Type	M03FW-LC




Terminal No.	2
Color Of Wire	L

Signal Name [Specification]	-
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Terminal No.	2
Color Of Wire	CG
Terminal No.	3
Color Of Wire	B
Terminal No.	4
Color Of Wire	Y
Terminal No.	5
Color Of Wire	V

Signal Name [Specification]	-
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Connector No.	D113
Connector Name	BACK DOOR LOCK ASSEMBLY
Connector Type	INS03FW-CS




Terminal No.	1
Color Of Wire	Y
Terminal No.	2
Color Of Wire	B
Terminal No.	3
Color Of Wire	V
Terminal No.	4
Color Of Wire	B

Signal Name [Specification]	-
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Connector No.	E5
Connector Name	FROM R INTELLIGENT POWER DISTRIBUTION MODULE PHONE ROOM
Connector Type	TH03FW-CS12-M4-1V





Terminal No.	5
Color Of Wire	Y
Terminal No.	7
Color Of Wire	R
Terminal No.	12
Color Of Wire	B/W
Terminal No.	13
Color Of Wire	Y
Terminal No.	16
Color Of Wire	LG
Terminal No.	19
Color Of Wire	W

Signal Name [Specification]	-
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Terminal No.	25
Color Of Wire	G
Terminal No.	29
Color Of Wire	L
Terminal No.	29
Color Of Wire	EG
Terminal No.	28
Color Of Wire	L
Terminal No.	30
Color Of Wire	GR
Terminal No.	36
Color Of Wire	G

Signal Name [Specification]	-
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Connector No.	E6
Connector Name	FROM R INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	TH03FW-NH




Terminal No.	39
Color Of Wire	P
Terminal No.	40
Color Of Wire	L
Terminal No.	41
Color Of Wire	B/W
Terminal No.	43
Color Of Wire	SB
Terminal No.	44
Color Of Wire	BR
Terminal No.	45
Color Of Wire	G
Terminal No.	46
Color Of Wire	R

Signal Name [Specification]	-
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Connector No.	E7
Connector Name	FROM R INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	TH20FW-CS12-M4




Terminal No.	48
Color Of Wire	L
Terminal No.	49
Color Of Wire	BG
Terminal No.	51
Color Of Wire	Y
Terminal No.	53
Color Of Wire	W
Terminal No.	54
Color Of Wire	P

Signal Name [Specification]	-
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SEC

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

INTELLIGENT KEY SYSTEM / ENGINE START FUNCTION

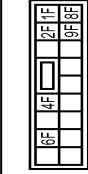
Terminal No.	Color Of Wire	Signal Name [Specification]
35	SB	GROUND
36	Y	LSY
37	G	EUS-L
38	V	DP-FI
39	R	DS-RL
40	BR	UZ
41	EG	GR
42	P	GR
43	Y	GR
44	W	GR
45	W	GR
46	W	GR
47	W	GR
48	W	GR
49	W	GR
50	W	GR
51	W	GR
52	W	GR

Connector No.	E13
Connector Name	WIRE TO WIRE
Connector Type	SAAS30MB-FSS-SLZ3



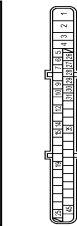
Terminal No.	Color Of Wire	Signal Name [Specification]
15	SHIELD	GROUND
16	Y	LSY
17	Y	EUS-L
18	LG	DP-FI
19	R	DS-RL
20	GR	UZ
21	GR	GR
22	GR	GR
23	GR	GR
24	GR	GR
25	GR	GR
26	GR	GR
27	GR	GR
28	GR	GR
29	GR	GR
30	GR	GR
31	R	VOIC OFF SW
32	L	CAN-H
33	P	BUS-H
34	R	BUS-H
35	B	BUS-H
36	B	BUS-H
37	B	BUS-H
38	B	BUS-H
39	B	BUS-H
40	B	BUS-H
41	W	W
42	LG	W
43	EG	W
44	EG	W
45	EG	W
46	SHIELD	W
47	W	W
48	BR	W
49	G	W
50	B	W
51	SB	W
52	R	W

Connector No.	E103
Connector Name	FUSE BLOCK (J/B)
Connector Type	HS16PW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	WIRE TO WIRE
2	SHIELD	WIRE TO WIRE
3	SHIELD	WIRE TO WIRE
4	SHIELD	WIRE TO WIRE
5	BR	WIRE TO WIRE
6	G	WIRE TO WIRE
7	G	WIRE TO WIRE
8	W	WIRE TO WIRE
9	W	WIRE TO WIRE
10	Y	WIRE TO WIRE
11	P	WIRE TO WIRE
12	SB	WIRE TO WIRE
13	L	WIRE TO WIRE
14	G	WIRE TO WIRE
15	R	WIRE TO WIRE
16	LG	WIRE TO WIRE
17	Y	WIRE TO WIRE
18	EG	WIRE TO WIRE
19	EG	WIRE TO WIRE
20	EG	WIRE TO WIRE
21	SB	WIRE TO WIRE
22	W	WIRE TO WIRE
23	L	WIRE TO WIRE
24	G	WIRE TO WIRE
25	LG	WIRE TO WIRE

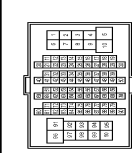
Connector No.	E41
Connector Name	ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)
Connector Type	BSA42PE-JA2A-LH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GROUND
2	G	UBMR
3	R	UBVR
4	R	UBVR
5	Y	CS-SD
6	Y	CS-SD
7	BR	DP-FI
8	BR	DP-FI
9	B	DP-FI
10	W	DS FR
11	W	DS FR
12	L	VAC
13	L	VAC
14	P	CAN-L

Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	WIRE TO WIRE
2	SHIELD	WIRE TO WIRE
3	SHIELD	WIRE TO WIRE
4	SHIELD	WIRE TO WIRE
5	BR	WIRE TO WIRE
6	G	WIRE TO WIRE
7	G	WIRE TO WIRE
8	W	WIRE TO WIRE
9	W	WIRE TO WIRE
10	Y	WIRE TO WIRE
11	P	WIRE TO WIRE
12	SB	WIRE TO WIRE
13	L	WIRE TO WIRE
14	G	WIRE TO WIRE
15	LG	WIRE TO WIRE
16	Y	WIRE TO WIRE
17	SB	WIRE TO WIRE
18	V	WIRE TO WIRE
19	V	WIRE TO WIRE
20	EG	WIRE TO WIRE
21	L	WIRE TO WIRE
22	V	WIRE TO WIRE
23	G	WIRE TO WIRE
24	P	WIRE TO WIRE
25	Y	WIRE TO WIRE
26	V	WIRE TO WIRE
27	W	WIRE TO WIRE
28	G	WIRE TO WIRE
29	EG	WIRE TO WIRE
30	R	WIRE TO WIRE
31	R	WIRE TO WIRE
32	R	WIRE TO WIRE
33	R	WIRE TO WIRE
34	R	WIRE TO WIRE
35	G	WIRE TO WIRE
36	SHIELD	WIRE TO WIRE
37	V	WIRE TO WIRE
38	BR	WIRE TO WIRE
39	EG	WIRE TO WIRE
40	W	WIRE TO WIRE
41	W	WIRE TO WIRE
42	G	WIRE TO WIRE
43	BR	WIRE TO WIRE
44	W	WIRE TO WIRE
45	W	WIRE TO WIRE
46	W	WIRE TO WIRE
47	W	WIRE TO WIRE
48	L	WIRE TO WIRE
49	L	WIRE TO WIRE
50	P	WIRE TO WIRE
51	EG	WIRE TO WIRE
52	EG	WIRE TO WIRE
53	EG	WIRE TO WIRE
54	EG	WIRE TO WIRE
55	BR	WIRE TO WIRE
56	W	WIRE TO WIRE
57	W	WIRE TO WIRE
58	W	WIRE TO WIRE
59	W	WIRE TO WIRE
60	LG	WIRE TO WIRE
61	G	WIRE TO WIRE
62	SB	WIRE TO WIRE
63	W	WIRE TO WIRE

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	THB0FW-CS16-TM4



INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

INTELLIGENT KEY SYSTEM / ENGINE START FUNCTION

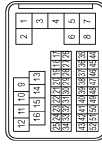
84	B	-	
85	G	-	
86	B	-	
87	SHIELD	-	
88	Y	-	
89	LG	-	
90	W	-	
91	R	-	
92	Y	-	
93	B	-	
94	L	-	
95	G	-	
96	W	-	
97	Y	-	
98	P	-	
99	L	-	
100	P	-	

Connector No.	F10D
Connector Name	STOP LAMP SWITCH
Connector Type	IMP4FW-LG



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

Connector No.	F40
Connector Name	WIRE TO WIRE
Connector Type	SAABFB-RSS-SH28



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L/Y	-
2	SHIELD	-
3	L/B	-
4	SHIELD	-
5	BR	-
7	G	-
8	W	-
9	W	-
10	G	-
12	P	-
13	L	-
14	LG	-
15	BR	-
16	Y	-
18	LG	-

19	P	-
21	Y	-
22	G	-
23	Y	-
24	LG	-
25	V	-
27	GR	-
28	BR	-
29	L	-
30	R	-
31	P	-
32	W	-
33	SB	-
34	O	-
35	SHLD	-
36	W	-
38	Y	-
39	Y	-
40	G	-
41	B	-
42	GR	-
43	R	-
45	O	-
46	SHIELD	-
47	W/L	-
48	LG	-
49	O/L	-
50	L/Y	-
51	W	-
52	L/G	-

Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK0DFG-DGY



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	IGNITION POWER SUPPLY
2	BR	BATTERY POWER SUPPLY
3	O	CAN-H
4	V	K-LINE

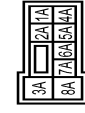
5	B	GROUND
9	Y	IGNITION POWER SUPPLY
10	P	BACK-UP LAMP RELAY
11	LG	CAN-L
12	GR	STARTER RELAY
10	B	GROUND

Connector No.	F30I
Connector Name	TCM
Connector Type	SPT0FG



Terminal No.	Color Of Wire	Signal Name [Specification]
1	-	IGNITION POWER SUPPLY
2	-	BATTERY POWER SUPPLY
3	-	CAN-H
4	-	K-LINE
5	-	GROUND
6	-	IGNITION POWER SUPPLY
7	-	BACK-UP LAMP RELAY
8	-	STARTER RELAY
10	-	GROUND

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NSM8FW-M2



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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

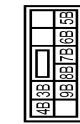
< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

INTELLIGENT KEY SYSTEM / ENGINE START FUNCTION

Terminal No.	Color Of Wire	Signal Name [Specification]
1A	Y	-
2A	G	-
3A	L	-
4A	R	-
5A	V	-
6A	Y	-
7A	R	-
8A	L	-

Connector No. M2
 Connector Name FUSE BLOCK (J/B)
 Connector Type NS1DFW-CS



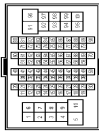
Terminal No.	Color Of Wire	Signal Name [Specification]
3B	P	-
4B	G	-
5B	BG	-
6B	Y	-
7B	P	-
8B	R	-
9B	SB	-

Connector No. M3
 Connector Name FUSE BLOCK (J/B)
 Connector Type NS1DFW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
10C	L	-
11C	R	-
12C	BG	-
6C	R	-
7C	B	-
9C	BG	-

Connector No. M6
 Connector Name WIRE TO WIRE
 Connector Type TH88MM-CS18-TM4

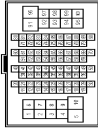


Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	R	-
3	B	-
4	SHIELD	-
5	P	-
6	Y	-
7	L	-
8	BR	-
9	R	-
10	R	-
11	BR	-
12	BG	-
13	L	-
14	R	-
15	P	-
16	V	-
17	SB	-
18	V	-
20	BG	-
21	L	-
22	W	-
23	P	-
24	BR	-
25	Y	-
26	V	-
27	G	-
28	G	-
31	L	-

Terminal No.	Color Of Wire	Signal Name [Specification]
32	G	-
33	B	-
34	W	-
35	R	-
36	SHIELD	-
37	V	-
38	BG	-
39	BR	-
41	W	-
42	BG	-
43	BG	-
45	W	-
49	L	-
50	P	-
51	Y	-
54	Y	-
57	G	-
59	W	-
60	L	-
61	G	-
62	SB	-
63	G	-
64	B	-
65	W	-
66	R	-
67	SHIELD	-
68	Y	-
69	GR	-
71	L	-
72	Y	-
73	SB	-
74	BR	-
74	L	-
75	G	-
76	GR	-
76	W	-
77	P	-
77	R	-
78	L	-
78	L	-
79	R	-
79	W	-
80	SB	-
80	SB	-
81	SB	-
82	SB	-
83	V	-
84	G	-
85	L	-
86	P	-

Terminal No.	Color Of Wire	Signal Name [Specification]
87	W	-
89	CR	-
90	SHIELD	-
91	W	-
92	Y	-
93	BR	-
94	P	-
95	GR	-
96	W	-
97	L	-
98	SHIELD	-
99	V	-
100	SB	-

Connector No. M7
 Connector Name WIRE TO WIRE
 Connector Type TH88MM-CS18-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	SB	-
3	W	-
5	G	-
6	BG	-
7	W	-
8	B	-
11	V	-
12	SB	-
13	LG	-
14	Y	-
15	G	-
16	R	-
17	W	-
18	SB	-
19	SB	-
20	BR	-
21	SHIELD	-
22	Y	-
24	V	-
27	B	-
28	W	-

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< DTC/CIRCUIT DIAGNOSIS >

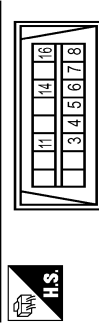
[WITH INTELLIGENT KEY SYSTEM]

INTELLIGENT KEY SYSTEM / ENGINE START FUNCTION

29	R	-	-	-	-
30	SHIELD	-	-	-	-
31	P	-	-	-	-
32	P	-	-	-	-
33	SB	-	-	-	-
34	L	-	-	-	-
35	P	-	-	-	-
36	L	-	-	-	-
37	P	-	-	-	-
38	P	-	-	-	-
39	Y	-	-	-	-
40	SB	-	-	-	-
44	L	-	-	-	-
45	GR	-	-	-	-
46	LG	-	-	-	-
47	SB	-	-	-	-
48	EG	-	-	-	-
49	R	-	-	-	-
50	P	-	-	-	-
60	P	-	-	-	-
61	L	-	-	-	-
62	SHIELD	-	-	-	-
63	R	-	-	-	-
64	G	-	-	-	-
65	SHIELD	-	-	-	-
66	SB	-	-	-	-
67	V	-	-	-	-
68	LG	-	-	-	-
69	SHIELD	-	-	-	-
70	R	-	-	-	-
73	G	-	-	-	-
74	R	-	-	-	-
75	W	-	-	-	-
76	W	-	-	-	-
77	B	-	-	-	-
78	P	-	-	-	-
79	GR	-	-	-	-
83	EG	-	-	-	-
85	LG	-	-	-	-
86	R	-	-	-	-
87	Y	-	-	-	-
88	W	-	-	-	-
89	BR	-	-	-	-
90	EG	-	-	-	-
91	W	-	-	-	-
92	V	-	-	-	-
93	BR	-	-	-	-
94	V	-	-	-	-
95	G	-	-	-	-
96	Y	-	-	-	-

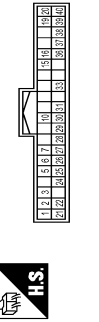
38	W	-	-
39	R	-	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



8	P	-	-
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Connector No.	M53
Connector Name	COMBINATION METER
Connector Type	TH10FW-NH

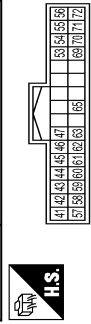


Connector No.	M65
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH146FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
5	L	MANUAL MODE SHIFT UP SIGNAL
6	GR	COMMUNICATION SIGNAL (METER->METER)
7	GR	VEHICLE SPEED SIGNAL (2-PULSE)
8	SB	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)
10	W	MANUAL MODE SIGNAL
11	G	NON-MANUAL MODE SIGNAL
14	BR	COMMUNICATION SIGNAL (LCD->AMP)
20	L	IGN ON/OFF SIGNAL
23	Y	AT SHOW SWITCH SIGNAL
25	V	MANUAL MODE SHIFT DOWN SIGNAL
27	LG	COMMUNICATION SIGNAL (METER->AMP)
28	R	VEHICLE SPEED SIGNAL (8-PULSE)
30	V	PARKING BRAKE SWITCH SIGNAL
34	Y	COMMUNICATION SIGNAL (AMP->LCD)
38	P	BLOWER MOTOR CONTROL SIGNAL

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH136FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
41	V	ACC POWER SUPPLY
42	Y	FUEL LEVEL SENSOR SIGNAL
43	R	INTAKE SENSOR SIGNAL
44	LG	IN-VEHICLE SENSOR SIGNAL
45	P	AMBIENT SENSOR SIGNAL

Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	BATTERY POWER SUPPLY
2	LG	COMMUNICATION SIGNAL (METER->AMP)
3	GR	COMMUNICATION SIGNAL (AMP->METER)
5	B	GROUND
6	P	ALTERNATOR SIGNAL
7	BR	AIR BAG SIGNAL
10	G	SECURITY SIGNAL
15	B	GROUND
16	B	METER CONTROL SWITCH GROUND
19	B	ILL GND
20	R	ILL
21	BL	IGNITION SIGNAL
24	BR	COMMUNICATION SIGNAL (LCD->AMP)
25	Y	COMMUNICATION SIGNAL (AMP->LCD)
26	R	VEHICLE SPEED SIGNAL (8-PULSE)
27	V	PARKING BRAKE SWITCH SIGNAL
28	W	BRAKE FLUID LEVEL SWITCH SIGNAL
29	SB	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)
30	G	SEAT BELT BUCKLE SWITCH SIGNAL (PASSENGER SIDE)
31	L	WASHER LEVEL SWITCH SIGNAL
33	B	ILLUMINATION CONTROL SIGNAL
36	LG	SELECT SWITCH SIGNAL
37	SB	ENTER SWITCH SIGNAL
38	L	TRIP A/B RESET SWITCH SIGNAL
39	R	ILLUMINATION CONTROL SWITCH SIGNAL (-)
49	EG	ILLUMINATION CONTROL SWITCH SIGNAL (+)

Connector No.	M59
Connector Name	PUSH-BUTTON IGNITION SWITCH
Connector Type	TK08FBR



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

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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

INTELLIGENT KEY SYSTEM / ENGINE START FUNCTION

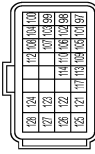
46	EG	IGNITION POWER SUPPLY
47	EG	IGNITION POWER SUPPLY
53	G	IGNITION POWER SUPPLY
54	Y	BATTERY POWER SUPPLY
55	B	GROUND
56	L	CAN-H
57	W	BRAKE FLUID LEVEL SWITCH SIGNAL
58	BR	FUEL LEVEL SENSOR GROUND
59	GR	INTAKE SENSOR GROUND
60	L	IN-VEHICLE SENSOR GROUND
61	BR	AMBIENT SENSOR GROUND
62	SB	SUNLOAD SENSOR GROUND
63	R	EVJ SIGNAL
65	BG	EVJ SIGNAL
66	W	EVJ SIGNAL
70	B	EACH DOOR LOCK POWER SUPPLY
71	B	GROUND
72	P	CAN-L

Connector No.	M104
Connector Name	REMOTE KEYLESS ENTRY RECEIVER
Connector Type	JABMFB



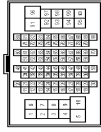
Terminal No.	Wire	Signal Name [Specification]
1	BG	GROUND
2	Y	SIGNAL OUTPUT
4	LG	BATTERY

Connector No.	M107
Connector Name	ECM
Connector Type	RI14EGV-R28-R-1H-Z



Terminal No.	Color Of Wire	Signal Name [Specification]
77	G	ACCELERATOR PEDAL POSITION SENSOR 1 (With ICC)
78	B	ACCELERATOR PEDAL POSITION SENSOR 2 (With ICC)
86	Y	ACCELERATOR PEDAL POSITION SENSOR 2 (With ICC)
88	G	SENSOR POWER SUPPLY (With ICC)
89	L	SENSOR GROUND (Without ICC)
100	W	SENSOR GROUND
101	SB	ASC/D/ICC STEERING SWITCH
102	LG	EVAP CONTROL SYSTEM PRESS SENSOR
103	G	SENSOR POWER SUPPLY (With ICC)
104	BR	SENSOR GROUND (With ICC)
104	GR	SENSOR GROUND (Without ICC)
105	L	REFRIGERANT PRESS SENSOR
106	W	FUEL TANK TEMPERATURE SENSOR
107	LG	SENSOR GROUND
108	G	SENSOR GROUND
108	G	IMP SIGNAL
110	R	ENGINE SPEED OUTPUT SIGNAL
112	V	SENSOR GROUND
113	P	CAN COMMUNICATION LINE
114	L	CAN COMMUNICATION LINE
117	V	DATA LINK CONNECTOR
121	LG	EVAP CANISTER VENT CONTROL VALVE
122	P	STOP LAMP SWITCH
123	B	ECM GROUND
124	B	ECM GROUND
125	R	POWER SUPPLY FOR ECM
126	BR	ASC/D/ICC BRAKE SWITCH
127	B	ECM GROUND
128	B	ECM GROUND

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-GS16-1M4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	C	—
2	C	—
3	GR	—
4	SB	—
7	W	—
10	W	—
15	SB	—
16	V	—
17	BR	—
26	BR	—
27	LG	—
28	Y	—
29	Y	—
30	V	—
32	BR	—
33	G	—
35	R	—
55	W	—
56	B	—
57	R	—
58	G	—
59	SHIELD	—
60	V	—
61	LG	—
62	BR	—
63	L	—
64	LG	—
66	B	—
67	W	—
68	SHIELD	—
69	V	—
70	Y	—
71	SB	—
72	W	—

73	G	—
75	W	—
80	V	—
81	SB	—
82	V	—
83	P	—
84	R	—
85	L	—
86	BG	—
87	L	—
88	P	—
91	V	—
92	G	—
94	G	—
95	W	—
96	Y	—
97	Y	—
98	BR	—
99	P	— [Without BOSE audio]
99	V	— [With BOSE audio]
100	L	— [Without BOSE audio]
100	SB	— [With BOSE audio]

Connector No.	M118
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	M03FB-LG



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	BAT (7/L)
2	W	POWER WINDOW POWER SUPPLY(BAT)
3	Y	POWER WINDOW POWER SUPPLY(WRAD)

INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

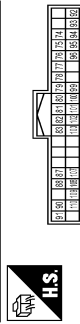
INTELLIGENT KEY SYSTEM / ENGINE START FUNCTION

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	MS16FW-CS



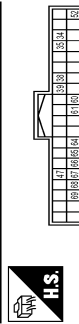
Terminal No.	4	5	6	7	8	9	10	11	13	14	15	17	18	19
Color Of Wire	LG	Y	Y	V	G	BR	R	R	B	W	Y	W	BG	V
Signal Name [Specification]	INTERIOR ROOM LAMP POWER SUPPLY	PASSENGER DOOR LOCK OUTPUT	SEAT BELT LOCK OUTPUT	ALL DOOR FUEL LID LOCK OUTPUT	DRIVER DOOR FUEL LID UNLOCK OUTPUT	REAR DOOR UNLOCK OUTPUT	BAT (FUSE)	GROUND	PUSH-BUTTON IGNITION SW ILL GND	ACC IND	TURN SIGNAL RH (FRONT)	TURN SIGNAL LH (FRONT)	INT ROOM LAMP CONT	

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	74	75	76	77	78	79	80	81	82	83	87	90	91	92	93	94	95	96	98	100	102	103	107	109		
Color Of Wire	SB	GR	V	LG	Y	BR	BR	W	Y	R	BR	P	L	LG	V	Y	BG	GR	R	R	SB	BG	LG	R		
Signal Name [Specification]	PASSENGER DOOR ANT-	PASSENGER DOOR ANT+	DRIVER DOOR ANT-	DRIVER DOOR ANT+	ROOM ANT-	ROOM ANT+	NOIS ANT	NOIS ANT AMP	IGN RELAY (F/R) CONT	COMBI SW INPUT 5	COMBI SW INPUT 3	CAN-L	CAN-H	KEY SLOT ILL CONT	ON IND	PUDDLE LAMP CONT	ACC RELAY CONT	A/T SHFT SELECTOR POWER SUPPLY	SHIF TP REQUEST SW	PASSENGER DOOR REQUEST SW	DRIVER DOOR REQUEST SW	BLOWER FAN MOTOR RELAY CONT	KEYLESS ENTRY RECEIVER POWER SUPPLY	COMBI SW INPUT 1	COMBI SW INPUT 4	COMBI SW INPUT 2

Connector No.	M121
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FOV-NH



Terminal No.	113	118	119	121	123	124	132	133	134	137	138	140	141	143	144	145	148	150	151		
Color Of Wire	P	SB	SB	BR	W	LG	BR	W	GR	BG	Y	GR	G	BG	G	L	SB	LG	G		
Signal Name [Specification]	CALICAL SENSOR	STOP LAMP SW 1	STOP LAMP SW 2	DR DOOR UNLOCK SENSOR	IGN F/B	PASSENGER DOOR SW	POWER WINDOW SW COMM	PUSH-BUTTON IGNITION SW ILL POWER	LOCK IND	RECEIVER SENSOR GND	RECEIVER SENSOR POWER SUPPLY	TIRE PRESSURE MONITOR COMM	SWI TAMP	SECURITY ILL LAMP CONT	COMBI SW OUTPUT 5	COMBI SW OUTPUT 1	COMBI SW OUTPUT 2	COMBI SW OUTPUT 3	COMBI SW OUTPUT 4	DRIVER DOOR SW	REAR WINDOW DEFROGGER RELAY CONT

Terminal No.	110
Color Of Wire	G
Signal Name	HAZARD SW



Terminal No.	110
Color Of Wire	G
Signal Name	HAZARD SW

Connector No.	M125
Connector Name	WIRE TO WIRE
Connector Type	M03FW-LC



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

Connector No.	M126
Connector Name	WIRE TO WIRE
Connector Type	M03MW-LC



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

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INTELLIGENT KEY SYSTEM/ENGINE START FUNCTION

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

INTELLIGENT KEY SYSTEM / ENGINE START FUNCTION

Connector No.	M137
Connector Name	INSIDE KEY ANTENNA (INSTRUMENT CENTER)
Connector Type	RM02FC0Y



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

Connector No.	M137
Connector Name	A/T SHIFT SELECTOR
Connector Type	TH12PW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	--
2	V	--
3	L	--
4	B	--
5	G	--
7	R	--
8	SB	--
9	B	--
10	GR	--
11	R	--

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INFINITI VEHICLE IMMOBILIZER SYSTEM-NATS

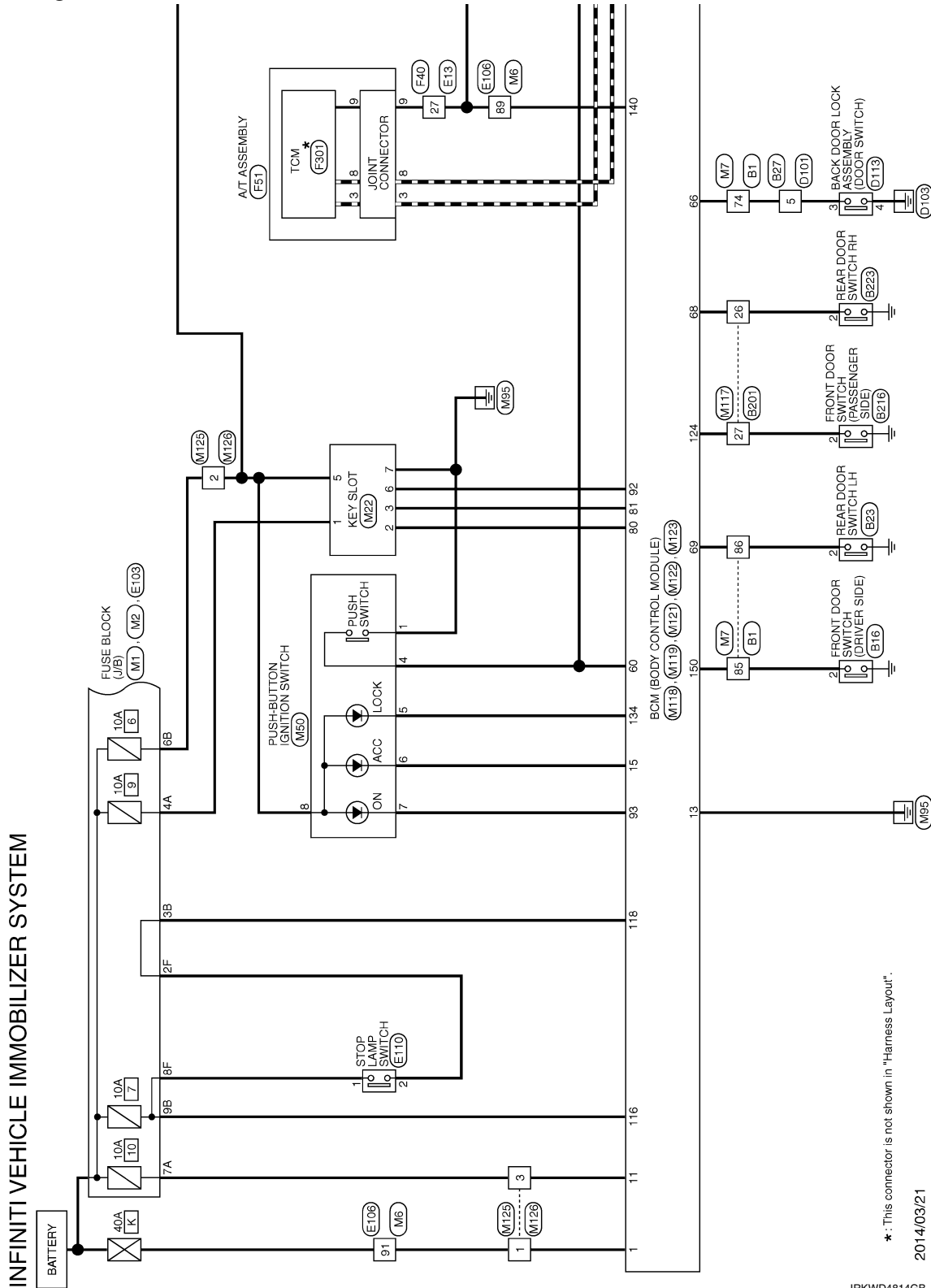
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[WITH INTELLIGENT KEY SYSTEM]

INFINITI VEHICLE IMMOBILIZER SYSTEM-NATS

Wiring Diagram - IVIS -

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

2014/03/21

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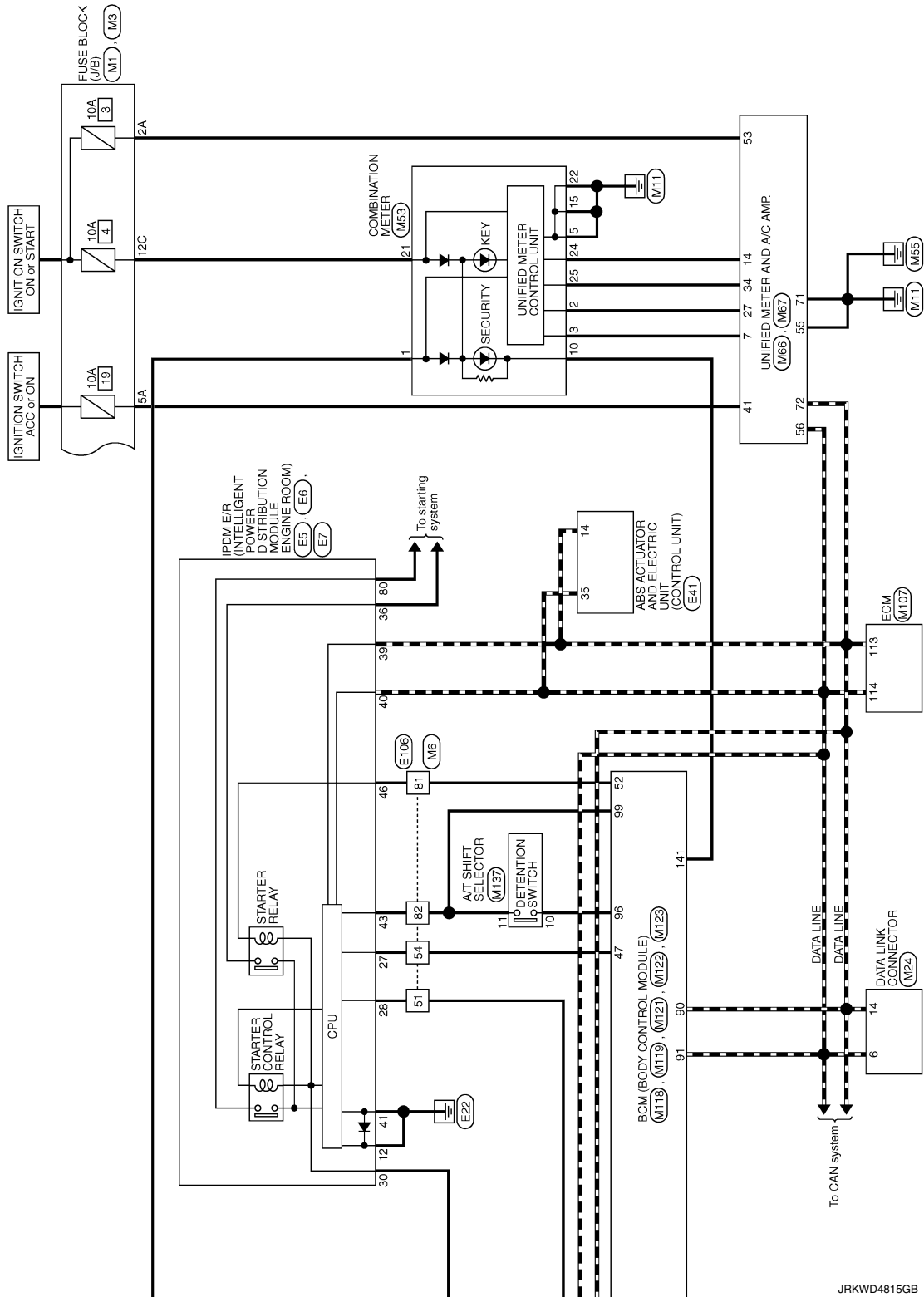
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INFINITI VEHICLE IMMOBILIZER SYSTEM-NATS

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]



JRKWD4815GB

INFINITI VEHICLE IMMOBILIZER SYSTEM-NATS

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

INFINITI VEHICLE IMMOBILIZER SYSTEM

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



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

Connector No.	B16
Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)
Connector Type	AG8FW



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

Connector No.	B23
Connector Name	REAR DOOR SWITCH LH
Connector Type	AG8FW



Terminal No.	Color Of Wire	Signal Name [Specification]
2	LG	-

Connector No.	B27
Connector Name	WIRE TO WIRE
Connector Type	MB80MW-LC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	R	-
3	GR	-
4	EG	-
7	W	-
10	W	-
18	SB	-
19	Y	-
26	BR	-
27	L	-
28	Y	-
29	Y	-
30	GR	-
31	R	-
32	BR	-
33	G	-
31	R	-
35	G	-
36	R	-
37	R	-
38	B	-
58	SHIELD	-
60	LG	-
61	W	-
62	BR	-

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	R	-
3	GR	-
4	EG	-
7	W	-
10	W	-
18	SB	-
19	Y	-
26	BR	-
27	L	-
28	Y	-
29	Y	-
30	GR	-
31	R	-
32	BR	-
33	G	-
31	R	-
35	G	-
36	R	-
37	R	-
38	B	-
58	SHIELD	-
60	LG	-
61	W	-
62	BR	-

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INFINITI VEHICLE IMMOBILIZER SYSTEM-NATS

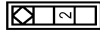
< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

INFINITI VEHICLE IMMOBILIZER SYSTEM

83	P		
84	L		
85	G		
86	P		
87	L		
88	SHIELD		
89	V		
90	Y		
91	SB		
92	R		
93	G		
94	R		
95	SB		
96	G		
97	G		
98	R		
99	P		
100	L		

Connector No.	B223
Connector Name	REAR DOOR SWITCH RH
Connector Type	A03FW



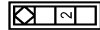
Terminal No.	Color Of Wire	Signal Name [Specification]
2	BR	--

Connector No.	D101
Connector Name	WIRE TO WIPE
Connector Type	M03FW-LC



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

Connector No.	B216
Connector Name	FRONT DOOR SWITCH (PASSENGER SIDE)
Connector Type	A03FW



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

Connector No.	D113
Connector Name	BACK DOOR LOCK ASSEMBLY
Connector Type	NS03FW-GS



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

Connector No.	E5
Connector Name	POWER INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	TH03FW-CSTZ-M4-1V



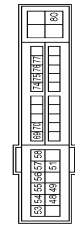
Terminal No.	Color Of Wire	Signal Name [Specification]
4	V	--
5	L	--
7	R	--
12	B/W	--
13	Y	--
16	LG	--
19	W	--
22	G	--
23	EG	--
24	L	--
30	GR	--
36	G	--

Connector No.	E6
Connector Name	POWER INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	TH03FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
39	P	--
41	B/W	--
43	SB	--
44	BR	--
45	G	--
46	R	--

Connector No.	E7
Connector Name	POWER INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	TH03FW-CSTZ-M4



Terminal No.	Color Of Wire	Signal Name [Specification]
48	L	--
49	EG	--
51	Y	--
53	W	--
54	P	--
55	SB	--
56	LG	--
57	GS	--
58	V	--
69	BR	--
70	EG	--
74	P	--
75	SB	--

INFINITI VEHICLE IMMOBILIZER SYSTEM-NATS

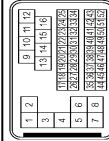
< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

INFINITI VEHICLE IMMOBILIZER SYSTEM

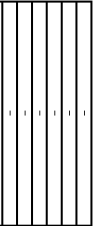
76	Y	-
77	R	-
80	W	-

Connector No.	E13
Connector Name	WIRE TO WIRE
Connector Type	SAA33RMB-RSE-SHZ8



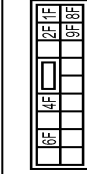
37	SHIELD	-
38	P	-
39	B	-
40	R	-
41	W	-
42	LG	-
43	G	-
45	BG	-
46	SHIELD	-
47	W	-
48	BR	-
49	G	-
50	B	-
51	SB	-
52	R	-

Connector No.	E41
Connector Name	BASE ACTUATOR AND ELECTRIC UNIT CONTROL UNIT
Connector Type	BAA42F-AHZ-F-LH



31	R	VDO OFF SW
32	L	GRF-T
35	B	BUS-TL
15	P	-
16	V	-
17	SB	-
18	V	-
20	BG	-
21	L	-
22	V	-
23	G	-
24	P	-
25	Y	-
26	V	-
27	W	-
28	G	-
32	EG	-
33	W	-
34	R	-
35	G	-
36	SHIELD	-
37	V	-
38	BR	-
39	BG	-
41	W	-
42	G	-
43	BR	-
45	W	-
50	P	-
51	L	-
54	BG	-
57	BR	-
59	W	-
60	LG	-
61	G	-
62	SB	-
63	W	-
64	B	-
65	G	-
66	R	-
67	SHIELD	-
68	LG	-
70	W	-
71	R	-
72	Y	-
73	B	-
74	BR	-

Connector No.	E103
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS18FW-GS



Terminal No.	Color Of Wire	Signal Name [Specification]
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1	L/Y	-
2	SHIELD	-
3	L/B	-
4	SHIELD	-
5	BR	-
7	G	-
8	W	-
9	W	-
10	Y	-
11	P	-
12	SB	-
13	G	-
14	G	-
15	R	-
16	LG	-
18	Y	-
19	BG	-
20	B	-
21	SB	-
22	W	-
23	L	-
24	G	-
25	LG	-
27	GR	-
28	B	-
30	R	-
31	BR	-
32	Y	-
33	G	-
34	BG	-

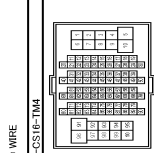
Terminal No.	Color Of Wire	Signal Name [Specification]
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1	B	GROUND
2	G	URBR
3	R	URBV
4	B	GROUND
5	Y	DS FL
6	BG	DP RL
7	BR	DP RR
9	B	DP FR
10	W	DS FR
12	L	VAC
14	P	CAN-L
15	SHIELD	GROUND
16	Y	BUS-L
25	LG	DS FL
27	GR	UZ
28	G	UZ
29	LG	DS RR
30	SB	ELS

Terminal No.	Color Of Wire	Signal Name [Specification]
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1F	SB	-
2F	W	-
4F	G	-
8F	BR	-
9F	L	-
9F	R	-

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-SS16-TM



Terminal No.	Color Of Wire	Signal Name [Specification]
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1	R	-
2	W	-
3	GR	-
5	GR	-
8	Y	-
9	BR	-
10	BG	-
11	SB	-

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INFINITI VEHICLE IMMOBILIZER SYSTEM-NATS

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

INFINITI VEHICLE IMMOBILIZER SYSTEM

74	L	--	Without LCC
75	G	--	Without LCC
76	W	--	Without LCC
77	Y	--	Without LCC
78	P	--	Without LCC
79	R	--	Without LCC
80	SB	--	Without LCC
81	R	--	Without LCC
82	SB	--	Without LCC
83	G	--	Without LCC
84	L	--	Without LCC
85	L	--	Without LCC
86	P	--	Without LCC
87	GR	--	Without LCC
88	GR	--	Without LCC
89	GR	--	Without LCC
90	SHIELD	--	Without LCC
91	W	--	Without LCC
92	Y	--	Without LCC
93	V	--	Without LCC
94	LG	--	Without LCC
95	BG	--	Without LCC
96	P	--	Without LCC
97	R	--	Without LCC
98	SHIELD	--	Without LCC
99	P	--	Without LCC
100	P	--	Without LCC

38	Y	--	
39	Y	--	
40	C	--	
41	B	--	
42	GR	--	
43	R	--	
45	O	--	
46	SHIELD	--	
47	W/L	--	
48	LG	--	
49	O/L	--	
50	L/Y	--	
51	W	--	
52	L/G	--	

38	Y	--	
39	Y	--	
40	C	--	
41	B	--	
42	GR	--	
43	R	--	
45	O	--	
46	SHIELD	--	
47	W/L	--	
48	LG	--	
49	O/L	--	
50	L/Y	--	
51	W	--	
52	L/G	--	

Terminal No.	Color Of Wire	Signal Name [Specification]
1	L/Y	
2	SHIELD	
3	L/B	
4	SHIELD	
5	BR	
7	G	
8	W	
9	W	
10	G	
11	R	
12	P	
13	P	
14	LG	
15	BR	
16	Y	
18	LG	
19	P	
20	O	
21	Y	
22	G	
23	Y	
24	LG	
25	V	
27	GR	
28	BR	
29	B	
30	B	
31	P	
32	W	
33	SB	
34	O	
37	SHIELD	
38	W	

Connector No.	FSI
Connector Name	A/T ASSEMBLY
Connector Type	RK10F6-D5V

Terminal No.	Color Of Wire	Signal Name [Specification]
1	--	IGNITION POWER SUPPLY
2	--	BATTERY POWER SUPPLY
3	--	CAN-H
4	--	K-LINE
5	--	GROUND
6	--	IGNITION POWER SUPPLY
7	--	BACK-UP LAMP RELAY
8	--	CAN-L
9	--	STARTER RELAY
10	--	GROUND

Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	IGNITION POWER SUPPLY
2	BR	BATTERY POWER SUPPLY
3	O	CAN-H
4	V	K-LINE
5	B	GROUND
6	Y	IGNITION POWER SUPPLY
7	R	BACK-UP LAMP RELAY
8	LG	CAN-L
9	GR	STARTER RELAY
10	B	GROUND

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS05FW-M2

Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	IGNITION POWER SUPPLY
2	BR	BATTERY POWER SUPPLY
3	O	CAN-H
4	V	K-LINE
5	B	GROUND
6	Y	IGNITION POWER SUPPLY
7	R	BACK-UP LAMP RELAY
8	LG	CAN-L
9	GR	STARTER RELAY
10	B	GROUND

Connector No.	E110
Connector Name	STOP LAMP SWITCH
Connector Type	IM0FW-LC

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

Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	IGNITION POWER SUPPLY
2	BR	BATTERY POWER SUPPLY
3	O	CAN-H
4	V	K-LINE
5	B	GROUND
6	Y	IGNITION POWER SUPPLY
7	R	BACK-UP LAMP RELAY
8	LG	CAN-L
9	GR	STARTER RELAY
10	B	GROUND

Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	IGNITION POWER SUPPLY
2	BR	BATTERY POWER SUPPLY
3	O	CAN-H
4	V	K-LINE
5	B	GROUND
6	Y	IGNITION POWER SUPPLY
7	R	BACK-UP LAMP RELAY
8	LG	CAN-L
9	GR	STARTER RELAY
10	B	GROUND

Connector No.	F301
Connector Name	TCM
Connector Type	SF10FG

Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	IGNITION POWER SUPPLY
2	BR	BATTERY POWER SUPPLY
3	O	CAN-H
4	V	K-LINE
5	B	GROUND
6	Y	IGNITION POWER SUPPLY
7	R	BACK-UP LAMP RELAY
8	LG	CAN-L
9	GR	STARTER RELAY
10	B	GROUND

Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	IGNITION POWER SUPPLY
2	BR	BATTERY POWER SUPPLY
3	O	CAN-H
4	V	K-LINE
5	B	GROUND
6	Y	IGNITION POWER SUPPLY
7	R	BACK-UP LAMP RELAY
8	LG	CAN-L
9	GR	STARTER RELAY
10	B	GROUND

JRKWD4936GB

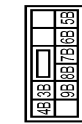
INFINITI VEHICLE IMMOBILIZER SYSTEM-NATS

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

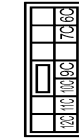
INFINITI VEHICLE IMMOBILIZER SYSTEM

Connector No.	RZ
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS10PW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	-
2	G	-
3	B	-
4	Y	-
5	R	-
6	P	-
7	B	-
8	R	-
9	P	-
10	SB	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS10PW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
10C	L	-
11G	R	-
12C	BG	-
8C	R	-
7C	B	-
9C	BG	-

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH80MM-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	R	-
3	B	-
4	SHIELD	-
5	G	-
6	Y	-
7	BR	-
8	Y	-
9	BR	-
10	R	-
11	BR	-
12	BG	-
13	L	-
14	R	-
15	P	-
16	V	-
17	SB	-
18	BG	-
19	B	-
20	W	-
21	L	-
22	W	-
23	P	-
24	BR	-
25	Y	-
26	V	-
27	G	-
28	G	-
31	L	-
32	G	-
33	B	-
34	R	-
35	SHIELD	-
36	V	-
37	BR	-
38	BG	-
39	BR	-
41	W	-
42	BG	-

43	BG	-
44	Y	-
45	P	-
50	BR	-
51	R	-
54	Y	-
57	G	-
59	W	-
60	L	-
61	G	-
62	SB	-
63	G	-
64	B	-
65	W	-
66	R	-
67	SHIELD	-
68	GR	-
69	GR	-
70	LG	-
71	LG	-
72	Y	-
73	SB	-
74	L	-
75	G	-
76	GR	-
76	W	-
77	P	-
77	R	-
78	Y	-
78	B	-
79	W	-
79	Y	-
80	SB	-
81	SB	-
82	SB	-
83	Y	-
84	G	-
85	L	-
86	P	-
87	W	-
88	GR	-
89	SHIELD	-
90	Y	-
92	Y	-
93	BR	-
94	P	-
95	GR	-
96	W	-
97	L	-

68	SHIELD
69	SB
70	SB

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MM-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
3	SB	- [With automatic drive positioner]
3	W	- [Without automatic drive positioner]
5	G	-
6	BG	-
7	W	-
8	B	-
11	V	-
12	SB	-
13	LG	-
14	Y	-
15	G	-
16	G	-
17	W	-
18	SB	-
19	LG	-
20	BR	-
21	SHIELD	-
22	Y	-
24	V	-
27	B	-
28	W	-
29	R	-
30	SHIELD	-
31	L	-
32	SB	-
34	SB	-
35	P	-
36	L	-
37	P	-
38	P	-

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INFINITI VEHICLE IMMOBILIZER SYSTEM-NATS


< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

INFINITI VEHICLE IMMOBILIZER SYSTEM


30	Y	-
31	Y	-
32	Y	-
33	R	-
34	G	-
35	Y	-
36	Y	-
37	Y	-
38	W	-
39	R	-
40	Y	-
41	Y	-
42	Y	-
43	Y	-
44	Y	-
45	LG	-
46	LG	-
47	SB	-
48	BG	-
49	R	-
50	L	-
51	P	-
52	L	-
53	R	-
54	G	-
55	SHIELD	-
56	SHIELD	-
57	Y	-
58	Y	-
59	LG	-
60	LG	-
61	W	-
62	W	-
63	R	-
64	G	-
65	SHIELD	-
66	SHIELD	-
67	Y	-
68	Y	-
69	SHIELD	-
70	W	-
71	G	-
72	G	-
73	G	-
74	R	-
75	W	-
76	W	-
77	B	-
78	P	-
79	GR	-
80	GR	-
81	LG	-
82	LG	-
83	Y	-
84	Y	-
85	Y	-
86	Y	-
87	Y	-
88	W	-
89	BR	-
90	BG	-
91	G	-
92	V	-
93	BR	-
94	V	-
95	G	-
96	Y	-
97	Y	-
98	W	-
99	R	-

Connector No.	M22
Connector Name	KEY SLOT
Connector Type	TH132FW-NH




Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	BAT
2	GR	CLOCK
3	W	DATA
4	Y	ILL BAT
5	Y	ILL
6	LG	GROUND
7	B	KEY SWITCH SIGNAL
11	BR	KEY SWITCH SIGNAL

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD18FW




Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	-
4	B	-
5	B	-
6	L	-
7	V	-
8	C	-
11	SB	-
14	P	-
18	Y	-

Connector No.	M50
Connector Name	PUSH-BUTTON IGNITION SWITCH
Connector Type	TK08EB



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

Connector No.	M53
Connector Name	COMBINATION METER
Connector Type	TH06FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	BATTERY POWER SUPPLY
2	LG	COMMUNICATION SIGNAL (METER->AMP)
3	GR	COMMUNICATION SIGNAL (AMP->METER)
5	B	GROUND
6	B	ALTER BAG SIGNAL
7	BR	ALTER BAG SIGNAL
10	CS	SECURITY SIGNAL
15	B	GROUND
16	B	METER CONTROL SWITCH GROUND
19	B	ILL GND
20	R	ILL
21	BG	IGNITION SIGNAL

Terminal No.	Color Of Wire	Signal Name [Specification]
22	B	GROUND
24	BR	COMMUNICATION SIGNAL (LCD->AMP)
25	V	COMMUNICATION SIGNAL (AMP->LCD)
26	V	VEHICLE SPEED SIGNAL (R-PULSE)
27	V	PARKING BRAKE SWITCH SIGNAL
28	W	BRAKE FLUID LEVEL SWITCH SIGNAL
29	SB	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)
30	G	SEAT BELT BUCKLE SWITCH SIGNAL (PASSENGER SIDE)
31	L	WASHER LEVEL SWITCH SIGNAL
33	B	ILLUMINATION CONTROL SIGNAL
36	LG	SELECT SWITCH SIGNAL
37	SB	ENTER SWITCH SIGNAL
38	L	TRIP A/B RESET SWITCH SIGNAL
39	P	ILLUMINATION CONTROL SWITCH SIGNAL (C)
40	BG	ILLUMINATION CONTROL SWITCH SIGNAL (C)

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH06FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
5	L	MANUAL MODE SHIFT UP SIGNAL
7	GR	COMMUNICATION SIGNAL (AMP->METER)
8	L	VEHICLE SPEED SIGNAL (2-PULSE)
9	SB	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)
10	W	MANUAL MODE SIGNAL
11	G	NON-MANUAL MODE SIGNAL
14	BR	COMMUNICATION SIGNAL (LCD->AMP)
20	L	IGN ON/OFF SIGNAL
23	Y	AT SNOW SWITCH SIGNAL
25	V	MANUAL MODE SHIFT DOWN SIGNAL
27	LG	COMMUNICATION SIGNAL (METER->AMP)
28	V	PARKING BRAKE SWITCH SIGNAL
34	Y	COMMUNICATION SIGNAL (AMP->LCD)
38	P	BLOWER MOTOR CONTROL SIGNAL

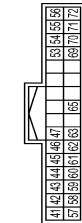
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< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

INFINITI VEHICLE IMMOBILIZER SYSTEM

Connector No.	M87
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	1133EW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
41	V	ACC POWER SUPPLY
42	B	FUEL PUMP SIGNAL
43	R	BRAKE SENSOR SIGNAL
44	LG	IN-VEHICLE SENSOR SIGNAL
45	P	AMBIENT SENSOR SIGNAL
46	BG	SUNLOAD SENSOR SIGNAL
47	G	EXHAUST GASES OUTSIDE COOLING SENSOR SIGNAL
53	G	IGNITION POWER SUPPLY
54	Y	BATTERY POWER SUPPLY
55	B	GROUND
56	L	CAN-H
57	W	BRAKE FLUID LEVEL SWITCH SIGNAL
58	BR	FUEL LEVEL SENSOR GROUND
59	GR	INTAKE SENSOR GROUND
60	BR	IN-VEHICLE SENSOR GROUND
61	BR	AMBIENT SENSOR GROUND
62	SB	SUNLOAD SENSOR GROUND
63	R	ECV SIGNAL
65	BG	A. C. LAN SIGNAL
69	R	EACH DOOR MOTOR POWER SUPPLY
70	R	GROUND
71	B	GROUND
72	P	CAN-L

Connector No.	M107
Connector Name	ECM
Connector Type	FR124EV-R2Z-R-1H-Z



Terminal No.	Color Of Wire	Signal Name [Specification]
97	R	ACCELERATOR PEDAL POSITION SENSOR L
98	Y	ACCELERATOR PEDAL POSITION SENSOR R (With BOSE)
98	G	SENSOR POWER SUPPLY (With ICC)
98	W	SENSOR POWER SUPPLY (Without ICC)
100	L	SENSOR GROUND
101	SB	ASCD/ICC STEERING SWITCH
102	LG	EVAP CONTROL SYSTEM PRESS SENSOR
103	G	SENSOR POWER SUPPLY (With ICC)
104	GR	SENSOR GROUND (With ICC)
104	GR	SENSOR GROUND (Without ICC)
105	L	REFRIGERANT PRESS SENSOR
106	W	FUEL TANK TEMPERATURE SENSOR
107	BG	SENSOR POWER SUPPLY
108	Y	SENSOR GROUND
109	G	LAMP SIGNAL
110	R	ENGINE SPEED OUTPUT SIGNAL
112	V	SENSOR GROUND
113	P	CAN COMMUNICATION LINE
114	L	CAN COMMUNICATION LINE
117	V	DATA LINK CONNECTOR
121	LG	EVAP CANISTER VENT CONTROL VALVE
122	P	STOP LAMP SWITCH
123	B	ECM GROUND
124	B	ECM GROUND
125	R	POWER SUPPLY FOR ECM
126	BR	ASCD/ICC BRAKE SWITCH
127	B	ECM GROUND
128	B	ECM GROUND

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	1180MW-GS16-1M4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	
2	GR	
3	GR	
4	SB	
7	W	
10	W	
15	SB	
16	V	
17	BR	
26	BR	
27	LG	
28	Y	
29	Y	
30	V	
31	BR	
32	GR	
33	C	
51	R	
55	W	
56	B	
57	R	
57	G	
59	G	
60	V	
61	LG	
62	BR	
63	L	
64	LG	
65	B	
66	W	
67	W	
68	SHIELD	
69	V	
70	Y	
71	SB	
72	W	

73	G	
73	W	
81	SB	
81	SB	
82	V	
83	P	
84	R	
85	L	
86	BG	
87	L	
88	P	
91	V	
92	G	
94	G	
95	W	
97	V	
98	BR	
99	P	
99	V	
100	L	
100	L	
100	SB	

Connector No.	M118
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	M03FB-LG



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	BAT. (7/L)
2	W	POWER WINDOW POWER SUPPLY(BAT)
3	Y	POWER WINDOW POWER SUPPLY(STR)

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< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

INFINITI VEHICLE IMMOBILIZER SYSTEM

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	MS16W-LS



4	5	7	8	9	10	
11	13	14	15	17	18	19

Terminal No.	Color Of Wire	Signal Name [Specification]
4	LG	INTERIOR ROOM LAMP POWER SUPPLY
5	Y	PASSENGER DOOR UNLOCK OUTPUT
7	Y	STEP LAMP CONT
8	V	ALL DOOR FUEL LID LOCK OUTPUT
9	G	DRIVER DOOR FUEL LID UNLOCK OUTPUT
10	BR	REAR DOOR UNLOCK OUTPUT
11	R	BAT (FUSE)
13	B	GROUND
14	W	PUSH-BUTTON IGNITION SW ILL GND
15	Y	ACC IND
17	W	TURN SIGNAL RH (FRONT)
18	BG	TURN SIGNAL LH (FRONT)
19	V	INT ROOM LAMP CONT

Connector No.	M121
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FGY-NH



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

Terminal No.	Color Of Wire	Signal Name [Specification]
32	SB	LUGGAGE ROOM ANT-
35	V	LUGGAGE ROOM ANT+
38	B	BACK DOOR ANT-
39	W	BACK DOOR ANT+
47	Y	IGN RELAY (PDM E/R) CONT
52	SB	STARTER RELAY CONT
60	BR	PUSH SW

61	W	BACK DOOR OPENER REQUEST SW
64	Y	BACK DOOR BUZZER (S/C) (E/DOOR)
65	BG	REAR WIPER STOP POSITION
66	R	BACK DOOR SW
67	GR	BACK DOOR OPENER SW
68	BR	REAR RH DOOR SW
69	BR	REAR LH DOOR SW



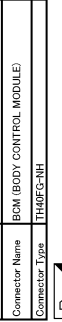
Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



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

Terminal No.	Color Of Wire	Signal Name [Specification]
74	SB	PASSENGER DOOR ANT-
75	GR	PASSENGER DOOR ANT+
76	V	DRIVER DOOR ANT-
77	LG	DRIVER DOOR ANT+
78	GR	ROOM ANT-
79	GR	ROOM ANT+
80	GR	MATS ANT AMP
81	W	MATS ANT AMP
82	R	IGN RELAY (F/B) CONT
83	Y	KEYLESS ENTRY RECEIVER COMM
87	BR	COMBI SW INPUT 5
88	V	COMBI SW INPUT 3
90	P	CAN-L
91	L	CAN-H
92	LG	KEY SLOT ILL CONT
93	V	ON IND
94	Y	PUDDLE LAMP CONT
95	BG	ACC RELAY CONT
98	GR	A/T SHIF SELECTOR POWER SUPPLY
100	G	DRIVER DOOR REQUEST SW
101	SB	PASSENGER DOOR REQUEST SW
102	BG	DRIVER DOOR REQUEST SW
103	LG	BLOWER FAN MOTOR RELAY CONT
107	LG	KEYLESS ENTRY RECEIVER POWER SUPPLY
108	R	COMBI SW INPUT 1
109	Y	COMBI SW INPUT 2

Terminal No.	110	Color Of Wire	G
Connector Name	HAZARD SW		



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

Terminal No.	Color Of Wire	Signal Name [Specification]
113	P	OPTICAL SENSOR
116	SB	STOP LAMP SW 1
118	P	STOP LAMP SW 2
119	SB	DR DOOR UNLOCK SENSOR
121	BR	IGN F/B
123	W	IGN F/B
124	LG	PASSENGER DOOR SW
132	BR	POWER WINDOW SW COMM
133	W	PUSH-BUTTON IGNITION SW ILL POWER
134	GR	LOCK IND
137	BG	RECEIVER SENSOR GND
138	L	RECEIVER SENSOR SUPPLY
139	L	TIRE PRESSURE RECEIVER COMM
140	GR	SWI T/N/P
141	G	SECURITY ILL LAMP CONT
142	BG	COMBI SW OUTPUT 5
143	P	COMBI SW OUTPUT 1
144	G	COMBI SW OUTPUT 2
145	L	COMBI SW OUTPUT 3
148	SB	COMBI SW OUTPUT 4
150	LG	DRIVER DOOR SW
151	G	REAR WINDOW DEFROGGER RELAY CONT

Connector No.	M125
Connector Name	WIRE TO WIRE
Connector Type	M03FW-LC



1	2	3
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Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	
2	Y	
3	R	

Connector No.	M126
Connector Name	WIRE TO WIRE
Connector Type	M03MW-LC



1	2	3
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Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	
2	Y	
3	R	

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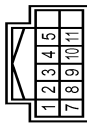
[WITH INTELLIGENT KEY SYSTEM]

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INFINITI VEHICLE IMMOBILIZER SYSTEM

Connector No.	M137
Connector Name	A/T SHFT SELECTOR
Connector Type	11P2EM-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	V	-
3	L	-
4	B	-
5	G	-
7	R	-
8	SB	-
9	B	-
10	GR	-
11	R	-

VEHICLE SECURITY SYSTEM

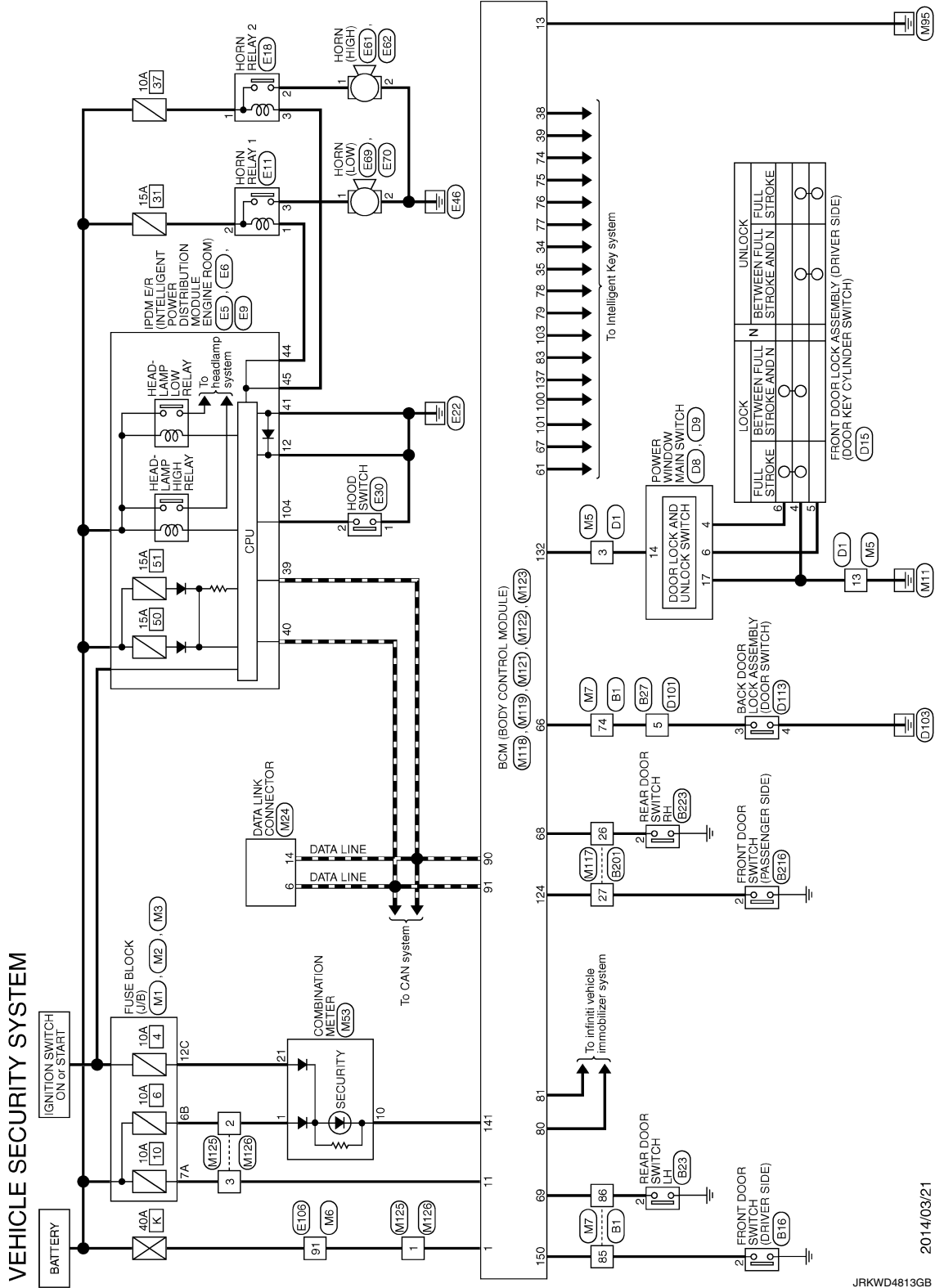
[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

VEHICLE SECURITY SYSTEM

Wiring Diagram - VEHICLE SECURITY SYSTEM -

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2014/03/21

JRKWD4813GB

VEHICLE SECURITY SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

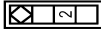
VEHICLE SECURITY SYSTEM

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	H189FW-CS16-TM4



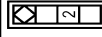
Terminal No.	Color Of Wire	Signal Name [Specification]
3	R	-
4	SB	-
5	SB	-
6	SB	-
7	V	-
8	L	-
11	V	-
12	SB	-
13	LG	-
14	GR	-
15	LG	-
16	R	-
17	W	-
18	SB	-
19	LG	-
20	GR	-
21	SHIELD	-
22	GR	-
24	P	-
27	P	-
28	R	-
29	W	-
30	SHIELD	-
31	SHIELD	-
32	W	-
33	SB	-
34	L	-
35	P	-
36	L	-
37	P	-
38	Y	-
39	Y	-
40	SB	-
44	Y	-
45	GR	-
46	LG	-

Connector No.	B16
Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)
Connector Type	AG8FW



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

Connector No.	B23
Connector Name	REAR DOOR SWITCH LH
Connector Type	AG8FW



Terminal No.	Color Of Wire	Signal Name [Specification]
2	LG	-

Connector No.	B27
Connector Name	WIRE TO WIRE
Connector Type	MB8MW-LC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	R	-
3	GR	-
4	EG	-
7	W	-
10	W	-
18	SB	-
19	Y	-
17	BR	-
26	BR	-
27	L	-
28	Y	-
29	Y	-
30	GR	-
31	R	-
32	BR	-
33	G	-
31	R	-
35	G	-
36	R	-
37	R	-
38	W	-
58	SHIELD	-
60	LG	-
61	W	-
62	BR	-

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	H189FW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	R	-
3	GR	-
4	EG	-
7	W	-
10	W	-
18	SB	-
19	Y	-
17	BR	-
26	BR	-
27	L	-
28	Y	-
29	Y	-
30	GR	-
31	R	-
32	BR	-
33	G	-
31	R	-
35	G	-
36	R	-
37	R	-
38	W	-
58	SHIELD	-
60	LG	-
61	W	-
62	BR	-

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VEHICLE SECURITY SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

VEHICLE SECURITY SYSTEM

83	P	-	-
84	G	-	-
85	G	-	-
86	P	-	-
87	L	-	-
88	SHIELD	-	-
89	V	-	-
90	Y	-	-
91	SB	-	-
92	G	-	-
93	B	-	-
94	R	-	-
95	SB	-	-
96	G	-	-
97	G	-	-
98	R	-	-
99	P	-	-
100	L	-	-

Connector No.	B216
Connector Name	FRONT DOOR SWITCH (PASSENGER SIDE)
Connector Type	A03FW



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

Connector No.	B223
Connector Name	REAR DOOR SWITCH RH
Connector Type	A03FW



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

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15



Terminal No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Color Of Wire	R	B	V	W	L	O	GR	W	O	BR	L	G	B	Y	W	R	W	G	Y
Signal Name [Specification]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

30	W	-	-
31	O	-	-
32	P	-	-
33	BR	-	-
34	V	-	-
35	GR	-	-
36	Y	-	-
37	B	-	-
38	SHIELD	-	-
39	L	-	-
40	LG	-	-
41	G	-	-
42	W	-	-
43	GR	-	-
44	W	-	-
45	G	-	-
46	G	-	-
47	R	-	-
48	G	-	-
49	GR	-	-
50	SHIELD	-	-
51	R	-	-
52	R	-	-
53	SB	-	-
54	O	-	-
55	Y	-	-

Connector No.	D8
Connector Name	POWER WINDOW MAIN SWITCH
Connector Type	NSD5FW-CS



Terminal No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Color Of Wire	Y	BR	GR	V	O	Y	BR	L	O	Y	G	P	V	B	-
Signal Name [Specification]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Connector No.	D8
Connector Name	POWER WINDOW MAIN SWITCH
Connector Type	NSD5FW-CS



Terminal No.	17	18	19
Color Of Wire	B	B	W
Signal Name [Specification]	-	-	-

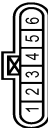
VEHICLE SECURITY SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

VEHICLE SECURITY SYSTEM

Connector No.	D13
Connector Name	FRONT DOOR LOCK ASSEMBLY (DRIVER SIDE)
Connector Type	EBEGY-RS



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

Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Type	M06FW-LC



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

Connector No.	D113
Connector Name	BACK DOOR LOCK ASSEMBLY
Connector Type	M504FW-CS



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

Connector No.	ES
Connector Name	IPM (R) INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH020FW-CS12-M4-1V



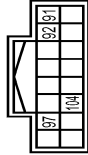
Terminal No.	Color Of Wire	Signal Name [Specification]
4	V	-
5	L	-
7	R	-
12	B/W	-
13	Y	-
16	LG	-
19	W	-
25	G	-
29	RG	-
32	LG	-
36	GR	-
38	G	-

Connector No.	EB
Connector Name	IPM (R) INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH08FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
39	P	-
41	B/W	-
43	SG	-
44	BR	-
45	G	-
46	R	-

Connector No.	EB
Connector Name	IPM (R) INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH08FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
91	P	-
92	BG	-
97	V	-
104	LG	-

Connector No.	E11
Connector Name	HORN RELAY 1
Connector Type	Z43R1-Z890A



Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	-
2	EG	-
3	B	-

Connector No.	E18
Connector Name	HORN RELAY 2
Connector Type	M03FW-R-LC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	-
2	Y	-
3	G	-

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VEHICLE SECURITY SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

VEHICLE SECURITY SYSTEM

Connector No.	E30
Connector Name	HOOD SWITCH
Connector Type	HR02E



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

Connector No.	E61
Connector Name	HORN (HIGH)
Connector Type	PR0FB-BR-A



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

Connector No.	E62
Connector Name	HORN (HIGH)
Connector Type	PR0FB-A



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

Connector No.	E69
Connector Name	HORN (LOW)
Connector Type	PR0FB-BR-A



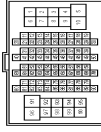
Terminal No.	1
Color Of Wire	B
Signal Name [Specification]	

Connector No.	E70
Connector Name	HORN (LOW)
Connector Type	PR0FB-A



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

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH06FW-GS1E-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	
2	W	
3	B	
4	GR	
5	GR	
6	Y	
7	Y	
8	Y	
9	BR	
10	EG	
11	SB	
12	EG	
13	L	
14	R	
15	P	
16	P	
17	Y	
18	Y	
19	Y	
20	EG	
21	L	
22	V	
23	G	
24	P	
25	Y	
26	V	
27	W	
28	G	
29	G	
30	EG	
31	EG	
32	W	
33	W	
34	C	
35	C	
36	SHIELD	
37	V	
38	BR	
39	EG	
40	EG	
41	W	
42	G	

43	BR	
44	Y	
45	Y	
46	L	
47	P	
48	P	
49	L	
50	L	
51	L	
52	L	
53	EG	
54	EG	
55	BR	
56	BR	
57	BR	
58	W	
59	W	
60	LG	
61	G	
62	SB	
63	W	
64	B	
65	G	
66	G	
67	SHIELD	
68	Y	
69	Y	
70	W	
71	R	
72	Y	
73	B	
74	BR	
75	L	
76	G	
77	W	
78	W	
79	Y	
80	P	
81	R	
82	SB	
83	EG	
84	G	
85	L	
86	P	
87	Y	
88	Y	
89	SHIELD	
90	W	
91	W	
92	Y	
93	V	
94	LG	
95	EG	
96	P	

VEHICLE SECURITY SYSTEM

[WITH INTELLIGENT KEY SYSTEM]

< DTC/CIRCUIT DIAGNOSIS >

VEHICLE SECURITY SYSTEM

87	R	-
88	SHIELD	-
89	W	-
100	P	-

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS50PW-M2



Terminal No.	Color Of Wire	Signal Name [Specification]
1A	Y	-
2A	G	-
3A	L	-
4A	R	-
5A	V	-
6A	Y	-
7A	R	-
8A	L	-

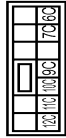
Connector No.	M2
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS10PW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
3B	W	-
4B	G	-
5B	EG	-
6B	Y	-
7B	P	-
8B	R	-

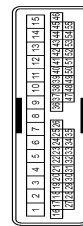
9B	SB	-
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Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
10C	L	-
11C	R	-
12C	EG	-
7C	B	-
9C	EG	-

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	B	-
3	BR	-
4	P	-
5	B	-
6	R	-
7	R	-
8	W	-
9	G	-
10	L	-
11	G	-

12	V	-
13	Y	-
14	W	-
15	W	-
16	R	-
17	B	-
18	G	-
19	Y	-
20	L	-
21	LG	-
22	L	-
23	G	-
24	Y	-
25	GR	-
26	R	-
27	SHIELD	-
28	SHIELD	-
29	Y	-
30	R	-
31	R	-
32	BR	-
33	SB	-
34	Y	-
35	P	-
36	LG	-
37	BR	-
38	P	-
39	EG	-
40	SB	-
41	B	-
42	B	-
43	BR	-
44	V	-
45	G	-
46	SB	-
47	R	-
48	G	-
49	P	-
50	SHIELD	-
51	V	-
52	R	-
53	V	-
54	LG	-
55	SB	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH50MW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	G	-
3	B	-
4	SHIELD	-
5	G	-
6	Y	-
7	BR	-
8	W	-
9	BR	-
10	R	-
11	BR	-
12	EG	-
13	L	-
14	R	-
15	P	-
16	V	-
17	SB	-
18	V	-
19	EG	-
20	W	-
21	W	-
22	W	-
23	P	-
24	BR	-
25	Y	-
26	V	-
27	G	-
28	G	-
31	L	-
32	G	-
33	B	-
34	W	-
35	SHIELD	-
36	SHIELD	-
37	V	-
38	EG	-
39	BR	-
41	W	-
42	EG	-

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VEHICLE SECURITY SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

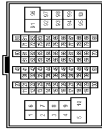
[WITH INTELLIGENT KEY SYSTEM]

VEHICLE SECURITY SYSTEM

43	EG	-	-
44	W	-	-
45	L	-	-
46	P	-	-
50	BR	-	-
51	BR	-	-
54	Y	-	-
57	G	-	-
59	W	-	-
60	L	-	-
61	G	-	-
62	SB	-	-
63	G	-	-
64	B	-	-
65	W	-	-
66	W	-	-
67	SHIELD	-	-
68	Y	-	-
69	GR	-	-
70	LG	-	-
71	LG	-	-
72	Y	-	-
73	SB	-	-
74	BR	-	- [With ICC]
74	L	-	- [Without ICC]
75	G	-	-
76	GR	-	- [Without ICC]
76	W	-	- [With ICC]
77	P	-	- [Without ICC]
77	R	-	- [With ICC]
78	L	-	- [Without ICC]
78	R	-	- [With ICC]
79	W	-	- [Without ICC]
79	Y	-	- [With ICC]
80	SB	-	-
81	SB	-	-
82	SB	-	-
83	V	-	-
84	G	-	-
85	L	-	-
86	P	-	-
87	W	-	-
89	GR	-	-
89	SHIELD	-	-
90	Y	-	-
92	Y	-	-
93	BR	-	-
94	P	-	-
95	GR	-	-
96	W	-	-
97	L	-	-

88	SHIELD	-	-
89	Y	-	-
100	SB	-	-

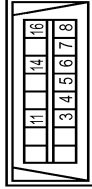
Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
3	SB	- [With automatic drive positioner]
3	W	- [Without automatic drive positioner]
5	G	-
6	EG	-
7	W	-
8	B	-
11	V	-
12	SB	-
13	LG	-
14	R	-
15	G	-
16	R	-
17	W	-
18	SB	-
19	LG	-
20	BR	-
21	SHIELD	-
22	Y	-
24	V	-
27	B	-
28	W	-
29	R	-
30	SHIELD	-
32	P	-
33	SB	-
34	L	-
35	P	-
36	L	-
37	P	-
38	P	-

39	Y	-	-
40	SB	-	-
41	L	-	-
44	L	-	-
45	GR	-	-
46	LG	-	-
47	SB	-	-
48	EG	-	-
49	R	-	-
50	L	-	-
60	P	-	-
61	L	-	-
62	SHIELD	-	-
63	R	-	-
64	LG	-	-
65	SHIELD	-	-
66	Y	-	-
68	LG	-	-
69	SHIELD	-	-
70	W	-	-
73	G	-	-
74	R	-	-
75	W	-	-
76	W	-	-
77	B	-	-
78	P	-	-
79	GR	-	-
83	EG	-	-
84	LG	-	-
85	L	-	-
87	Y	-	-
88	W	-	-
89	BR	-	-
90	EG	-	-
91	G	-	-
92	V	-	-
93	BR	-	-
94	V	-	-
95	G	-	-
96	Y	-	-
98	W	-	-
99	R	-	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16W



Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	-
5	B	-
6	D	-
7	V	-
8	G	-
11	SB	-
14	P	-
16	Y	-

Connector No.	M53
Connector Name	COMBINATION METER
Connector Type	TH40PT-1H



Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	BATTERY POWER SUPPLY
2	LG	COMMUNICATION SIGNAL (METER-AMP.)
3	GR	COMMUNICATION SIGNAL (LAMP-METER)
5	B	ALTERNATOR SIGNAL
7	BR	AIR BAG SIGNAL
10	G	SECURITY SIGNAL
15	B	GROUND
16	B	METER CONTROL SWITCH GROUND
19	B	ILL GND
20	R	ILL

JRKWD4930GB

VEHICLE SECURITY SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

VEHICLE SECURITY SYSTEM

21	BG	IGNITION SIGNAL
22	BB	COMMUNICATION SIGNAL (CD->AMP)
23	BY	COMMUNICATION SIGNAL (AMP->LCD)
25	Y	VEHICLE SPEED SIGNAL (R-PULSED)
26	R	PARKING BRAKE SWITCH SIGNAL
27	V	BRAKE FLUID LEVEL SWITCH SIGNAL
28	W	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)
29	SB	SEAT BELT BUCKLE SWITCH SIGNAL (PASSENGER SIDE)
30	G	WASHER LEVEL SWITCH SIGNAL
31	L	ILLUMINATION CONTROL SWITCH SIGNAL
33	B	SELECT SWITCH SIGNAL
36	LG	ENTER SWITCH SIGNAL
37	SB	TBP X/B RESET SWITCH SIGNAL
38	L	ILLUMINATION CONTROL SWITCH SIGNAL (S)
39	P	ILLUMINATION CONTROL SWITCH SIGNAL (C)
40	BG	ILLUMINATION CONTROL SWITCH SIGNAL (D)

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH86MM-CST4P-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	
2	G	
3	GR	
4	SB	
7	W	
10	W	
15	SB	
16	V	
17	BR	
26	BR	
27	LG	
28	Y	
30	V	
31	R	
32	BR	
33	G	
51	R	

55	W	
57	R	
58	G	
59	LG	
60	V	
61	LG	
62	BR	
63	L	
64	LG	
65	B	
66	R	
67	W	
68	SHIELD	
69	Y	
70	SB	
71	SB	
72	W	
73	G	
75	W	
80	V	
81	SB	
82	V	
83	P	
84	R	
85	L	
86	BG	
87	L	
88	L	
89	Y	
92	G	
94	G	
95	W	
96	G	
97	Y	
98	BR	
99	P	
99	V	
100	L	
100	L	
100	SB	

Connector No.	M118
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	MB8FL-C



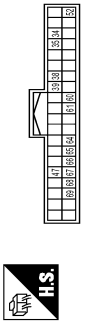
Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	BAT (F/L)
2	V	POWER WINDOW DRIVER SUPPLY (BAT)
3	Y	POWER WINDOW POWER SUPPLY (GAP)

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS18FW-CS



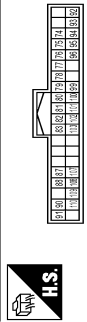
Terminal No.	Color Of Wire	Signal Name [Specification]
4	LG	INTERIOR ROOM LAMP POWER SUPPLY
5	L	PASSENGER DOOR UNLOCK OUTPUT
7	Y	STEP LAMP CONT
8	V	ALL DOOR FUEL LID LOCK OUTPUT
9	G	DRIVER DOOR FUEL LID UNLOCK OUTPUT
10	BR	REAR DOOR UNLOCK OUTPUT
11	R	BAT (FUSE)
13	B	GROUND
14	W	PUSH-BUTTON IGNITION SW ILL GND
15	W	LOCK GND (FRONT)
16	W	TURN SIGNAL (FRONT)
18	BG	TURN SIGNAL (L/FRONT)
18	V	INT ROOM LAMP CONT

Connector No.	M121
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH48FCY-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
14	SB	LUGGAGE ROOM ANT-
32	B	LUGGAGE ROOM ANT+
33	G	BACK DOOR ANT-
38	W	BACK DOOR ANT+
47	Y	IGN RELAY (BOM / R) CONT
52	SB	STARTER RELAY CONT
60	BR	PUSH SW
61	W	BACK DOOR OPENER REQUEST SW
64	V	I-KEY WARM BUZZER (ENG ROOM)
65	BG	REAR WIPER STOP POSITION
66	R	BACK DOOR SW
67	GR	BACK DOOR OPENER SW
68	BR	REAR RH DOOR SW
69	R	REAR LH DOOR SW

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH48FE-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
74	SB	PASSENGER DOOR ANT-
75	GR	PASSENGER DOOR ANT+
76	V	DRIVER DOOR ANT-
77	LG	DRIVER DOOR ANT+
78	Y	ROOM ANT-
79	BR	ROOM ANT+

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VEHICLE SECURITY SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

VEHICLE SECURITY SYSTEM

80	GR	M3	M3	IGN RELAY (E) CONT
81	WR	GR	GR	KEYLESS ENTRY RECEIVER COMM
82	R	Y	Y	KEYLESS ENTRY RECEIVER COMM
83	Y	BR	BR	COMBI SW INPUT 5
87	BR	V	V	COMBI SW INPUT 3
88	V	P	P	CAH-L
90	P	L	L	CAH-R
91	L	LG	LG	KEY SLOT ILL CONT
92	LG	Y	Y	ON IND
93	Y	GR	GR	PUDDLE LAMP CONT
94	GR	GR	GR	ACC RELAY CONT
95	GR	R	R	A/T SHIFT SELECTOR POWER SUPPLY
96	R	SB	SB	SHIF P
99	SB	SB	SB	PASSENGER DOOR REQUEST SW
100	SB	SB	SB	DRIVER DOOR REQUEST SW
102	SB	RG	RG	BLOWER FAN MOTOR RELAY CONT
103	RG	LG	LG	KEYLESS ENTRY RECEIVER POWER SUPPLY
107	LG	R	R	COMBI SW INPUT 1
108	R	Y	Y	COMBI SW INPUT 4
109	Y	Y	Y	COMBI SW INPUT 2
110	G			HAZARD SW

Connector No.	M123
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH4PFC-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
113	P	OPTICAL SENSOR
116	SB	STOP LAMP SW 1
118	P	STOP LAMP SW 2
119	BB	DR DOOR UNLOCK SENSOR
121	WR	REAR DOOR SW
122	W	IGN I2B
124	LG	PASSENGER DOOR SW
132	BR	POWER WINDOW SW COMM
133	W	PUSH-BUTTON IGNITION SW ILL POWER
134	GR	LOCK IND
137	BG	RECEIVER SENSOR GND
138	Y	RECEIVER SENSOR POWER SUPPLY

138	L	L	L	TIRE PRESSURE RECEIVER COMM
140	CR	GR	GR	SECURITY AND LAMP CONT
141	G	GR	GR	SECURITY AND LAMP CONT
142	BG			COMBI SW OUTPUT 5
143	P			COMBI SW OUTPUT 1
144	G			COMBI SW OUTPUT 2
145	L			COMBI SW OUTPUT 3
146	SB			COMBI SW OUTPUT 4
150	LG			DRIVER DOOR SW
151	G			REAR WINDOW DEFROGGER RELAY CONT

Connector No.	M125
Connector Name	WIRE TO WIRE
Connector Type	M33PW-LC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	
2	R	
3	R	

Connector No.	M126
Connector Name	WIRE TO WIRE
Connector Type	M33MW-LC



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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:0000000011017012

VALUES ON THE DIAGNOSIS TOOL

NOTE:

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

CONSULT MONITOR ITEM

Monitor Item	Condition	Value/Status
FR WIPER HI	Other than front wiper switch HI	Off
	Front wiper switch HI	On
FR WIPER LOW	Other than front wiper switch LO	Off
	Front wiper switch LO	On
FR WASHER SW	Front washer switch OFF	Off
	Front washer switch ON	On
FR WIPER INT	Other than front wiper switch INT	Off
	Front wiper switch INT	On
FR WIPER STOP	Front wiper is not in STOP position	Off
	Front wiper is in STOP position	On
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	Wiper intermittent dial position
RR WIPER ON	Other than rear wiper switch ON	Off
	Rear wiper switch ON	On
RR WIPER INT	Other than rear wiper switch INT	Off
	Rear wiper switch INT	On
RR WASHER SW	Rear washer switch OFF	Off
	Rear washer switch ON	On
RR WIPER STOP	Rear wiper is in STOP position	Off
	Rear wiper is not in STOP position	On
TURN SIGNAL R	Other than turn signal switch RH	Off
	Turn signal switch RH	On
TURN SIGNAL L	Other than turn signal switch LH	Off
	Turn signal switch LH	On
TAIL LAMP SW	Other than lighting switch 1ST and 2ND	Off
	Lighting switch 1ST or 2ND	On
HI BEAM SW	Other than lighting switch HI	Off
	Lighting switch HI	On
HEAD LAMP SW 1	Other than lighting switch 2ND	Off
	Lighting switch 2ND	On
HEAD LAMP SW 2	Other than lighting switch 2ND	Off
	Lighting switch 2ND	On
PASSING SW	Other than lighting switch PASS	Off
	Lighting switch PASS	On
AUTO LIGHT SW	Other than lighting switch AUTO	Off
	Lighting switch AUTO	On

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SEC

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Monitor Item	Condition	Value/Status
FR FOG SW	Front fog lamp switch OFF	Off
	Front fog lamp switch ON	On
RR FOG SW	NOTE: The item is indicated, but not monitored.	Off
DOOR SW-DR	Driver door closed	Off
	Driver door opened	On
DOOR SW-AS	Passenger door closed	Off
	Passenger door opened	On
DOOR SW-RR	Rear RH door closed	Off
	Rear RH door opened	On
DOOR SW-RL	Rear LH door closed	Off
	Rear LH door opened	On
DOOR SW-BK	Back door closed	Off
	Back door opened	On
CDL LOCK SW	Other than power door lock switch LOCK	Off
	Power door lock switch LOCK	On
CDL UNLOCK SW	Other than power door lock switch UNLOCK	Off
	Power door lock switch UNLOCK	On
KEY CYL LK-SW	Other than driver door key cylinder LOCK position	Off
	Driver door key cylinder LOCK position	On
KEY CYL UN-SW	Other than driver door key cylinder UNLOCK position	Off
	Driver door key cylinder UNLOCK position	On
KEY CYL SW-TR	NOTE: The item is indicated, but not monitored.	Off
HAZARD SW	Hazard switch is OFF	Off
	Hazard switch is ON	On
REAR DEF SW	NOTE: The item is indicated, but not monitored.	Off
TR CANCEL SW	NOTE: The item is indicated, but not monitored.	Off
TR/BD OPEN SW	Back door opener switch OFF	Off
	While the back door opener switch is turned ON	On
TRNK/HAT MNTR	NOTE: The item is indicated, but not monitored.	Off
REVERSE SW	NOTE: The item is indicated, but not monitored.	Off
RKE-LOCK	LOCK button of the key is not pressed	Off
	LOCK button of the key is pressed	On
RKE-UNLOCK	UNLOCK button of the key is not pressed	Off
	UNLOCK button of the key is pressed	On
RKE-TR/BD	NOTE: The item is indicated, but not monitored.	Off
RKE-PANIC	PANIC button of the key is not pressed	Off
	PANIC button of the key is pressed	On
RKE-P/W OPEN	UNLOCK button of the key is not pressed	Off
	UNLOCK button of the key is pressed and held	On

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Monitor Item	Condition	Value/Status	
RKE-MODE CHG	LOCK/UNLOCK button of the key is not pressed and held simultaneously	Off	A
	LOCK/UNLOCK button of the key is pressed and held simultaneously	On	B
OPTICAL SENSOR	Bright outside of the vehicle	Close to 5 V	
	Dark outside of the vehicle	Close to 0 V	
REQ SW -DR	Driver door request switch is not pressed	Off	C
	Driver door request switch is pressed	On	
REQ SW -AS	Passenger door request switch is not pressed	Off	D
	Passenger door request switch is pressed	On	
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off	E
REQ SW -RL	NOTE: The item is indicated, but not monitored.	Off	
REQ SW -BD/TR	Back door request switch is not pressed	Off	F
	Back door request switch is pressed	On	
PUSH SW	Push-button ignition switch (push switch) is not pressed	Off	G
	Push-button ignition switch (push switch) is pressed	On	
IGN RLY2 -F/B	NOTE: The item is indicated, but not monitored.	Off	H
ACC RLY -F/B	NOTE: The item is indicated, but not monitored.	Off	
CLUCH SW	NOTE: The item is indicated, but not monitored.	Off	I
BRAKE SW 1	The brake pedal is depressed when No. 7 fuse is blown	Off	
	The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal	On	J
BRAKE SW 2	The brake pedal is not depressed	Off	
	The brake pedal is depressed	On	SEC
DETE/CANCL SW	Selector lever in P position	Off	
	Selector lever in any position other than P	On	
SFT PN/N SW	Selector lever in any position other than P and N	Off	L
	Selector lever in P or N position	On	
S/L -LOCK	NOTE: The item is indicated, but not monitored.	Off	M
S/L -UNLOCK	NOTE: The item is indicated, but not monitored.	Off	
S/L RELAY-F/B	NOTE: The item is indicated, but not monitored.	Off	N
UNLK SEN -DR	Driver door is unlocked	Off	
	Driver door is locked	On	O
PUSH SW -IPDM	Push-button ignition switch (push-switch) is not pressed	Off	
	Push-button ignition switch (push-switch) is pressed	On	P
IGN RLY1 -F/B	Ignition switch in OFF or ACC position	Off	
	Ignition switch in ON position	On	
DETE SW -IPDM	Selector lever in any position other than P	Off	
	Selector lever in P position	On	
SFT PN -IPDM	Selector lever in any position other than P and N	Off	
	Selector lever in P or N position	On	

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Monitor Item	Condition	Value/Status
SFT P -MET	Selector lever in any position other than P	Off
	Selector lever in P position	On
SFT N -MET	Selector lever in any position other than N	Off
	Selector lever in N position	On
ENGINE STATE	Engine stopped	Stop
	While the engine stalls	Stall
	At engine cranking	Crank
	Engine running	Run
S/L LOCK-IPDM	NOTE: The item is indicated, but not monitored.	Off
S/L UNLK-IPDM	NOTE: The item is indicated, but not monitored.	Off
S/L RELAY-REQ	NOTE: The item is indicated, but not monitored.	Off
VEH SPEED 1	While driving	Equivalent to speedometer reading
VEH SPEED 2	While driving	Equivalent to speedometer reading
DOOR STAT-DR	Driver door is locked	LOCK
	Wait with selective UNLOCK operation (5 seconds)	READY
	Driver door is unlocked	UNLOCK
DOOR STAT-AS	Passenger door is locked	LOCK
	Wait with selective UNLOCK operation (5 seconds)	READY
	Passenger door is unlocked	UNLOCK
ID OK FLAG	Driver side door is open after ignition switch is turned OFF (Shift position is in the P position)	Reset
	Ignition switch ON	Set
PRMT ENG STRT	The engine start is prohibited	Reset
	The engine start is permitted	Set
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset
KEY SW -SLOT	The key is not inserted into key slot	Off
	The key is inserted into key slot	On
RKE OPE COUN1	During the operation of the key	Operation frequency of the key
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	—
CONFIRM ID ALL	The key ID that the key slot receives does not accord with any key ID registered to BCM.	Yet
	The key ID that the key slot receives accords with any key ID registered to BCM.	Done
CONFIRM ID4	The key ID that the key slot receives does not accord with the fourth key ID registered to BCM.	Yet
	The key ID that the key slot receives accords with the fourth key ID registered to BCM.	Done
CONFIRM ID3	The key ID that the key slot receives does not accord with the third key ID registered to BCM.	Yet
	The key ID that the key slot receives accords with the third key ID registered to BCM.	Done

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Monitor Item	Condition	Value/Status	
CONFIRM ID2	The key ID that the key slot receives does not accord with the second key ID registered to BCM.	Yet	A
	The key ID that the key slot receives accords with the second key ID registered to BCM.	Done	B
CONFIRM ID1	The key ID that the key slot receives does not accord with the first key ID registered to BCM.	Yet	C
	The key ID that the key slot receives accords with the first key ID registered to BCM.	Done	D
TP 4	The ID of fourth key is not registered to BCM	Yet	E
	The ID of fourth key is registered to BCM	Done	F
TP 3	The ID of third key is not registered to BCM	Yet	G
	The ID of third key is registered to BCM	Done	H
TP 2	The ID of second key is not registered to BCM	Yet	I
	The ID of second key is registered to BCM	Done	J
TP 1	The ID of first key is not registered to BCM	Yet	K
	The ID of first key is registered to BCM	Done	L
AIR PRESS FL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front LH tire	M
AIR PRESS FR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front RH tire	N
AIR PRESS RR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear RH tire	O
AIR PRESS RL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear LH tire	P
ID REGST FL1	ID of front LH tire transmitter is registered	Done	Q
	ID of front LH tire transmitter is not registered	Yet	R
ID REGST FR1	ID of front RH tire transmitter is registered	Done	S
	ID of front RH tire transmitter is not registered	Yet	T
ID REGST RR1	ID of rear RH tire transmitter is registered	Done	U
	ID of rear RH tire transmitter is not registered	Yet	V
ID REGST RL1	ID of rear LH tire transmitter is registered	Done	W
	ID of rear LH tire transmitter is not registered	Yet	X
WARNING LAMP	Tire pressure indicator OFF	Off	Y
	Tire pressure indicator ON	On	Z
BUZZER	Tire pressure warning alarm is not sounding	Off	AA
	Tire pressure warning alarm is sounding	On	AB

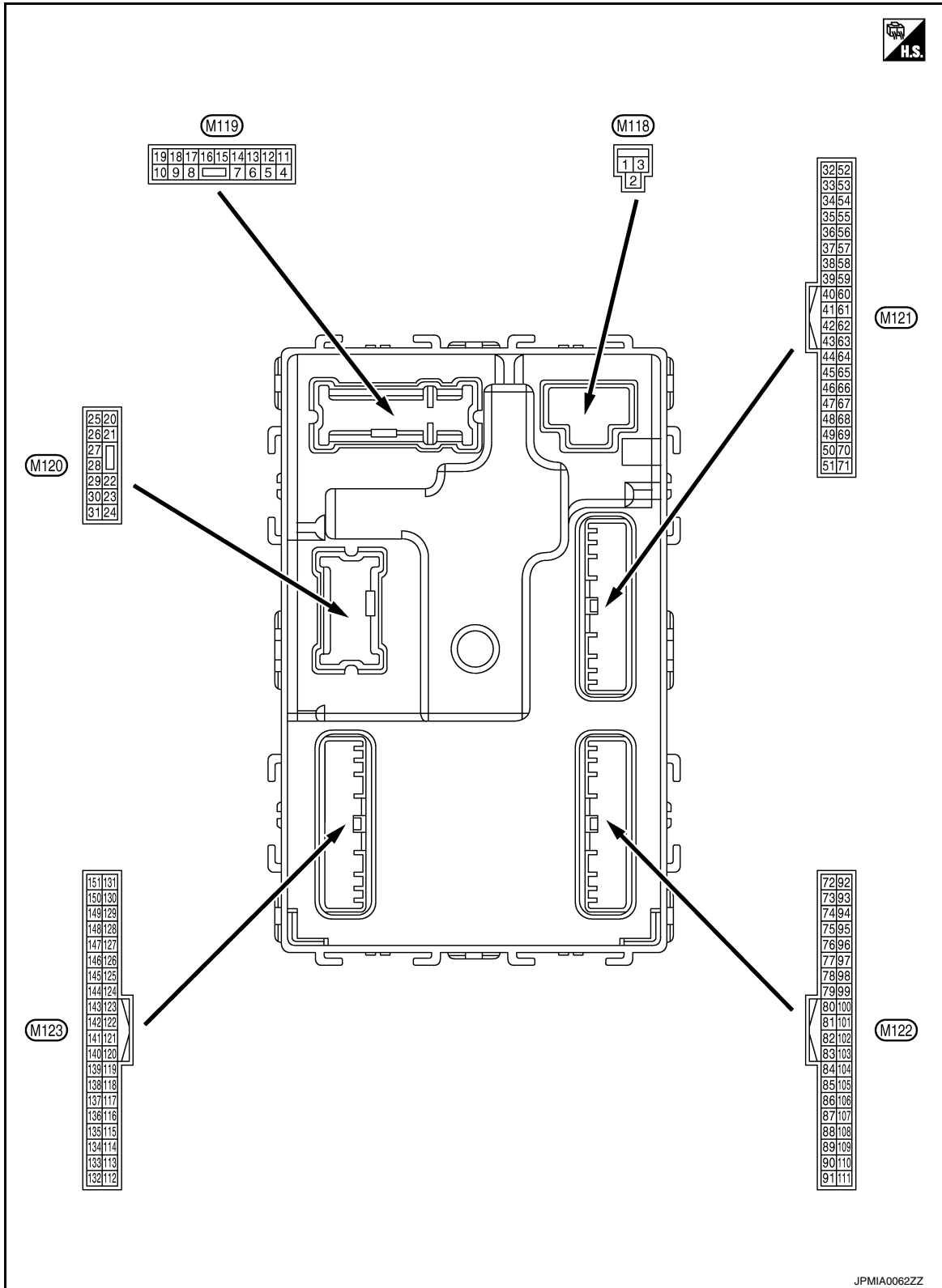
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

TERMINAL LAYOUT

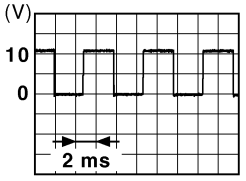


PHYSICAL VALUES

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-					
1 (W)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (W)	Ground	P/W power supply (BAT)	Output	Ignition switch OFF		Battery voltage
3 (Y)	Ground	P/W power supply (RAP)	Output	Ignition switch ON		Battery voltage
4 (LG)	Ground	Interior room lamp power supply	Output	Interior room lamp battery saver is activated. (Cuts the interior room lamp power supply)		0 V
				Interior room lamp battery saver is not activated. (Outputs the interior room lamp power supply)		Battery voltage
5 (L)	Ground	Passenger door UN- LOCK	Output	Passenger door	UNLOCK (Actuator is activated)	Battery voltage
					Other than UNLOCK (Actuator is not activated)	0 V
7 (Y)	Ground	Step lamp	Output	Step lamp	ON	0 V
						OFF
8 (V)	Ground	All doors, fuel lid LOCK	Output	All doors	LOCK (Actuator is activated)	Battery voltage
						Other than LOCK (Actuator is not activated)
9 (G)	Ground	Driver door, fuel lid UNLOCK	Output	Driver door	UNLOCK (Actuator is activated)	Battery voltage
						Other than UNLOCK (Actuator is not activated)
10 (BR)	Ground	Rear RH door and rear LH door UN- LOCK	Output	Rear RH door and rear LH door	UNLOCK (Actuator is activated)	Battery voltage
						Other than UNLOCK (Actuator is not activated)
11 (R)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
13 (B)	Ground	Ground	—	Ignition switch ON		0 V
14 (W)	Ground	Push-button ignition switch illumination ground	Output	Tail lamp	OFF	0 V
					ON	<p>NOTE: When the illumination brightening/dimming level is in the neutral position</p>  <p style="text-align: right; font-size: small;">JSNIA0010GB</p>
15 (Y)	Ground	ACC indicator lamp	Output	Ignition switch	OFF or ON	Battery voltage
					ACC	0 V

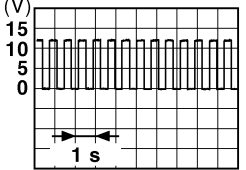
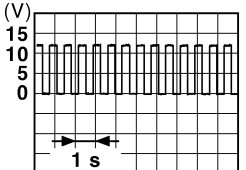
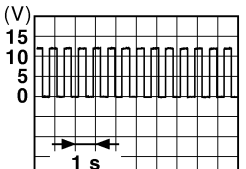
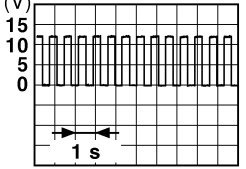
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
17 (W)	Ground	Turn signal RH (Front)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	 <p style="text-align: right; font-size: small;">PKID0926E</p>
18 (BG)	Ground	Turn signal LH (Front)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	 <p style="text-align: right; font-size: small;">PKID0926E</p>
19 (V)	Ground	Room lamp timer control	Output	Interior room lamp	OFF	Battery voltage
					ON	0 V
20 (V)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	 <p style="text-align: right; font-size: small;">PKID0926E</p>
23 (G)	Ground	Back door open	Output	Back door	OPEN (Back door opener actuator is activated)	Battery voltage
					Other than OPEN (Back door opener actuator is not activated)	0 V
25 (G)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	 <p style="text-align: right; font-size: small;">PKID0926E</p>
26 (G)	Ground	Rear wiper	Output	Rear wiper	OFF (Stopped)	0 V
					ON (Operated)	Battery voltage

BCM (BODY CONTROL MODULE)

[WITH INTELLIGENT KEY SYSTEM]

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
34 (SB)	Ground	Luggage room antenna (-)	Output	Ignition switch OFF	
				When Intelligent Key is not in the passenger compartment	
35 (V)	Ground	Luggage room antenna (+)	Output	Ignition switch OFF	
				When Intelligent Key is not in the passenger compartment	
38 (B)	Ground	Back door antenna (-)	Output	When the back door opener request switch is operated with ignition switch OFF	
				When Intelligent Key is not in the antenna detection area	

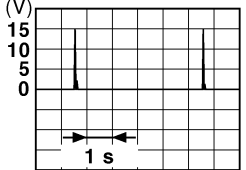
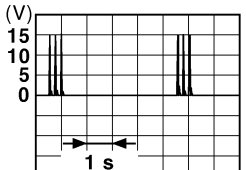
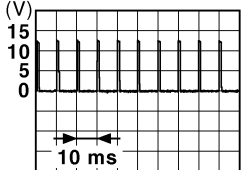
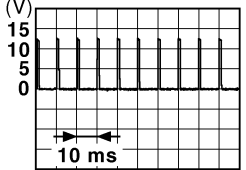
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BCM (BODY CONTROL MODULE)

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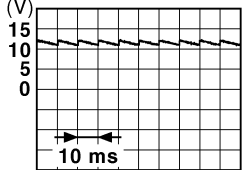
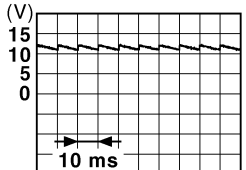
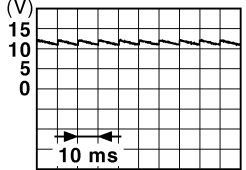
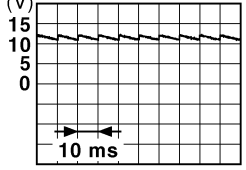
[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
		Signal name	Input/ Output			
+	-					
39 (W)	Ground	Back door antenna (+)	Output	When the back door opener request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 <small>JMKIA0062GB</small>
				When Intelligent Key is not in the antenna detection area	 <small>JMKIA0063GB</small>	
47 (Y)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC	Battery voltage
					ON	0 V
52 (SB)	Ground	Starter relay control	Output	Ignition switch ON	When selector lever is in P or N position	Battery voltage
					When selector lever is not in P or N position	0 V
60 (BR)	Ground	Push-button ignition switch (Push switch)	Input	Push-button ignition switch (push switch)	Pressed	0 V
					Not pressed	Battery voltage
61 (W)	Ground	Back door opener request switch	Input	Back door opener request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 <small>JPMIA0016GB</small> 1.0 V
64 (V)	Ground	Intelligent Key warning buzzer (Engine room)	Output	Intelligent Key warning buzzer (Engine room)	Sounding	0 V
					Not sounding	Battery voltage
65 (BG)	Ground	Rear wiper stop position	Input	Rear wiper	In stop position	 <small>JPMIA0016GB</small> 1.0 V
					Not in stop position	0 V

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[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
66 (R)	Ground	Back door switch	Input	Back door switch	 <p>11.8 V</p>
				OFF (Door close)	0 V
67 (GR)	Ground	Back door opener switch	Input	Back door opener switch	 <p>11.8 V</p>
				Pressed	0 V
68 (BR)	Ground	Rear RH door switch	Input	Rear RH door switch	 <p>11.8 V</p>
				OFF (Door close)	0 V
69 (R)	Ground	Rear LH door switch	Input	Rear LH door switch	 <p>11.8 V</p>
				OFF (Door close)	0 V
				ON (Door open)	0 V

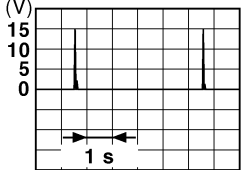
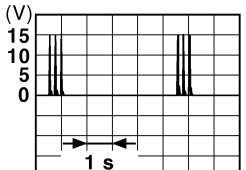
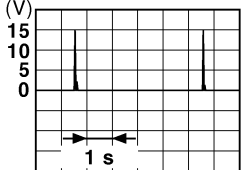
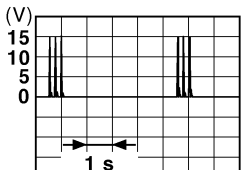
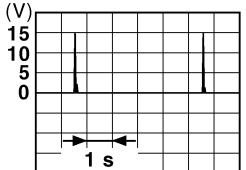
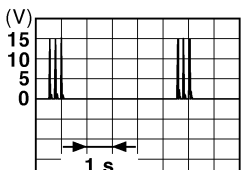
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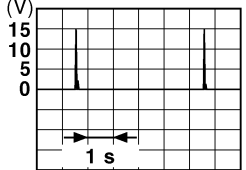
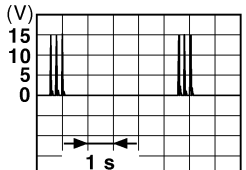
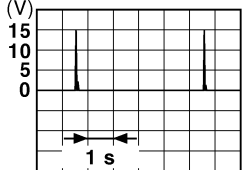
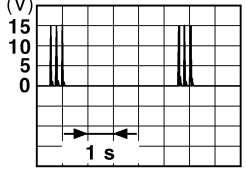
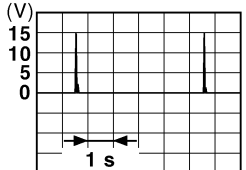
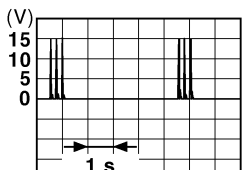
[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
74 (SB)	Ground	Passenger door antenna (-)	Output	When Intelligent Key is in the antenna detection area	 <p style="text-align: right; font-size: small;">JMKIA0062GB</p>
				When the passenger door request switch is operated with ignition switch OFF	 <p style="text-align: right; font-size: small;">JMKIA0063GB</p>
75 (GR)	Ground	Passenger door antenna (+)	Output	When Intelligent Key is in the antenna detection area	 <p style="text-align: right; font-size: small;">JMKIA0062GB</p>
				When the passenger door request switch is operated with ignition switch OFF	 <p style="text-align: right; font-size: small;">JMKIA0063GB</p>
76 (V)	Ground	Driver door antenna (-)	Output	When Intelligent Key is in the antenna detection area	 <p style="text-align: right; font-size: small;">JMKIA0062GB</p>
				When the driver door request switch is operated with ignition switch OFF	 <p style="text-align: right; font-size: small;">JMKIA0063GB</p>

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[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
77 (LG)	Ground	Driver door antenna (+)	Output	When Intelligent Key is in the antenna detection area	 <p style="text-align: right; font-size: small;">JMKIA0062GB</p>
				When the driver door request switch is operat- ed with ignition switch OFF	 <p style="text-align: right; font-size: small;">JMKIA0063GB</p>
78 (Y)	Ground	Room antenna 1 (-) (Instrument panel)	Output	When Intelligent Key is in the passenger compart- ment	 <p style="text-align: right; font-size: small;">JMKIA0062GB</p>
				Ignition switch OFF	 <p style="text-align: right; font-size: small;">JMKIA0063GB</p>
79 (BR)	Ground	Room antenna 1 (+) (Instrument panel)	Output	When Intelligent Key is in the passenger compart- ment	 <p style="text-align: right; font-size: small;">JMKIA0062GB</p>
				Ignition switch OFF	 <p style="text-align: right; font-size: small;">JMKIA0063GB</p>

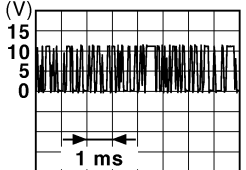
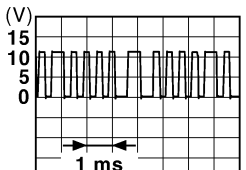
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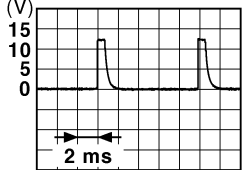
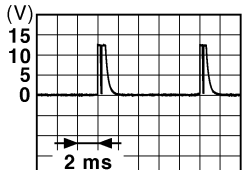
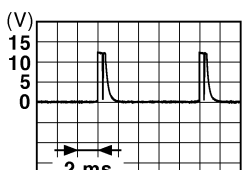
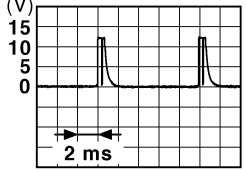
[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
+	-					
80 (GR)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
81 (W)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
82 (R)	Ground	Ignition relay [Fuse block (J/B)] control	Output	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage
83 (Y)	Ground	Remote keyless entry receiver communication	Input/ Output	During waiting		 <p style="text-align: right; font-size: small;">JMKIA0064GB</p>
				When operating either button on the key		 <p style="text-align: right; font-size: small;">JMKIA0065GB</p>

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[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
87 (BR)	Ground	Combination switch INPUT 5	Input	Combination switch	All switches OFF (Wiper intermittent dial 4) <div style="text-align: right;">  <p style="font-size: small;">JPMIA0041GB</p> <p>1.4 V</p> </div>
				Combination switch	Front fog lamp switch ON (Wiper intermittent dial 4) <div style="text-align: right;">  <p style="font-size: small;">JPMIA0037GB</p> <p>1.3 V</p> </div>
				Combination switch	Rear wiper switch ON (Wiper intermittent dial 4) <div style="text-align: right;">  <p style="font-size: small;">JPMIA0039GB</p> <p>1.3 V</p> </div>
				Combination switch	Any of the conditions below with all switches OFF <ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7 <div style="text-align: right;">  <p style="font-size: small;">JPMIA0040GB</p> <p>1.3 V</p> </div>

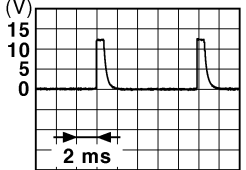
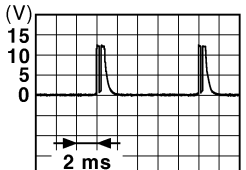

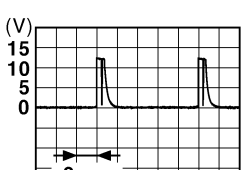
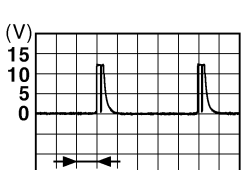
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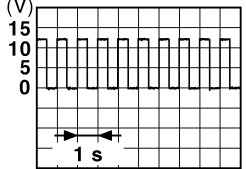
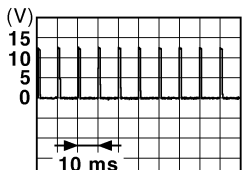
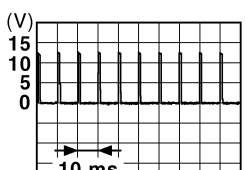
[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
88 (V)	Ground	Combination switch INPUT 3	Input	Combination switch	All switches OFF (Wiper intermittent dial 4)	 <small>JPMIA0041GB</small> 1.4 V
					Lighting switch HI (Wiper intermittent dial 4)	 <small>JPMIA0036GB</small> 1.3 V
					Lighting switch 2ND (Wiper intermittent dial 4)	 <small>JPMIA0037GB</small> 1.3 V
					Rear washer switch ON (Wiper intermittent dial 4)	 <small>JPMIA0039GB</small> 1.3 V
					Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3	 <small>JPMIA0040GB</small> 1.3 V
90 (P)	Ground	CAN-L	Input/ Output	—	—	
91 (L)	Ground	CAN-H	Input/ Output	—	—	

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[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
		Signal name	Input/ Output			
+	-					
92 (LG)	Ground	Key slot illumination	Output	Key slot illumination	OFF	Battery voltage
					Blinking	 <p style="text-align: center;">6.5 V</p>
93 (V)	Ground	ON indicator lamp	Output	Ignition switch	OFF or ACC	Battery voltage
					ON	0 V
94 (Y)	Ground	Puddle lamp control	Output	Puddle lamp	OFF	Battery voltage
					ON	0 V
95 (BG)	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
					ACC or ON	Battery voltage
96 (GR)	Ground	A/T shift selector (Detention switch) power supply	Output	—	Battery voltage	
99 (R)	Ground	Selector lever P position switch	Input	Selector lever	P position	0 V
					Any position other than P	Battery voltage
100 (G)	Ground	Passenger door request switch	Input	Passenger door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 <p style="text-align: center;">1.0 V</p>
101 (SB)	Ground	Driver door request switch	Input	Driver door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 <p style="text-align: center;">1.0 V</p>
102 (BG)	Ground	Blower fan motor relay control	Output	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage
103 (LG)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OFF	Battery voltage	

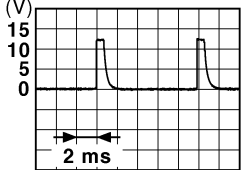

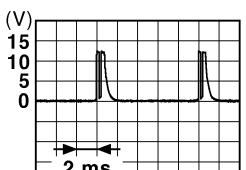
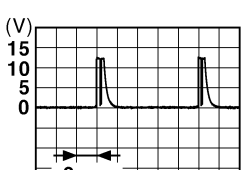
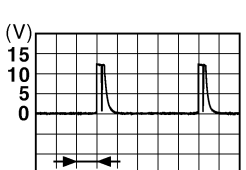
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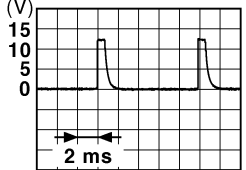
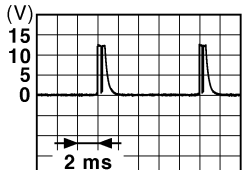

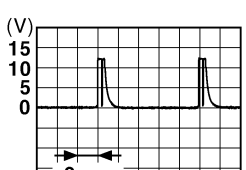

[WITH INTELLIGENT KEY SYSTEM]

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

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[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
108 (R)	Ground	Combination switch INPUT 4	Input	Combination switch	All switches OFF (Wiper intermittent dial 4)	 1.4 V
					Lighting switch AUTO (Wiper intermittent dial 4)	 1.3 V
					Lighting switch 1ST (Wiper intermittent dial 4)	 1.3 V
					Rear wiper switch INT (Wiper intermittent dial 4)	 1.3 V
					Any of the conditions below with all switches OFF	 1.3 V
					<ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6 	

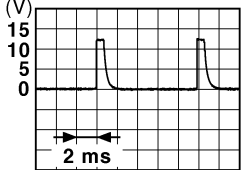

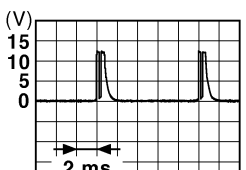
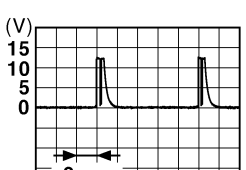
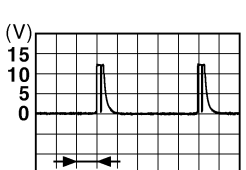
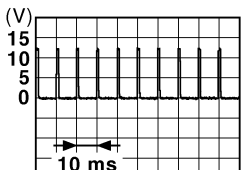
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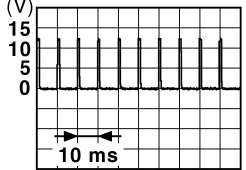
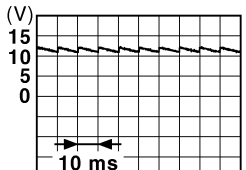
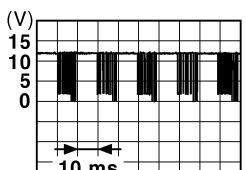
[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
109 (Y)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermittent dial 4)	All switches OFF	 <small>JPMIA0041GB</small> 1.4 V
					Lighting switch PASS	 <small>JPMIA0037GB</small> 1.3 V
					Lighting switch 2ND	 <small>JPMIA0036GB</small> 1.3 V
					Front wiper switch INT	 <small>JPMIA0038GB</small> 1.3 V
					Front wiper switch HI	 <small>JPMIA0040GB</small> 1.3 V
					ON	0 V
110 (G)	Ground	Hazard switch	Input	Hazard switch	OFF	 <small>JPMIA0012GB</small> 1.1 V

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[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
+	-					
113 (P)	Ground	Optical sensor	Input	Ignition switch ON	When bright outside of the vehicle	Close to 5 V
					When dark outside of the vehicle	Close to 0 V
116 (SB)	Ground	Stop lamp switch 1	Input	—		Battery voltage
118 (P)	Ground	Stop lamp switch 2 (Without ICC)	Input	Stop lamp switch	OFF (Brake pedal is not depressed)	0 V
					ON (Brake pedal is de- pressed)	Battery voltage
		Stop lamp switch 2 (With ICC)		Stop lamp switch OFF (Brake pedal is not de- pressed) and ICC brake hold relay OFF	0 V	
				Stop lamp switch ON (Brake pedal is de- pressed) or ICC brake hold relay ON	Battery voltage	
119 (SB)	Ground	Front door lock as- sembly driver side (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	 1.1 V
					UNLOCK status (Unlock switch sensor ON)	0 V
121 (BR)	Ground	Key slot switch	Input	When the key is inserted into key slot		Battery voltage
				When the key is not inserted into key slot		0 V
123 (W)	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage
124 (LG)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	 11.8 V
					ON (Door open)	0 V
132 (BR)	Ground	Power window switch communication	Input/ Output	Ignition switch ON	 10.2 V	
				Ignition switch OFF or ACC	Battery voltage	

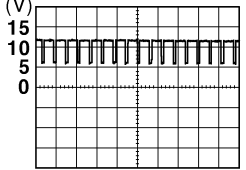
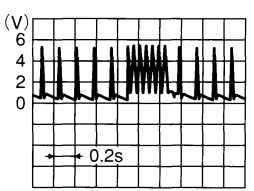
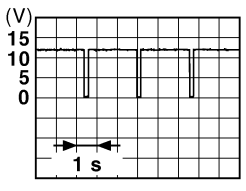
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >



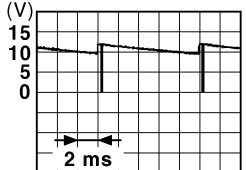
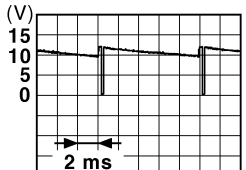
[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
133 (W)	Ground	Push-button ignition switch illumination	Output	Push-button ignition switch illumination	ON (Tail lamps OFF)	9.5 V
				ON (Tail lamps ON)	OFF	0 V
134 (GR)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	OFF	Battery voltage
				ON	ON	0 V
137 (BG)	Ground	Receiver and sensor ground	Input	Ignition switch ON		0 V
138 (Y)	Ground	Receiver and sensor power supply	Output	Ignition switch	OFF	0 V
				ACC or ON	ACC or ON	5.0 V
139 (L)	Ground	Tire pressure receiv- er communication	Input/ Output	Ignition switch ON	Standby state	 <p style="text-align: right; font-size: small;">OCC3881D</p>
				When receiving the signal from the transmitter	When receiving the signal from the transmitter	 <p style="text-align: right; font-size: small;">OCC3880D</p>
140 (GR)	Ground	Selector lever P/N position	Input	Selector lever	P or N position	Battery voltage
				Except P and N positions	Except P and N positions	0 V
141 (G)	Ground	Security indicator	Output	Security indicator	ON	0 V
				Blinking	Blinking	 <p style="text-align: right; font-size: small;">JPMA0014GB</p>
				OFF	OFF	Battery voltage

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
		Signal name	Input/ Output		
+	-				
142 (BG)	Ground	Combination switch OUTPUT 5	Output	All switches OFF	0 V
				Lighting switch 1ST	
				Lighting switch HI	
				Lighting switch 2ND	
				Turn signal switch RH	
143 (P)	Ground	Combination switch OUTPUT 1	Output	All switches OFF (Wiper intermittent dial 4)	0 V
				Front wiper switch HI (Wiper intermittent dial 4)	
				Rear wiper switch INT (Wiper intermittent dial 4)	
				Any of the conditions below with all switches OFF	
				• Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 • Wiper intermittent dial 6 • Wiper intermittent dial 7	
144 (G)	Ground	Combination switch OUTPUT 2	Output	All switches OFF (Wiper intermittent dial 4)	0 V
				Front washer switch ON (Wiper intermittent dial 4)	
				Rear wiper switch ON (Wiper intermittent dial 4)	
				Rear washer switch ON (Wiper intermittent dial 4)	
				Any of the conditions below with all switches OFF	
• Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	10.7 V				
145 (L)	Ground	Combination switch OUTPUT 3	Output	All switches OFF	0 V
				Front wiper switch INT	
				Front wiper switch LO	
				Lighting switch AUTO	

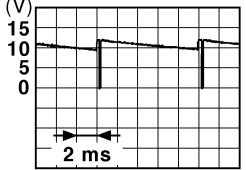
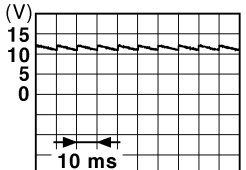
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
		Signal name	Input/ Output			
+	-					
146 (SB)	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper intermit- tent dial 4)	All switches OFF	0 V
					Front fog lamp switch ON	
					Lighting switch 2ND	
					Lighting switch PASS	
					Turn signal switch LH	
150 (LG)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	
					ON (Door open)	0 V
151 (G)	Ground	Rear window defog- ger relay control	Output	Rear window de- fogger	Active	0 V
					Not activated	Battery voltage

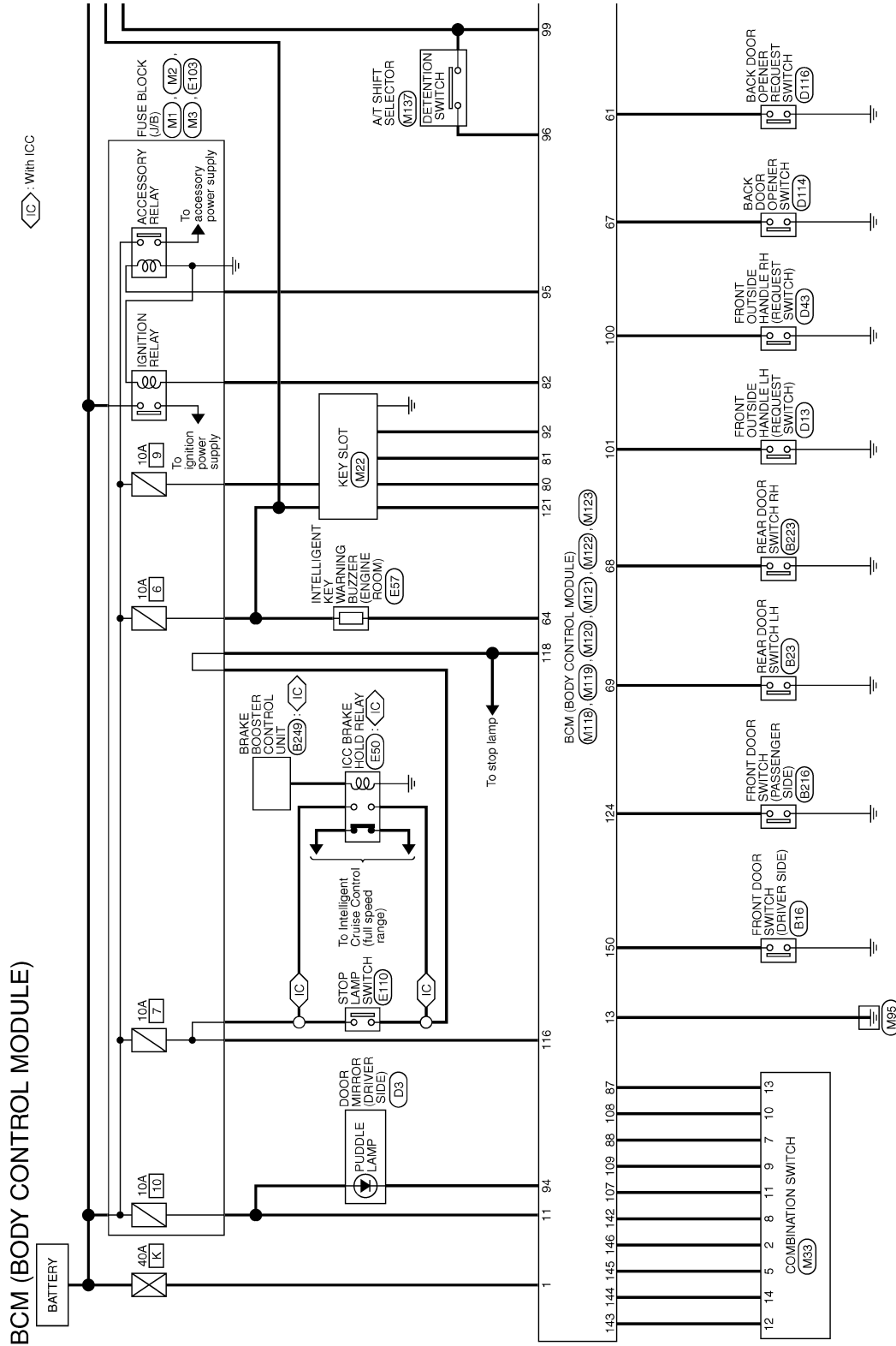
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Wiring Diagram - BCM -

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2014/03/21

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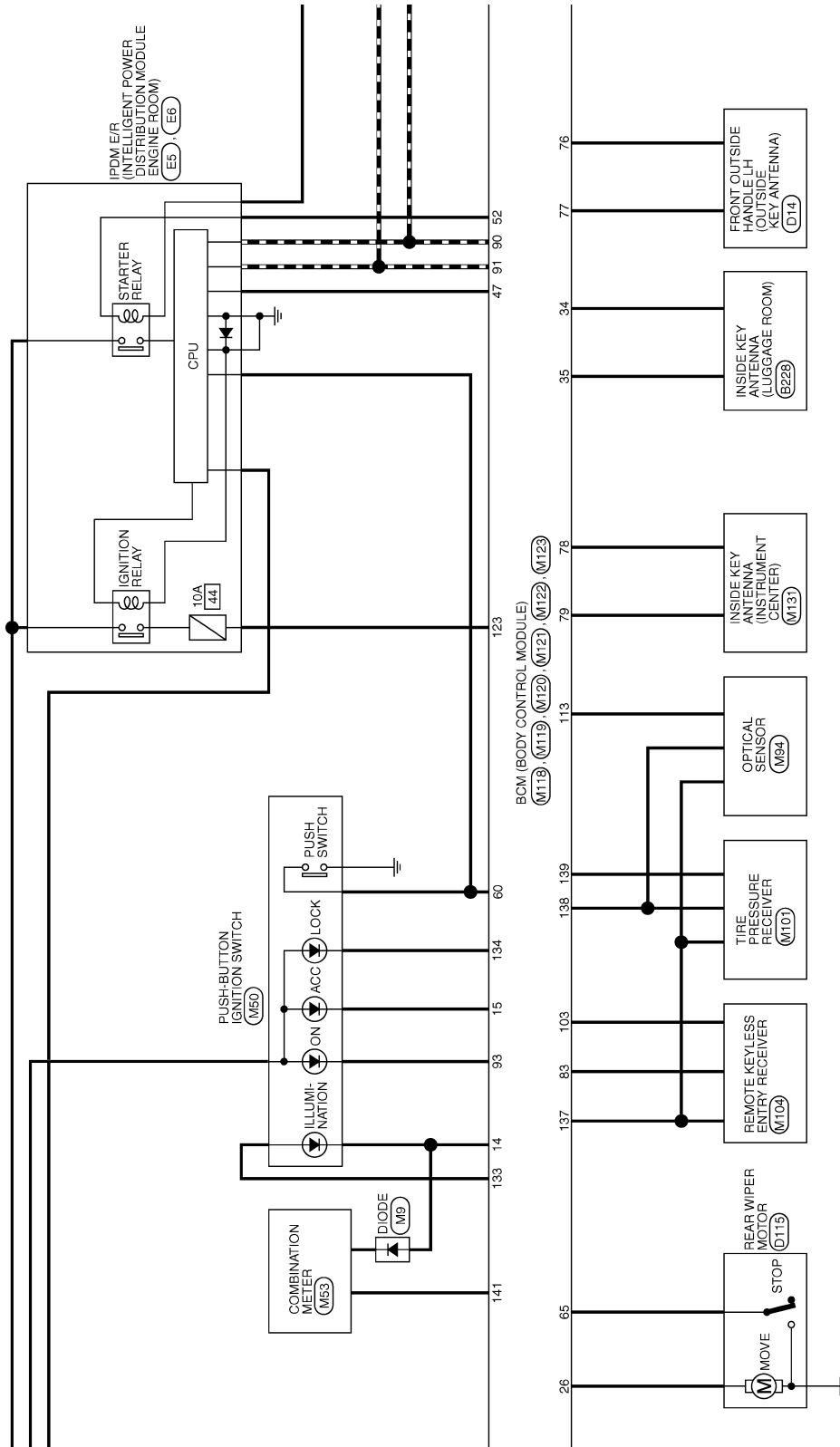
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]



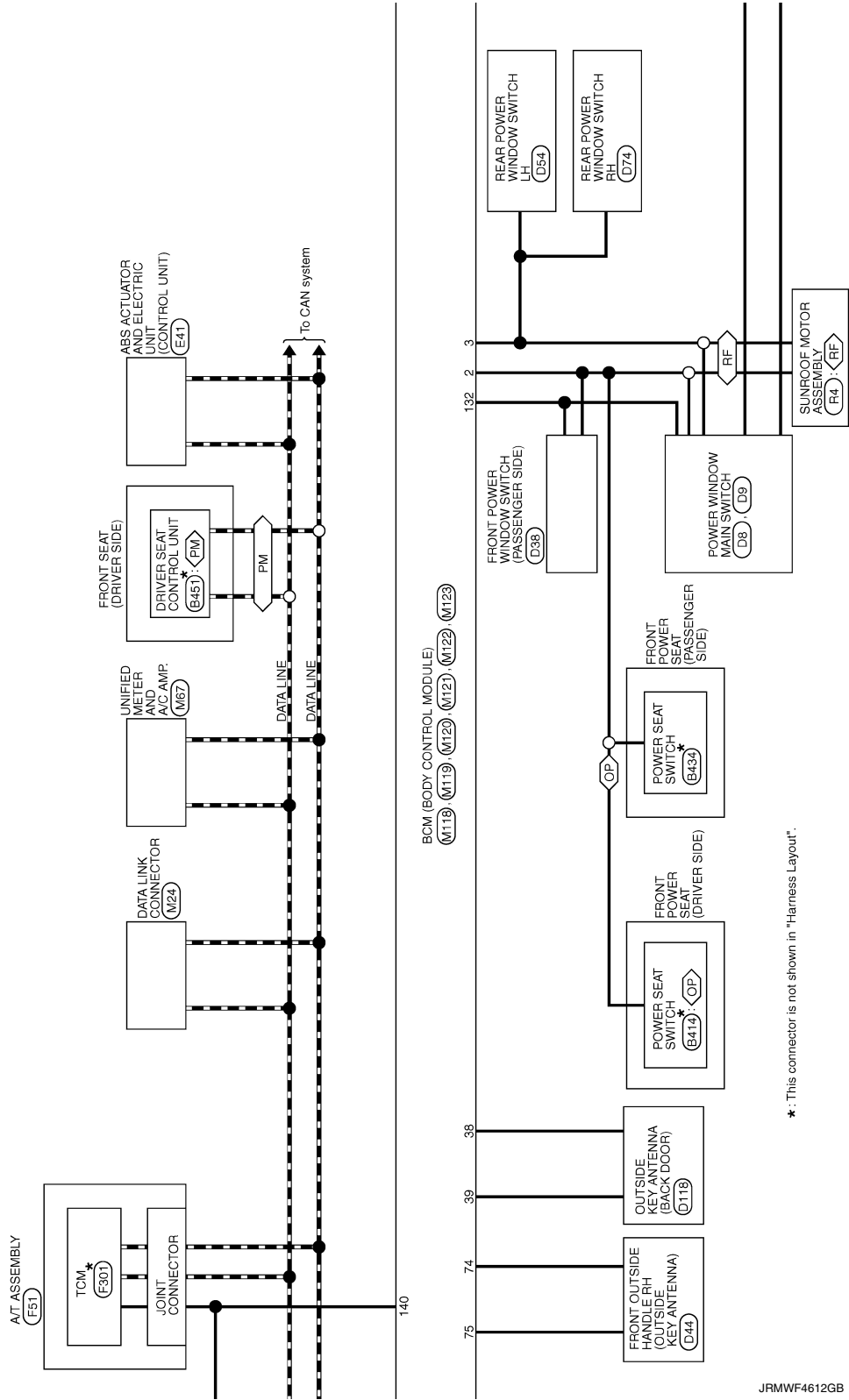
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

- RF : With sunroof
- PM : With automatic drive positioner
- OP : Without automatic drive positioner



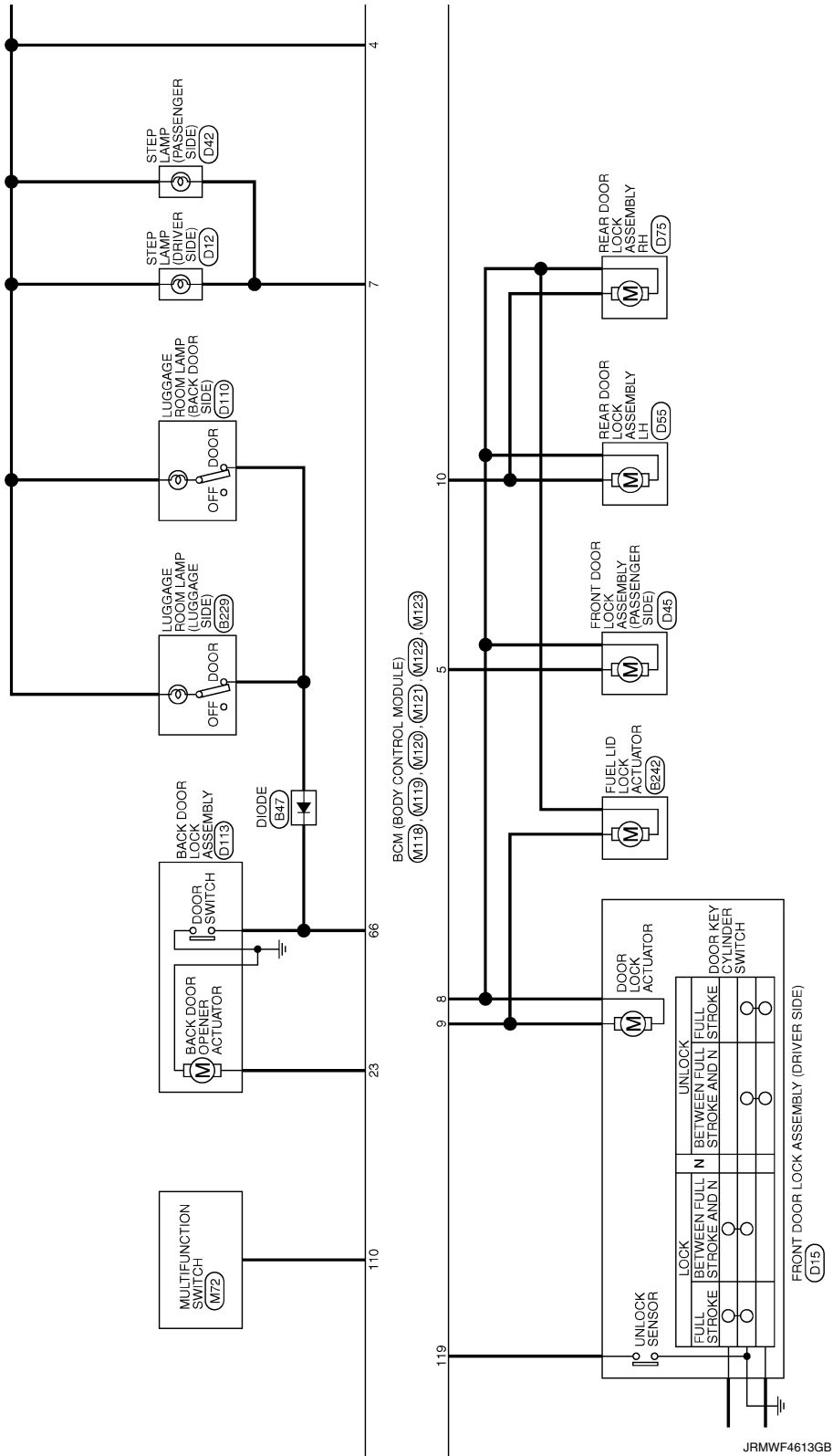
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

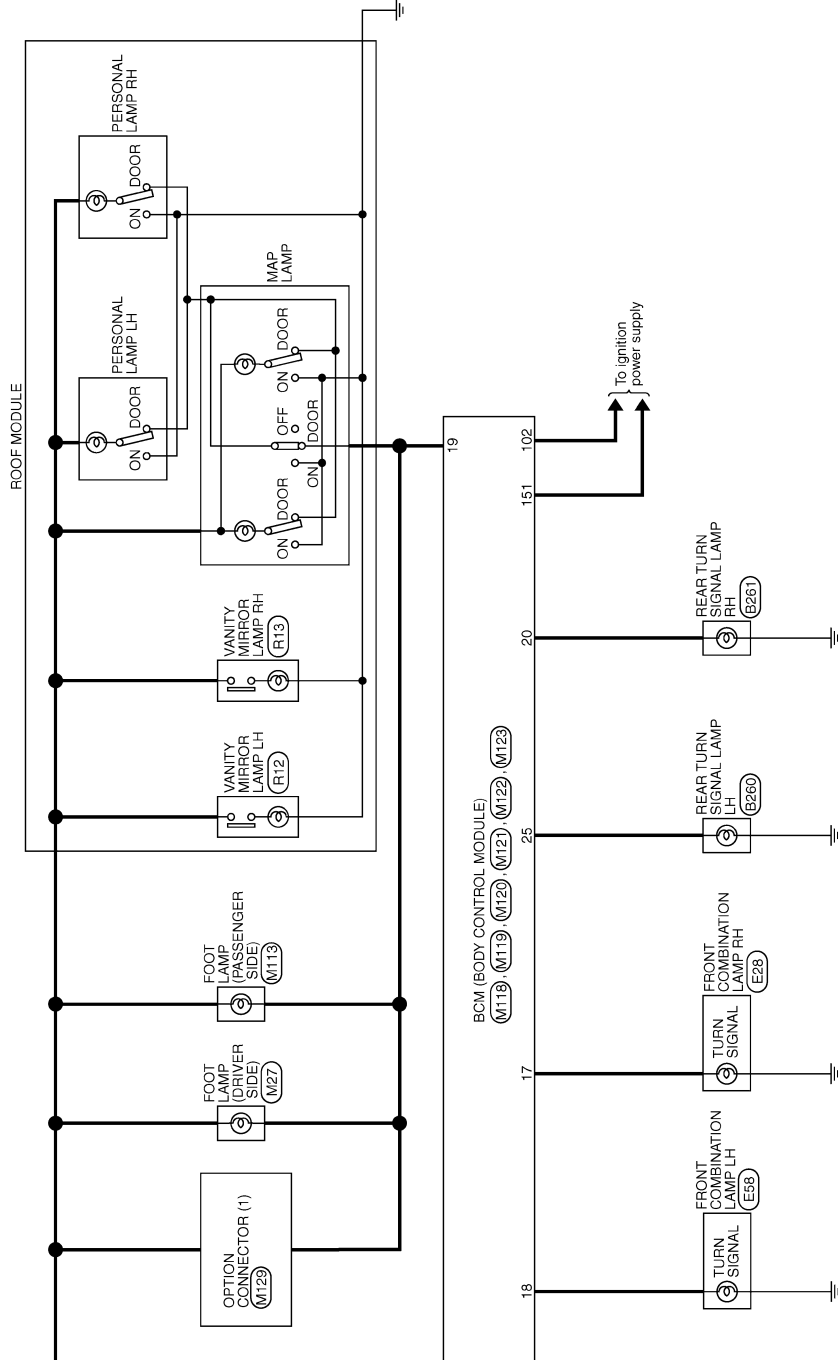
[WITH INTELLIGENT KEY SYSTEM]



BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]



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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

BCM (BODY CONTROL MODULE)

Connector No.	B16
Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)
Connector Type	A03FW



Terminal No.	Color	Wire	Signal Name [Specification]
2	L	B	FRONT DOOR SWITCH (PASSENGER SIDE)

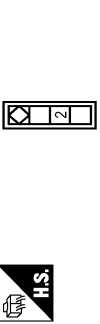


Connector No.	B216
Connector Name	FRONT DOOR SWITCH (PASSENGER SIDE)
Connector Type	A03FW

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

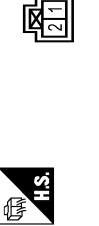


Terminal No.	Color	Wire	Signal Name [Specification]
2	L	-	-



Connector No.	B223
Connector Name	REAR DOOR SWITCH RH
Connector Type	A03FW

Terminal No.	Color	Wire	Signal Name [Specification]
2	LG	-	-

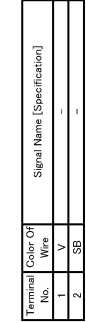


Connector No.	B47
Connector Name	DIODE
Connector Type	Z4335 C9900

Connector No.	B228
Connector Name	INSIDE KEY ANTENNA (LUGGAGE ROOM)
Connector Type	TK02FGY



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



Connector No.	B229
Connector Name	LUGGAGE ROOM LAMP (LUGGAGE SIDE)
Connector Type	TK03FW

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



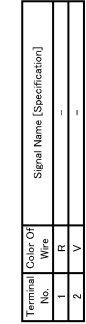
Connector No.	B249
Connector Name	BRAKE BOOSTER CONTROL UNIT
Connector Type	TR24FGY

Terminal No.	Color	Wire	Signal Name [Specification]
33	IGN	-	IGNITION
40	SB	-	ISA GHS SW
42	G	-	IGNITION
46	B	-	GROUND
47	V	-	BRAKE HOLD RLY DRIVE SIGNAL

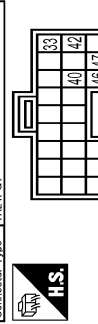
Connector No.	B242
Connector Name	FUEL LID LOCK ACTUATOR
Connector Type	M04FW-LG



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



Connector No.	B249
Connector Name	BRAKE BOOSTER CONTROL UNIT
Connector Type	TR24FGY



Terminal No.	Color	Wire	Signal Name [Specification]
33	IGN	-	IGNITION
40	SB	-	ISA GHS SW
42	G	-	IGNITION
46	B	-	GROUND
47	V	-	BRAKE HOLD RLY DRIVE SIGNAL

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

BCM (BODY CONTROL MODULE)

Connector No.	B260
Connector Name	REAR TURN SIGNAL LAMP LH
Connector Type	HS02FC-W



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

Connector No.	B261
Connector Name	REAR TURN SIGNAL LAMP RH
Connector Type	HS02FC-W



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

Connector No.	B414
Connector Name	POWER SEAT SWITCH
Connector Type	NS10FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	B	-
3	G/Y	-
4	P	-
5	W	-
6	V	-
7	L/Y	-
8	L	-
9	L/R	-
10	G/W	-

Connector No.	B434
Connector Name	POWER SEAT SWITCH
Connector Type	NS10FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	B	-
3	G/Y	-
4	P	-
5	W	-
6	V	-
7	L/Y	-
8	L	-
9	L/R	-
10	G/W	-

Connector No.	B451
Connector Name	DRIVER SEAT CONTROL UNIT
Connector Type	TH22FW



Terminal No.	Color Of Wire	Signal Name [Specification]
1	-	GAN-H
2	-	UART (TX/RX)
4	-	PULSE (RECLINER)
5	-	PULSE (TELESCOPIC)
6	-	ADDRESS 2
7	-	IND 2
8	-	SLIDE SW (BACKWARD)
9	-	RECLINER SW (BACKWARD)
10	-	FRONT LIFTER SW (DOWNWARD)
11	-	REAR LIFTER SW (DOWNWARD)
12	-	POWER SUPPLY (ENCODER)
17	-	GAN-L
18	-	PULSE (SLIDE)
19	-	PULSE (FRONT LIFTER)
20	-	PULSE (REAR LIFTER)
21	-	PULSE (TEL)
22	-	ADDRESS 1
23	-	IND (FORWARD)
24	-	RECLINER SW (FORWARD)
26	-	FRONT LIFTER SW (UPWARD)
27	-	REAR LIFTER SW (UPWARD)
28	-	SET SW

Connector No.	D3
Connector Name	DOOR MIRROR (DRIVER SIDE)
Connector Type	TH24MH-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
2	O	-
3	B	SIDE CAMERA LH COMM
5	Y	SIDE CAMERA LH IMAGE SIGNAL
6	R	SIDE CAMERA LH POWER SUPPLY
7	W	-
10	G	-
11	P	-
12	O	-
14	LG	-
17	G	SIDE CAMERA LH IMAGE GND
18	W	-
19	B	-
21	GR	-
22	BR	-
23	Y	-
24	V	-

Connector No.	D8
Connector Name	POWER WINDOW MAIN SWITCH
Connector Type	NS18EW-CS



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

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

BCM (BODY CONTROL MODULE)

3	O	-
4	V	-
7	BR	-
8	L	-
9	O	-
10	V	-
11	G	-
13	P	-
14	V	-
15	B	-

Connector No.	D9
Connector Name	POWER WINDOW MAIN SWITCH
Connector Type	NS08FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
17	B	-
19	W	-

Connector No.	D12
Connector Name	STEP LAMP (DRIVER SIDE)
Connector Type	FB02FW



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	SB	-

Connector No.	D13
Connector Name	FRONT OUTSIDE HANDLE LH (REQUEST SWITCH)
Connector Type	RK02FL



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

Connector No.	D14
Connector Name	FRONT OUTSIDE HANDLE LH (OUTSIDE KEY ANTENNA)
Connector Type	RK02MGY



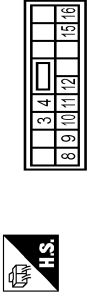
Terminal No.	Color Of Wire	Signal Name [Specification]
1	O	-
2	SB	-

Connector No.	D15
Connector Name	FRONT DOOR LOCK ASSEMBLY (DRIVER SIDE)
Connector Type	EB02FW-RS



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

Connector No.	D38
Connector Name	FRONT POWER WINDOW SWITCH (PASSENGER SIDE)
Connector Type	HS16FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
3	L	-
4	G	-
8	W	-
9	G	-
10	W	-
11	B	-
12	R	-
15	O	-
16	V	-

Connector No.	D42
Connector Name	STEP LAMP (PASSENGER SIDE)
Connector Type	FB02FW



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	SB	-

Connector No.	D43
Connector Name	FRONT OUTSIDE HANDLE RH (REQUEST SWITCH)
Connector Type	RK02FL



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

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

BCM (BODY CONTROL MODULE)

Connector No.	D44
Connector Name	FRONT OUTSIDE HANDLE RH (OUTSIDE KEY ANTENNA)
Connector Type	FKG2MGT



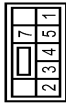
Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	-
2	V	-

Connector No.	D45
Connector Name	FRONT DOOR LOCK ASSEMBLY (PASSENGER SIDE)
Connector Type	EOBFGY-RS



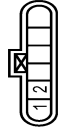
Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	LG	-

Connector No.	D54
Connector Name	REAR POWER WINDOW SWITCH LH
Connector Type	NS38FW-CS



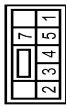
Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	V	-
3	G	-
4	L	-
5	W	-
7	B	-

Connector No.	D55
Connector Name	REAR DOOR LOCK ASSEMBLY LH
Connector Type	EOBFGY-RS



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

Connector No.	D74
Connector Name	REAR POWER WINDOW SWITCH RH
Connector Type	NS38FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	V	-
3	G	-
4	P	-
5	O	-
7	B	-

Connector No.	D75
Connector Name	REAR DOOR LOCK ASSEMBLY RH
Connector Type	EOBFGY-RS



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

Connector No.	D110
Connector Name	LUGGAGE ROOM LAMP (BACK DOOR SIDE)
Connector Type	FKG3FW



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

Connector No.	D113
Connector Name	BACK DOOR LOCK ASSEMBLY
Connector Type	NS04FW-CS



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

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

BCM (BODY CONTROL MODULE)

Connector No.	D114
Connector Name	BACK DOOR OPENER SWITCH
Connector Type	TK02MBR-P



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

Connector No.	D115
Connector Name	REAR WIPER MOTOR
Connector Type	CJ0JFW-IV



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

Connector No.	D116
Connector Name	BACK DOOR OPENER REQUEST SWITCH
Connector Type	TK02MBR-P



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

Connector No.	D118
Connector Name	OUTSIDE KEY ANTENNA (BACK DOOR)
Connector Type	RK0ZFGY



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

Connector No.	E5
Connector Name	INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	TH08FY-MS1Z-M4-IV



Terminal No.	Color Of Wire	Signal Name [Specification]
4	V	-
5	L	-
7	R	-
12	B/W	-
13	Y	-
16	LG	-
19	W	-
25	G	-
26	R	-
27	BG	-
28	L	-
30	GR	-
36	G	-

Connector No.	E5
Connector Name	INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
Connector Type	TH08FY-M4



Terminal No.	Color Of Wire	Signal Name [Specification]
39	P	-
40	L	-
41	B/W	-
43	SB	-
44	BR	-
45	G	-
46	R	-

Connector No.	E28
Connector Name	FRONT COMBINATION LAMP RH
Connector Type	RS08EP-PR



Terminal No.	Color Of Wire	Signal Name [Specification]
2	B	-
3	B/Y	-
4	B/W	-
5	BG	-
6	V	-
7	BR	-
8	P	-

Connector No.	E41
Connector Name	ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)
Connector Type	BAA4ZPB-AH24-LH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GROUND
2	G	UBMR
3	R	UBVR
4	B	GROUND
5	Y	DS FL
6	BG	DP RL
7	BR	DP RR
9	B	DP FR
10	W	DS FR
12	L	VAC
14	P	CAN-L
15	SHIELD	GROUND
19	P	UST

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

BCM (BODY CONTROL MODULE)

25	Y	BUS-L
26	LG	DP-FL
27	GR	DS-RL
28	G	DS-RL
29	LG	DS-RL
30	SB	DS-RL
31	R	VDC OFF SW
35	L	CAN-H
45	B	BUS-H

Connector No.	E50
Connector Name	ICC BRAKE HOLD RELAY
Connector Type	MOBFGY-R-US



Terminal No.	Color Of Wire	Signal Name [Specification]
1	V	-
2	B	-
3	P	-
4	SB	-
5	P	-
7	R	-

Connector No.	E57
Connector Name	INTELLIGENT KEY WARNING BUZZER (ENGINE ROOM)
Connector Type	RK03BER



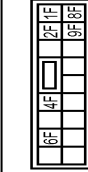
Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
3	V	-

Connector No.	E58
Connector Name	FRONT COMBINATION LAMP LH
Connector Type	RS30FB-PR



Terminal No.	Color Of Wire	Signal Name [Specification]
2	B	-
3	B/Y	-
4	B/W	-
5	V	-
6	G	-
7	P	-
8	BG	-

Connector No.	E103
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FW-CS



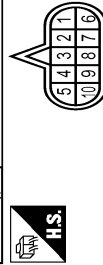
Terminal No.	Color Of Wire	Signal Name [Specification]
1F	SB	-
2F	W	-
4F	G	-
8F	BR	-
9F	R	-

Connector No.	E110
Connector Name	STOP LAMP SWITCH
Connector Type	MG4FL-IC



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

Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-D0Y



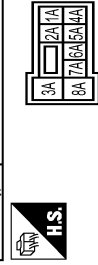
Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	IGNITION POWER SUPPLY
2	BR	BATTERY POWER SUPPLY
3	O	CAN-H
4	V	K-LINE
5	B	GROUND
6	Y	IGNITION POWER SUPPLY
7	R	BACK-UP LAMP RELAY
8	LG	CAN-L
9	GR	STARTER RELAY
10	B	GROUND

Connector No.	F301
Connector Name	TCM
Connector Type	SP10FG



Terminal No.	Color Of Wire	Signal Name [Specification]
1	-	IGNITION POWER SUPPLY
2	-	BATTERY POWER SUPPLY
3	-	CAN-H
4	-	K-LINE
5	-	GROUND
6	-	IGNITION POWER SUPPLY
7	-	BACK-UP LAMP RELAY
8	-	CAN-L
9	-	STARTER RELAY
10	-	GROUND

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS08FW-M2



Terminal No.	Color Of Wire	Signal Name [Specification]
1A	Y	-
2A	G	-
3A	L	-
4A	R	-
5A	V	-
6A	Y	-
7A	R	-
8A	L	-

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

BCM (BODY CONTROL MODULE)

Connector No.	M2
Connector Name	FUSE BLOCK (J/B)
Connector Type	INS10P1-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
3B	P	-
4B	G	-
5B	BG	-
6B	Y	-
7B	P	-
8B	R	-
9B	SB	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	INS12P1-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
10C	L	-
11C	R	-
12C	BG	-
6C	R	-
7C	B	-
9C	BG	-

Connector No.	M9
Connector Name	DIODE
Connector Type	243SE-C0900



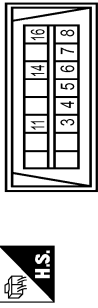
Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	W	-

Connector No.	M22
Connector Name	KEY SLOT
Connector Type	TH12P1V-NH



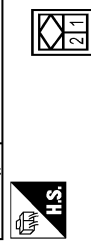
Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	BAT
2	GR	CLOCK
3	W	DATA
5	Y	ILL BAT
6	LG	ILL
7	B	GROUND
11	BR	KEY SWITCH SIGNAL

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



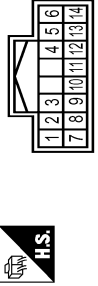
Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	-
4	B	-
5	B	-
6	L	-
7	V	-
8	G	-
11	SB	-
14	P	-
16	Y	-

Connector No.	M27
Connector Name	FOOT LAMP (DRIVER SIDE)
Connector Type	AG2PW



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

Connector No.	M53
Connector Name	COMBINATION SWITCH
Connector Type	TH10P1V-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	FR WASH(ERK-)
2	SB	OUTPUT 4
3	GR	FR WASH(ERK+)
4	G	IGN
5	L	OUTPUT 3
6	B	GROUND
7	V	INPUT 3
8	BG	OUTPUT 5
9	Y	INPUT 2
10	R	INPUT 4
11	LG	INPUT 1
12	P	OUTPUT 1
13	BR	INPUT 5
14	G	OUTPUT 2

Connector No.	M50
Connector Name	PUSH-BUTTON IGNITION SWITCH
Connector Type	TK08BER



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	W	-
3	W	-
4	BR	-
5	GR	-
6	Y	-

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

BCM (BODY CONTROL MODULE)

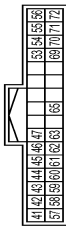
7	V	-
8	P	-

Connector No.	M53
Connector Name	COMBINATION METER
Connector Type	TH46FW-NH



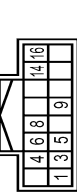
Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	BATTERY POWER SUPPLY
2	LG	COMMUNICATION SIGNAL (METER->AMP.)
3	GR	COMMUNICATION SIGNAL (AMP->METER)
5	B	GROUND
6	P	ALTERNATOR SIGNAL
7	BR	AIR BAG SIGNAL
10	G	SECURITY SIGNAL
15	B	GROUND
16	B	METER CONTROL SWITCH GROUND
19	B	ILL GND
20	R	ILL
21	EG	IGNITION SIGNAL
22	B	GROUND
24	BR	COMMUNICATION SIGNAL (LCP->AMP.)
25	BR	COMMUNICATION SIGNAL (AMP->LCP)
26	R	VEHICLE SPEED SIGNAL (4-PULSE)
27	V	PARKING BRAKE SWITCH SIGNAL
28	W	BRAKE FLUID LEVEL SWITCH SIGNAL
29	SB	SEAT BELT BUCKLE SWITCH SIGNAL (PASSENGER SEAT)
30	G	SEAT BELT BUCKLE SWITCH SIGNAL (PASSENGER SEAT)
31	L	WASHER LEVEL SWITCH SIGNAL
33	B	ILLUMINATION CONTROL SIGNAL
36	LG	SELECT SWITCH SIGNAL
37	SB	ENTER SWITCH SIGNAL
38	L	TRIP A/B RESET SWITCH SIGNAL
39	P	ILLUMINATION CONTROL SWITCH SIGNAL (-)
40	EG	ILLUMINATION CONTROL SWITCH SIGNAL (+)

Connector No.	M57
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TR32FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
41	V	ACC POWER SUPPLY
42	Y	FUEL LEVEL SENSOR SIGNAL
43	R	INTAKE SENSOR SIGNAL
44	LG	IN-VEHICLE SENSOR SIGNAL
45	P	AMBIENT SENSOR SIGNAL
46	EG	SUNLOAD SENSOR SIGNAL
47	G	EXHAUST GAS / OUTSIDE COLOR DETECTING SENSOR SIGNAL
53	G	IGNITION POWER SUPPLY
54	Y	BATTERY POWER SUPPLY
55	B	GROUND
56	L	CAN-H
57	W	BRAKE FLUID LEVEL SWITCH SIGNAL
58	BR	FUEL LEVEL SENSOR GROUND
59	GR	INTAKE SENSOR GROUND
60	L	IN-VEHICLE SENSOR GROUND
61	BR	AMBIENT SENSOR GROUND
62	SB	SUNLOAD SENSOR GROUND
63	EG	EGV SIGNAL
68	B	A/C CLAS SIGNAL
70	R	EACH DOOR MOTOR POWER SUPPLY
71	B	GROUND
72	P	CAN-L

Connector No.	MT2
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH16FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GROUND
3	V	ACC
4	R	ILL
5	Y	ILL CONT
6	SB	AV COMM (H)
8	LG	AV COMM (L)
9	B	SW GND
14	Y	DISK EJECT SIGNAL
16	G	HAZARD ON



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	POWER
2	P	OUTPUT
3	B	GROUND

Connector No.	M101
Connector Name	TIRE PRESSURE RECEIVER
Connector Type	TK04FW



Terminal No.	Color Of Wire	Signal Name [Specification]
1	EG	GROUND
2	L	SIGNAL
4	Y	BATTERY

Connector No.	M104
Connector Name	REMOTE KEYLESS ENTRY RECEIVER
Connector Type	JAB04FB



Terminal No.	Color Of Wire	Signal Name [Specification]
1	EG	GROUND
2	Y	SIGNAL OUTPUT
4	LG	BATTERY

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BCM (BODY CONTROL MODULE)

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[WITH INTELLIGENT KEY SYSTEM]

BCM (BODY CONTROL MODULE)

Connector No.	M113
Connector Name	FOOT LAMP (PASSENGER SIDE)
Connector Type	A02FW



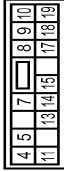
Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	BR	-

Connector No.	M118
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	M03FB-4C



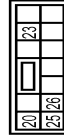
Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	BAT (F/L)
2	W	POWER WINDOW POWER SUPPLY (BAT)
3	Y	POWER WINDOW POWER SUPPLY (RAP)

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS12FW-CS



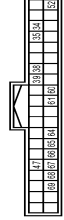
Terminal No.	Color Of Wire	Signal Name [Specification]
4	LG	INTERIOR ROOM LAMP POWER SUPPLY
5	L	PASSENGER DOOR UNLOCK OUTPUT
7	Y	STEP LAMP CONT
8	V	ALL DOOR FUEL LID LOCK OUTPUT
9	G	DRIVER DOOR FUEL LID UNLOCK OUTPUT
10	BR	REAR DOOR UNLOCK OUTPUT
11	R	BAT (FUSE)
13	B	GROUND
14	W	PUSH-BUTTON IGNITION SW ILL GND
15	Y	ACC IND
17	W	TURN SIGNAL RH (FRONT)
18	BG	TURN SIGNAL LH (FRONT)
19	V	INT ROOM LAMP CONT

Connector No.	M120
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS12FW-CS



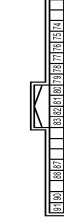
Terminal No.	Color Of Wire	Signal Name [Specification]
20	V	TURN SIGNAL RH (REAR)
23	G	BACK DOOR OPEN OUTPUT
25	G	TURN SIGNAL LH (REAR)
26	G	REAR WIPER OUTPUT

Connector No.	M121
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH46FGY-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
34	SB	LUGGAGE ROOM ANT-
35	V	LUGGAGE ROOM ANT+
38	B	BACK DOOR ANT-
39	W	BACK DOOR ANT+
47	Y	IGN RELAY (IPDM E/R) CONT
52	SB	STARTER RELAY CONT
60	BR	PUSH SW
61	W	BACK DOOR OPENER REQUEST SW
64	V	BACK DOOR OPENER REQUEST SW (ENG ROOM)
65	BG	REAR WIPER STOP POSITION
66	R	BACK DOOR SW
67	GR	BACK DOOR OPENER SW
68	BR	REAR RH DOOR SW
69	R	REAR LH DOOR SW

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH46FB-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
74	SB	PASSENGER DOOR ANT-
75	GR	PASSENGER DOOR ANT+
76	V	DRIVER DOOR ANT-
77	LG	DRIVER DOOR ANT+
78	Y	ROOM ANT-
79	BR	ROOM ANT+

80	GR	NATS ANT AMP
81	W	NATS ANT AMP
82	R	IGN ANT AMP
83	Y	REVLESS ENTRY REQUEST SW
84	BR	COMBI SW INPUT 5
88	V	COMBI SW INPUT 3
90	P	CAN-L
91	L	CAN-H
92	LG	KEY SLOT ILL CONT
93	V	ON IND
94	Y	PUDDLE LAMP CONT
95	BG	ACC RELAY CONT
96	GR	A/T SHIFT SELECTOR POWER SUPPLY
99	R	SHIFT P
100	G	PASSENGER DOOR REQUEST SW
101	SB	DRIVER DOOR REQUEST SW
102	BG	BLOWER FAN MOTOR RELAY CONT
103	LG	REVLESS ENTRY RECEIVER POWER SUPPLY
107	LG	COMBI SW INPUT 1
108	R	COMBI SW INPUT 4
109	Y	COMBI SW INPUT 2
110	G	HAZARD SW

Connector No.	M123
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH46FG-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
113	P	OPTICAL SENSOR
116	SB	STOP LAMP SW 1
118	P	STOP LAMP SW 2
119	SB	DR DOOR UNLOCK SENSOR
121	BR	KEY SLOT SW
123	W	IGN F/B
124	LG	PASSENGER DOOR SW
132	BR	POWER WINDOW SW COMM
133	W	PUSH-BUTTON IGNITION SW ILL POWER
134	GR	LOCK IND
137	BG	RECEIVER SENSOR GND
138	Y	RECEIVER SENSOR POWER SUPPLY

BCM (BODY CONTROL MODULE)

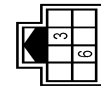
< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

BCM (BODY CONTROL MODULE)

139	L	TIRE PRESSURE RECEIVER COMM
140	GR	SHIFT N/P
141	G	SECURITY IND LAMP CONT
142	BG	COMB SW OUTPUT 9
143	P	COMB SW OUTPUT 1
144	G	COMB SW OUTPUT 2
145	L	COMB SW OUTPUT 3
146	SB	COMB SW OUTPUT 4
150	LG	DRIVER DOOR SW
151	G	REAR WINDOW DEFROGGER RELAY CONT

Connector No.	M129
Connector Name	OPTION CONNECTOR (1)
Connector Type	TH68MW-NH



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

Connector No.	M131
Connector Name	INSIDE KEY ANTENNA (INSTRUMENT CENTER)
Connector Type	HR03FGY



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

Connector No.	RT2
Connector Name	VANITY MIRROR LAMP LH
Connector Type	MCAD2FW



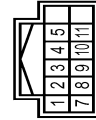
Terminal No.	Color	Wire	Signal Name [Specification]
1	-	-	-
2	-	-	-

Connector No.	RT3
Connector Name	VANITY MIRROR LAMP RH
Connector Type	MCAD2FW



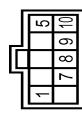
Terminal No.	Color	Wire	Signal Name [Specification]
1	-	-	-
2	-	-	-

Connector No.	M137
Connector Name	A/T SHIFT SELECTOR
Connector Type	TH12FW-NH



Terminal No.	Color	Wire	Signal Name [Specification]
1	W	-	-
2	V	-	-
3	L	-	-
4	B	-	-
5	G	-	-
7	R	-	-
8	SB	-	-
9	B	-	-
10	GR	-	-
11	R	-	-

Connector No.	RM
Connector Name	SUNROOF MOTOR ASSEMBLY
Connector Type	YEA10FGY



Terminal No.	Color	Wire	Signal Name [Specification]
1	GR	SW-BIT1	
5	P	SW-BIT0	
7	BR	+B	
8	L	SPEED SENSOR(ZP)	
9	Y	TIMER(-LGN)	
10	G	GROUND	

Fail-safe

FAIL-SAFE CONTROL BY DTC

BCM performs fail-safe control when any DTC are detected.

JRMWF4757GB

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

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 becomes consistent <ul style="list-style-type: none">• Starter control relay signal• Starter relay status signal
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent <ul style="list-style-type: none">• Starter motor relay control signal• Starter relay status signal (CAN)
B260A: IGNITION RELAY	Inhibit engine cranking	500 ms after the following conditions are fulfilled <ul style="list-style-type: none">• IGN relay (IPDM E/R) control signal: OFF (Battery voltage)• Ignition ON signal (CAN to IPDM E/R): OFF (Request signal)• Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions are fulfilled <ul style="list-style-type: none">• 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

REAR WIPER MOTOR PROTECTION

BCM detects the rear wiper stopping position according to the rear wiper stop position signal.

When the rear wiper stop position signal does not change for more than 5 seconds while driving the rear wiper, BCM stops power supply to protect the rear wiper motor.

Condition of cancellation

1. More than 1 minute is passed after the rear wiper stops.
2. Turn rear wiper switch OFF.
3. Operate the rear wiper switch or rear washer switch.

DTC Inspection Priority Chart

INFOID:000000011017015

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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Priority	DTC	
4	• B2553: IGNITION RELAY	A
	• B2555: STOP LAMP	
	• B2556: PUSH-BTN IGN SW	
	• B2557: VEHICLE SPEED	B
	• B2560: STARTER CONT RELAY	
	• B2601: SHIFT POSITION	
	• B2602: SHIFT POSITION	
	• B2603: SHIFT POSI STATUS	C
	• B2604: PNP SW	
	• B2605: PNP SW	
	• B2608: STARTER RELAY	
	• B260A: IGNITION RELAY	D
	• B260F: ENG STATE SIG LOST	
	• B2614: ACC RELAY CIRC	
	• B2615: BLOWER RELAY CIRC	
	• B2616: IGN RELAY CIRC	E
	• B2617: STARTER RELAY CIRC	
	• B2618: BCM	
	• B261A: PUSH-BTN IGN SW	F
	• B261E: VEHICLE TYPE	
• B26EA: KEY REGISTRATION		
• C1729: VHCL SPEED SIG ERR		
• U0415: VEHICLE SPEED SIG	G	
5	• C1704: LOW PRESSURE FL	
	• C1705: LOW PRESSURE FR	
	• C1706: LOW PRESSURE RR	H
	• C1707: LOW PRESSURE RL	
	• C1708: [NO DATA] FL	
	• C1709: [NO DATA] FR	
	• C1710: [NO DATA] RR	I
	• C1711: [NO DATA] RL	
	• C1716: [PRESSDATA ERR] FL	
	• C1717: [PRESSDATA ERR] FR	
	• C1718: [PRESSDATA ERR] RR	J
	• C1719: [PRESSDATA ERR] RL	
	• C1734: CONTROL UNIT	
6	• B2621: INSIDE ANTENNA	
	• B2623: INSIDE ANTENNA	SEC

DTC Index

INFOID:000000011017016

NOTE:

The details of time display are as follows.

- CRNT: A malfunction is detected now.
- PAST: A malfunction was detected in the past.

IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data, refer to [BCS-19. "COMMON ITEM : CONSULT Function \(BCM - COMMON ITEM\)"](#).

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	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-42
U1010: CONTROL UNIT (CAN)	—	—	—	—	BCS-43
U0415: VEHICLE SPEED SIG	—	—	—	—	BCS-44
B2190: NATS ANTENNA AMP	×	—	—	—	SEC-40

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
B2191: DIFFERENCE OF KEY	×	—	—	—	SEC-43
B2192: ID DISCORD BCM-ECM	×	—	—	—	SEC-44
B2193: CHAIN OF BCM-ECM	×	—	—	—	SEC-45
B2195: ANTI SCANNING	×	—	—	—	SEC-46
B2553: IGNITION RELAY	—	×	—	—	PCS-51
B2555: STOP LAMP	—	×	—	—	SEC-47
B2556: PUSH-BTN IGN SW	—	×	×	—	SEC-49
B2557: VEHICLE SPEED	×	×	×	—	SEC-51
B2560: STARTER CONT RELAY	×	×	×	—	SEC-52
B2562: LOW VOLTAGE	—	×	—	—	BCS-45
B2601: SHIFT POSITION	×	×	×	—	SEC-53
B2602: SHIFT POSITION	×	×	×	—	SEC-56
B2603: SHIFT POSI STATUS	×	×	×	—	SEC-59
B2604: PNP SW	×	×	×	—	SEC-62
B2605: PNP SW	×	×	×	—	SEC-64
B2608: STARTER RELAY	×	×	×	—	SEC-66
B260A: IGNITION RELAY	×	×	×	—	PCS-53
B260F: ENG STATE SIG LOST	×	×	×	—	SEC-68
B2614: ACC RELAY CIRC	—	×	×	—	PCS-55
B2615: BLOWER RELAY CIRC	—	×	×	—	PCS-58
B2616: IGN RELAY CIRC	—	×	×	—	PCS-61
B2617: STARTER RELAY CIRC	×	×	×	—	SEC-71
B2618: BCM	×	×	×	—	PCS-64
B261A: PUSH-BTN IGN SW	—	×	×	—	SEC-73
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	—	SEC-76
B2621: INSIDE ANTENNA	—	×	—	—	DLK-58
B2623: INSIDE ANTENNA	—	×	—	—	DLK-60
B26E1: ENG STATE NO RES	×	×	×	—	SEC-69
B26EA: KEY REGISTRATION	—	×	× (Turn ON for 15 seconds)	—	SEC-70
C1704: LOW PRESSURE FL	—	—	—	×	WT-24
C1705: LOW PRESSURE FR	—	—	—	×	
C1706: LOW PRESSURE RR	—	—	—	×	
C1707: LOW PRESSURE RL	—	—	—	×	
C1708: [NO DATA] FL	—	—	—	×	WT-26
C1709: [NO DATA] FR	—	—	—	×	
C1710: [NO DATA] RR	—	—	—	×	
C1711: [NO DATA] RL	—	—	—	×	

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
C1716: [PRESSDATA ERR] FL	—	—	—	×	WT-29
C1717: [PRESSDATA ERR] FR	—	—	—	×	
C1718: [PRESSDATA ERR] RR	—	—	—	×	
C1719: [PRESSDATA ERR] RL	—	—	—	×	
C1729: VHCL SPEED SIG ERR	—	—	—	×	WT-31
C1734: CONTROL UNIT	—	—	—	×	WT-33

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

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

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

Reference Value

INFOID:000000011017019

VALUES ON THE DIAGNOSIS TOOL

NOTE:

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

Monitor Item	Condition		Value/Status
RAD FAN REQ	Engine idle speed	Changes depending on engine coolant temperature, air conditioner operation status, vehicle speed, etc.	0 – 100 %
AC COMP REQ	Engine running	A/C switch OFF	Off
		A/C switch ON (Compressor is operating)	On
TAIL&CLR REQ	Lighting switch OFF		Off
	Lighting switch 1ST, 2ND, HI or AUTO (Light is illuminated)		On
HL LO REQ	Lighting switch OFF		Off
	Lighting switch 2ND HI or AUTO (Light is illuminated)		On
HL HI REQ	Lighting switch OFF		Off
	Lighting switch HI		On
FR FOG REQ	Lighting switch 2ND or AUTO (Light is illuminated)	Front fog lamp switch OFF	Off
		<ul style="list-style-type: none"> • Front fog lamp switch ON • Daytime running light activated (Only for Canada) 	On
FR WIP REQ	Ignition switch ON	Front wiper switch OFF	Stop
		Front wiper switch INT	1LOW
		Front wiper switch LO	Low
		Front wiper switch HI	Hi
WIP AUTO STOP	Ignition switch ON	Front wiper stop position	STOP P
		Any position other than front wiper stop position	ACT P
WIP PROT	Ignition switch ON	Front wiper operates normally	Off
		Front wiper stops at fail-safe operation	BLOCK
IGN RLY1 -REQ	Ignition switch OFF or ACC		Off
	Ignition switch ON		On
IGN RLY	Ignition switch OFF or ACC		Off
	Ignition switch ON		On
PUSH SW	Release the push-button ignition switch		Off
	Press the push-button ignition switch		On
INTER/NP SW	Ignition switch ON	Selector lever in any position other than P or N	Off
		Selector lever in P or N position	On
ST RLY CONT	Ignition switch ON		Off
	At engine cranking		On

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
< ECU DIAGNOSIS INFORMATION > [WITH INTELLIGENT KEY SYSTEM]

Monitor Item	Condition		Value/Status
IHBT RLY -REQ	Ignition switch ON		Off
	At engine cranking		On
ST/INHI RLY	Ignition switch ON		Off
	At engine cranking		INHI ON → ST ON
	The status of starter relay or starter control relay cannot be recognized by the battery voltage malfunction, etc. when the starter relay is ON and the starter control relay is OFF		UNKWN
DETENT SW	Ignition switch ON	<ul style="list-style-type: none"> • Press the selector button with selector lever in P position • Selector lever in any position other than P 	Off
	Release the selector button with selector lever in P position		On
S/L RLY -REQ	NOTE: The item is indicated, but not monitored.		Off
S/L STATE	NOTE: The item is indicated, but not monitored.		UNLOCK
DTRL REQ	NOTE: The item is indicated, but not monitored.		Off
OIL P SW	Ignition switch OFF, ACC or engine running		Open
	Ignition switch ON		Close
HOOD SW	Close the hood		Off
	Open the hood		On
HL WASHER REQ	NOTE: The item is indicated, but not monitored.		Off
THFT HRN REQ	Not operation		Off
	<ul style="list-style-type: none"> • Panic alarm is activated • Horn is activated with VEHICLE SECURITY (THEFT WARNING) SYSTEM 		On
HORN CHIRP	Not operating		Off
	Door locking with Intelligent Key (horn chirp mode)		On
CRNRNG LMP REQ	NOTE: The item is indicated, but not monitored.		Off

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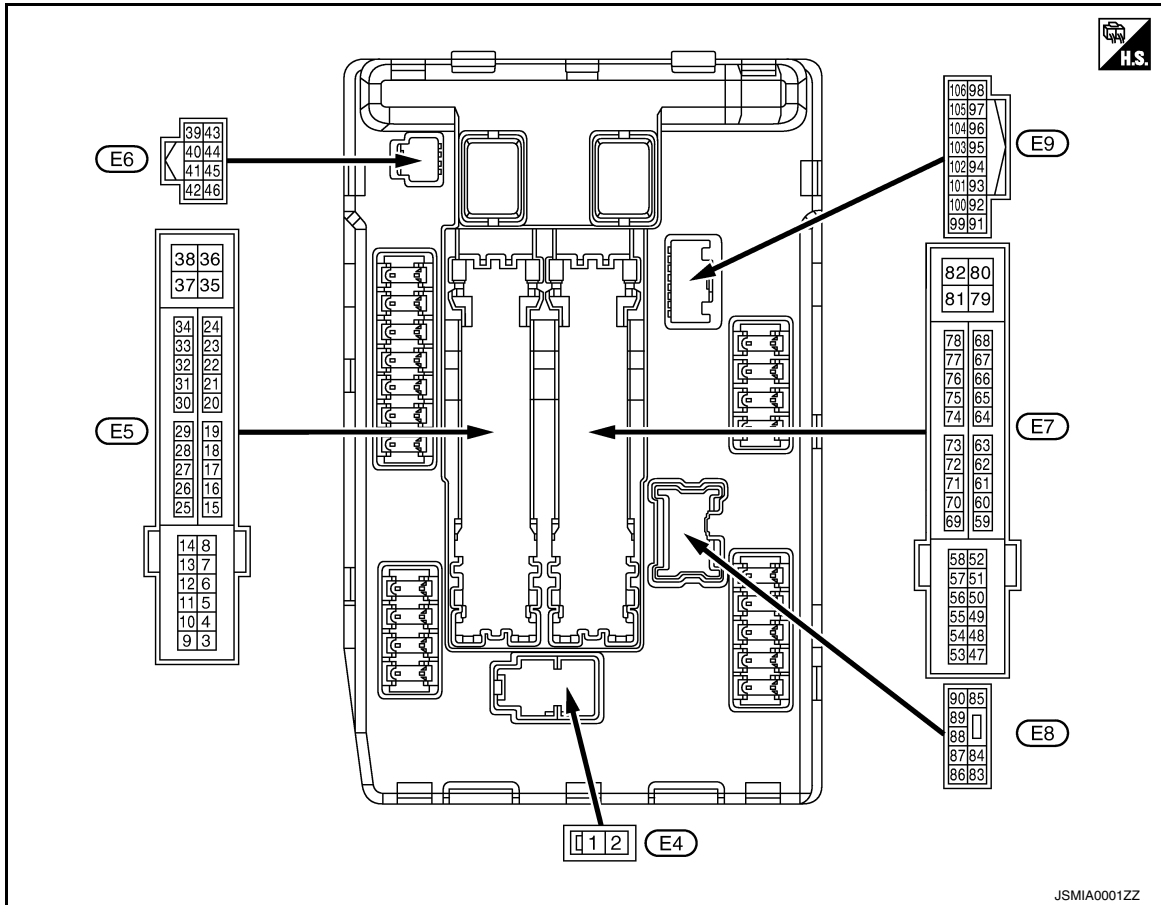
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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

TERMINAL LAYOUT



PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
1 (W)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (L)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
4 (V)	Ground	Front wiper LO	Output	Ignition switch OFF	Front wiper switch OFF	0 V
				Ignition switch ON	Front wiper switch LO	Battery voltage
5 (L)	Ground	Front wiper HI	Output	Ignition switch OFF	Front wiper switch OFF	0 V
				Ignition switch ON	Front wiper switch HI	Battery voltage
7 (R)	Ground	Tail, license plate lamps & interior lamps	Output	Ignition switch OFF	Lighting switch OFF	0 V
				Ignition switch ON	Lighting switch 1ST	Battery voltage
12 (B/W)	Ground	Ground	—	Ignition switch ON		0 V
13 (Y)	Ground	Fuel pump power supply	Output	Approximately 1 second or more after turning the ignition switch ON		0 V
				<ul style="list-style-type: none"> Approximately 1 second after turning the ignition switch ON Engine running 		Battery voltage
16 (LG)	Ground	Front wiper auto stop	Input	Ignition switch OFF	Front wiper stop position	0 V
				Ignition switch ON	Any position other than front wiper stop position	Battery voltage

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

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
+	-					
19 (W)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
25 (G)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
26* (R)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
27 (BG)	Ground	Ignition relay monitor	Input	Ignition switch OFF or ACC		Battery voltage
				Ignition switch ON		0 V
28 (L)	Ground	Push-button ignition switch	Input	Press the push-button ignition switch		0 V
				Release the push-button ignition switch		Battery voltage
30 (GR)	Ground	Starter relay control	Input	Ignition switch ON	Selector lever in any position other than P or N	0 V
					Selector lever P or N	Battery voltage
36 (G)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
39 (P)	—	CAN-L	Input/ Output	—		—
40 (L)	—	CAN-H	Input/ Output	—		—
41 (B/W)	Ground	Ground	—	Ignition switch ON		0 V
42 (Y)	Ground	Cooling fan relay control	Input	Ignition switch OFF or ACC		0 V
				Ignition switch ON		0.7 V
43 (SB)	Ground	A/T shift selector (Detention switch)	Input	Ignition switch ON	<ul style="list-style-type: none"> • Press the selector button (Selector lever P) • Selector lever in any position other than P 	Battery voltage
					Release the selector button (selector lever P)	0 V
44 (BR)	Ground	Horn relay control	Input	The horn is deactivated		Battery voltage
				The horn is activated		0 V
45 (G)	Ground	Anti theft horn relay control	Input	The horn is deactivated		Battery voltage
				The horn is activated		0 V
46 (R)	Ground	Starter relay control	Input	Ignition switch ON	Selector lever in any position other than P or N	0 V
					Selector lever P or N	Battery voltage
48 (L)	Ground	A/C relay power supply	Output	Engine running	A/C switch OFF	0 V
					A/C switch ON (A/C compressor is operating)	Battery voltage
49 (BG)	Ground	ECM relay power supply	Output	Ignition switch OFF (More than a few seconds after turning ignition switch OFF)		0 V
				<ul style="list-style-type: none"> • Ignition switch ON • Ignition switch OFF (For a few seconds after turning ignition switch OFF) 		Battery voltage

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

< ECU DIAGNOSIS INFORMATION >

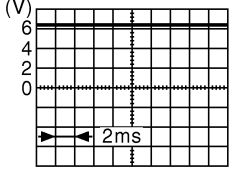
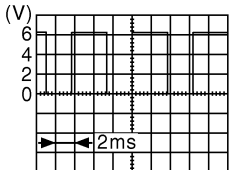
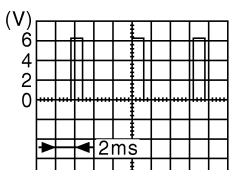
[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
51 (Y)	Ground	Ignition relay power supply	Output	Ignition switch OFF	0 V
				Ignition switch ON	Battery voltage
53 (W)	Ground	ECM relay power supply	Output	Ignition switch OFF (More than a few seconds after turning ignition switch OFF)	0 V
				<ul style="list-style-type: none"> • Ignition switch ON • Ignition switch OFF (For a few seconds after turning igni- tion switch OFF) 	Battery voltage
54 (P)	Ground	Throttle control motor re- lay power supply	Output	Ignition switch OFF (More than a few seconds after turning ignition switch OFF)	0 V
				<ul style="list-style-type: none"> • Ignition switch ON • Ignition switch OFF (For a few seconds after turning igni- tion switch OFF) 	Battery voltage
55 (SB)	Ground	ECM power supply	Output	Ignition switch OFF	Battery voltage
56 (LG)	Ground	Ignition relay power supply	Output	Ignition switch OFF	0 V
				Ignition switch ON	Battery voltage
57 (G)	Ground	Ignition relay power supply	Output	Ignition switch OFF	0 V
				Ignition switch ON	Battery voltage
58 (V)	Ground	Ignition relay power supply	Output	Ignition switch OFF	0 V
				Ignition switch ON	Battery voltage
69 (BR)	Ground	ECM relay control	Output	Ignition switch OFF (More than a few seconds after turning ignition switch OFF)	Battery voltage
				<ul style="list-style-type: none"> • Ignition switch ON • Ignition switch OFF (For a few seconds after turning igni- tion switch OFF) 	0 – 1.5 V
70 (BG)	Ground	Throttle control motor re- lay control	Output	Ignition switch ON → OFF	0 – 1.0 V ↓ Battery voltage ↓ 0 V
				Ignition switch ON	0 – 1.0 V
74 (P)	Ground	Ignition relay power supply	Output	Ignition switch OFF	0 V
				Ignition switch ON	Battery voltage
75 (SB)	Ground	Oil pressure switch	Input	Ignition switch ON	0 V
				Engine stopped	Battery voltage
				Engine running	Battery voltage

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

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-					
76 (Y)	Ground	Power generation command signal	Output	Ignition switch ON		 6.3 V
				40% is set on "ACTIVE TEST", "ALTERNATOR DUTY" of "ENGINE"		 3.8 V
				80% is set on "ACTIVE TEST", "ALTERNATOR DUTY" of "ENGINE"		 1.4 V
77 (R)	Ground	Fuel pump relay control	Output	<ul style="list-style-type: none"> • Approximately 1 second after turning the ignition switch ON • Engine running 		0 – 1.0 V
				Approximately 1 second or more after turning the ignition switch ON		Battery voltage
80 (W)	Ground	Starter motor	Output	At engine cranking		Battery voltage
83 (BG)	Ground	Headlamp LO (RH)	Output	Ignition switch ON	Lighting switch OFF	0 V
					Lighting switch 2ND	Battery voltage
84 (V)	Ground	Headlamp LO (LH)	Output	Ignition switch ON	Lighting switch OFF	0 V
					Lighting switch 2ND	Battery voltage
86 (W)	Ground	Front fog lamp (RH)	Output	Lighting switch 2ND	Front fog lamp switch OFF	0 V
					<ul style="list-style-type: none"> • Front fog lamp switch ON • Daytime running light activated (Only for Canada) 	
87 (L)	Ground	Front fog lamp (LH)	Output	Lighting switch 2ND	Front fog lamp switch OFF	0 V
					<ul style="list-style-type: none"> • Front fog lamp switch ON • Daytime running light activated (Only for Canada) 	
88 (GR)	Ground	Washer pump power supply	Output	Ignition switch ON		Battery voltage

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

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
89 (BR)	Ground	Headlamp HI (RH)	Output	Ignition switch ON	Lighting switch OFF	0 V
					• Lighting switch HI • Lighting switch PASS	Battery voltage
90 (P)	Ground	Headlamp HI (LH)	Output	Ignition switch ON	Lighting switch OFF	0 V
					• Lighting switch HI • Lighting switch PASS	Battery voltage
91 (P)	Ground	Parking lamp (RH)	Output	Ignition switch ON	Lighting switch OFF	0 V
					Lighting switch 1ST	Battery voltage
92 (BG)	Ground	Parking lamp (LH)	Output	Ignition switch ON	Lighting switch OFF	0 V
					Lighting switch 1ST	Battery voltage
97 (V)	Ground	Cooling fan control	Output	Engine idling		0 – 5 V
104 (LG)	Ground	Hood switch	Input	Close the hood		Battery voltage
				Open the hood		0 V

*: Only for the models with ICC system

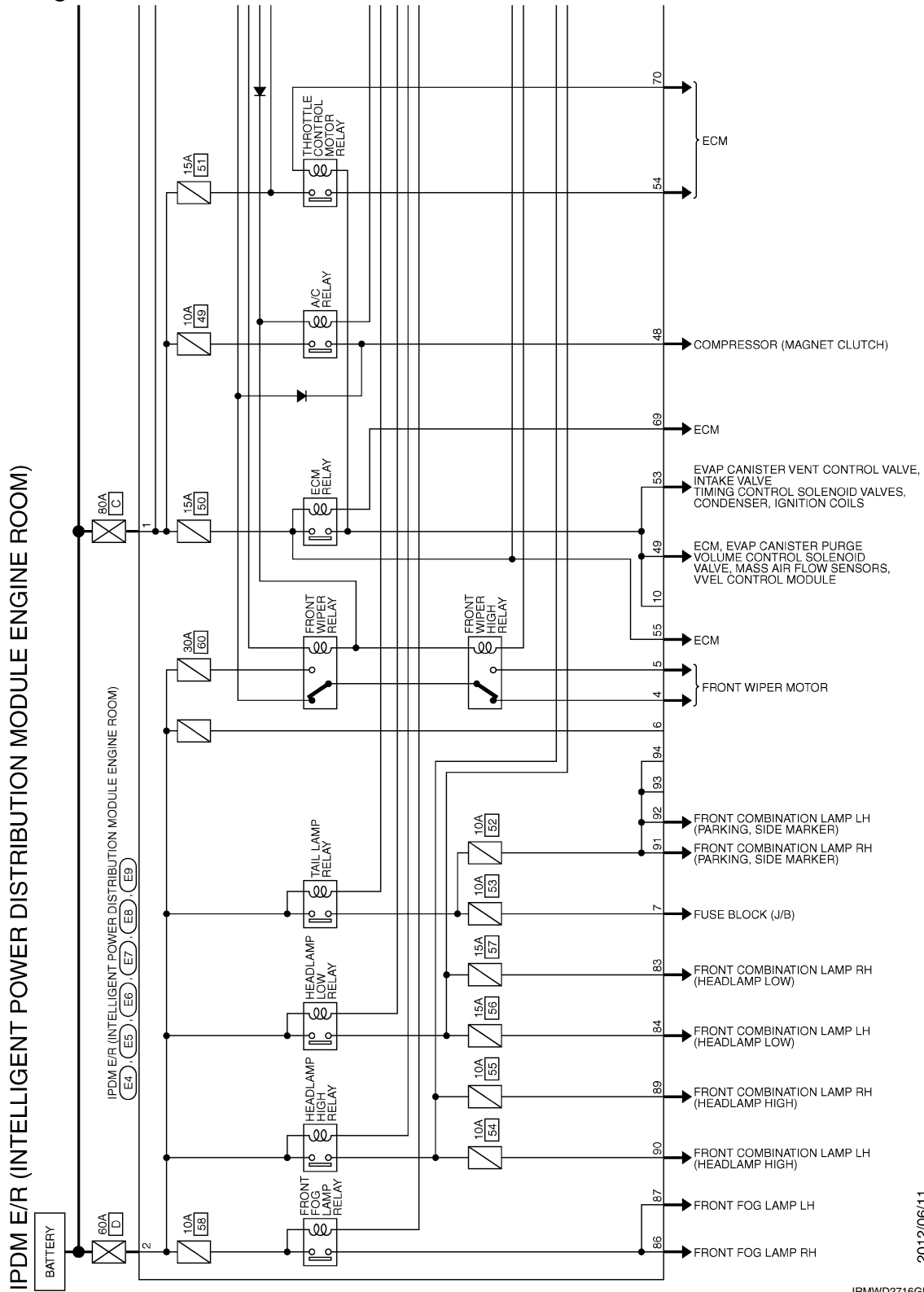
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Wiring Diagram - IPDM E/R -

INFOID:000000011017020



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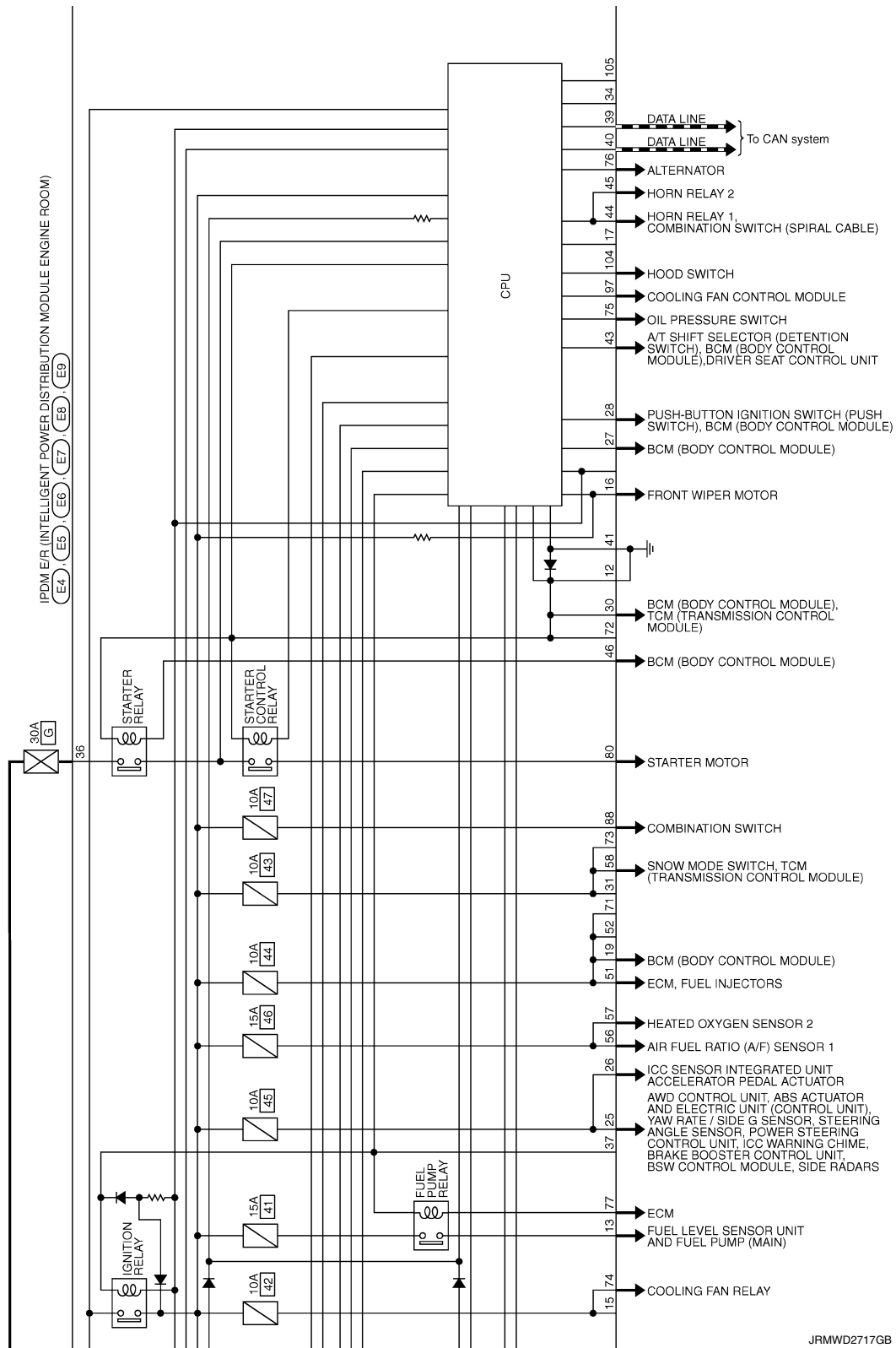
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JRMWD2716GB

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

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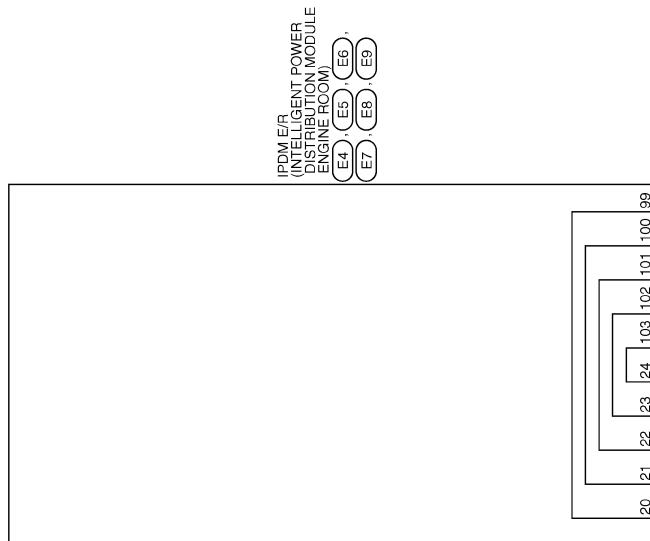
[WITH INTELLIGENT KEY SYSTEM]



JRMWD2717GB

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
< ECU DIAGNOSIS INFORMATION > [WITH INTELLIGENT KEY SYSTEM]

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JRMWD2718GB

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) < ECU DIAGNOSIS INFORMATION > [WITH INTELLIGENT KEY SYSTEM]



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

Connector No. E4
 FROM E/R INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
 Connector Name L12FB-4C
 Connector Type TH18PW-NH



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

Connector No. E5
 FROM E/R INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
 Connector Name TH20PW-CS12-M-1V
 Connector Type TH20PW-CS12-M-1V



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

Connector No. E6
 FROM E/R INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
 Connector Name TH18PW-NH
 Connector Type TH18PW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
41	B/W	-
42	L	-
43	B/W	-
44	BR	-
45	G	-
46	R	-

Connector No. E7
 FROM E/R INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
 Connector Name TH20PW-CS12-M4
 Connector Type TH20PW-CS12-M4



Terminal No.	Color Of Wire	Signal Name [Specification]
48	L	-
49	BG	-
51	Y	-
53	W	-
54	BG	-
55	LG	-
57	G	-
58	V	-
69	BR	-
70	BG	-
74	P	-

Connector No. E8
 FROM E/R INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
 Connector Name TH18PW-NH
 Connector Type TH18PW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
83	BG	-
84	V	-
85	W	-
87	L	-
88	GR	-
89	BR	-
90	P	-

Connector No. E9
 FROM E/R INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
 Connector Name TH18PW-NH
 Connector Type TH18PW-NH


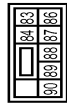
Terminal No.	Color Of Wire	Signal Name [Specification]
97	V	-
104	LG	-

Connector No. E5
 FROM E/R INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
 Connector Name TH20PW-CS12-M-1V
 Connector Type TH20PW-CS12-M-1V

Terminal No.	Color Of Wire	Signal Name [Specification]
35	B	-
36	R	-
37	W	-
60	W	-

Connector No. E5
 FROM E/R INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM
 Connector Name TH20PW-CS12-M-1V
 Connector Type TH20PW-CS12-M-1V

Terminal No.	Color Of Wire	Signal Name [Specification]
83	BG	-
84	V	-
85	W	-
87	L	-
88	GR	-
89	BR	-
90	P	-

JRMWF4766GB

INFOID:000000011017021

Fail-safe

CAN COMMUNICATION CONTROL

When CAN communication with ECM and BCM is impossible, IPDM E/R performs fail-safe control. After CAN communication recovers normally, it also returns to normal control.

If No CAN Communication Is Available With ECM

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

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

Control part	Fail-safe operation
Cooling fan	<ul style="list-style-type: none"> • Outputs the pulse duty signal (PWM signal) 100% when the ignition switch is turned ON • Outputs the pulse duty signal (PWM signal) 0% when the ignition switch is turned OFF
A/C compressor	A/C relay OFF
Alternator	Outputs the power generation command signal (PWM signal) 0%

If No CAN Communication Is Available With BCM

Control part	Fail-safe operation
Headlamp	<ul style="list-style-type: none"> • Turns ON the headlamp low relay when the ignition switch is turned ON • Turns OFF the headlamp low relay when the ignition switch is turned OFF • Headlamp high relay OFF
<ul style="list-style-type: none"> • Parking lamps • License plate lamps • Side maker lamps • Illuminations • Tail lamps 	<ul style="list-style-type: none"> • Turns ON the tail lamp relay when the ignition switch is turned ON • Turns OFF the tail lamp relay when the ignition switch is turned OFF
Front wiper	<ul style="list-style-type: none"> • The status just before activation of fail-safe control is maintained until the ignition switch is turned OFF while the front wiper is operating at LO or HI speed. • The wiper is operated at LO speed until the ignition switch is turned OFF if the fail-safe control is activated while the front wiper is set in the INT mode and the front wiper motor is operating.
Front fog lamps	Front fog lamp relay OFF
Horn	Horn relay 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.

SEC

Voltage judgment		IPDM E/R judgment	Operation
Ignition relay contact side	Ignition relay excitation coil side		
ON	ON	Ignition relay ON normal	—
OFF	OFF	Ignition relay OFF normal	—
ON	OFF	Ignition relay ON stuck	<ul style="list-style-type: none"> • Detects DTC "B2098: IGN RELAY ON" • Turns ON the tail lamp relay for 10 minutes
OFF	ON	Ignition relay OFF stuck	Detects DTC "B2099: IGN RELAY OFF"

FRONT WIPER CONTROL

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

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

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

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

< ECU DIAGNOSIS INFORMATION >

[WITH INTELLIGENT KEY SYSTEM]

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:000000011017022

NOTE:

- The details of time display are as follows.
 - CRNT: A malfunction is detected now.
 - PAST: A malfunction was detected in the past.
- IGN counter is displayed on FFD (Freeze Frame data).
 - The number is 0 when is detected now.
 - The number increases like 1 → 2 … 38 → 39 after returning to the normal condition whenever IGN OFF → ON.
 - The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.

×: Applicable

CONSULT display	Fail-safe	Reference
No DTC is detected. further testing may be required.	—	—
U1000: CAN COMM CIRCUIT	×	PCS-14
B2098: IGN RELAY ON CIRC	×	PCS-15
B2099: IGN RELAY OFF CIRC	—	PCS-17
B210B: STR CONT RLY ON CIRC	—	SEC-77
B210C: STR CONT RLY OFF CIRC	—	SEC-78
B210D: STARTER RLY ON CIRC	—	SEC-80
B210E: STARTER RLY OFF CIRC	—	SEC-82
B210F: INTRLCK/PNP SW ON	—	SEC-84
B2110: INTRLCK/PNP SW OFF	—	SEC-86

ENGINE DOES NOT START WITH INTELLIGENT KEY

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

SYMPTOM DIAGNOSIS

ENGINE DOES NOT START WITH INTELLIGENT KEY

Description

INFOID:0000000010593963

- Before performing the diagnosis in the following table, check “Work Flow”. Refer to [SEC-5, "Work Flow"](#).
- Check that vehicle is under the condition shown in “Conditions of vehicle” before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- “ENGINE START BY I-KEY” in “WORK SUPPORT” is ON when setting on CONSULT.
- Intelligent Key is not inserted in key slot.
- One or more of Intelligent Keys with registered Intelligent Key ID is in the vehicle.

Diagnosis Procedure

INFOID:0000000010593964

1.PERFORM WORK SUPPORT

Perform “INSIDE ANT DIAGNOSIS” on Work Support of “INTELLIGENT KEY”.
Refer to [DLK-51, "INTELLIGENT KEY : CONSULT Function \(BCM - INTELLIGENT KEY\)"](#).

>> GO TO 2.

2.PERFORM SELF DIAGNOSTIC RESULT

Perform “BCM” Self Diagnostic Result.

Is DTC detected?

- YES >> Refer to [DLK-58, "DTC Logic"](#) (instrument center), or [DLK-60, "DTC Logic"](#) (luggage room).
- NO >> GO TO 3.

3.CHECK PUSH-BUTTON IGNITION SWITCH

Check push-button ignition switch.

Refer to [PCS-68, "Component Function Check"](#).

Is the inspection normal?

- YES >> GO TO 4.
- NO >> Repair or replace malfunctioning parts.

4.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection normal?

- YES >> Check intermittent incident. Refer to [GI-45, "Intermittent Incident"](#).
- NO >> GO TO 1.

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SEC

ENGINE DOES NOT START WHEN INTELLIGENT KEY IS INSERTED INTO KEY SLOT

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

ENGINE DOES NOT START WHEN INTELLIGENT KEY IS INSERTED INTO KEY SLOT

Description

INFOID:000000010593965

- Before performing the diagnosis in the following table, check “Work Flow”. Refer to [SEC-5, "Work Flow"](#).
- Check that vehicle is under the condition shown in “Conditions of vehicle” before starting diagnosis, and check each symptom.

Diagnosis Procedure

INFOID:000000010593966

1.PERFORM INITIALIZATION

Perform initialization with CONSULT. Register all Intelligent Keys.

For initialization and registration of Intelligent Key, follow the instruction of CONSULT display.

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

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

2.CHECK KEY SLOT

Check key slot.

Refer to [DLK-95, "Component Function Check"](#).

Is the inspection result normal?

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

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

- YES >> Check intermittent incident. Refer to [GI-45, "Intermittent Incident"](#).
- NO >> GO TO 1.

SECURITY INDICATOR LAMP DOES NOT TURN ON OR BLINK

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

SECURITY INDICATOR LAMP DOES NOT TURN ON OR BLINK

Description

INFOID:000000010593967

- Before performing the diagnosis in the following table, check “Work Flow”. Refer to [SEC-5. "Work Flow"](#).
- Check that vehicle is under the condition shown in “Conditions of vehicle” before starting diagnosis, and check each symptom.

Conditions of Vehicle (Operating Conditions)

- Intelligent Key is not inserted in key slot.
- Ignition switch position is not in the ON position.

Diagnosis Procedure

INFOID:000000010593968

1. CHECK SECURITY INDICATOR LAMP

Check security indicator lamp.

Refer to [SEC-93. "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-45. "Intermittent Incident"](#).

NO >> GO TO 1.

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SEC

VEHICLE SECURITY SYSTEM CAN NOT BE SET

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

VEHICLE SECURITY SYSTEM CAN NOT BE SET INTELLIGENT KEY

INTELLIGENT KEY : Description

INFOID:0000000010593969

Armed phase is not activated when door is locked using Intelligent Key.

NOTE:

Check that vehicle is under the condition shown in “Conditions of vehicle” before starting diagnosis, and check each symptom.

CONDITION OF VEHICLE (OPERATING CONDITION)

Confirm the setting of “SECURITY ALARM SET” in “WORK SUPPORT” in “THEFT ALM” using CONSULT.

INTELLIGENT KEY : Diagnosis Procedure

INFOID:0000000010593970

1. CHECK INTELLIGENT KEY SYSTEM (REMOTE KEYLESS ENTRY FUNCTION)

Lock/unlock door with Intelligent Key.

Refer to [DLK-28. "REMOTE KEYLESS ENTRY FUNCTION : System Description"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check Intelligent Key system (remote keyless entry function). Refer to [DLK-185. "Diagnosis Procedure"](#).

2. CHECK HOOD SWITCH

Check hood switch.

Refer to [SEC-90. "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-45. "Intermittent Incident"](#).

NO >> GO TO 1.

DOOR REQUEST SWITCH

DOOR REQUEST SWITCH : Description

INFOID:0000000010593971

Armed phase is not activated when door is locked using door request switch.

NOTE:

Check that vehicle is under the condition shown in “Conditions of vehicle” before starting diagnosis, and check each symptom.

CONDITION OF VEHICLE (OPERATING CONDITION)

Confirm the setting of “SECURITY ALARM SET” in “WORK SUPPORT” in “THEFT ALM” using CONSULT.

DOOR REQUEST SWITCH : Diagnosis Procedure

INFOID:0000000010593972

1. CHECK INTELLIGENT KEY SYSTEM (DOOR LOCK FUNCTION)

Lock/unlock door with door request switch.

Refer to [DLK-19. "DOOR LOCK FUNCTION : System Description"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check Intelligent Key system (door lock function). Refer to [DLK-182. "ALL DOOR : Diagnosis Procedure"](#).

2. CHECK HOOD SWITCH

VEHICLE SECURITY SYSTEM CAN NOT BE SET

[WITH INTELLIGENT KEY SYSTEM]

< SYMPTOM DIAGNOSIS >

Check hood switch.

Refer to [SEC-90, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-45, "Intermittent Incident"](#).

NO >> GO TO 1.

DOOR KEY CYLINDER

DOOR KEY CYLINDER : Description

INFOID:0000000010593973

Armed phase is not activated when door is locked using mechanical key.

NOTE:

Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

CONDITION OF VEHICLE (OPERATING CONDITION)

Confirm the setting of "SECURITY ALARM SET" in "WORK SUPPORT" in "THEFT ALM" using CONSULT.

DOOR KEY CYLINDER : Diagnosis Procedure

INFOID:0000000010593974

1.CHECK POWER DOOR LOCK SYSTEM

Lock/unlock door with mechanical key.

Refer to [DLK-11, "System Description"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check power door lock system. Refer to [DLK-181, "Diagnosis Procedure"](#).

2.CHECK HOOD SWITCH

Check hood switch.

Refer to [SEC-90, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-45, "Intermittent Incident"](#).

NO >> GO TO 1.

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SEC

VEHICLE SECURITY ALARM DOES NOT ACTIVATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

VEHICLE SECURITY ALARM DOES NOT ACTIVATE

Description

INFOID:000000010593975

Before performing the diagnosis in the following table, check "Work Flow". Refer to [SEC-5. "Work Flow"](#).

Diagnosis Procedure

INFOID:000000010593976

1. CHECK DOOR SWITCH

Check door switch.

Refer to [DLK-63. "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace the malfunctioning door switch

2. CHECK HOOD SWITCH

Check hood switch.

Refer to [SEC-90. "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace the malfunctioning door switch

3. CHECK HEADLAMP ALARM

Check headlamp operation.

Refer to [SEC-92. "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace malfunctioning parts.

4. CHECK HORN

Check horn.

Refer to [DLK-99. "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace malfunctioning parts.

5. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-45. "Intermittent Incident"](#).

NO >> GO TO 1.

VEHICLE SECURITY SYSTEM CAN NOT CANCELED

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

VEHICLE SECURITY SYSTEM CAN NOT CANCELED INTELLIGENT KEY

INTELLIGENT KEY : Description

INFOID:0000000010593977

Before performing the diagnosis in the following table, check "Work Flow". Refer to [SEC-5, "Work Flow"](#).

INTELLIGENT KEY : Diagnosis Procedure

INFOID:0000000010593978

1.CHECK INTELLIGENT KEY

Check Intelligent Key.

Refer to [DLK-94, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CHECK INTELLIGENT KEY SYSTEM

Check Intelligent Key system.

Refer to [SEC-9, "System Description"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Refer to [SEC-5, "Work Flow"](#).

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-45, "Intermittent Incident"](#).

NO >> GO TO 1.

DOOR REQUEST SWITCH

DOOR REQUEST SWITCH : Description

INFOID:0000000010593979

Before performing the diagnosis in the following table, check "Work Flow". Refer to [SEC-5, "Work Flow"](#).

DOOR REQUEST SWITCH : Diagnosis Procedure

INFOID:0000000010593980

1.CHECK DOOR REQUEST SWITCH

Check door request switch.

Refer to [DLK-83, "Component Function Check"](#).

Is the inspection normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CHECK INTELLIGENT KEY SYSTEM

Check Intelligent Key system.

Refer to [DLK-15, "INTELLIGENT KEY SYSTEM : System Description"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Refer to [DLK-7, "Work Flow"](#).

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-45, "Intermittent Incident"](#).

NO >> GO TO 1.

DOOR KEY CYLINDER

VEHICLE SECURITY SYSTEM CAN NOT CANCELED

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

DOOR KEY CYLINDER : Description

INFOID:000000010593981

Before performing the diagnosis in the following table, check "Work Flow". Refer to [SEC-5, "Work Flow"](#).

DOOR KEY CYLINDER : Diagnosis Procedure

INFOID:000000010593982

1.CHECK DOOR KEY CYLINDER SWITCH

Check door key cylinder switch.

Refer to [DLK-76, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CHECK INTELLIGENT KEY SYSTEM

Check power door lock system.

Refer to [DLK-15, "INTELLIGENT KEY SYSTEM : System Description"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Refer to [DLK-7, "Work Flow"](#).

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-45, "Intermittent Incident"](#).

NO >> GO TO 1.

INTELLIGENT KEY INSERT INFORMATION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

INTELLIGENT KEY INSERT INFORMATION DOES NOT OPERATE

Description

INFOID:000000010593983

Intelligent Key insert information does not operate when push-button ignition switch is operated while Intelligent Key is not inside vehicle.

NOTE:

Warning functions operating condition is extremely complicated. During operation confirmation reconfirm the list above twice in order to ensure proper operation. Refer to [DLK-38, "WARNING FUNCTION : System Description"](#).

Diagnosis Procedure

INFOID:000000010593984

1.CHECK POWER POSITION

Check if ignition switch position is changing or not.

Does ignition switch position change?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK PUSH-BUTTON IGNITION SWITCH

Check push-button ignition switch.

Refer to [PCS-68, "Component Function Check"](#).

Is the inspection result normal?

YES >> Check BCM for DTC. Refer to [BCS-91, "DTC Index"](#).

NO >> Repair or replace the malfunctioning parts.

3.CHECK DOOR SWITCH

Check door switch.

Refer to [DLK-63, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

4.CHECK KEY SLOT

Check key slot.

Refer to [DLK-95, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

5.CHECK COMBINATION METER DISPLAY

Check combination meter display.

Refer to [DLK-101, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace the malfunctioning parts.

6.CHECK KEY SLOT INDICATOR

Check key slot indicator.

Refer to [DLK-97, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace the malfunctioning parts.

7.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

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INTELLIGENT KEY INSERT INFORMATION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[WITH INTELLIGENT KEY SYSTEM]

YES >> Check intermittent incident. Refer to [GI-45. "Intermittent Incident"](#).
NO >> GO TO 1.

< PRECAUTION >

PRECAUTION

PRECAUTIONS

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

INFOID:0000000110593985

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 "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

WARNING:

Always observe the following items for preventing accidental activation.

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

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

WARNING:

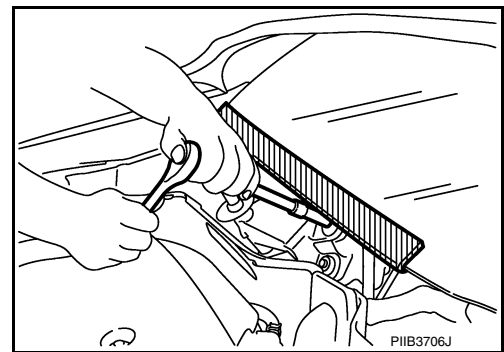
Always observe the following items for preventing accidental activation.

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

Precaution for Procedure without Cowl Top Cover

INFOID:0000000110593986

When performing the procedure after removing cowl top cover, cover the lower end of windshield with urethane, etc to prevent damage to windshield.



Precautions For Xenon Headlamp Service

INFOID:000000011007683

WARNING:

Comply with the following warnings to prevent any serious accident.

- Disconnect the battery cable (negative terminal) or the power supply fuse before installing, removing, or touching the xenon headlamp (bulb included). The xenon headlamp contains high-voltage generated parts.
- Never work with wet hands.
- Check the xenon headlamp ON-OFF status after assembling it to the vehicle. Never turn the xenon headlamp ON in other conditions. Connect the power supply to the vehicle-side connector.

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PRECAUTIONS

< PRECAUTION >

[WITH INTELLIGENT KEY SYSTEM]

(Turning it ON outside the lamp case may cause fire or visual impairments.)

- Never touch the bulb glass immediately after turning it OFF. It is extremely hot.

CAUTION:

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

- Install the xenon bulb securely. (Insufficient bulb socket installation may melt the bulb, the connector, the housing, etc. by high-voltage leakage or corona discharge.)
- Never perform HID circuit inspection with a tester.
- Never touch the xenon bulb glass with hands. Never put oil and grease on it.
- Dispose of the used xenon bulb after packing it in thick vinyl without breaking it.
- Never wipe out dirt and contamination with organic solvent (thinner, gasoline, etc.).

Precautions for Removing Battery Terminal

INFOID:000000011007685

- When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.

NOTE:

ECU may be active for several tens of seconds after the ignition switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption may occur.

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

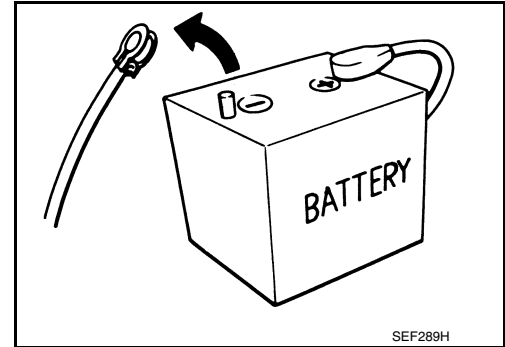
NOTE:

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

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

NOTE:

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



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PREPARATION

< PREPARATION >

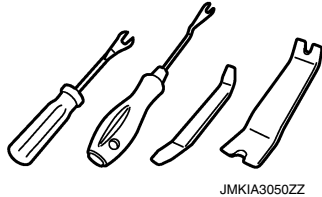
[WITH INTELLIGENT KEY SYSTEM]

PREPARATION

PREPARATION

Commercial Service Tools

INFOID:0000000010593987

Tool name	Description
Remover tool  JMKIA3050ZZ	Removes clips, pawls and metal clips

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KEY SLOT

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]

REMOVAL AND INSTALLATION

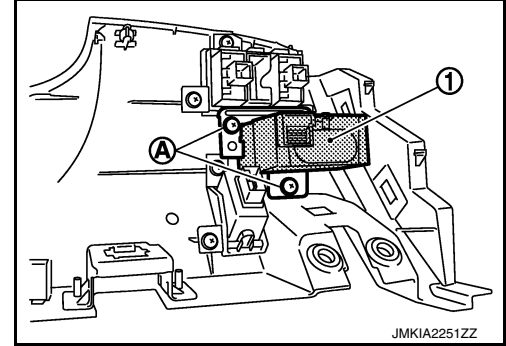
KEY SLOT

Removal and Installation

INFOID:000000010593988

REMOVAL

1. Remove the instrument driver lower panel. Refer to [IP-13](#), "[Removal and Installation](#)".
2. Disconnect key slot connector.
3. Remove the key slot mounting screw (A), and then remove key slot (1) from instrument driver lower panel.



INSTALLATION

Install in the reverse order of removal.

PUSH-BUTTON IGNITION SWITCH

< REMOVAL AND INSTALLATION >

[WITH INTELLIGENT KEY SYSTEM]


PUSH-BUTTON IGNITION SWITCH

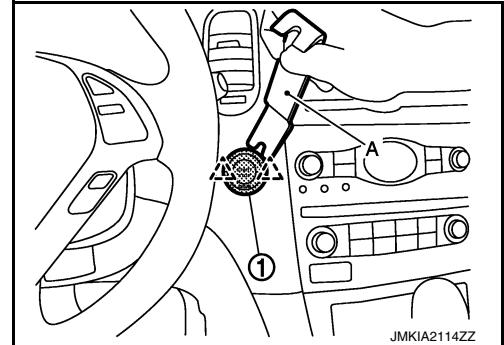
Removal and Installation

INFOID:000000010593989

REMOVAL

Remove the push-button ignition switch fixing pawl using a remover tool (A), and then remove push-button ignition switch (1).

 : Pawl



INSTALLATION

Install in the reverse order of removal.

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